From: Michael Northrop >
Sent: Tuesday, July 02, 2019 3:43 PM EDT
To: Jacob Corvidae ; Joseph.Kruger <Joseph.Kruger
Cummins,Patrick ; Michael Northrop ; Vicki Arroyo

Subject: Draft materials for July 17-18: please take a look. We'll discuss on the phone at 4. Would love suggestions, edits, etc.. Hoping to send out tomorrow-July 3rd.
Attachment(s): "List of Attendees.pdf","Background Note for July 17-18, 2019.docx","Draft Agenda Pocantico Leadership States July 17-18, 2019.docx","sectors_2016 (4).xlsx"

Jacob, Joe, Patrick, Vicki,
Here are the materials we hope to send to the meeting participants.
I'll add a short cover email with some travel logistics.
I'm hoping we can send this tomorrow.
Many thanks all around..
I am including Vicki on this as well in case she wants to join the 4pm call today and/or weigh in.
Thanks!
Michael

Michael Northrop, Program Director
Sustainable Development Program
Rockefeller Brothers Fund |

Philanthropy for an Interdependent World

MEMORANDUM

To: **Pocantico Participants**
Subject: **Accelerating State Action on Climate Change**
July 17-18, 2019

The 2018 elections brought forward a new group of state leaders – governors, legislators, policy makers, and agency officials – committed to reducing greenhouse gas emissions in their states. This new group of state leaders joins those of you who have been leading the charge for a decade or more. We are thrilled that so many of you are able to join us for this event where we will discuss ways to accelerate state action and ensure that the progress being made by U.S. leadership states is recognized and understood across the U.S. and at a global level.

While our time together at Pocantico is short, we hope to address each of the following topics:

- What are the leading edge clean energy policies and GHG reduction programs being enacted and implemented by U.S. states? We will focus especially on electricity, buildings and transportation, but hope we can also touch on other gases (methane and HFC's), land use, and carbon pricing.

- How can this group of state leaders support each other and also work together to bring other states into the fold? Can states do more to drive bipartisan approaches to climate action?

- Can states working together accelerate market creation for cleaner vehicles, non-gas solutions, and appliances?

- What steps can states be taking over the next 18 months to show the way forward for a federal administration in 2021 that supports clean energy and climate action?

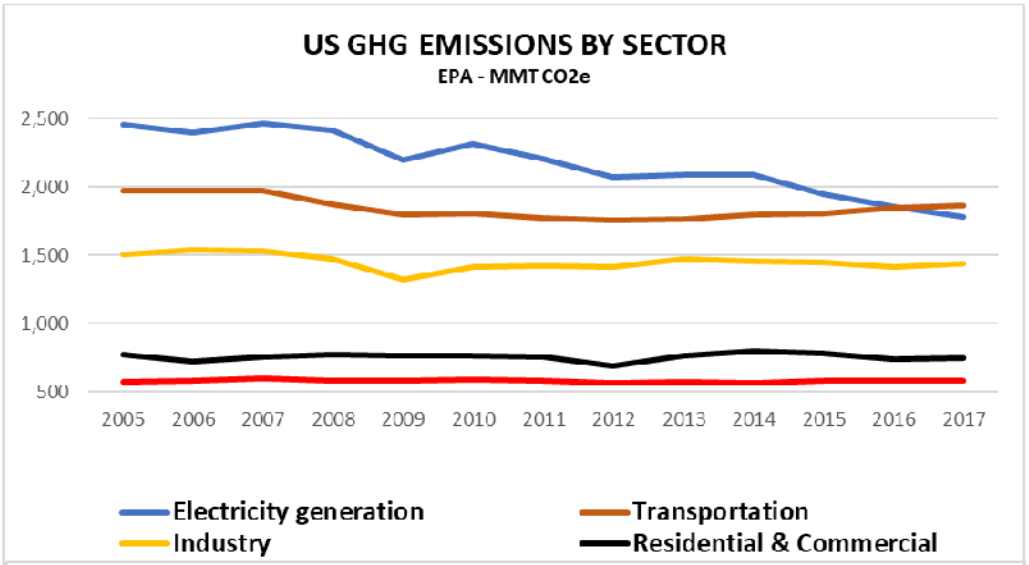
- How can we ensure that leadership state voices (alongside other subnational leaders) offer encouragement to multilateral climate negotiations in the run-up to COP 26 in December 2020?

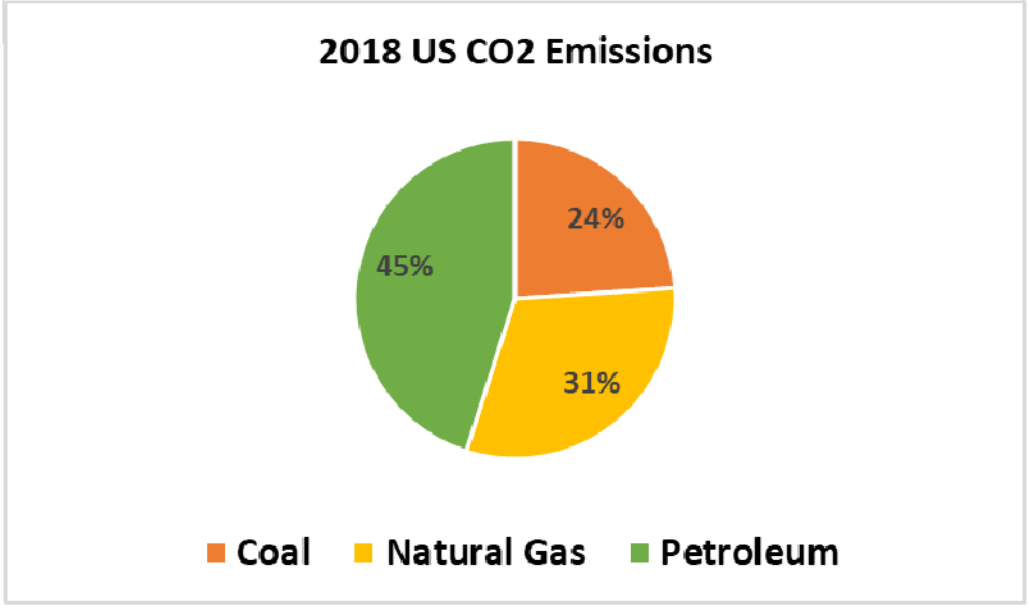
With these questions in mind, we will kick things off on Wednesday night with a discussion of the state of play in the international climate negotiations. Dr. Andrew Steer, President and CEO of the World Resources Institute, will join us for that conversation. We want to understand where the U.S. needs to be in order to play a constructive role in international discussions.

This has bearing on what level of ambition states must aim for. Kathleen Frangione, Chief Policy Advisor to New Jersey Governor, Phil Murphy, will describe the ambitious Paris-aligned approach her state has taken since Governor Murphy took office last year, how it has been framed, and how it has gathered momentum. We want each of the participating states to weigh in on how they are thinking about this. We want to get lessons, good ideas, and questions on the table to help frame our conversation on Thursday. A core concern is how to get the politics right in order to maintain forward momentum.

Thursday morning, we will start with a rapid-fire review of the high ambition policies that states are implementing to get to net zero carbon. (Prior to the meeting, we will send two additional pieces of background material. One laying out the specific policies each state in the room has enacted and another that describes leading edge policies being enacted even more broadly in the world sector-by-sector.) Rather than reviewing the full suite of leading edge policies in detail, we plan to focus in on a few key policy challenges.

Transportation. We will begin with a conversation on how to meet the challenge posed by emissions from the transportation sector. As we all know by now, the transportation sector has surpassed the electricity sector as the largest source of GHG emissions in the US. In 2018, emissions from the combustion of petroleum products were almost twice that of coal. Moreover, while emissions from coal continue to decline, emissions from the transportation sector have increased each year since 2012.





Vehicle Standards. Front and center in the discussion of how to reduce emissions from the transportation sector is the pending rollback of federal standards and the potential revocation of California's waiver, which would impact many of your states. We are fortunate that Mary Nichols will be with us to lead this discussion and help all the states in attendance figure out how you can work together to protect the progress you've made in this area.

Electric Vehicles. While each state in the room has some policies and programs in place to incentivize electric vehicle purchases and charging infrastructure, some states are going farther. A group of Northeast states is evaluating a market-based approach to reducing emissions from the transportation sector (Transportation Climate Initiative), while California and Oregon both have a low-carbon fuel standard. We will ask participating states to share their ideas for additional policies and programs to drive down emissions from the transportation sector.

Electricity. To date, states have had the greatest success in reducing emissions from the electric power sector. This is an area where states have a number of effective policy options, like renewable portfolio standards/clean energy standards, and you have used these policies to achieve substantial CO2 emissions reductions from the electric power sector over the last 10 years (-30% nationwide). Building on this success, you are moving to achieve even more progress with many states and utilities setting aggressive near-term targets for renewable energy, along with the long-term goal of 100% clean energy. What challenges are emerging and how can states successfully implement these bold electricity goals?

Natural Gas. One of the primary challenges to deep de-carbonization of the electric power sector is the reliance on natural gas as the replacement for coal. On the Eastern grid, coal generation has fallen by almost half over the last ten years, but 75% of that has been replaced by natural gas generation. We will review the current landscape of state policies for clean and renewable electricity, share ideas for next steps, and then discuss how you can work together – and with other states/regions – to make continued progress on the transition to a clean electric power sector.

Buildings. Residential and commercial buildings and industry are source categories where emissions have plateaued as square footage has increased, but where steep reductions have not yet begun. We will discuss what states are currently doing to transition buildings to clean energy, and then identify what options exist for states to expand their policies and programs in areas like net zero building codes, mandatory retrofits, and electrification.

Industrial Sector. Reducing emissions from the industrial sector poses a set of challenges similar to those associated with buildings, including continued reliance on natural gas as a primary energy source.

Methane and HFC's. Some states are also dealing with very significant methane emissions problems associated with oil and gas production, and from industrial livestock operations. States also have a chance to reduce methane leaks from aging residential heating infrastructure. Some states have also taken action on eliminating HFC's, and since methane and HFC's are super greenhouse gases, progress in the near-term can be extremely meaningful.

Land use is an additional category we hope to make some time for in the discussion if possible. Pacific states and Climate Alliance states have taken some actions here that we can learn from.

We will also check in on **carbon pricing** programs. The U.S. Chamber of Commerce and the oil sector have said they are open to carbon pricing. Recent state attempts to enact carbon pricing in Washington, Oregon, and Virginia offer lessons we should consider as well.

During the last few hours of the meeting, we want to discuss several possible opportunities for collaborative work, including how best to encourage other states to enact leadership policies, how states can work together with cities and business, how to use state action to lay the groundwork for ambitious federal policy as soon as 2021, and how to make state, and other subnational, voices present during a string of important upcoming international climate meetings in 2019 and 2020.

Draft Agenda

Accelerating State Action on Climate Change

The Pocantico Center

200 Lake Road

Tarrytown, New York

July 17-18, 2019

This meeting will provide an opportunity for officials from leadership states taking action on climate change to share information on recent developments in their states and to strategize together on the most promising ways to accelerate the pace of implementation in response to the increasingly ambitious climate goals being established by these states' governors and state legislatures. The group will also discuss how state action can influence and underpin future federal action and how U.S. federal action needs to be positioned within the global climate negotiations.

Wednesday, July 17

6:00 pm Reception in Loggia area of the Coach Barn

7:00 Dinner and Introductions

8:30 Hayloft conversation on the international climate negotiation, and on how states are setting science-based targets. Opening remarks:
Dr. Andrew Steer, President and CEO, World Resources Institute
Kathleen Frangione, Chief Policy Advisor to Governor Phil Murphy

Thursday, July 18

7:00 am **Breakfast buffet available in Coach Barn**

8:00 **Agenda Review and Meeting Objectives, Governor Bill Ritter, CNEE**

8:15 **Summary Review of High Ambition Policies.** Please review the two documents provided in advance. Please share your questions and suggestions for additions to these policy resources. These are intended to be resources you and others can use to further policy goals in your states.

9:00 **Meeting the Challenges Posed by the Transportation Sector**

- Update on federal vehicle standards and states' response
  - How can states work together to establish ambitious federal and state emission standards for new cars and trucks?
- Status of Transportation and Climate Initiative
  - What can other states learn from this effort?
- Discussion of other strategies to address CO2 emissions from transportation (e.g., incentives for EV purchases and charging infrastructure, etc.; Low-Carbon Fuel Standards.)

10:00 **Power Sector**

- Achieving 100%
- Replacing Coal with Natural Gas?

11:00 **Net Zero Buildings**

- Standard Setting and Mandatory Retrofits
- Electrification Instead of Gas

12:00pm **Working Lunch: Industrial Sources, Oil & Gas, Methane, and HFCs, Land Use**
Moving industrial sources away from fossil fuels and onto clean energy sources poses a set of challenges similar to those associated with buildings in terms of efficiency, retrofits and electrification. In addition, some states face the issue of a rapidly expanding oil & gas sector and associated methane emissions.

- What are tools, policies and incentives states can use to make progress in these sectors?
- Examples of state action on HFCs, methane, and land use – model policy

1:30 **Carbon pricing strategies**

- Tough sledding in WA, OR, VA
- Opportunities to expand existing programs (RGGI, TCI, WCI, EU, China) and enhance collaboration between programs
- Carbon tax

2:00 **Collaborative Opportunities**

- Group actions by leadership states on policy and market creation
- Outreach / support for opportunity states
- Setting the Policy Stage for Federal Action in 2021/Preparing for the Worst
- Participation in upcoming COPs in Santiago and London

3:30 **Next Steps**

4:00 **Adjourn**

LIST OF ATTENDEES - ACCELERATING STATE ACTION ON CLIMATE CHANGE - JULY 17-18, 2019 AT THE POCANTICO CENTER

First Name:	Last Name:	Job Title:	Organization:
Leo	Asuncion	Commissioner	Hawaii Public Utilities Commisson
Nik	Blosser	Chief of Staff	Office of the Governor, Oregon
David	Bobzien	Director	Nevada Governor's Office of Energy
Dale	Bryk	Dep. Sec. for Energy & Environment	Office of the Governor, New York
Deborah	Burke	Program Associate	Rockefeller Brothers Fund
Janet	Coit	Director	Rhode Island Department of Environmental Management
Jacob	Corvidae	Principal	Rocky Mountain Institute
Sarah	Cottrell Propst	Cabinet Secretary	New Mexico Energy, Minerals, and Natural Resources Dept.
Bradley	Crowell	Director	Nevada Department of Conservation and Natural Resources
Patrick	Cummins	Senior Policy Advisor	Center for the New Energy Economy
Chris	Davis	Senior Advisor	Office of Washington Governor Jay Inslee
Katie	Dykes	Commissioner	Connecticut Dept. of Energy & Environmental Protection
Sandra	Ely	Director	New Mexico Environmental Protection Division
Kathleen	Frangione	Chief Policy Advisor	Office of the Governor, New Jersey
Carla	Frisch	Principal	Rocky Mountain Institute
Kate	Gordon	Director	California Governor's Office of Planning and Research
Ben	Grumbles	Secretary	Maryland Department of the Environment
Joe	Kruger	Director for Research & Strategy	Georgetown Climate Center
Katie	McCormack	Program Director, West Policy	Energy Foundation
Mary	Nichols	Chair	California Air Resources Board
Michael	Northrop	Program Director	Rockefeller Brothers Fund
Zach	Pierce	Senior Policy Advisor	Colorado Governor's Office
Hannah	Pingree	Director	Maine Office of Innovation and the Future
Bill	Ritter, Jr.	Director	Center for the New Energy Economy
Reed	Schuler	Senior Advisor	Office of Washington Governor Jay Inslee
Andrew	Steer	President and CEO	World Resources Institute
Kathleen	Theoharides	Secretary	Massachusetts Exec. Office of Energy & Environmental Affairs
Will	Toor	Executive Director	Colorado Energy Office
Peter	Walke	Deputy Secretary	Vermont Agency of Natural Resources

	A	B	C	D	E	F	G
1	Table 3. 2016 State emissions by sector						
2		Million metric tons of carbon dioxide					
3		Commercial	Electric power	Residential	Industrial	Transportation	Total
4	California	19	37	24	69	213	361
5	Colorado	4	35	7	14	28	89
6	Connecticut	4	7	6	2	15	34
7	Hawaii	0	7	0	1	10	18
8	Maine	2	1	3	2	9	16
9	Maryland	5	17	5	2	28	58
10	Massachusetts	7	11	11	3	32	64
11	Nevada	2	14	2	3	15	37
12	New Jersey	10	20	14	10	58	111
13	New Mexico	2	23	2	7	14	48
14	New York	22	28	31	8	75	164
15	Oregon	2	8	3	5	20	38
16	Rhode Island	1	3	2	1	4	10
17	Vermont	1	0	1	0	3	6
18	Washington	4	10	5	11	49	79
19	15 Pocantico States	85	219	117	139	574	1,133
20	State total (unadjusted)	233	1,796	299	940	1,892	5,161
21		36%	12%	39%	15%	30%	22%
22	Source: U.S. Energy Information Administration, State Energy Data System						

From: Cummins,Patrick on behalf of Cummins,Patrick
Sent: Monday, July 01, 2019 5:07 PM EDT
To: Michael Northrop ; jk2128 <jk2128 ; jcorvidae
Hoffer,Trina
Subject: Emailing: sectors_2016 (4)
Attachment(s): "sectors_2016 (4).xlsx"

Table 3. 2016 State emissions by sector

https://www.eia.gov/environment/emissions/state/

Million metric tons of carbon dioxide

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From: Cummins,Patrick on behalf of Cummins,Patrick
Sent: Wednesday, July 10, 2019 10:46 AM EDT
To: Michael Northrop ; Regina Creegan ; Deborah Burke
Subject: FW: 071719questionnaire
Attachment(s): "071719questionnaire.docx"

Michael – I think you answered all the questions. Regarding rankings and room assignments: Here are my thoughts, which you can certainly modify.

To the best of my knowledge, the hike up the hill will not be a problem for most.

But we should have the following stay in deluxe rooms in the Coach Barn:
Leo Asuncion
Mary Nichols

Per Michael, organizers to stay in Coach Barn, but don't need deluxe rooms:

Deborah	Burke
Jacob	Corvidae
Patrick	Cummins
Carla	Frisch
Joe	Kruger
Michael	Northrop
Bill	Ritter, Jr.

After that, it's pretty subjective who is a VIP and whether you want them in Coach Barn or at Kykuit. Here are my thoughts – I've added VIP or either next to the remaining names.

Nik	Blosser – vip
David	Bobzien – either
Dale	Bryk - either
Betsy	Campbell - VIP
Janet	Coit – either (Coach Barn for convenience)
Sarah	Cottrell Propst - either
Bradley	Crowell - either
Chris	Davis – either
Katie	Dykes – either (coach barn for convenience)
Sandra	Ely – either
Kathleen	Frangione - VIP
Carla	Frisch - either
Kate	Gordon - VIP
Ben	Grumbles - either
Katie	McCormack – either (coach barn for convenience)
Zach	Pierce - either
Hannah	Pingree – coach barn
Reed	Schuler - either
Andrew	Steer - VIP
Kathleen	Theoharides - either
Will	Toor - either
Peter	Walke - either

From: Michael Northrop
Sent: Tuesday, July 9, 2019 6:34 PM
To: Regina Creegan ; Deborah Burke >; Cummins,Patrick
Cc: Michael Northrop

Subject: 071719questionnaire

Patrick, can you look at the attached? I filled it out but added notes for you in a few places.
Regina needs a total number of participants (count Betsy Campbell from the RBF who is coming to dinner)
Regina needs arrival info for everyone
We also want to know who besides Hannah wants to do the tour on Thursday at 4. I'll join Hannah if she is alone. A note to everyone to say a 4pm tour on Thursday is an option would be great. Regina requests we call it a tour of Kykuit, the Rockefeller Family home, not a tour of the Rockefeller Estate
Regina, let us know what else you need.
Regina, I apologize we have been a little less organized than we should have been. We have been wildly spoiled by Wilson Rickerson obviously.
Thank you!
Michael

MEMORANDUM

<AUTODATE>

To: Patrick Cummins

From: Regina Creegan

Re: *Rockefeller Brothers Fund: Accelerating U.S. State Action on Climate Change on Wednesday, July 17 – Thursday, July 18, 2019*

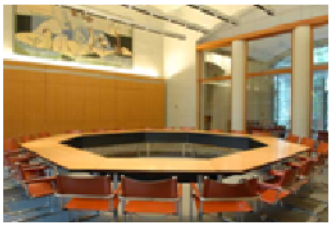
Following is a list of questions/requests I have with regard to the above meeting:
WE WILL USE HAYLOFT. CAN WE ASK YOU TO SET IT UP IN A CIRCLE FOR AFTER DINNER? THANKS

1. Number of participants, including staff : **SEE AGENDA MATERIALS. ADD BETSY CAMPBELL. PATRICK HOW MANY ARE WE INCLUDING BETSY CAMPBELL?**

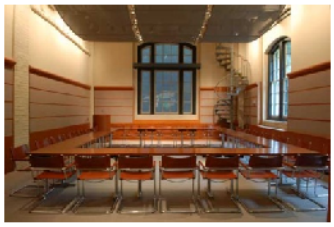
2. Agenda, to include arrival and departure times; meal times; breaks; Kykuit tour (1 hour), etc.
   - Tour of Kykuit can be scheduled during daylight hours. **4PM ON THURSDAY**
   -Please include a reception prior to dinner, allow at least 30 minutes for the Loggia or allow 45 minutes – 1 hour if you choose the Autohall. (The Kykuit Terrace is not available Wednesday evening) **6PM IN LOGGIA**
   -Allow 1 hour for lunches and 1 ½ hours for dinner. **OK . WE HAVE LUNCH ON THURSDAY SCHEDULED FOR 1.5 HOURS.**

3. Will all of the sessions be in plenary, or will you break out into small working groups at any time? If so, how many break out spaces will be required? **PLENARY**
4. For plenary sessions, how should the table be arranged? (In the lecture room, we can seat a maximum of 30 people around a hollow square or at 5 or 6 small blocks of tables or 24 people at a U-shaped table with a dais for 2-4 more. Our main conference room seats a maximum of 24 around the octagonal table. We can put a few observer chairs in either room.) **Note: pads, pens, easel pads and markers and tape will be provided. MAIN CONFERENCE ROOM. WE WILL HAVE 26 AROUND THE TABLE AND SOME ALONG THE BACK.**

Main Conference Room



Main Conference Room



Lecture Room Open Square or hollow Square

Lecture Room Blocks

Additional Pocantico Facilities information can be found: http://www.rbf.org/sites/default/files/meeting_rooms_v4.pdf

5. Do you want any easels in the meeting room, and, if so, how many? If using break out rooms, do you need easels in those spaces? We have a total of four easels in the Center. **3 EASELS PLEASE**

6. Do you need a note taker table in the meeting room? **NO**

7. Do you need tent cards for the meeting table or name badges, or does everyone know one another? We can provide one or the other. **TENT CARDS AND NAME BADGES. PLEASE ADD A BADGE FOR BETSY**

8. What audio visual equipment is required (i.e. LCD projector, laptop PC or Mac, VCR, simultaneous translation, video conferencing etc.) **NONE**

9. Do you want to have the meeting audio recorded? If so, you must have everyone's consent. **NO**

10. Do you need a podium in the Conference Center dining room. (for keynote speakers) **NO**

11. Please complete the attached "Participant Information" Excel spreadsheet and return it to us at least one week before the conference begins. (Please alphabetize list)

12. Please rank the participants on the guest list indicating those who should have "deluxe" rooms. There are nine "deluxe" rooms at the Coach Barn, which includes 2 suites with queen-size beds; 3 rooms with king-size beds, and 3 additional rooms with queen-size beds and one larger room with 2 twin-size beds. All other rooms have a single twin-size bed. Most of the rooms at Kykuit are deluxe, 6 bedrooms have king-size beds, 4 rooms with queen-size beds and the remaining rooms however, have either 1 or 2 twin-size beds. Please note that Kykuit is a 5 minute uphill walk from the Center when assigning room locations. For anyone not ranked, we arbitrarily make the room assignments. **(Smaller groups will be housed in the Coach Barn building only) PATRICK WILL YOU RANK PARTICIPANTS. ALL ORGANIZERS EXCEPT BILL RITTER SHOULD STAY IN COACH BARN. LETS GET EVERYONE ELSE IF POSSIBLE UP AT KYKUIT OR IN A NICER ROOM IN CB**

13. Before the meeting, we will need a transportation schedule with each participant's estimated arrival time and mode of transportation. Same for departure. You can enter the information in sheet two of the participant information spreadsheet. **PATRICK WILL YOU DO THIS?**

I look forward to hearing back from. In the meantime, please let me know if you have any questions or if I can be of further assistance to you.

From: Cummins,Patrick on behalf of Cummins,Patrick <
Sent: Monday, July 01, 2019 1:55 PM EDT
To: Michael Northrop
Subject: FW: cover email for updated agenda
Attachment(s): "MEMORANDUM.docx"

Patrick Cummins
Senior Policy Advisor
Colorado State University
Center for the New Energy Economy

From: Cummins,Patrick
Sent: Friday, June 28, 2019 7:11 AM
To: Michael Northrop
Subject: cover email for updated agenda

Michael –

Here is some material that may be helpful for the email that goes with the updated agenda. You can use what you like and leave the rest. So far, it only describes the morning session -- some words to describe the afternoon session are still needed.

I am in meetings all day here in Santa Fe and then driving home. I can do more on this, and on the agenda itself, over the weekend, so don't hesitate to send me anything you want me to review. I'm also working next week.

Patrick Cummins
Senior Policy Advisor
Colorado State University
Center for the New Energy Economy

TO: Pocantico Participants
FROM: Michael Northrop, Rockefeller Brothers Fund
SUBJECT: Accelerating State Action on Climate Change, July 17-18, 2019

The 2018 elections brought forward a new group of state leaders – governors, legislators, policy makers, and agency officials – committed to reducing greenhouse gas emissions in their states. This new group of state leaders joins those of you who have been leading the charge for a decade or more. We are thrilled that so many of you are able to join us for this event where we will discuss ways to accelerate state action and ensure that the progress being made by U.S. states is recognized and understood by the international community.

While our time together at Pocantico is short, we hope to address each of the following topics:

- What are the leading edge clean energy policies and GHG reduction programs being implemented by US states? What opportunities exist in the near term to increase the number of states adopting these programs?

- How can this group of state leaders support each other, and also work together to bring other states into the fold?

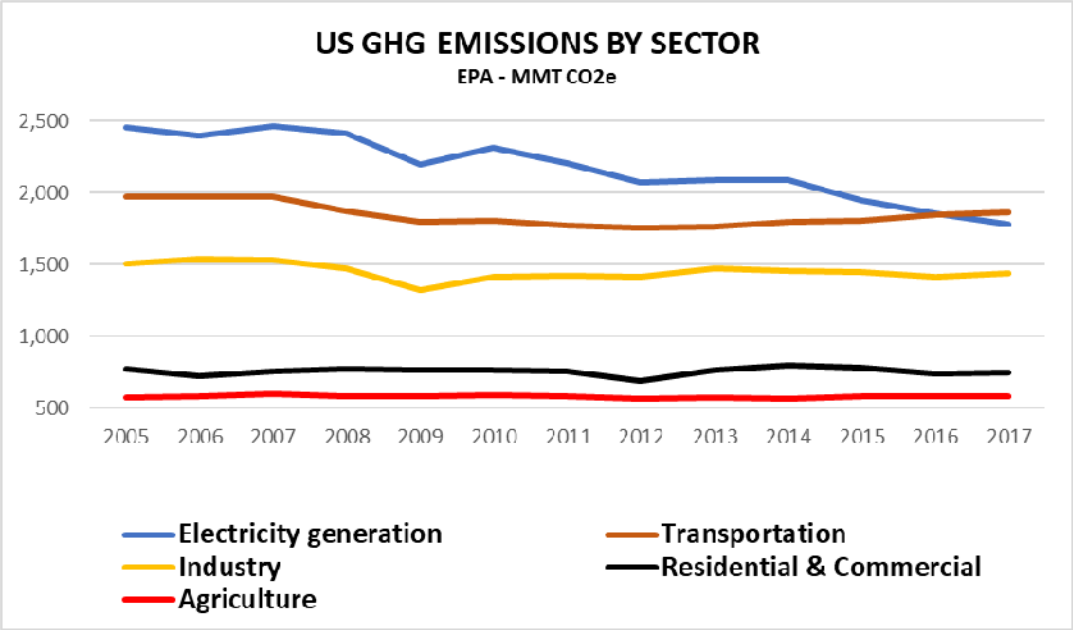
- Can these leading edge state policies and programs become a de facto national standard?

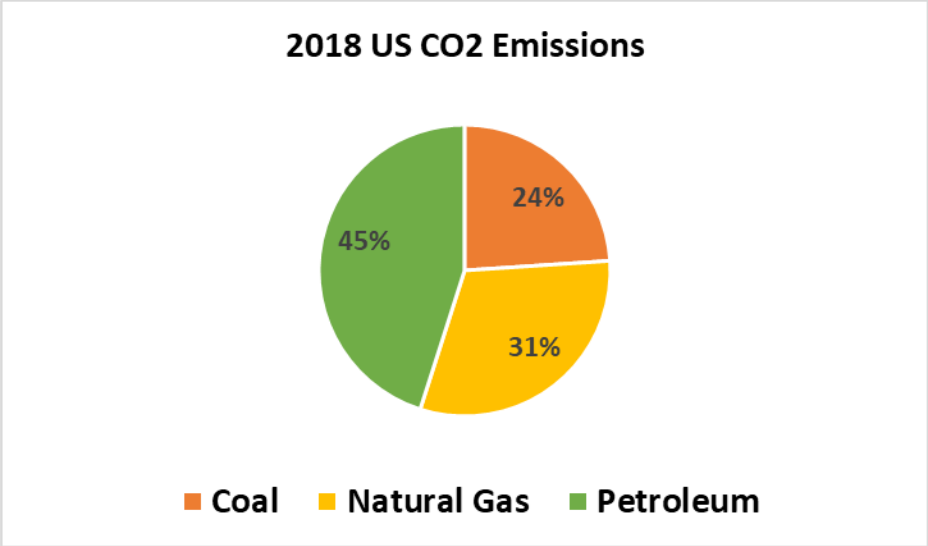
- What steps should states be taking over the next 18 months in anticipation of a federal administration that supports clean energy and climate action?

- How can we ensure that your voices are heard, and your actions recognized, as part of the international climate dialogue?

With these questions in mind, we will kick things off on Wednesday night with a discussion of the international climate negotiations. Dr. Andrew Steer, President and CEO of the World Resources Institute will join us for that conversation. Also, Kathleen Frangione, Chief Policy Advisor to New Jersey Governor Phil Murphy, will discuss the turn-around in her state since Governor Murphy took office last year, setting the stage for others of you to share the exciting developments in your states.

Thursday morning we will start with a robust conversation on how to meet the challenge posed by emissions from the transportation sector. As we all know by now, the transportation sector has surpassed the electricity sector as the largest source of GHG emissions in the US. In 2018, emissions from the combustion of petroleum products were almost twice that of coal. Moreover, while emissions from coal continue to decline, emissions from the transportation sector have increased each year since 2012.





Front and center in the discussion of how to reduce emissions from the transportation sector is the pending rollback of federal standards and the potential revocation of California's waiver, which would impact many of your states. We are fortunate that Mary Nichols will be with us to lead this discussion and help all the states in attendance figure out how you can work together to protect the progress you've made in this area.

While each state in the room has some policies and programs in place to incentivize electric vehicle purchases and charging infrastructure, some states are going farther. A group of Northeast states is evaluating a market-based approach to reducing emissions from the transportation sector (Transportation Climate Initiative), while California and Oregon both have a low-carbon fuel standard. We will ask each state to share their ideas for additional policies and programs to drive down emissions from transportation sector emissions.

To date, states have had the greatest success in reducing emissions from the electric power sector. This is an area where states have a number of effective policy options, like renewable portfolio standards, and you have used these policies to achieve substantial CO2 emission reductions from the electric power sector over the last 10 years (-30% nationwide). Building on this success, you are moving to achieve even more progress with many states and utilities setting aggressive near term targets for renewable energy, along with the long-term goal of 100% clean energy.

One of the primary challenges to deep de-carbonization of the electric power sector is the increasing reliance on natural gas as the replacement for coal. On the Eastern grid, coal generation has fallen by almost half over the last ten years, but 75% of that has been replaced by natural gas generation. So, we will review the current landscape of state policies for clean and renewable electricity, share ideas for next steps, and then discuss how you can work together – and with other states/regions – to make continued progress on the transition to a clean electric power sector.

Residential and commercial buildings and industry are source categories where it has also, so far, proven difficult to get emission reductions. We will discuss what states are currently doing to transition buildings to clean energy, and then identify what options exist for states to expand their policies and programs in areas like building codes, retrofits, and electrification.

Reducing emissions from the industrial sector poses a set of challenges similar to those associated with buildings, including continued reliance on natural gas as a primary energy source. Some states are also dealing with very significant methane emissions problems associated with oil and gas production. We will explore the challenges associated with reducing emissions from these and other industrial sources of emissions, along with strategies for states to overcome these challenges.

We will close out our morning session with a discussion of carbon pricing programs and what's needed to expand these programs to other states and other sectors, knowing that they are probably essential for achieving your ambitious economy-wide greenhouse gas reduction goals.

MEMORANDUM

To: **Pocantico Participants**
Subject: **Accelerating State Action on Climate Change**
July 17-18, 2019

The 2018 elections brought forward a new group of state leaders – governors, legislators, policy makers, and agency officials – committed to reducing greenhouse gas emissions in their states. This new group of state leaders joins those of you who have been leading the charge for a decade or more. We are thrilled that so many of you are able to join us for this event where we will discuss ways to accelerate state action and ensure that the progress being made by U.S. leadership states is recognized and understood across the U.S. and at a global level.

While our time together at Pocantico is short, we hope to address each of the following topics:

- What are the leading edge clean energy policies and GHG reduction programs being enacted and implemented by U.S. states? We will focus especially on electricity, buildings and transportation, but hope we can also touch on other gases (methane and HFC's), land use, and carbon pricing.

- How can this group of state leaders support each other and also work together to bring other states into the fold? Can states do more to drive bipartisan approaches to climate action?

- Can states working together accelerate market creation for cleaner vehicles, non-gas solutions, and appliances?

- What steps can states be taking over the next 18 months to show the way forward for a federal administration in 2021 that supports clean energy and climate action?

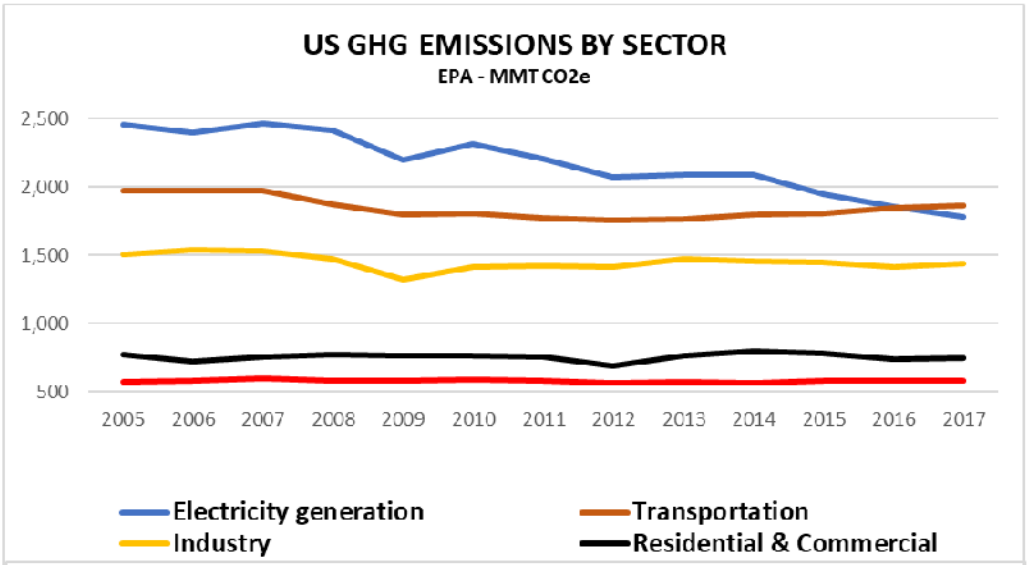
- How can we ensure that leadership state voices (alongside other subnational leaders) offer encouragement to multilateral climate negotiations in the run-up to COP 26 in December 2020?

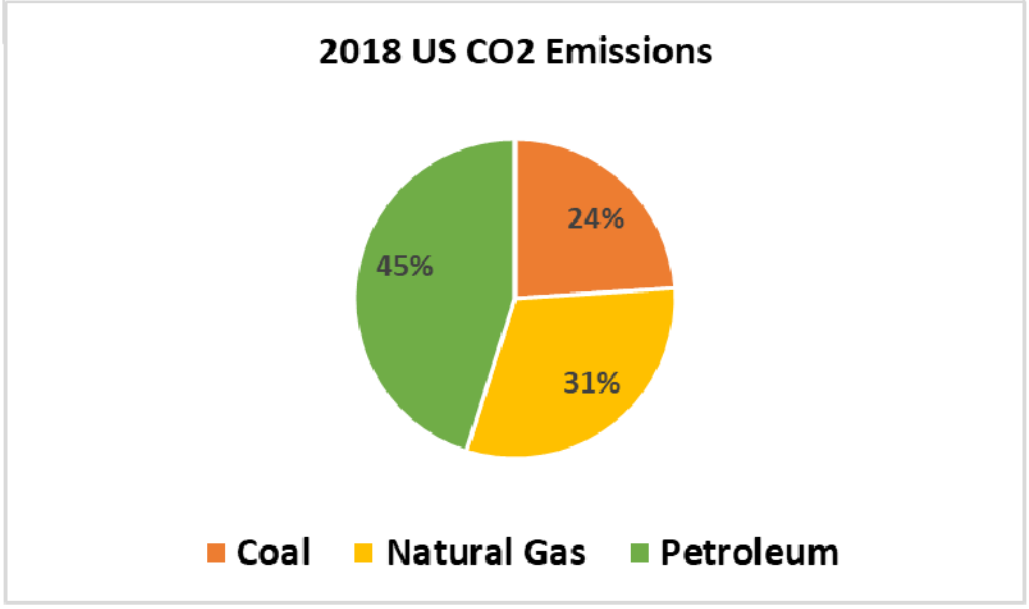
With these questions in mind, we will kick things off on Wednesday night with a discussion of the state of play in the international climate negotiations. Dr. Andrew Steer, President and CEO of the World Resources Institute, will join us for that conversation. We want to understand where the U.S. needs to be in order to play a constructive role in international discussions.

This has bearing on what level of ambition states must aim for. Kathleen Frangione, Chief Policy Advisor to New Jersey Governor, Phil Murphy, will describe the ambitious Paris-aligned approach her state has taken since Governor Murphy took office last year, how it has been framed, and how it has gathered momentum. We want each of the participating states to weigh in on how they are thinking about this. We want to get lessons, good ideas, and questions on the table to help frame our conversation on Thursday. A core concern is how to get the politics right in order to maintain forward momentum.

Thursday morning, we will start with a rapid-fire review of the high ambition policies that states are implementing to get to net zero carbon. (Prior to the meeting, we will send two additional pieces of background material. One laying out the specific policies each state in the room has enacted and another that describes leading edge policies being enacted even more broadly in the world sector-by-sector.) Rather than reviewing the full suite of leading edge policies in detail, we plan to focus in on a few key policy challenges.

Transportation. We will begin with a conversation on how to meet the challenge posed by emissions from the transportation sector. As we all know by now, the transportation sector has surpassed the electricity sector as the largest source of GHG emissions in the US. In 2018, emissions from the combustion of petroleum products were almost twice that of coal. Moreover, while emissions from coal continue to decline, emissions from the transportation sector have increased each year since 2012.





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Natural Gas. One of the primary challenges to deep de-carbonization of the electric power sector is the reliance on natural gas as the replacement for coal. On the Eastern grid, coal generation has fallen by almost half over the last ten years, but 75% of that has been replaced by natural gas generation. We will review the current landscape of state policies for clean and renewable electricity, share ideas for next steps, and then discuss how you can work together – and with other states/regions – to make continued progress on the transition to a clean electric power sector.

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Industrial Sector. Reducing emissions from the industrial sector poses a set of challenges similar to those associated with buildings, including continued reliance on natural gas as a primary energy source.

Methane and HFC's. Some states are also dealing with very significant methane emissions problems associated with oil and gas production, and from industrial livestock operations. States also have a chance to reduce methane leaks from aging residential heating infrastructure. Some states have also taken action on eliminating HFC's, and since methane and HFC's are super greenhouse gases, progress in the near-term can be extremely meaningful.

Land use is an additional category we hope to make some time for in the discussion if possible. Pacific states and Climate Alliance states have taken some actions here that we can learn from.

We will also check in on **carbon pricing** programs. The U.S. Chamber of Commerce and the oil sector have said they are open to carbon pricing. Recent state attempts to enact carbon pricing in Washington, Oregon, and Virginia offer lessons we should consider as well.

During the last few hours of the meeting, we want to discuss several possible opportunities for collaborative work, including how best to encourage other states to enact leadership policies, how states can work together with cities and business, how to use state action to lay the groundwork for ambitious federal policy as soon as 2021, and how to make state, and other subnational, voices present during a string of important upcoming international climate meetings in 2019 and 2020.

Draft Agenda

Accelerating State Action on Climate Change

The Pocantico Center

200 Lake Road

Tarrytown, New York

July 17-18, 2019

This meeting will provide an opportunity for officials from leadership states taking action on climate change to share information on recent developments in their states and to strategize together on the most promising ways to accelerate the pace of implementation in response to the increasingly ambitious climate goals being established by these states' governors and state legislatures. The group will also discuss how state action can influence and underpin future federal action and how U.S. federal action needs to be positioned within the global climate negotiations.

Wednesday, July 17

6:00 pm Reception in Loggia area of the Coach Barn

7:00 Dinner and Introductions

8:30 Hayloft conversation on the international climate negotiation, and on how states are setting science-based targets. Opening remarks:
Dr. Andrew Steer, President and CEO, World Resources Institute
Kathleen Frangione, Chief Policy Advisor to Governor Phil Murphy

Thursday, July 18

7:00 am **Breakfast buffet available in Coach Barn**

8:00 **Agenda Review and Meeting Objectives, Governor Bill Ritter, CNEE**

8:15 **Summary Review of High Ambition Policies.** Please review the two documents provided in advance. Please share your questions and suggestions for additions to these policy resources. These are intended to be resources you and others can use to further policy goals in your states.

9:00 **Meeting the Challenges Posed by the Transportation Sector**

- Update on federal vehicle standards and states' response
  - How can states work together to establish ambitious federal and state emission standards for new cars and trucks?
- Status of Transportation and Climate Initiative
  - What can other states learn from this effort?
- Discussion of other strategies to address CO2 emissions from transportation (e.g., incentives for EV purchases and charging infrastructure, etc.; Low-Carbon Fuel Standards.)

10:00 **Power Sector**

- Achieving 100%
- Replacing Coal with Natural Gas?

11:00 **Net Zero Buildings**

- Standard Setting and Mandatory Retrofits
- Electrification Instead of Gas

12:00pm **Working Lunch: Industrial Sources, Oil & Gas, Methane, and HFCs, Land Use**
Moving industrial sources away from fossil fuels and onto clean energy sources poses a set of challenges similar to those associated with buildings in terms of efficiency, retrofits and electrification. In addition, some states face the issue of a rapidly expanding oil & gas sector and associated methane emissions.

- What are tools, policies and incentives states can use to make progress in these sectors?
- Examples of state action on HFCs, methane, and land use – model policy

1:30 **Carbon pricing strategies**

- Tough sledding in WA, OR, VA
- Opportunities to expand existing programs (RGGI, TCI, WCI, EU, China) and enhance collaboration between programs
- Carbon tax

2:00 **Collaborative Opportunities**

- Group actions by leadership states on policy and market creation
- Outreach / support for opportunity states
- Setting the Policy Stage for Federal Action in 2021/Preparing for the Worst
- Participation in upcoming COPs in Santiago and London

3:30 **Next Steps**

4:00 **Adjourn**

LIST OF ATTENDEES - ACCELERATING STATE ACTION ON CLIMATE CHANGE - JULY 17-18, 2019 AT THE POCANTICO CENTER

First Name:	Last Name:	Job Title:	Organization:
Leo	Asuncion	Commissioner	Hawaii Public Utilities Commisson
Nik	Blosser	Chief of Staff	Office of the Governor, Oregon
David	Bobzien	Director	Nevada Governor's Office of Energy
Dale	Bryk	Dep. Sec. for Energy & Environment	Office of the Governor, New York
Deborah	Burke	Program Associate	Rockefeller Brothers Fund
Janet	Coit	Director	Rhode Island Department of Environmental Management
Jacob	Corvidae	Principal	Rocky Mountain Institute
Sarah	Cottrell Propst	Cabinet Secretary	New Mexico Energy, Minerals, and Natural Resources Dept.
Bradley	Crowell	Director	Nevada Department of Conservation and Natural Resources
Patrick	Cummins	Senior Policy Advisor	Center for the New Energy Economy
Chris	Davis	Senior Advisor	Office of Washington Governor Jay Inslee
Katie	Dykes	Commissioner	Connecticut Dept. of Energy & Environmental Protection
Sandra	Ely	Director	New Mexico Environmental Protection Division
Kathleen	Frangione	Chief Policy Advisor	Office of the Governor, New Jersey
Carla	Frisch	Principal	Rocky Mountain Institute
Kate	Gordon	Director	California Governor's Office of Planning and Research
Ben	Grumbles	Secretary	Maryland Department of the Environment
Joe	Kruger	Director for Research & Strategy	Georgetown Climate Center
Katie	McCormack	Program Director, West Policy	Energy Foundation
Mary	Nichols	Chair	California Air Resources Board
Michael	Northrop	Program Director	Rockefeller Brothers Fund
Zach	Pierce	Senior Policy Advisor	Colorado Governor's Office
Hannah	Pingree	Director	Maine Office of Innovation and the Future
Bill	Ritter, Jr.	Director	Center for the New Energy Economy
Reed	Schuler	Senior Advisor	Office of Washington Governor Jay Inslee
Andrew	Steer	President and CEO	World Resources Institute
Kathleen	Theoharides	Secretary	Massachusetts Exec. Office of Energy & Environmental Affairs
Will	Toor	Executive Director	Colorado Energy Office
Peter	Walke	Deputy Secretary	Vermont Agency of Natural Resources

	A	B	C	D	E	F	G
1	Table 3. 2016 State emissions by sector						
2		Million metric tons of carbon dioxide					
3		Commercial	Electric power	Residential	Industrial	Transportation	Total
4	California	19	37	24	69	213	361
5	Colorado	4	35	7	14	28	89
6	Connecticut	4	7	6	2	15	34
7	Hawaii	0	7	0	1	10	18
8	Maine	2	1	3	2	9	16
9	Maryland	5	17	5	2	28	58
10	Massachusetts	7	11	11	3	32	64
11	Nevada	2	14	2	3	15	37
12	New Jersey	10	20	14	10	58	111
13	New Mexico	2	23	2	7	14	48
14	New York	22	28	31	8	75	164
15	Oregon	2	8	3	5	20	38
16	Rhode Island	1	3	2	1	4	10
17	Vermont	1	0	1	0	3	6
18	Washington	4	10	5	11	49	79
19	15 Pocantico States	85	219	117	139	574	1,133
20	State total (unadjusted)	233	1,796	299	940	1,892	5,161
21		36%	12%	39%	15%	30%	22%
22	Source: U.S. Energy Information Administration, State Energy Data System						

From: Cummins,Patrick on behalf of Cummins,Patrick
Sent: Tuesday, July 09, 2019 11:58 AM EDT
To: Plant,Tom ; Tegen,Suzanne ; Hoffer,Trina

Subject: FW: July 17-18 Pocantico Leadership States Meeting: Background Note, Agenda, Participant List, and Pocantico Center Information
Attachment(s): "Background Note for July 17-18 2019.docx","Draft Agenda Pocantico Leadership States July 17-18 2019.docx","List of Attendees.pdf","PC Information Directions E-Mail Updated 0416.doc"

FYI

Patrick Cummins
Senior Policy Advisor
Colorado State University
Center for the New Energy Economy

From: Michael Northrop
Sent: Thursday, July 4, 2019 11:21 AM
To: kate.gordon ; mary.nichols zach.pierce ; will.toor ; katie.dykes ; leo.r.asuncion Hannah.Pingree ben.grumbles ; kathleen.theoharides dbobzien bcrowell ; kathleen.frangione ; sandra.ely ; sarah.propst ; dale.bryk ; nik.blosser janet.coit ; peter.walke ; chris.davis reed.schuler ; Michael Northrop ; Deborah Burke ; Ritter Jr,Bill ; Cummins,Patrick ; jk2128 jcorvidae cfrisch katie.mccormack ; asteer Betsy Campbell
Cc: shelby.mcmichael shannon.stewart ; nancey.steinheimer ; Carmen.Colon ; shanell.k.felicianc kathy.bishop victoria.s.grimes pamalloy ; Barbara.Panebiancc Minerva.Canc ; jennifer.j.andrew Suzanne.Amerault Hartzell,Wendy ; eda.lee Claudia Hernandez ; Regina Creegan ; 'Vicki Arroyo'
Subject: July 17-18 Pocantico Leadership States Meeting: Background Note, Agenda, Participant List, and Pocantico Center Information

Happy July 4th!

Hopefully you are outside enjoying the day and not reading this email.

Attached are materials for the July 17-18th State Climate Leadership meeting at Pocantico. You will find a background note, a draft agenda, a participant list, and an information note on Pocantico.

We are trying to pack a lot into our short time together. The organizers still have some work to do to make sure we surface key points in each part of the discussion. We may reach out to you next week to help with specific parts of the agenda.

Please plan to arrive no later than 5:00pm on July 17th at the Pocantico Center. We plan an early dinner and important discussions over dinner and after dinner on Wednesday night.

If you are arriving at one of the regional airports (LaGuardia, JFK, Newark, or Westchester), please grab an Uber to the conference Center or ask us for help. We can arrange cars to pick you up at airports if necessary. Please alert Regina Creegan if you need a car from an airport. Her email is

If you plan on coming through New York City on your way to Pocantico, there are 3 trains an hour from Grand Central Station on Metro North Railroad to Tarrytown (45-minute trip), where you can get a taxi to Pocantico (10 minutes). If you are planning to come by train, please alert Regina so we will know when you are arriving. Regina can make sure there is a taxi waiting for you at the Tarrytown train station too. If you are driving yourself, please also let Pocantico know in advance.

Pocantico staff will arrange your travel back to Manhattan or to area airports at the conclusion of the meeting on Thursday afternoon. We can get those details figured out during the meeting. We plan to adjourn at 4:00pm on July 18th. **If you can stick around after 4:00pm, we are arranging a 75-90 minute tour of the Rockefeller Estate.**

Thank you again for making the time for this discussion.

All the best,

Michael

Michael Northrop, Program Director
Sustainable Development Program
Rockefeller Brothers Fund |

Philanthropy for an Interdependent World

MEMORANDUM

To: **Pocantico Participants**
Subject: **Accelerating State Action on Climate Change**
July 17-18, 2019

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- What are the leading edge clean energy policies and GHG reduction programs being enacted and implemented by U.S. states? We will focus especially on electricity, buildings and transportation, but hope we can also touch on other gases (methane and HFC's), land use, and carbon pricing.

- How are leadership states managing the politics of climate action? Are there lessons for how best to keep momentum going?

- How can this group of states support each other, and also work together to bring other states into the fold? Can states do more to drive bipartisan approaches to climate action?

- Can states work together accelerate market creation for cleaner vehicles, air source heat pumps, and other appliances? Which should be priorities?

- What steps can states be taking over the next 18 months to show the way forward for a federal administration in 2021 that supports clean energy and climate action?

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Thursday morning, we will start with a rapid-fire review of the high ambition policies that states are implementing to get to net zero carbon. (Prior to the meeting, we will send two additional pieces of background material. One laying out the specific policies each state in the room has enacted and another that describes leading edge policies being enacted even more broadly sector-by-sector.) Rather than reviewing the full suite of leading edge policies in detail, we plan to focus in on a few key policy challenges.

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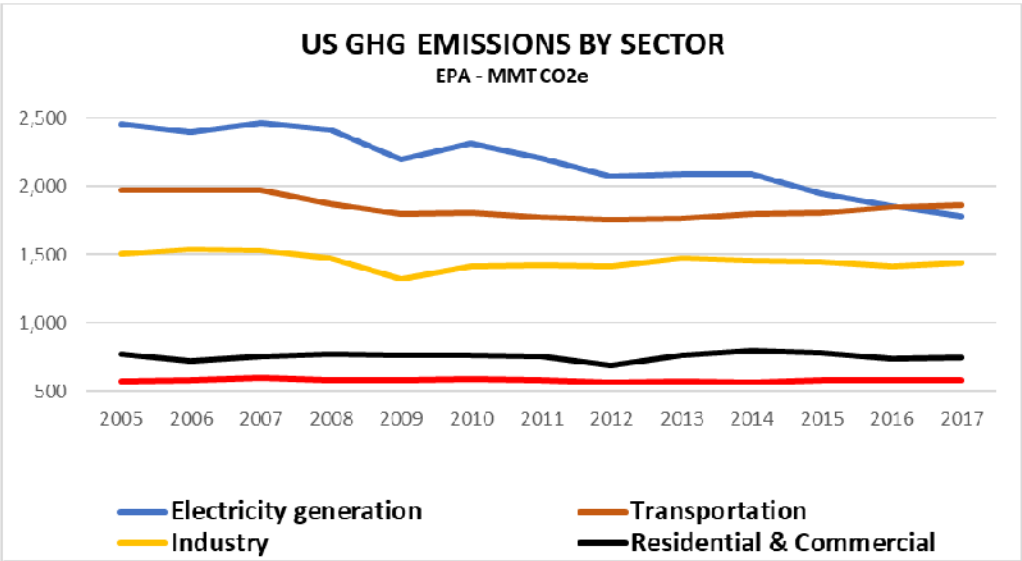

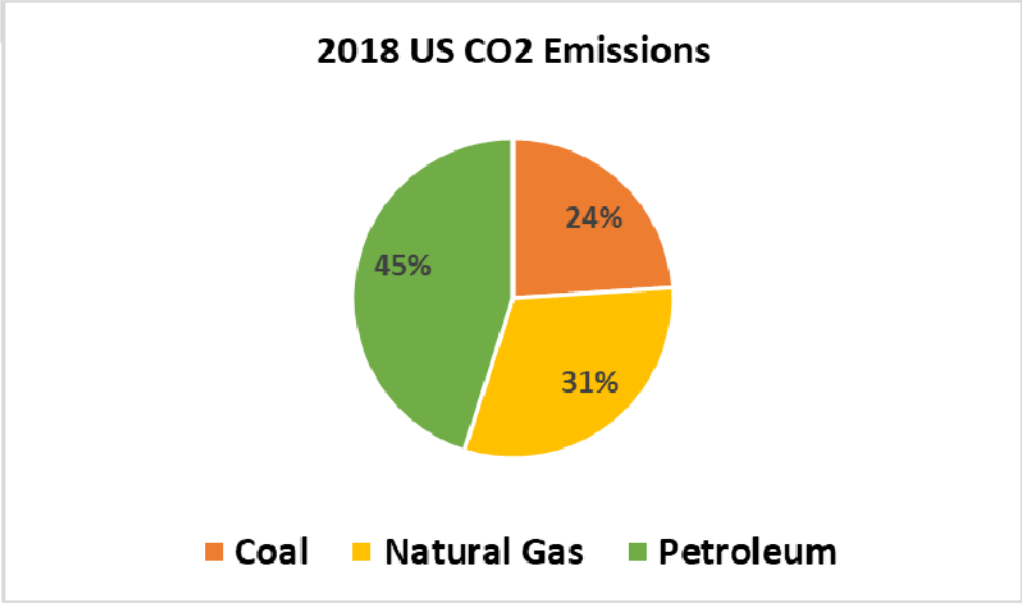

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Methane and HFC's. Some states are also dealing with very significant methane emissions problems associated with oil and gas production, and from industrial livestock operations. States also have a chance to reduce methane leaks from aging residential heating infrastructure. A few states, including Connecticut, New York, Vermont, Maryland and California have also taken action on eliminating HFC's. Since methane and HFC's are super greenhouse gases, progress in the near-term can be extremely meaningful.

Land use is an additional category we hope to make some time for in the discussion if possible. Pacific states and Climate Alliance states have taken some actions here that we can learn from.

Carbon Pricing. The U.S. Chamber of Commerce and the oil sector have said they are open to carbon pricing. Recent state attempts to enact carbon pricing in Washington, Oregon, and Virginia have met heavy resistance and offer lessons we should consider as well.

During the last few hours of the meeting, we want to discuss several additional possible opportunities for collaborative work, including how best to encourage other states to enact leadership policies, how states can work together with cities and business, how to use state action to lay the groundwork for ambitious federal policy as soon as 2021, and how to make state, and other subnational, voices present during a string of important upcoming international climate meetings in 2019 and 2020.

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The Pocantico Center

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July 17-18, 2019

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8:30 Hayloft conversation on the international climate negotiation; and on how states are successfully setting and implementing science-based targets.
Dr. Andrew Steer, President and CEO, World Resources Institute
Kathleen Frangione, Chief Policy Advisor to Governor Phil Murphy

Thursday, July 18

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9:00 **Meeting the Challenges Posed by the Transportation Sector**

- Update on federal vehicle standards and states' response
  - How can states work together to establish ambitious federal and state emission standards for new cars and trucks?
- Status of Transportation and Climate Initiative
  - What can other states learn from this effort?
- Discussion of other strategies to address CO2 emissions from transportation (e.g., incentives for EV purchases and charging infrastructure, Low-Carbon Fuel Standards.)

10:00 **Power Sector**

- Achieving 100%
- Replacing Coal with Natural Gas?

11:00 **Net Zero Buildings**

- Standard Setting, Disclosure, and Mandatory Retrofits
- Electrification Instead of Gas Heating and Cooling

12:00pm **Working Lunch: Industrial Sources, Oil & Gas Methane, HFCs, Land Use**
Moving industrial sources away from fossil fuels and onto clean energy sources poses a set of challenges similar to those associated with buildings in terms of efficiency, retrofits and electrification. In addition, some states face the issue of a rapidly expanding oil & gas sector and associated methane emissions. Several states are early movers on HFC's: what are the lessons for other states?
We will break up into 3-4 groups over lunch for a discussion on the model tools, policies and incentives states can use to make progress in these sectors?

1:30 **Carbon pricing strategies**

- Tough sledding in WA, OR, VA
- Opportunities to expand existing programs (RGGI, TCI, WCI, EU, China) and enhance collaboration between programs
- Carbon tax

2:00 **Collaborative Opportunities**

- Group actions by leadership states on policy and market creation
- Outreach / support for opportunity states
- Setting the Policy Stage for Federal Action in 2021/Preparing for the Worst
- Participation in upcoming COPs in Santiago and London

3:30 **Next Steps**

4:00 **Adjourn and Optional Tour of the Rockefeller Estate for anyone who can delay their departure to 5:30.**

LIST OF ATTENDEES - ACCELERATING STATE ACTION ON CLIMATE CHANGE - JULY 17-18, 2019 AT THE POCANTICO CENTER

First Name:	Last Name:	Job Title:	Organization:
Leo	Asuncion	Commissioner	Hawaii Public Utilities Commisson
Nik	Blosser	Chief of Staff	Office of the Governor, Oregon
David	Bobzien	Director	Nevada Governor's Office of Energy
Dale	Bryk	Dep. Sec. for Energy & Environment	Office of the Governor, New York
Deborah	Burke	Program Associate	Rockefeller Brothers Fund
Janet	Coit	Director	Rhode Island Department of Environmental Management
Jacob	Corvidae	Principal	Rocky Mountain Institute
Sarah	Cottrell Propst	Cabinet Secretary	New Mexico Energy, Minerals, and Natural Resources Dept.
Bradley	Crowell	Director	Nevada Department of Conservation and Natural Resources
Patrick	Cummins	Senior Policy Advisor	Center for the New Energy Economy
Chris	Davis	Senior Advisor	Office of Washington Governor Jay Inslee
Katie	Dykes	Commissioner	Connecticut Dept. of Energy & Environmental Protection
Sandra	Ely	Director	New Mexico Environmental Protection Division
Kathleen	Frangione	Chief Policy Advisor	Office of the Governor, New Jersey
Carla	Frisch	Principal	Rocky Mountain Institute
Kate	Gordon	Director	California Governor's Office of Planning and Research
Ben	Grumbles	Secretary	Maryland Department of the Environment
Joe	Kruger	Director for Research & Strategy	Georgetown Climate Center
Katie	McCormack	Program Director, West Policy	Energy Foundation
Mary	Nichols	Chair	California Air Resources Board
Michael	Northrop	Program Director	Rockefeller Brothers Fund
Zach	Pierce	Senior Policy Advisor	Colorado Governor's Office
Hannah	Pingree	Director	Maine Office of Innovation and the Future
Bill	Ritter, Jr.	Director	Center for the New Energy Economy
Reed	Schuler	Senior Advisor	Office of Washington Governor Jay Inslee
Andrew	Steer	President and CEO	World Resources Institute
Kathleen	Theoharides	Secretary	Massachusetts Exec. Office of Energy & Environmental Affairs
Will	Toor	Executive Director	Colorado Energy Office
Peter	Walke	Deputy Secretary	Vermont Agency of Natural Resources

THE POCANTICO CENTER OF THE ROCKEFELLER BROTHERS FUND

TRAVEL DIRECTIONS & CONFERENCE CENTER INFORMATION

THE POCANTICO CENTER of the Rockefeller Brothers Fund is located approximately one hour north of Manhattan in the Pocantico Historic Area, the heart of the Rockefeller family estate in Westchester County, New York. The Historic Area has been a property of the National Trust for Historic Preservation (www.nthp.org) since 1979, when it was willed to the National Trust by Governor Nelson A. Rockefeller. The Pocantico Center includes John D. Rockefeller's home, Kykuit; the surrounding gardens and sculpture collections; and the Coach Barn (Conference Center), which houses guests on the second floor and the family's carriages and vintage automobiles on the first floor. The lower floor has been transformed into a modern meeting facility. The Pocantico Center is maintained and administered by the Rockefeller Brothers Fund (www.rbf.org), a private foundation, which operates the site as an extension of its grantmaking activities under an agreement with the National Trust. The Conference Center provides a unique setting where the RBF brings together people of diverse backgrounds and perspectives from nonprofit organizations and public institutions to engage important issues related to the Fund's philanthropic programs. In addition to conferences, the RBF's Pocantico Programs include stewardship of the historic portion of the estate and oversight of a visitation program at Kykuit, operated on behalf of the Fund by Historic Hudson Valley (www.hudsonvalley.org).

The directions are provided to help direct you to the Conference Center. Please advise the conference organizer of your travel plans, so arrangements can be made to pick you up if needed. All travel plans, including the time of your arrival at Pocantico, must be confirmed. When you arrive at the Main Gate, announce yourself to the security personnel, who will provide you with further directions.

ACCOMMODATIONS

Guests are lodged on the second floor of the Coach Barn (Conference Center) and on the third and fourth floors of Kykuit. All accommodations have a private bath. Hair dryers are also provided in each bedroom and adapters for electric razors are available upon request. Electrical service is 115 volts/60 cycles.

DRESS

In keeping with the Fund's programmatic emphasis on global warming and the desire to mitigate RBF's carbon footprint, guests at Pocantico should dress comfortably according to the season.

SMOKING POLICY

Guests may not smoke indoors, either at Kykuit or in the Coach Barn (Conference Center).

RECREATION

Guests are welcome to stroll the Coach Barn (Conference Center) and Kykuit grounds, including Kykuit's lovely gardens, or may go jogging on the roads and trails outside the estate.

TELEPHONE, FACSIMILE & BUSINESS CENTER

Each bedroom at the Coach Barn (Conference Center) and Kykuit has a private telephone number with voice mail, and phone calls may be received 24 hours a day. During conference sessions messages will be taken by the center's staff at 914.524.6500. Facsimile messages may be sent during normal business hours from the Conference Center. Faxes are received 24 hours a day at 914.524.6550 and distributed as promptly as possible. Computers are available for the use of conferees in the business center of the Conference Center with IBM-compatible machines, as well as commonly used word-processing, presentation, spreadsheet programs and high speed Internet access. Please note, however, that computer assistance is not available. Wireless Internet access is available in the entire Coach Barn (Conference Center) building as well as on the bedroom floors at Kykuit.

SUSTAINABLE PRACTICES AT POCANTICO

The Pocantico staff is committed to incorporating responsible environmental practices in all aspects of its operation. Green initiatives at Pocantico to date include renewable energy, through the purchase of 100% wind-generated electricity; the use of green cleaning products; a recycling program; and the option for towel and linen reuse.

It is a goal to incorporate sustainable building practices in ongoing maintenance and capital improvement projects and we endeavor to serve sustainable seafood and locally grown food.

In addition, a portion of the conference fees are utilized to acquire Green Tags [Renewable Energy Certificates (RECs)] from *Native*Energy (www.nativeenergy.com) to offset greenhouse gas emissions associated with conference attendees' travel to/from the Pocantico Center. This purchase will be dedicated to help finance new wind farm projects in the United States.

WEATHER

Temperatures at the Pocantico Center vary considerably with the four seasons. Winter can be quite cold, with either rain or snowfall, while summers are often hot and humid. You may find the following chart of average temperatures in New York City useful. The weather at the Conference Center is usually a few degrees cooler.

January	32°	(0° C)
February	34°	(1° C)
March	41°	(5° C)
April	52°	(12° C)
May	62°	(17° C)
June	71°	(22° C)
July	76°	(25° C)
August	76°	(25° C)
September	69°	(21° C)
October	58°	(15° C)
November	47°	(8° C)
December	36°	(2° C)

THE POCANTICO CENTER OF
THE ROCKEFELLER BROTHERS FUND
200 Lake Road
Tarrytown, New York 10591
Tel: (914) 524-6500 Fax: (914) 524-6550

The Pocantico Center of the Rockefeller Brothers Fund is located in the village of Tarrytown, 25 miles north of New York City on the Hudson River. From New York City, it takes approximately one hour to reach Pocantico by car (up to two if traffic is heavy) or forty minutes by train.

TRAVEL BY AIR

From Westchester/White Plains (20 mins.): Travel south on I-684 to Route 287 West. From 287 West, take exit 3, Sprain Brook Parkway North. Exit at the first ramp (1.5 miles) to Eastview. Turn left at exit ramp traffic light onto Route 100C. Follow road approx. 2 miles, past reservoir on your left(becomes Old Saw Mill River Road). Make a right at the stop sign onto Lake Road. Drive uphill for 0.6 miles to the main entrance on the left.

From LaGuardia (40 mins. +): Travel west on Grand Central Pkwy to I-278 over Triborough Bridge. Follow signs to I-87 (Major Deegan). Stay on I-87 to exit 7-A (Saw Mill River Parkway – Taconic Parkway). Continue on the Saw Mill Parkway North to Exit 23 (Eastview). At the foot of the exit ramp, turn left onto an unmarked road and drive about 0.6 miles beside a reservoir to the first right turn (Lake Road). Drive uphill for 0.6 miles to the main entrance on the left.

From JFK (1 hour +): Take the Van Wyck Expressway to the Whitestone Bridge exit. From the Whitestone Bridge follow signs to the Hutchinson River Parkway. Continue on the Parkway to Interstate 287 West (White Plains Exit). Drive west on 287 (Cross Westchester Expressway) to Exit 3 - Sprain Brook Parkway. Drive north 1.5 miles to Route 100C-Eastview Exit and turn left at the top of the ramp onto Route 100 C. After 1 mile this road bears to the right and becomes Old Saw Mill River Road. Proceed straight 1.2 miles under the Union Carbide building, under the Saw Mill River Parkway and beside a reservoir. Turn right at Lake Road and drive uphill for 0.6 miles to the main entrance on the left.

TRAVEL BY TRAIN

From Grand Central Station in New York City (42nd Street at Madison Avenue), take the Metro-North train to Tarrytown, which is on the Hudson Line. Trains run quite frequently: on weekdays, approximately every half hour. Taxis are available at the train station.

TRAVEL BY CAR

FROM MANHATTAN, West Side: Take the West Side Highway north, which will turn into the Henry Hudson Parkway, and then into the Saw Mill River Parkway. Get off at the Saw Mill River Road - Eastview Exit 23. At the foot of the exit ramp, turn left onto an unmarked road and drive about 0.6 miles beside a reservoir to the first right turn (Lake Road). Drive uphill for 0.6 miles to the main entrance on the left.

FROM MANHATTAN, East Side: Take the F.D.R. Drive north to the Triborough Bridge (follow lanes marked "Bronx" and "Thruway") and onto the Major Deegan Expressway (Interstate 87). The Major Deegan will turn into the N.Y. Thruway. Get off the Thruway at Exit 7A (Saw Mill River Parkway - Taconic Parkway). Continue on the Saw Mill River Parkway to the Saw Mill River Road - Eastview Exit 23. At the foot of the exit ramp, turn left onto an unmarked road and drive about 0.6 miles beside a reservoir to the first right turn (Lake Road). Drive uphill for 0.6 miles to the main entrance on the left.

FROM NEW JERSEY AND UPPER NEW YORK STATE: Follow the N.Y. Thruway (Interstate 87-287) across the Tappan Zee Bridge to Exit 9, about 0.2 miles past the tollbooths. Follow U.S. 9 north 1.6 miles to Route 448 (Bedford Road) at North Tarrytown. Turn right and drive 1.5 miles on Bedford Road to a stop sign. Turn right to main entrance.

FROM UPPER WESTCHESTER AND NEW ENGLAND: Drive south on the Saw Mill River Parkway to the Saw Mill River Road - Eastview Exit 23. At the foot of the exit ramp, turn right onto an unmarked road and drive about 0.6 miles beside a reservoir to the first right turn (Lake Road). Drive uphill for 0.6 miles to the main entrance on the left.

FROM CONNECTICUT: From the Merritt Parkway or Connecticut Turnpike, turn right onto Interstate 287 (Cross Westchester Expressway) westbound to Exit 3- Sprain Brook Parkway. Drive north 1.5 miles to Route 100C-Eastview Exit and turn left at the top of the ramp onto Route 100 C. After 1 mile this road bears to the right and becomes Old Saw Mill River Road. Proceed straight 1.2 miles under the Union Carbide building, under the Saw Mill River Parkway and beside a reservoir. Turn right at Lake Road and drive uphill for 0.6 miles to the main entrance on the left.

FROM LONG ISLAND: From either the Bronx-Whitestone Bridge or the Throgs Neck Bridge, follow signs to the Hutchinson River Parkway. Continue on the Parkway to Interstate 287 West (White Plains Exit). Drive west on 287 (Cross Westchester Expressway) to Exit 3 - Sprain Brook Parkway. Drive north 1.5 miles to Route 100C-Eastview Exit and turn left at the top of the ramp onto Route 100 C. After 1 mile this road bears to the right and becomes Old Saw Mill River Road. Proceed straight 1.2 miles under the Union Carbide building, under the Saw Mill River Parkway and beside a reservoir. Turn right at Lake Road and drive uphill for 0.6 miles to the main entrance on the left.

From: Cummins,Patrick on behalf of Cummins,Patrick
Sent: Saturday, June 29, 2019 1:58 PM EDT
To: jcorvidae jk2128 <jk2128 Michael Northrop

Subject: FW: Policy Table
Attachment(s): "Pocantico States Policy Table.docx","Pocantico States Policy Table.pdf"

This is a pretty comprehensive description (too comprehensive?) of what the Pocantico states are doing. We need to figure out if it will be helpful to the participants and what modifications would improve it. Does not include Hawaii.

Patrick Cummins
Senior Policy Advisor
Colorado State University
Center for the New Energy Economy

From: Hoffer,Katherine
Sent: Thursday, June 27, 2019 4:30 PM
To: Cummins,Patrick
Subject: Policy Table

Here you are.

Katherine Heriot Hoffer, PhD
Research Manager | Center for the New Energy Economy

Advanced Energy Legislation Tracker | State Policy Opportunity Tracker

State Climate / Carbon Policies

State	Emissions / GHG Goals	Other Carbon / Climate Activities and Policies
California	Adopted in 2006 (AB 05-32): 1990 levels by 2020; amended in 2016 (SB 15-32): 40% below 1990 levels by 2030. E.O. S-03 in 2005: 80% below 1990 levels by 2050.	Cap & Trade Program EO B-55-2018: achieve carbon-neutrality by 2045 and net-negative emissions thereafter. AB 17-398: extends cap-and-trade through 2030. SB 15-350: directs CARB to adopt rules removing disincentives for utilities' emissions reductions programs.
Colorado	Adopted 2019 (HB 19-1261): more than 26% from 2005 levels by 2025, 50% below 2005 levels by 2030, and 90% below 2005 levels by 2050.	HB 19-1261: in addition to expanding GHG reduction goals, provides for possibility of joining other jurisdictions in regional abatement schemes. SB 19-096: directs the Air Quality Control Commission to track long-term emissions data and publish an inventory. SB 19-236: utilities must include emissions reductions plans in their IRPs, and PUC must consider social cost of carbon.
Connecticut	Originally adopted 2004 (SB 04-595), last amended 2018 (SB 18-7): 10% below 1990 levels by 2020, 45% below 2001 levels by 2030, and 80% below 2001 levels by 2050.	The 2018 amendment to the GHG targets (SB 7) also requires publication of seal level rise scenarios. In 2018, the Governor's Council on Climate Change put forward several policy recommendations for reducing emissions.
Maine	Adopted 2019 (LD 19-1679): 45% below 1990 levels by 2030, 80% below 1990 levels by 2050.	LD 19-1679: establishes the Maine Climate Council, tasked with developing a climate action plan and clean energy economy transition plan.
Maryland	Adopted 2009, reauthorized and amended in 2016 (SB 16-323): 25% below 2006 levels by 2020, and 40% below 2006 levels by 2030.	HB 19-277: Authorizes Governor to include the state as full participant in regional initiatives (TCI) to reduce emissions from transportation. SB 19-516: Among other provisions, increases the state's RPS to 50% by 2030. Requires study of a 100% renewable energy goal.
Massachusetts	Adopted 2008 (the Global Warming Solutions Act): 25% below 1990 levels by 2020, and 80% below 1990 levels by 2050.	E.O. 2016-569: requires the Secretary of Energy and Environmental Affairs to consult the GWSA Implementation Advisory Committee to establish statewide limits for 2030 and 2040, achieve further reductions from government operations, work to develop regional transportation policies, and lead reform on capacity and wholesale markets to achieve state mandates.

		DEP must also consider limits on sources such as natural gas pipelines and the transportation sector. The state's 2015 update to its Clean Energy and Climate Plan provides a comprehensive suite of policies to reduce statewide emissions.
State	**Emissions / GHG Goals**	**Other Carbon / Climate Activities and Policies**
Nevada	Adopted 2019 (SB 19-254): 28% below 2005 levels by 2025, 45% below 2005 levels by 2030, and "zero or near-zero" by 2050.	SB 19-254: requires DCNR to submit a report on whether existing/pending state policies can ensure that the state achieves zero carbon emissions by 2050.
New Jersey	Adopted 2007 (AB 07-3301): 1990 levels by 2020, and 80% below 2006 levels by 2050.	The Draft 2019 New Jersey Energy Master Plan outlines multiple strategies for emissions reductions in the energy, transportation, and building sectors.
New Mexico	Adopted 2019 (E.O 003): 45% below 2005 levels by 2030.	Governor Grisham's executive order on climate also created the interagency Climate Change Task Force to evaluate and report on mitigation and adaptation policies, including a market-based program to reduce carbon emissions. SB 19-489 requires that the Environmental Improvement Board (EIB) promulgate a rule limiting CO_2 emissions from coal fired generating plants to an emissions standard of 1,100 lbs-CO_2/MWh on or after January 1, 2023.
New York	Adopted by Executive Order 24 in 2009, reaffirmed as a goal of the Reforming the Energy Vision initiative: 40% below 1990 levels by 2030, and 80% below 1990 levels by 2050. Senate Bill 19-6599 will create GHG emissions targets of 40% below 1990 levels by 2030 and 85% below 1990 levels by 2050, with the remaining 15% offset. The bill also requires the PSC to create a clean energy standard of 70% renewable energy by 2030 and 100% zero emissions by 2040.	The state Soil & Water Conservation Committee administers a Climate Resilient Farming Program to reduce agricultural emissions. Governor Cuomo's REV initiative is a series of smaller initiatives to achieve carbon emissions reductions from multiple sectors, including transportation and buildings.
Oregon	Adopted 2007 (HB 07-3543): 10% below 1990 levels by 2020 and 75% below 1990 levels by 2050.	HB 19-2020 (second reading in Senate on 6/19) would create a GHG emissions standard of 45% below 1990 levels by 2035 and 80% below 1990 levels by 2050 and achieve those reductions through a cap and trade program.
Rhode Island	Adopted 2014 (the Resilient Rhode Island Act): 10% below 1990 levels by 2020, 45% below 1990 levels by 2035, and 80% below 1990 levels by 2050.	Governor Rainmondo's executive order 2017-10 required the development of a statewide Climate Resilience Action Strategy by June 2018.

State	Emissions / GHG Goals	Other Carbon / Climate Activities and Policies
Vermont	Adopted 2006 (S 06-259): 50% below 1990 levels by 2028, and if feasible, 75% below 1990 levels by 2050.	Executive Order 2017-12 created the Vermont Climate Action Committee. The Committee's 2018 report recommends using market-based mechanisms, sequestration measures, and carbon offset projects to address emissions.
Washington	Adopted 2008 (HB 08-2815): 1990 levels by 2020, 25% below 1990 levels by 2035, and 50% below 1990 levels by 2050 or 70% below the state's expected emissions in 2050.	SB 19-5116: Requires utilities to use emissions-free resources by 2045. Social cost of carbon must factor into IRP process.

State Energy Policies and Utility Goals

State	Renewable / Clean Energy Targets	EERS	Utility Commitments / Goals
California	Adopted 2002, last amended 2018: 33% by 2020, 60% by 2030, with a target of 100% carbon-free by 2045.	Electric: Long-term goals average about 1.15% of retail sales through 2024. Average incremental savings targets average about 1.3% of retail sales electricity from 2020-2025. Natural Gas: Incremental savings target of 0.56% through 2024. SB 15-350 requires state agencies and utilities to double cumulative efficiency savings achieved by 2030. Work to develop specific utility targets is ongoing.	Pacific Gas & Electric: Member of the WeAreStill in coalition. Goal to avoid one million tons of cumulative greenhouse gas emissions from 2018 through 2022, compared to a 2016 baseline. SMUD: 33% renewable energy by 2020, 60% by 2030, and reduce retail load GHG emissions to net zero by 2040. Sempra Energy: 35% below 2010 emissions by 2021, SDG&E is on track to meet CA's 50% by RE target.
Colorado	Adopted 2004: 30% by 2020 (IOUs), 10% or 20% by 2020 for municipalities and electric cooperatives depending on size. Polis Administration's Roadmap to 100% Renewable Energy by 2040.	Electric: Flat target of 500 GWh or roughly 1.7% of sales per year. Black Hills follows Xcel's targets. HB 17-1227 extended electric efficiency programs to 2028 and required the commission to set goals of at least 5% peak demand reduction and 5% energy savings (as compared to 2018) by 2028 for demand-side management programs implemented during 2019 through 2028. Natural Gas: Savings targets commensurate with spending targets (at least 0.5% of prior year's revenue).	Xcel Energy: 55% RE by 2026, 80% GHG reduction by 2030, carbon-free by 2050. Platte River Power Authority: Zero carbon emissions by 2030. Holy Cross Energy: 70% emissions reduction by 2030. Poudre Valley Rural Electric Association: increase carbon-free energy from 33% to 80% by 2030. Colorado Springs Utilities: 20% renewable energy by 2020.

State	Renewable / Clean Energy Targets	EERS	Utility Commitments / Goals
Connecticut	Adopted 1998, last amended 2018: Class 1: 21% by 2020, 30% by 2025, 40% by 2030 (plus 4% class 1 or 2 by 2018, 4% class 3 by 2010).	Electric: Average incremental savings of 1.11% of sales from 2019 through 2021.The state's renewable portfolio standard (RPS), established in 1998 and revised thereafter, requires that electricity providers and wholesale suppliers obtain 27% of their retail load from renewable energy and energy efficiency by 2020. Natural Gas: Average incremental savings of 0.59% per year from 2019 through 2021.	AVANGRID (the United Illuminating Company is a subsidiary): increase installed renewable capacity by 2GW, reduce emissions intensity 25% below 2015 levels by 2020, 100% carbon neutral by 2035.
Maine	Adopted 2019 (LD 19-1494): 80% by 2030, 100% by 2050.	Electric: Savings of 20% by 2020, with incremental savings targets of ~ 1.6% per year for 2014-2016 and ~2.4% per year for 2017-2019. While Efficiency Maine operates under an all cost-effective mandate, the agency has fallen short of targets in recent years due to budget cuts. Natural Gas: Incremental savings of ~0.2% per year for 2017-2019.	AVANGRID (Central Maine Power is a subsidiary): increase installed renewable capacity by 2GW, reduce emissions intensity 25% below 2015 levels by 2020, 100% carbon neutral by 2035.
Maryland	Adopted 2004, last amended 2019 (SB 19-516): 28% by 2020, 40% by 2025, 50% by 2030.	Electric: 2% incremental energy savings goal through 2023. Utilities must also file an energy efficiency program plan every 3 years to be approved by the PSC. Natural Gas: goals and limited income goals are being developed.	FirstEnergy (Potomac Edison Company is subsidiary in MD): 90% below 2005 emission levels by 2045.
Massachusetts	Adopted 1997, last amended 2018 (Clean Energy Standard): 20% by 2020, 40% by 2030, 60% by 2040, 80% by 2050. RPS: 13% by 2018, 55% by 2050.	Electric: Net annual savings of 3.45 million MWh (not including fuel switching) for 2019-2021, equivalent to savings of ~2.7% of retail sales per year. Natural Gas: 1.25% of retail sales. Net savings of 95.89 MMTherms for 2019-2021. Additional goal of 261.9 million net lifetime MMBtu for 2019-2021.	NationalGrid: 45% below 1990 emission levels by 2020, 70% below 1990 levels by 2030, and 80% below 1990 levels by 2050.

State	Renewable / Clean Energy Targets	EERS	Utility Commitments / Goals
Nevada	Adopted 1997, last amended 2019: 24% by 2021, 50% by 2030, with 100% by 2050 goal (up to 10% of the standard can be met using energy efficiency from 2020-2024.	SB 17-150 set baseline targets for electricity suppliers: 1% in 2018, 1.5% for 2021-2025.	NV Energy: seeks to double renewable generation by 2023. The utility included $2 billion in renewable projects in its 2018 IRP, and expects to retire or divest 100% of its coal generation by the end of 2025.
New Jersey	Adopted 1999, last amended 2018: 35% by 2025, 50% by 2030.	Electric: 2% electric savings (as a percent of average annual usage from the prior three years) within five years of the initial implementation of a utility's plan. In April, consultants presented the New Jersey Board of Public Utilities with the draft strategic plan for 2019-2022 for the statewide Clean Energy Program, including an energy efficiency portfolio achieving a 56% increase in savings by 2022. Natural Gas: 0.75% savings (as a percent of average annual usage from the prior three years) within five years of the initial implementation of a utility's plan.	FirstEnergy (Jersey Central Power & Light is a subsidiary): 90% below 2005 emission levels by 2045. Public Service Electric and Gas: eliminate 13 million metric tons of CO2 equivalent by 2030 (from 2005 levels).
New Mexico	Adopted 2004, last amended 2019 (Carbon-free Resource Standard): Distribution cooperatives: 10% by 2020, 40% by 2025, 50% by 2030, and zero-carbon (at least 80% RE) by 2050. IOUs: 20% by 2020, 40% by 2025, 50% by 2030, 80% by 2040, and carbon-free by 2045.	Electric: The state's three public utilities must achieve 5% savings of 2020 retail sales by 2025. HB 19-291 directs the Public Regulation Commission to set additional targets through 2030.	Xcel Energy: 55% RE by 2026, 80% GHG reduction by 2030, and carbon-free by 2050. PNM: carbon-free by 2040 (5 years ahead of the deadline established by SB 19-489). PNM plans to retire San Juan by 2022.

State	Renewable / Clean Energy Targets	EERS	Utility Commitments / Goals
New York	Adopted 2016 (Clean Energy Standard): 50% by 2030.	Statewide all-fuels target of 185 TBtu cumulative annual savings for 2015-2025, or approximately 3% of incremental electric sales. Electric: detailed proposals are to be submitted by the utilities to the PSC. The PSC assumes that these plans will account for 2% of the statewide goal, with the remainder accounted for by NYSERDA, codes and standards, and other state activities. Natural Gas: no specific targets, but savings will count toward statewide goal.	Long Island Power Authority: add 800 MW of clean energy by 2030. AVANGRID (New York State Electric & Gas Corporation and Rochester Gas & Electric Corporation are subsidiaries): increase installed renewable capacity by 2GW, reduce emissions intensity 25% below 2015 levels by 2020, and 100% carbon neutral by 2035. NationalGrid: 45% below 1990 emission levels by 2020, 70% below 1990 levels by 2030, and 80% below 1990 levels by 2050.
Oregon	Adopted 2007, last amended 2016: Large IOUs (3% or more of state's load): 50% by 2040 Large COUs: 25% by 2025 Small Utilities (1.5 to <3% of state's load): 10% by 2025 Smallest Utilities (<1.5% of state's load): 5% by 2025 Total coal phase out by 2035.[1]	Electric: Incremental targets average ~1.3% of sales annually for the period 2015-2019. Natural Gas: Incremental savings of 0.3% of sales annually for the period 2015-2019.	Portland General Electric and Pacific Power will be nearly coal free by 2030, entirely coal free by 2035. Avista: carbon-neutral electricity supply by 2027; 100% clean by 2045.
Rhode Island	Adopted 2004, last amended 2016: 16% by 2020, 31% by 2030, 38.5% by 2036.	Electric: Average incremental savings of 2.5% for 2018-2020. Natural Gas: Average incremental savings of 0.97% for 2018-2020.	NationalGrid: 45% below 1990 emission levels by 2020, 70% below 1990 levels by 2030, 80% below 1990 levels by 2050.

[1] Utilities that buy into a new coal plant or sign a new contract specifically for new coal power and publicly-owned utilities that annex investor-owned utility territory without consent (aside from municipal utilities under certain conditions) are subject to the “large utility” standards.

State	Renewable / Clean Energy Targets	EERS	Utility Commitments / Goals
Vermont	Adopted 2015: 55% by 2017, 75% by 2032, and 12% energy transformation projects (EE, EVs, storage) by 2032.	Vermont law requires Energy Efficiency Utility budgets to be set at a level that would realize "all reasonably available, cost-effective energy efficiency" and set specific energy and peak demand savings targets. Average incremental electricity savings totaling 357,400 MWh over 2018-2020, or approximately 2.4% of annual sales. Natural Gas: Three-year annual incremental savings of 192,599 Mcf spanning 2018-2020 or 0.5% of sales.	Green Mountain Power, 2018 Goal: partner with customers to drive down costs and eliminate more than 8,000 metric tons of carbon emissions per year using clean energy for the next two decades.
Washington	Adopted 2006, amended 2019: 15% by 2020, coal phased out by 2025, carbon neutral by 2030, 100% carbon-free by 2045.	Electric: average around 1.4% incremental savings per year. Natural Gas: in 2014, all four IOUs committed to a voluntary pilot program with the potential to save over 280 million therms annually.	Avista: carbon-neutral electricity supply by 2027, 100% clean by 2045. Seattle City Light: carbon neutral since 2005. Puget Sound Energy: reduce carbon emissions 50% by 2040, 100% coal-free generation by the early 2030s.

State Transportation Policies

State	Regional Transportation Collaborative	LEV Standards? [2]	ZEV Standards? [3]	Low Carbon Fuel Standard?	EV / ZEV Goals
California	Pacific Coast Collaborative	Yes	Yes	Goal: reduce carbon intensity of transportation fuel pool by at least 20% by 2030.	Goal (E.O. B.48-2018): 5 million ZEVs by 2030 and 250,000 ZEV chargers by 2025. Deploy over 100,000 zero emission freight vehicles and associated equipment by 2030. Transit agency requirements: all new bus purchases must be zero emission buses by 2029 (50% by 2026 for large agencies, 25% by 2026 for small agencies)
Colorado	REV West	Yes	Rulemaking in Progress		Goal (E.O. B2019-002): 940,000 EVs by 2030.
Connecticut	Transportation and Climate Initiative[4]	Yes	Yes	*	Goal: 500,000 ZEVs by 2030 (ZEV MOU)
Maine	Transportation and Climate Initiative	Yes	Yes	*	
Maryland	Transportation and Climate Initiative	Yes	Yes	*	Goal: ~300,000 ZEVs by 2025 (ZEV MOU)
Massachusetts	Transportation and Climate Initiative	Yes	Yes	*	Goal: ~300,000 ZEVs by 2025 (ZEV MOU)
Nevada	REV West				

[2] States that have adopted LEV Standards not represented below: Delaware and Pennsylvania.
[3] All states that have adopted ZEV Standards are represented below.
[4] Other TCI members not captured here: Delaware, New Hampshire, Pennsylvania, and Virginia.

New Jersey	Transportation and Climate Initiative	Yes	Yes	*	Goal: 330,000 EVs by 2025.

State	Regional Transportation Collaborative	LEV Standards?	ZEV Standards?	Low Carbon Fuel Standard?	EV / ZEV Goals
New Mexico	REV West	Climate Change Task Force to evaluate adopting.	Climate Change Task Force to evaluate adopting.		Governor Grisham stated that she would like to see 20% of the state fleet electrified.
New York	Transportation and Climate Initiative	Yes	Yes	*	Goal: 800,000 ZEVs by 2025.
Oregon	Pacific Coast Collaborative	Yes	Yes	Requires fuel suppliers to reduce the carbon content of transportation fuels by 10% by 2025.	Goal (E.O. 2017-21): 50,000 EVs by 2020.
Rhode Island	Transportation and Climate Initiative	Yes	Yes	*	Goal: 43,000 ZEVs by 2025 (ZEV MOU)
Vermont	Transportation and Climate Initiative	Yes	Yes	*	Goal: ~50,000 EVs by 2025
Washington	Pacific Coast Collaborative	Yes			Goal: 50,000 EVs by 2020.

* Signatory: Low Carbon Fuel Standard MOU (2009) in which the states agreed to analyze low-carbon fuel supply options, determine the feasibility of achieving a range of carbon reduction goals – including a 10 percent reduction in carbon intensity of fuels – and develop a framework for a regional Low Carbon Fuel Standard (LCFS).

State Appliance and Building Efficiency Policies

State	Appliance Standards Opposing Federal Rollback[5]	Building Efficiency Codes
California	In December 2008, California adopted a 45 lumen per watt standard for general service lamps (GSLs) as defined in the 2007 Energy Independence and Security Act (EISA). California's Title 20 Appliance Efficiency Regulations have existing provisions that backstop all other federal appliance standards in case of repeal or rollback.	Commercial: meets or exceeds ASHRAE 90.1-2013 Residential: meets or exceeds IECC 2015 Solar: The California Energy Commission adopted revisions to the Energy code in May 2018. The most noteworthy new provision is a requirement for all new low-rise homes to install PV equipment with an annual output greater than or equal to the home's annual electric consumption. The proposed amended standards, which still need to be approved by the California Building Standards Commission would go into effect on January 1, 2020.
Colorado	HB 19-1231 updates and adopts standards for water efficiency and energy efficiency that apply to a list of 15 consumer and commercial appliances and other products. The bill also includes a provision to adopt current federal standards to backstop all other federal appliance standards in case of repeal or rollback.	No mandatory statewide code, but any county or municipality that had a building code in place was required to adopt 2003 IECC or 2006 IECC as the minimum energy code standard by July 1, 2008. Solar: Builders of single-family homes are required to offer solar energy as a standard feature to all prospective homebuyers. Builders are required to give the buyer the option to have either a PV system or a solar water heating system installed on their new home or to have all the necessary wiring and plumbing installed so that they can easily add a solar system later.
Connecticut	N/A	Residential and commercial building codes are based on the 2012 IECC, with weakening amendments.
Maine	N/A	Commercial: based on the 2009 IECC and ASHRAE 90.1-2007 Residential: based on the 2009 IECC
Maryland	N/A	Residential and commercial building codes are based on the 2015 IECC.
Massachusetts	N/A	Commercial: based on the 2015 IECC and ASHRAE 90.1-2013 Residential: based on the 2015 IECC
State	**Appliance Standards Opposing Federal**	**Building Efficiency Codes**

[5] In May 2019, 36 utility companies [illegible] DOE proposal to roll back lightbulb efficiency stating that "The 2020 standard for lightbulbs should remain applicable to all common household lightbulbs, and efficiency standards for other products should not be delayed."

	Rollback	
Nevada	AB 19-54 adopted the federal light bulb standards.	Commercial: 2012 IECC, with amendments or ASHRAE 90.1-2010 Residential: 2012 IECC, with amendments
New Jersey	N/A	Commercial: based on ASHRAE 90.1-2013 Residential: based on 2015 IECC Solar: Developers of residential developments with 25 or more dwelling units must "offer to install, or to provide for installation of, a solar energy system" when technically feasible. The law took effect immediately upon enactment; however, the Department of Community Affairs (DCA), in cooperation with the New Jersey Board of Public Utilities (BPU), must develop rules and standards for its implementation. The law does not provide a time frame for the adoption of regulations and it does not appear that such rules have been established.
New Mexico	N/A	Commercial and residential are based on the 2009 IECC, with amendments
New York	N/A	Commercial: based on the 2015 IECC and ASHRAE 90.1-2013, as modified by the 2016 supplement Residential: based on the 2015 IECC, as modified by the 2016 supplement
Oregon	N/A	Commercial: based on ASHRAE 90.1-2010 Residential: more stringent than the 2009 IECC
Rhode Island	SB 19-552, which has been "held for further study", would establish minimum appliance energy efficiency standards.	Commercial: based on the 2012 IECC and ASHRAE 90.1-2010 Residential: based on the 2012 IECC, with amendments
Vermont	H 17-411 provides that the state will enforce federal standards if they are “withdrawn, repealed or otherwise voided” at the federal level. Efficiency measures protected by the new Vermont law include all standards on the federal books as of January 17, 2017, including ones that have yet to take effect, including the light bulb standards slated for implementation in 2020.	Commercial: based on the 2015 IECC and ASHRAE 90.1-2013, with amendments Residential: based on the 2015 IECC
Washington	HB 19-1444 adopts federal light bulb standards, providing a backstop to a potential federal rollback.	Commercial and Residential: based on the 2015 IECC, with amendments HB 19-1257: Department of Commerce is to create a State Energy

		Performance Standard by November 1, 2020 to reduce energy use and GHG emissions associated with large commercial buildings.

State Methane and HFC Emissions Policies

State	Methane Emissions Policy	HFC Emissions Policy
California	CARB adopted stringent methane regulations for monitoring and repairing pipeline leaks in 2017 (required by SB 16-1383). The CPUC ordered utilities to file methane abatement compliance plans by March 2019 (pursuant to SB 14-1371).	SB 18-1013 creates the Fluorinated Gases Emission Reduction Incentive Program to promote the adoption of low-global warming potential refrigerants. The schedule to ban products made with HFCs begins 2022.
Colorado	SB 19-181 directs the Air Quality Control Commission to bolster methane regulations by promulgating rules for all points in the natural gas supply chain (processing, gathering & boosting, storage, and transmission). The legislation also affirms local authority over oil and gas siting and sets objectives to protect public health.	SB19-096 requires the development of a GHG inventory, which will include HFCs.
Connecticut	N/A. Connecticut's omnibus energy bill, HB 19-5002, did not include regulations for methane emissions. Studies of CT pipelines reveal the need to modernize gas infrastructure.	Governor Malloy directed DEEP to develop HFC controls modelled after CARB's that would fit within the state's air quality regulatory framework. New regulations are expected in 2020.
Maine	Maine's policy establishes a classification system for pipeline leaks, and sets detection and repair requirements for pipeline operators. Governor Mills joined 15 other attorneys general in suing the Trump administration for halting enforcement of federal methane rules.	N/A
Maryland	The Greenhouse Gas Emissions Reductions Act requires the maintenance of GHG emissions inventories. The Maryland Department of Environment (MDE) publishes data on methane from wastewater, landfills, and oil and gas operations. MDE is in the process of developing proposed methane regulations - Methane Emissions Minimization Plans (MEMPs) - for curbing leaks across the natural gas supply chain.	MDE is in the process of developing HFC regulations for foam and refrigerant products pursuant to SB 16-323 (the Greenhouse Gas Emissions Reduction Act).
Massachusetts	To meet state emissions reductions goals, the DEP adopted rules in 2017 to require natural gas operators to reduce methane emissions annually (specified by utility), keep inventories, and repair pipeline leaks. The DPU adopted rules in March 2019 that establish methods for identifying high-priority leaks. The rules also require that gas operators accelerate repairs when leaks are located in 'environmentally sensitive areas'.	Massachusetts published its Comprehensive Energy Plan in late 2018. HFC regulations have not been announced, but the state's Attorney General joined 10 other states to sue the EPA for its HFC rule rollback in 2018.

State	Methane Emissions Policy	HFC Emissions Policy
Nevada	N/A	N/A
New Jersey	S 19-3207, if enacted, would bolster the state's GHG emissions reporting requirements and require the development of a comprehensive statewide strategy for mitigating 'short-lived' GHGs, including methane. As of May 2019, the bill had been passed by both chambers of the legislature.	S 19-3207 includes a provision requiring the development of a comprehensive strategy to reduce emissions of short-lived climate pollutants in the State. This requirement is based on legislation adopted and implemented in California.
New Mexico	Governor Grisham's EO 2019-003 directs EMNRD and NMED to develop a regulatory framework to reduce oil and gas sector methane emissions. The NMED maintains an interactive map of oil and gas site emissions.	N/A
New York	Governor Cuomo's Methane Reduction Plan (2017) outlines multiple policies to achieve emissions reductions targets, including monitoring and repair of natural gas pipelines.	The New York State Department of Environmental Conservation is developing regulations to phase out HFCs between 2020 and 2024, a draft proposal was released in September of 2018.
Oregon	HB 19-2020 would have directed the Environmental Quality Commission to develop rules regulating methane emissions from landfills, agriculture, and forestry. No legislation or regulations are in place for pipeline leaks.	N/A
Rhode Island	The Rhode Island Energy 2035 Plan (2015) recommended reviewing the state's natural gas replacement and repair policy, suggesting an update to National Grid's Gas Infrastructure, Safety, and Reliability Plan for detecting and repairing pipeline leaks.	N/A
Vermont	Gas utilities must 'routinely' inspect for leaks. No comprehensive program for pipeline emissions reductions is in place.	S 19-0030 establishes a schedule between 2020 and 2024 for when certain products must be manufactured without HFCs.
Washington	State law establishes a classification system for pipeline leaks and requires utilities to maintain permanent leak records and conduct a self-audit every five years.	HB 19-1112 establishes a regulatory framework for phasing out HFCs in the state, banning specific products beginning in 2020.

State	Bill Number	Summary
California	SB 18-1013	Codifies the prohibitions on certain ozone depleting substances and HFC) adopted by the U.S. EPA as part of the Significant New Alternatives Policy (SNAP) Program.
Colorado	HB 19-1261	Sets statewide GHG emissions reduction goals to more than 26% from 2005 levels by 2025, 50% below 2005 levels by 2030, and 90% below 2005 levels by 2050.
	SB 19-096	Requires the AQCC to collect greenhouse gas emissions data from greenhouse gas-emitting entities, report on the data, develop a forecast of future emissions, and propose a draft rule to address the emissions by July 1, 2020.
	SB 19-181	Modifies the composition of the COGCC, requires that the COGCC review and, if necessary, amend existing rules related to methane emissions and oil and gas operations, removes the state preemption of oil and gas regulation, and expands the authority of local governments to regulate oil and gas development.
	SB 19-236	Among other provisions, the bill supplements existing state renewable energy standard laws by establishing targets for the reduction of CO_2 emissions by Xcel Energy (80% below 2005 levels by 2030, 100% by 2050 and thereafter, if practicable). Other utilities may opt in to submitting clean energy plans. The bill also allows utilities to apply to the PUC for approval of a financing order to issue securitized utility ratepayer-backed bonds when retiring an electric generating facility. Bonds are to be used by the utility to purchase, build, or invest in electric generating resources or electricity storage, and repaid through a distinct charge on ratepayers. The bill requires the PUC to promulgate rules that require each wholesale electric cooperative to submit an application for approval of an integrated or electric resource plan. The PUC must evaluate the plans using rules adopted that are applicable to these cooperatives. The bill also requires the PUC to promulgate rules establishing requirements for IOUs to file electric distribution plans; requires IOUs to include a workforce transition plan when proposing the retirement of an electric generating facility; directs the PUC to require electric public utilities to consider the cost of carbon dioxide emissions in certain proceedings; requires the PUC to conduct an investigation of financial performance-based incentives and performance-based metric tracking; and directs the PUC to open an investigatory proceeding to evaluate the costs and benefits associated with regional transmission organizations, energy imbalance markets, joint tariffs, and power pools.
Connecticut		
Maine	LD 19-1679	Updates the state's GHG emissions reduction targets to 45% below 1990 levels by 2030, and 80% below 1990 levels by 2050. Establishes the Maine Climate Council, comprised of state agencies and stakeholders tasked with developing a climate action plan and a clean energy economy transition plan.

State	Bill Number	Summary
Maryland	HB 19-277	Authorizes the Governor to include the state in any regional governmental initiative, agreement, or compact that limits or reduces greenhouse gas emissions from the transportation sector; requires the Department of

		the Environment and the Department of Transportation to submit a report on the status of any regional initiative before November 1, 2019.
	SB 19-516	Among other provisions, increases the state's RPS to 50% by 2030. Requires study of a 100% renewable energy goal.
Massachusetts	H 18-4857	Establishes an energy storage target of 1,000 MWh by 2025. Requires electric suppliers to provide a minimum percentage, as determined by the Department of Energy Resources (DER), of kWh sales from clean peak resources. Also provides for EDCs to submit distribution system resiliency reports to the DER. Allows EDCs to hold competitive solicitations for procurement of non-wires alternatives from third party developers. Establishes reporting requirements for lost and unaccounted for gas for gas companies for the purpose of reducing GHG emissions. Requires the DER to study the costs and benefits of requiring EDCs to issue competitive bids for up to 1,600 MW of additional offshore wind.
Nevada	SB 19-254	Sets GHG emissions reduction targets: 28% below 2005 levels by 2025, 45% below 2005 levels by 2030, and "zero or near-zero" by 2050. Also requires DCNR to submit an emissions report, and provide analysis of whether existing/pending state policies can ensure that the state achieves zero carbon emissions by 2050.
	SB 19-358	Increases the state's clean energy standard to 50% by 2030. Includes a zero carbon by 2050 goal.
New Jersey	AB 18-3723	Requires the BPU to conduct an energy storage analysis, make changes to the solar renewable energy certificate program, adopt energy efficiency and peak demand reduction programs, adopt a "Community Solar Energy Pilot Program," and provide tax credits for certain offshore wind energy projects. The bill also requires the Department of Labor and Workforce Development to establish job training programs for those who work in manufacturing and servicing of offshore wind energy equipment.
	SB 19-3207	If enacted, the bill will establish new timeframes for the implementation of certain requirements in the "Global Warming Response Act" (GWRA), and require the Department of Environmental Protection (DEP) to adopt a strategy to reduce short-lived climate pollutants.
New Mexico	SB 19-489	Increases the state's RPS as follows: Distribution cooperatives: 10% by 2020, 40% by 2025, 50% by 2030, zero-carbon (at least 80% RE) by 2050. IOUs: 20% by 2020, 40% by 2025, 50% by 2030, 80% by 2040, and resources must be carbon-free by 2045. Also authorizes an alternative mechanism ("energy transition bonds" or "securitization") for financing the retirement of coal-fired power plants. The mechanism has been designed to accommodate the retirement in 2022 of units 1 and 4 of the San Juan Generation Station (SJGS) and to anticipate the closure of the Four Corners Power Plant in 2031. The bill also requires that the Environmental Improvement Board (EIB) promulgate a rule limiting carbon dioxide emissions from coal fired generating plants to an emissions standard of 1,100 lbs-CO2/MWh on or after January 1, 2023.

State	**Bill Number**	**Summary**
New York	SB 19-6599	If enacted, will create GHG emissions targets of 40% below 1990 levels by 2030 and 85% below 1990 levels by 2050, with the remaining 15% offset. The bill also requires that the PSC creates a clean energy standard of 70% renewable energy by 2030 and 100% zero emissions by 2040.

Oregon		
Rhode Island		
Vermont	HB 19-529	Excludes from the definition of a net metering system a plant for generation of electricity that primarily supplies electricity to electric vehicle supply equipment for the resale of electricity. Requires the Public Utility Commission to report on steps necessary to implement fees on plug-in electric vehicle charging and how to address net metering and net metering credits by December 15, 2019. Establishes the vehicle incentive and emissions repair programs, which, among other things, provide point-of-sale vouchers for the purchase or lease of new plug-in electric vehicles. Permits State agencies that own or control electric vehicle supply equipment (EVSE) to establish, set, and adjust fees for the use of EVSE available to the public for three years starting on July 1, 2019. Specifies that the PUC does not have jurisdiction over persons otherwise not regulated by the PUC that engage in the siting, construction, ownership, operation, or control of a facility that sells or supplies electricity to the public exclusively for charging a plug-in electric vehicle. Requires the Commissioner of Buildings and General Services, to the maximum extent practicable, to purchase and lease hybrid or plug-in electric vehicles for the State fleet with a minimum of 50%, bumped to 75% on July 1, 2021, of newly purchased and leased vehicles being hybrid or plug-in electric vehicles.
	S 19-30	Establishes a schedule between 2020 and 2024 for when certain products must be manufactured without HFCs.
Washington	HB 19-1112	Establishes a schedule between 2020 and 2024 for when certain products must be manufactured without HFCs.
	HB 19-1257	Requires the State Building Code Council to develop rules that require and regulate electric vehicle charging capability at all new buildings that provide on-site parking. Requires the Department of Commerce to create a State Energy Performance Standard by November 1, 2020 to reduce energy use and GHG emissions associated with large commercial buildings. Requires gas companies to identify and acquire all conservation measures that are available and cost-effective. The cost-effectiveness analysis must include the societal costs of GHG emissions. The targets must be based on a conservation potential assessment prepared by an independent third party and approved by the UTC. A gas company may propose a renewable natural gas program under which the company would supply renewable natural gas for a portion of the natural gas sold or delivered to its retail customers. Each gas company must offer by tariff a voluntary renewable natural gas service available to all customers to replace any portion of the natural gas that would otherwise be provided by the gas company. The UTC must monitor the GHG emissions resulting from natural gas and renewable natural gas delivered by each gas company to its customers, relative to the proportionate share of the state's GHG emissions goal.
Washington (cont)…	HB 19-1512	Allows municipal utilities to adopt transportation electrification plans. Regulated utilities may adopt plans that provide EV charging equipment incentives and support for other transportation electrification programs. Utility Electric Transportation Plan Authorization: The governing authority of a utility or a regulated electric utility, with the approval of the UTC, may adopt an electric transportation plan that proves that utility outreach and investment in the electrification of transportation infrastructure does not increase net costs to ratepayers in excess of 0.25%. The governing authority or the UTC may consider items such as the impact of electrification

		on the utility's load, demand response and load management opportunities, system reliability and distribution system efficiencies, and interoperability concerns. Upon making this determination, electric utilities may offer incentive programs for customers.
	HB 19-2042	Extends and establishes tax credits for electric vehicles and electric vehicle supply equipment (EVSE). Establishes a grant program to assist transit authorities in fleet electrification and alternative fuel use; a car sharing pilot grant program to support car sharing for underserved communities; and extends an existing EV charging infrastructure grant program. Amends provisions authorizing investor-owned utilities' incentive rate of return on investments in EV supply equipment. Extends a technical assistance and education program on alternative fuel vehicles for public agencies within Washington State University's Extension Energy Program. Authorizes the Department of Commerce to conduct a study on reducing barriers to battery and hydrogen fuel cell electric vehicle adoption by lower income residents.
	SB 19-5116	Requires that by December 31, 2025, all electric utilities eliminate coal-fired resources from their allocation of electricity. For IOUs, the UTC is required to accelerate depreciation for any coal-fired resource owned by an IOU and is allowed to accelerate depreciation for any qualified transmission line to no later than December 31, 2025. The UTC must allow in rates prudently incurred undepreciated investments in a fossil-fuel generating resource that has been retired from service under specific conditions. By January 1, 2030, each electric utility must make all retail sales of electricity to Washington customers GHG neutral. An electric utility must achieve compliance with the GHG neutral standard for multiyear compliance periods beginning January 1, 2030, through December 31, 2044. By January 1, 2045, each electric utility must meet 100 percent of its retail electric load to Washington customers using non-emitting electric generation and electricity from renewable resources.

State EV and EVSE Policies and Incentives

California

EV Policies and Incentives

Low Emission Truck and Bus Purchase Vouchers: fleet owners.

Light-duty PHEV and ZEV Rebates

HOV and High Occupancy Toll (HOT) Lane Exemption

The California Clean Truck, Bus, and Off-Road Vehicle and Equipment Technology Program: funding for development, demonstration, pre-commercial pilot, and early commercial implementation projects for zero and near-zero emission trucks, buses, and off-road vehicles and equipment.

Through the California Clean Miles Standard and Incentive Program, the California Air Resources Board (ARB) will establish annual emissions reduction targets for transportation network companies, including goals for increasing the number of miles traveled using zero emission vehicles.

Zero and Near-Zero Emission Vehicle Component Rebates

Vehicle Acquisition and Petroleum Reduction Requirements: beginning in fiscal year 2024, at least 50% of the light-duty vehicles purchased by the state must be ZEVs. At least 30% of the Department of General Service's fleet of new vehicles with a gross vehicle weight of 19,000 pounds or more must be ZEVs by 2030.

Freight Efficiency Action Plan: establishes targets to improve freight efficiency and transition to zero emission technologies.

EV Supply Equipment (EVSE) Policies and Incentives

EVSE Incentive Program Support: provides guidance and funding for local governments and organizations to develop and implement EVSE incentive programs.

EVSE Loan and Rebate Program: available to small businesses.

Emissions Reductions Grants

Residential PACE EVSE Financing Program

EVSE Policies for Residential and Commercial Renters: The lessor of a dwelling or commercial property must approve written requests from a

lessee to install EVSE at a parking space allotted for the lessee on qualified properties. Certain exclusions apply to residential dwellings and commercial properties.

EVSE Policies for Multi-Unit Dwellings: A common interest development, including a community apartment, condominium, and cooperative development, may not prohibit or restrict the installation or use of EVSE or a PEV-dedicated TOU meter in a homeowner's designated parking space or unit. These entities may put reasonable restrictions on EVSE, but the policies may not significantly increase the cost of the EVSE or significantly decrease its efficiency or performance.

Mandatory EVSE Building Standards

EVSE Open Access Requirements: EVSE service providers may not charge a subscription fee or require membership for use of their public charging stations.

PEV Charging Access: Municipalities may not restrict the types of PEVs that may access a public PEV charging station that is intended for passenger vehicle use, and funded, at least in part, by the state or money from utility ratepayers.

EVSE Location Assessment: The State Energy Resources Conservation and Development Commission, in partnership with CARB, must assess whether EVSE in California is located disproportionately by population density, geographical area, or population income level. If EVSE has been disproportionately installed unreasonably, the agencies must proportionately install new EVSE, unless it is determined that the current locations of EVSE further California's policy goals.

EVSE Assessment: The California State Energy Resources Conservation and Development Commission, in partnership with CARB and the CPUC, must publish a statewide assessment of the EVSE infrastructure needed to support the levels of PEV adoption required for at least five million zero emission vehicles to operate in California by 2030. The assessment must consider the EVSE infrastructure needs for all vehicle categories, and must analyze the existing and future infrastructure needs across California, including in low-income communities. The assessment must be updated at least once every two years.

Public Utility Definition: A corporation or individual that owns, controls, operates, or manages public EVSE is not defined as a public utility.

State Agency EVSE Installation: California state agencies must actively identify and pursue opportunities to install EVSE, and accommodate future EVSE demand, at state employee parking facilities in new and existing agency buildings.

EVSE Local Permitting Policies: Cities and counties must adopt an ordinance that creates an expedited, streamlined permitting process for EVSE.

Colorado

EV Policies and Incentives

PEV Tax Credit: $5,000 - 20,000 in 2017-2019; $4,000 - 16,000 in 2020; $2,500 - 10,000 in 2021.

Alternative Fuel Vehicles and Infrastructure Grant Program: CEO, RAQC, and CDOT, have partnered to provide grants through the ALT Fuels Colorado program for new fleet purchases of EVs.

PEV and EVSE Grants: available to individual drivers and fleet owners.

High Occupancy Vehicle (HOV) Lane Exemption

EV Supply Equipment (EVSE) Policies and Incentives

Alternative Fuel Vehicles and Infrastructure Grant Program: Provides grants through the ALT Fuels Colorado program for new, publicly accessible co-located electric vehicle charging and propane station equipment at funded CNG stations, and EVs.

EVSE Multi-Unit Dwelling Installations and Access: A residential tenant may install Level 1 or Level 2 EVSE at their own expense on or in leased premises. The landlord may seek a fee or reimbursement for the actual cost of electricity as well as the cost of installation or upgrades to existing equipment. In addition, the tenant may request that the EVSE be accessible by other tenants, in which case the EVSE must be in compliance with all applicable requirements, and the landlord may seek a fee to reserve a specific parking space.

Alternative Fuel Resale and Generation Regulations: A corporation or individual that resells alternative fuel supplied by a public utility for use in an AFV is not subject to regulation as a public utility. Additionally, a corporation or individual that owns, controls, operates, or manages a facility that generates electricity exclusively for use in AFV charging or fueling facilities is not subject to regulation as a public utility provided that the electricity is generated on the property where the charging or fueling facilities are located and the electricity is generated from a renewable resource.

Connecticut

EV Policies and Incentives

Heavy-Duty Vehicle Emissions Reduction Grants: DEEP allocates a portion of its designated funds from the Volkswagen Environmental Mitigation Trust for the replacement or repower of eligible heavy-duty on-road vehicles through its Diesel Emissions Mitigation Program.

Hydrogen and PEV Rebate

Loans for PEVs and Residential Charging Infrastructure: The Connecticut Green Bank offers Smart-E low-interest loans of up to $30,000 for Connecticut residents to purchase a new or used PEV. The vehicle must be registered with the Connecticut Department of Motor Vehicles. Loans are also available for Connecticut PEV drivers to purchase EVSE. To qualify, applicants must own or lease a model year 2012 or later PEV and occupy the residence at which the EVSE will be installed.

Reduced Registration Fee for Electric Vehicles

AFV Procurement Preference: In determining the lowest responsible qualified bidder for the award of state contracts, the Connecticut Department of Administrative Services may give a price preference of up to 10% for the purchase of AFVs or for the purchase of conventional vehicles plus the conversion equipment to convert the vehicles to dual or dedicated alternative fuel use.

EV Supply Equipment (EVSE) Policies and Incentives

EVSE Grants: available to municipalities, state agencies, and private businesses.

Public EVSE Requirements: Owners and operators of public EVSE that require payment must allow multiple payment options that allow access by the public. In addition, payment should not require users to pay a subscription fee or obtain a membership of any kind, however payment required may be based on price schedules for such memberships. Owners and operators can impose restrictions on the amount of time a vehicle can use the EVSE. In addition, owners and operators of a public EVSE must disclose the location and characteristics of each EVSE to the U.S. Department of Energy's Alternative Fuels Data Center.

Public Utility Definition: An owner of an EV charging station is not defined as a public utility.

Utility Company PEV Rates: By July 1, 2018, utility companies must evaluate if it is appropriate to implement PEV time of day rates for residential and commercial customers.

Maine

EV Policies and Incentives

An insurer may credit or refund any portion of the premium charged for an insurance policy on a clean fuel vehicle in order to encourage its policyholders to use clean fuel vehicles, as long as insurance premiums on other vehicles are not increased to fund these credits or refunds.

EV Supply Equipment (EVSE) Policies and Incentives

EVSE Funding: Efficiency Maine Trust is accepting applications through July 10, 2019, for funding of public, workplace, and multi-unit dwelling Level 2 EVSE in strategic locations within Maine. EVSE along specific roads and at locations that will likely experience a high frequency of use will be prioritized.

PEV Charging Regulation Exemption: An entity that sells electricity for the sole purpose of charging the battery of a PEV is not defined or regulated as an electricity provider. An EVSE provider may charge a submetered user only for kilowatt-hours used.

Maryland

EV Policies and Incentives

PEV and Fuel Cell Electric Vehicle (FCEV) Tax Credit: up to $3,000.

PEV HOV Lane Exemption

AFV Voucher Program: for the purchase of new and converted AFVs registered in Maryland. Vehicles must be used by commercial, non-profit, or public entities.

Zero Emission School Bus Grant Program and Study: The Maryland Department of the Environment will administer a Zero Emission School Bus Transition Grant Program to purchase zero emission school buses, install charging infrastructure, and transition to zero emission school bus fleets.

ZEV State Fleet Goal: state agencies must increase the number of ZEV acquisitions in light-duty fleets to at least 25% of annual fleet purchases by 2025.

EV Supply Equipment (EVSE) Policies and Incentives

EVSE Rebate Program

Alternative Fuel Infrastructure Grants: The Maryland Energy Administration administers the Maryland Alternative Fuel Infrastructure Program (AFIP), which provides grants to plan, install, and operate public access alternative fueling and charging infrastructure.

EVSE Regulation Exemption: Owners and operators of EVSE are not subject to state regulation as electricity suppliers or public service companies. For the purpose of this regulation, owners and operators of EVSE are considered retail electric customers.

PEV Information Disclosure: The Maryland Motor Vehicle Administration is allowed to provide the address of a registered PEV owner and information about the vehicle to electric companies for their use. Electric companies may only use this information in planning for the electric power supply and may not use it for marketing or solicitation.

PEV Infrastructure Promotion: The Maryland EV Infrastructure Council promotes the use of PEVs in the state. Specific responsibilities of the Council include the following:

- developing an action plan to facilitate successful integration of PEVs into the Maryland transportation network;
- assisting in developing and coordinating statewide standards for streamlined permitting and installation of EVSE;
- recommending a statewide charging infrastructure plan and incentives to support investment in PEVs;
- developing targeted policies to support fleet purchases of PEVs; encouraging local and regional efforts to promote the use of PEVs; and
- developing model procurement practices.

Effective July 1, 2019, the Council will be renamed the Zero Emission Electric Vehicle Council and will incorporate fuel cell electric vehicles in all of the Council responsibilities.

Massachusetts

EV Policies and Incentives

Vehicle Emissions Reduction Grants: The (MassDEP) Volkswagen Open Solicitation Grant Program provides up to 80% of the cost of new diesel or alternative fuel replacements and repowers for eligible government entities.

PEV and EVSE Grants for Public Fleets: available to local governments, public universities and colleges, and state agencies.

Plug-In and ZEV Rebates
AFV and Infrastructure Grants: The Massachusetts Department of Energy Resources' Clean Vehicle Project offers grants for public and private fleets to purchase AFVs and infrastructure.

When purchasing new motor vehicles, the Commonwealth of Massachusetts must purchase hybrids or AFVs to the maximum extent feasible and consistent with the ability of such vehicles to perform their intended functions.

EV Supply Equipment (EVSE) Policies and Incentives

Public Access EVSE Grants: Qualified EVSE must be available to the public at least 12 hours per day.

Multi-Unit Dwelling (MUD) EVSE Grants: available to private, public, or non-profit MUDs with ten or more residential units.

Workplace EVSE Grants: available to private, public, or non-profit workplaces with 15 or more employees on site.

Public EVSE Requirements: Owners and operators of public EVSE that require payment must provide payment options that allow access by the public. In addition, payment should not require users to pay a subscription fee or obtain a membership of any kind; however, required fees may be conditional on such memberships. Owners and operators can impose reasonable restrictions on EVSE use, such as limiting access to visitors of the business. In addition, owners and operators of public EVSE must provide the location, hours of operation, payment, and characteristics of each EVSE to the U.S. Department of Energy's Alternative Fuels Data Center.

EVSE Building Standards: The Massachusetts State Board of Building Regulations and Standards and the Massachusetts Department of Energy Resources will develop building and electric code requirements for residential and appropriate commercial buildings for EVSE.

Public Utility Definition: An entity that owns, operates, leases, or controls EVSE is not defined as a public utility.

Nevada

EV Policies and Incentives

AFV and Infrastructure Grants Authorization: The Nevada Office of Energy will establish the Nevada Clean Energy Fund to fund qualified clean energy projects, including any program, technology, product, or service that supports the deployment of AFVs and related infrastructure.

Authorization for HOV Lane Exemption: The NDOT, in consultation with the Federal Highway Administration and U.S. EPA, may establish a program allowing federally certified low emission, energy-efficient, and alternative fuel vehicles to operate in HOV lanes regardless of the number of passengers.

AFV Acquisition Requirement: Fleets containing 50 or more vehicles that are owned, leased, or operated by the state, a state agency, or a political subdivision of the state in a county with a population of 100,000 or more must acquire AFVs or U.S. EPA certified Ultra Low Emission Vehicles (ULEVs). Covered fleets are required to purchase either AFVs or certified ULEVs for 20% of new vehicles obtained. A fleet may meet the acquisition requirements by converting existing or newly acquired vehicles to operate on alternative fuels. An AFV acquired in compliance with this mandate must operate solely on the alternative fuel except when operating in an area where the appropriate alternative fuel is unavailable. Fleets with buses or heavy-duty vehicles are included.

SB 19-299: allows utilities to provide an incentive of 75% of the cost for school districts to develop charging infrastructure or purchase electric school buses.

EV Supply Equipment (EVSE) Policies and Incentives

EVSE Demonstration Program Requirements: The Electric Vehicle Infrastructure Demonstration Program requires Nevada utilities to promote and incentivize the deployment of EVSE. Utilities must submit an annual plan for implementing the Program in their service areas to the PUCN. Plans may include, but are not limited to, the following measures:

- payment of incentives to customers that install EVSE;
- time-of-use rates for electricity used to charge plug-in electric vehicles;
- EVSE education and awareness programs for customers; and
- technical assistance programs for government fleets and private organizations.

Utilities may request to recover the costs associated with carrying out the program, including customer incentives, by filing an application with the PUCN.

The Nevada Electric Highway initiative, a partnership created between the state and NV Energy in 2015, seeks to build a complete electric highway system along the I-95 corridor by 2020. 15% of the Nevada's $25 million allocation from the VW settlement agreement will be used to support electric highway projects.

New Jersey

EV Policies and Incentives

ZEV Tax Exemption: does not apply to partial ZEVs, including hybrid electric vehicles.

High Occupancy Vehicle (HOV) Lane Exemption

PEV Toll Discount Program

Low Emission or Alternative Fuel Bus Acquisition Requirement: All buses purchased by the New Jersey Transit Corporation must be: 1) equipped with improved pollution controls that reduce particulate emissions; or 2) powered by a fuel other than conventional diesel.

EV Supply Equipment (EVSE) Policies and Incentives

EVSE Grants: offered on a first-come, first-served basis for the cost of installation of eligible EVSE at workplaces, government and educational facilities, non-profits, parking facilities, and multi-unit dwellings.

State Interagency EV Partnership: Announced June 3, 2019, will be co-led by the BPU, DEP, and the EDA to develop and implement a statewide charging deployment initiative.

New Mexico

EV Policies and Incentives

Alternative Fuel and Advanced Vehicle System Manufacturing Incentive: The Alternative Energy Product Manufacturers Tax Credit provides credit against combined reporting taxes (gross receipts, compensating, and withholding) for qualified manufacturers of alternative energy products, including hydrogen and fuel cell vehicle systems, and electric and hybrid electric vehicles.

AFV Loans: available to state agencies, political subdivisions, and educational institutions for AFV acquisitions. Funds must be used for the purchase of vehicles that operate on natural gas, propane, electricity, or hydrogen.

Government fleets may finance alternative fuel vehicles or related infrastructure through guaranteed utility savings contracts where vehicle operational and fuel cost savings pay for the capital investment.

AFV and HEV Acquisition Requirements: A minimum of 75% of state government and educational institution fleet light-duty vehicles purchased must be HEVs, bi-fuel, or dedicated AFVs.

The New Mexico General Services Department (GSD) launched plans to electrify state vehicles, devoting $2.5 million to public fleet electrification, $1.2 million of which will be used for solar-powered charging stations in Santa Fe. In a statement, Governor Grisham noted she would like to see 20% of the state fleet electrified.

EV Supply Equipment (EVSE) Policies and Incentives

Public Utility Definition: An entity that is not a regulated utility that resells natural gas or electricity as motor fuel is not defined as a public utility.

New York

EV Policies and Incentives

PEV Rebate Program

Heavy-Duty Alternative Fuel and Advanced Vehicle Purchase Vouchers

ZEV and Fueling Infrastructure Rebates for Municipalities: available to cities, towns, villages, counties, and New York City boroughs.

Workplace EVSE and PEV Incentives: NYSERDA is offering employers in the greater New York City region an $8,000 rebate per dual-connector EVSE installed. Employees of organizations that receive the rebate are eligible for a $500 rebate toward the purchase or lease of a qualified PEV.

HOV Lane Exemption

PEV Toll Discount Program

HEV Taxicabs: By February 3, 2019, the New York City Taxi and Limousine Commission must approve one or more HEV models for immediate use as a taxicab by medallion owners.

EV Supply Equipment (EVSE) Policies and Incentives

EVSE Rebate: available to public and private entities for installations at public parking facilities, workplaces, and multi-unit dwellings.

Alternative Fueling Infrastructure Tax Credit:

PEV and Charging Infrastructure Support: The New York Power Authority's EVolve NY program has allocated up to $250 million to support PEVs and address charging infrastructure gaps throughout the state.

PEV Charging Tariff: Each investor-owned utility selling electricity was required to file a tariff with the NYPSC by April 1, 2018, to allow a customer to purchase electricity solely for the purpose of charging a PEV. The utility must make the tariff available to customers within 60 days of PSC approval.

Electric Corporation Definition: PEV charging stations are not defined as electric plants and owners and operators of charging stations are not defined as electric corporations. The PSC does not have jurisdiction over publicly available PEV charging stations, the owners and operators of the stations, or the transactions between the owners and operators of the stations, as long as the owners and operators do not fall within the definition of an electric corporation.

Governor Andrew M. Cuomo announced in February 2019 that New York is making up to $31.6 million available to ramp-up the expansion of electric vehicle fast charging stations. The plan was approved by the NYPSC and will leverage existing NYSERDA and NYPA funds.

Oregon

EV Policies and Incentives

Support for PEV Adoption: In order to support the state goal of at least 50,000 PEVs registered and operating in Oregon by 2020, the ZEV Working Group will develop goals and progress metrics for PEV adoption. The Working Group will aim to remove barriers to PEVs and PEV charging stations, and establish a website to share information about their efforts with the public.

PEV Rebate: available to residents, businesses, non-profit organizations, and government agencies.

Establishment of Recognition Programs for PEV Adoption: The ODOE must design and establish Governor's Awards for automobile dealerships to encourage sales of PEVs. ODOE must also design and establish Governor's Awards for businesses and organizations that support PEV adoption through installing charging infrastructure and using PEVs in their fleets.

Support for Zero-Emission Buses: ODOE, with ODOT, the PUC, the DEQ, and the Department of Education, must develop tools and provide assistance to school districts and transit agencies about using zero-emission bus options.

AFV Acquisition, Fuel Use, and Emissions Reductions Requirements: All state agencies and transit districts must purchase AFVs and use alternative fuels to operate those vehicles to the maximum extent possible, except in regions where it is not economically or logistically possible to fuel an AFV. DAS and ODO) must improve the PEV bulk procurement process to reduce costs for state agency PEV purchases. DAS must develop a “LEV First" policy to encourage state employees to use PEVs or other LEVs in the state fleet. DAS and ODOE must also develop a tool to calculate the long-term return on investment and life-cycle costs of PEVs to inform agencies of potential cost savings. In addition, DAS must inform and support legislative changes that enable increased charging infrastructure and state agency PEV purchases.

EV Supply Equipment (EVSE) Policies and Incentives

Mandatory EVSE Building Standards: The Oregon Department of Business and Consumer Services, Building Code Division, must amend the state building code to require that all newly constructed residential and commercial building parking structures can support the installation of at least one level 2 EVSE by October 1, 2022.

State Agency EVSE Installation: State agencies may install publicly-accessible EVSE on their premises or contract with a vendor to do so. The Oregon Department of Administrative Services (DAS) will establish criteria to determine the appropriate number of locations for EVSE at each agency. DAS must add PEV charging capacity for employee and public visitor parking lots, develop contracts to procure and install charging infrastructure, and incorporate PEV charging as a tenant improvement for state-leased buildings.

Electricity Provider and PEV Charging Rate Regulations: Regulated electric utility tariffs must explicitly permit customers to resell electricity for use as a motor fuel, as long as the entity is not considered a public utility as defined in Oregon Revised Statutes 757.005 and does not provide any utility service. Additionally, each regulated electric utility must provide customers with a choice of flat rate or time of use electricity rates specific to PEV owners. Finally, an investor-owned utility can own and operate PEV charging equipment using its own funds or petition the OPUC for rate recovery.

Rented Commercial Property EVSE Installations: The tenant of a commercial space may submit an application to install EVSE for the use of the tenant, employees of the tenant, and customers of the tenant. Unless the premises does not have at least one parking space per rental unit, the landlord must approve a completed application no more than 60 days after the tenant submits the application. In the absence of a different tenant-landlord agreement, the EVSE will be personal property of the tenant.

Planned Community and Condominium EVSE Installations: The owner of a lot in a planned community or unit in a condominium may submit an application to install EVSE for their personal use in a parking space subject to the exclusive use of the owner. The HOA must approve a complete application within 60 days. The owner is responsible for all costs associated with the EVSE installation and use, must disclose the existence of the EVSE and related responsibilities to a prospective buyer, and must ensure that the infrastructure meets insurance and safety requirements. EVSE installed under these regulations on or before June 4, 2015, is considered to be the personal property of the lot or unit owner with which the EVSE is associated, unless the owner and HOA have negotiated a different outcome.

Rhode Island

EV Policies and Incentives

AFV and ZEV Acquisition Requirements: at least 75% of state motor vehicle acquisitions must be AFVs, and the remaining 25% must be HEVs to the greatest extent possible. By 2025, 25% of state motor vehicle acquisitions must be ZEVs.

EV Supply Equipment (EVSE) Policies and Incentives

EVSE and PEV Rebates: The Charge Up! program provides rebates to state and municipal agencies for the purchase and installation of publicly accessible Level 2 or DC fast chargers. Agencies that install EVSE also qualify for up to $15,000 to support the purchase or lease of a new PEV acquired on or after July 1, 2016, as part of their public sector fleet.

Vermont

EV Policies and Incentives

PEV Incentive: provides financial incentives to low- and moderate-income residents for the purchase or lease of a new PEV.

Heavy-Duty Vehicle Emissions Reduction Grants: Through the Vermont Diesel Emissions Reduction Grants Program, the Vermont Department of Environmental Conservation provides funding to local, state and regional agencies or departments, businesses, institutions, and nonprofit organizations for projects focused on reducing emissions from diesel engines and vehicles. Qualifying heavy-duty vehicles include buses and Class 5-8 trucks. Projects eligible for funding include alternative fuel conversions and certified vehicle or equipment replacements.

HEV and PEV Acquisition Requirements: Effective July 1, 2019, the Vermont Department of Buildings and General Services must, to the extent possible, purchase or lease HEVs or PEVs for state use. At least 50% of the vehicles purchased or leased annually must be HEVs or PEVs. Beginning July 1, 2021, at least 75% of the vehicles purchased or leased annually must be HEVs or PEVs.

PEV Analysis: The PUC must evaluate PEVs and PEV charging in the state. The Commission must provide public notice, opportunity for submission of written comments, and one or more workshops on PEVs during the course of its evaluation.

EV Supply Equipment (EVSE) Policies and Incentives

EVSE Grants: available to governments, businesses, non-profit organizations, homeowner associations, electric utilities, and EVSE providers.

Alternative Fueling Infrastructure Incentive: The Vermont State Infrastructure Bank (SIB) offers loan assistance to municipalities, regional development corporations, political subdivisions of the state, and private companies working for the state to finance public electric vehicle charging and natural gas fueling stations.

Public Utility Definition: An entity that supplies electricity to the public exclusively to charge plug-in electric vehicles is not defined as a public utility and may charge for this electricity by the kilowatt-hour.

EVSE Fee Authorization: Effective July 1, 2019, any Vermont agency or department that owns or controls EVSE may establish and set user fees.

EVSE Code Reporting: On or before December 1, 2019, the Vermont Agency of Agriculture, Food and Markets (Agency) must submit a report to the legislature that provides an update on the National Institute of Standards and Technology's (NIST) progress toward adopting a code on EVSE and makes a recommendation for an annual licensing fee for EVSE available to the public. If NIST has not adopted a code on EVSE by December 1, 2020, the Agency must submit an additional report on or before that date which provides an update on NIST's progress toward adopting a code.

Washington

EV Policies and Incentives

Alternative Fuel Commercial Vehicle and Fueling Infrastructure Tax Credit: Businesses are eligible to receive tax credits for purchasing new alternative fuel commercial vehicles and installing alternative fueling infrastructure.

PEV and Fuel Cell Electric Vehicle (FCEV) Infrastructure and Battery Tax: Public lands used for installing, maintaining, and operating PEV infrastructure are exempt from leasehold excise taxes until January 1, 2020. Additionally, the state sales and use taxes do not apply through July 1, 2025 to PEV and FCEV batteries or fuel cells; labor and services for installing, repairing, altering, or improving PEV and FCEV

batteries or fuel cells and PEV and hydrogen fueling infrastructure; the sale of property used for PEV and hydrogen fueling infrastructure, and the sale of zero emission buses.

AFV and EV Retail Sales Tax Exemption

PEV Promotion and Infrastructure Development: Any regional transportation planning organization containing a county with a population greater than one million must collaborate with state and local governments to promote PEV use, invest in PEV charging infrastructure, and seek federal or private funding for these efforts.

AFV Car Share Pilot Program: WSDOT will develop a pilot program to provide AFV use opportunities to underserved and low-income communities and to those without easy access to transportation corridors.

AFV Technical Assistance and Education Program: The Washington State University Energy Program will establish and administer a technical assistance and education program on the use of AFVs for public agencies, including state and local governments.

EV and FCEV Low Income Opportunity Study: The Washington State Department of Commerce must conduct a study to identify opportunities to reduce barriers to EV and FCEV adoption by lower income residents through the use of vehicle and infrastructure financing assistance.

Alternative Fuel Use Requirement: All state agencies must, to the extent practicable, use 100% biofuels or electricity to operate all publicly owned vehicles. Agencies must prioritize EVs when leasing or purchasing new vehicles, and all trips that may feasibly use EVs must employ them.

EV Supply Equipment (EVSE) Policies and Incentives

Alternative Fueling Infrastructure Funding Program: WSDOT has developed a pilot funding program to strengthen and expand the West Coast Electric Highway network by deploying DC fast charging infrastructure along highway corridors in Washington.

Utility EVSE ROI Incentive: Utilities may petition the UTC for a rate of return on EVSE installed for the benefit of ratepayers through 2030.

Green Transportation Grant Program: WSDOT will establish a grant program to fund projects including fleet electrification, modification or replacement of facilities to facilitate fleet electrification and hydrogen fueling, upgrades to electrical transmission and distribution systems, and construction of charging and fueling infrastructure. In order to receive funding for a project, a transit authority must provide matching funding that is at least equal to 20% of the total cost of the project.

PEV Charging Regulation Exemption: The UTC may not regulate the rates, services, or facilities of an entity that offers charging facilities to the public for hire. The exemption does not apply if the entity is otherwise subject to UTC jurisdiction as an electrical company, or if an entity's battery charging facilities and services are subsidized by any regulated service. A utility may offer charging facilities as a regulated service, subject to UTC approval.

PEV Charging Infrastructure Availability: Publicly and privately owned PEVs may charge at state office locations if the vehicles are used for state business, conducting business with the state, or as commuter vehicles. Additionally, contingent upon funding, the state must install electrical outlets suitable for charging PEVs in each of the state's fleet parking and maintenance facilities as well as every state-operated highway rest stop.

Local Government PEV Infrastructure Requirements: Jurisdictions must develop regulations to allow the use of PEV infrastructure in all areas except critical areas or areas zoned for residential or resource use.

EVSE and Battery Exchange Station Regulations: State and local governments may lease land for installing, maintaining, and operating EVSE or electric vehicle battery exchange stations for up to 50 years for at least $1 per year. Additionally, the installation of battery charging and exchange stations is categorically exempt from the Washington Environmental Policy Act.

HB 19-1512: Allows municipal utilities to adopt transportation electrification plans. Regulated utilities may adopt plans that provide EV charging equipment incentives and support for other transportation electrification programs. Utility Electric Transportation Plan Authorization: The governing authority of a utility or a regulated electric utility, with the approval of the UTC, may adopt an electric transportation plan that proves that utility outreach and investment in the electrification of transportation infrastructure does not increase net costs to ratepayers in excess of 0.25%. The governing authority or the UTC may consider items such as the impact of electrification on the utility's load, demand response and load management opportunities, system reliability and distribution system efficiencies, and interoperability concerns. Upon making this determination, electric utilities may offer incentive programs for customers.

From: Cummins,Patrick on behalf of Cummins,Patrick
Sent: Wednesday, July 10, 2019 9:55 AM EDT
To: Michael Northrop ; jk2128 <jk2128 >; Vicki Arroyo ; Deborah Burke ; jcorvidae <jcorvidae cfrisch
Subject: FW: Rhodium - Taking Stock 2019
Attachment(s): "RHG_USCS_Taking_Stock2019.pdf"

From: Whitney Herndon
Sent: Wednesday, July 10, 2019 7:41 AM
To: Cummins,Patrick

Patrick – sorry for the delay on this, I took a few days off for the holiday! We decided to release Taking Stock to the public early and you can now find it here: https://rhg.com/research/taking-stock-2019/

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Taking Stock 2019

For the past five years, Rhodium has provided an independent annual assessment of US greenhouse gas (GHG) emissions and progress towards achieving the country's climate goals. Given the current state and federal policy landscape and range of potential energy market dynamics on the horizon, we find that the US is on track to reduce emissions 13% to 16% below 2005 levels by 2020. This puts the US potentially out of reach of its Copenhagen Accord target of a 17% reduction by 2020, with little room for policy to affect outcomes in the next 18 months.[1] Looking ahead to 2025, the US is on track to achieve reductions anywhere from 12% to 19% below 2005 levels absent major policy changes—a far cry from its Paris Agreement pledge to reduce emissions 26% to 28%. Taking into account additional uncertainty in the direction and pace of US economic growth, we project 2025 emission reductions as small as 11% below 2005 levels, or as great as 21%.

What's Changed Since Last Year

In this year's edition of Taking Stock, we unpack the trends driving US emissions in the coming decade by providing a more nuanced look at how changing energy market dynamics affect various sectors of the US. On the policy front, we assess how the Trump administration's ongoing push to roll back federal regulations that limit GHG emissions is shaping the trajectory. We account for potential U.S. participation in the Kigali Amendment to the Montreal Protocol to phasedown hydrofluorocarbons (HFCs) and Obama-era methane standards for oil and gas production, both in limbo.

Despite the lack of forward momentum at the federal level, the last year has brought a wide range of new mid- and long-term climate goals from states, companies, and others looking to fill the gap. However, much of the work to implement these ambitions remains to be done. In order to assess progress, we incorporate only those state-level policies that contain clear, feasible milestones and real compliance obligations.

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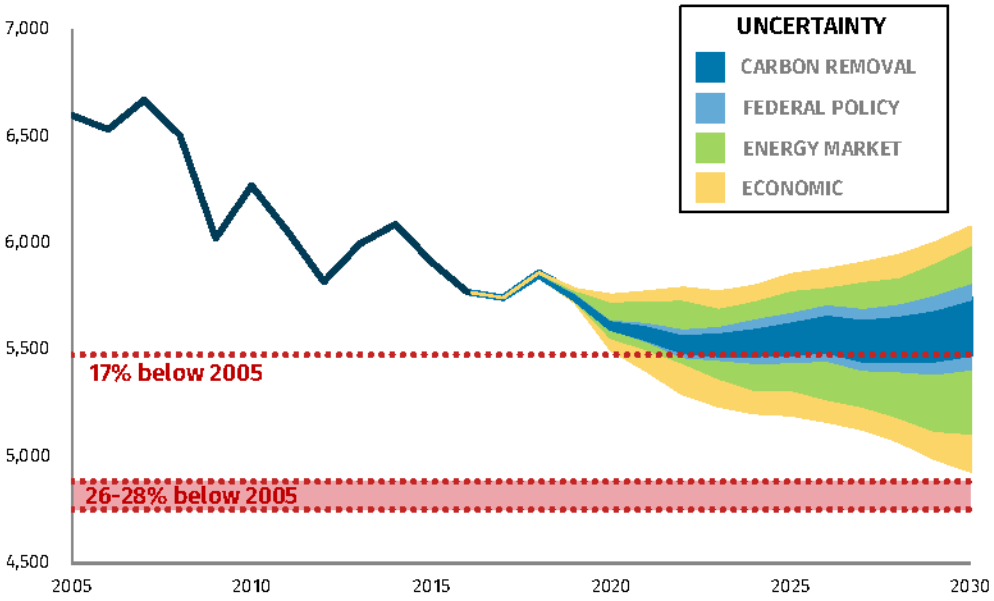
[1] The official US target (here) is "in the range of 17%, in conformity with anticipated U.S. energy and climate legislation, recognizing that the final target will be reported to the Secretariat in light of enacted legislation."

FIGURE 1
US greenhouse gas emissions under current federal and state policy
Net emissions (million metric tons of CO_2e)



Source: Rhodium US Climate Service. Carbon Removal refers to emissions and removals from land use, land use change and forestry as well as carbon capture and sequestration.

Unpacking the Biggest Trends

Power sector emissions continue to decline through the 2020s, as coal is pushed out by increasingly competitive natural gas and renewables, but natural gas over time becomes a threat to zero-emitting power sources.

Low natural gas prices and falling renewable costs have the potential to shrink the coal fleet by almost a third of its current size by 2025. Renewable deployment continues apace thanks primarily to steadily declining costs, along with tax credit support and state renewable policies through 2025. Just how fast will depend largely on renewables' relative competitiveness with natural gas. In a best-case scenario for emissions, high natural gas prices—around $4 per one million British Thermal Units (MmBTU)—combined with steep declines in the cost of renewables would, by 2025, result in 50% more wind capacity than today and more than four times current solar deployment. If natural gas prices persist near current levels ($2.65 per MMBtu or lower) through the mid-2020s, they pose a serious threat to climate goals over time. With cheap natural gas and only moderate reductions in renewable costs, solar capacity grows more slowly, and wind deployment rises only 20% though 2025 from today's levels. Sustained low natural gas prices could also spell trouble for the country's nuclear fleet absent significant changes in federal or state policy. In the worst-case scenario for nuclear power, 45% of the current fleet could retire by 2025. This represents nearly 12% of the zero-carbon capacity on the nation's power grid today.

Transportation emissions decline modestly through 2025—even if the cost of owning an electric vehicle falls dramatically—as consumers continue to favor larger, higher-emitting vehicles.

Due to sustained low oil prices over the last half decade, Americans are driving more and buying larger vehicles. This trend is expected to continue through the next decade if oil prices remain below $55 per barrel. Cheaper and more plentiful electric vehicle (EV) options could counterbalance this effect, but the impact is minor. Even with the most optimistic estimates of EV battery cost declines,

in 2025 these vehicles would represent just 16% of all light-duty sales and transportation emissions would fall by only 12% below 2005 levels. More moderate EV cost reductions lead to EVs capturing only 6% of total sales in 2025, putting transportation emission reductions at the low end of our potential range at just 8% below 2005 levels.

Cheap, plentiful natural gas may also be a liability for emissions from industry and buildings.

Although industrial emissions have fallen since 2005, that trend will reverse as low-cost natural gas bolsters more activity in energy-intensive industries, including steel, cement, chemicals, and refineries. Industrial emissions climb highest when natural gas is cheap, rising 7% from 2018 levels by 2025. Conversely, if natural gas gets more expensive, industrial emissions grow by only 1% in the same timeframe. If the natural gas boom in the US continues, and the Trump administration is successful in walking back Obama-era regulation, the oil and gas sector could see a nearly 30% increase in methane emissions from today's levels by 2025.

In 2025, emissions in the buildings sector fall 3% to 8% from 2005 levels, depending primarily on natural gas and oil prices. Emission reductions level off by the mid-2020s.

There is a narrow and shrinking window for state and federal policy to play a role by 2025.

Since our last Taking Stock report, the Trump administration has continued to move forward with its agenda to dismantle Obama-era climate regulations, with federal Corporate Average Fuel Economy (CAFE) standards the latest to succumb. Two major decisions are still in limbo involving non-carbon dioxide (CO_2) gases: Obama-era efforts to reduce methane from oil and gas production; and plans to decrease hydrofluorocarbon (HFCs) emissions through both federal standards and participation in the Kigali Amendment. If these remaining policies are not implemented, overall US emissions in 2025 could be 58-78 million metric tons (MMt) of carbon dioxide equivalent (CO_2e) higher than today, or about 1.0% to 1.4% of net GHG emissions in that year. This uptick would take place despite current efforts by states to fill the gap.

The 2018 elections swept climate-progressive leaders into a handful of state legislatures and governors' offices across the US. Many of these elected officials have announced plans to dramatically expand clean energy, adopted new climate policies, and established long-term emission reduction goals. These developments could make a significant dent in emissions in the future. However, the majority of these announcements will not meaningfully impact emissions before 2025, thus doing little to help the US meet its 2020 and 2025 climate commitments.

TABLE 1
US GHG emissions under carbon removal, policy and energy market uncertainty
Million metric tons of CO_2e

Gas	2005	2017	2020	2025	2030
Carbon Dioxide	6,131	5,271	5,179 to 5,315	4,965 to 5,184	4,748 to 5,216
Methane	691	656	677 to 662	647 to 698	629 to 683
Nitrous Oxide	376	360	362	364	362 to 368
HFCs	122	158	171 to 179	163 to 204	133 to 228
Other F-Gases	19	11	6	5	5
Gross GHG emissions	7,339	6,457	6,396 to 6,525	6,145 to 6,456	5,877 to 6,499
Carbon Removal*	-740	-714	-837 to -797	-825 to -674	-768 to -508
Net GHG emissions	6,599	5,743	5,559 to 5,728	5,319 to 5,782	5,109 to 5,991
Change from 2005	*0%*	*-13%*	*-13% to -16%*	*-12% to -19%*	*-9% to -23%*

Source: Rhodium US Climate Service. Columns represents the minimum and maximum annual net US emissions given likely energy market, policy and carbon removal outcomes.
*Includes Land Use Land Use Change and Forestry (LULUCF) and carbon capture and sequestration.

Explore the data

Rhodium's annual Taking Stock report provides objective, up-to-date analysis of legislative and regulatory action at the US federal and state level in a framework consistent with accounting methodologies of the US government and United Nations Framework Convention on Climate Change. This report offers an overview of our national results for 2019. For more granular detail on our results,
Rhodium's US Climate Service provides direct access to all emissions data from Taking Stock as well as 50-state emissions and energy data (broken down by sector and by gas). US Climate Service subscriptions include interactive data visualizations of a wider range of energy market and policy
scenarios, as well as research coverage of key developments in US energy and climate policy.

For more information about our approach and methods, see the Taking Stock 2019 Technical Appendix.

Disclosure Appendix

From: Cummins,Patrick on behalf of Cummins,Patrick
Sent: Tuesday, July 02, 2019 3:17 PM EDT
To: mnorthrop
Subject: Fwd: memo
Attachment(s): "Background Note for July 17-18_logos.docx","ATT00001.htm"

From: "Hoffer,Trina"
Date: July 2, 2019 at 12:57:37 PM MDT
To: "Cummins,Patrick"
Subject: RE: memo - feel free to mess with it....

Added logos and centered the charts.

From: Cummins,Patrick <
Sent: Tuesday, July 2, 2019 12:33 PM
To: Hoffer,Trina
Subject: memo - feel free to mess with it....

Patrick Cummins
Senior Policy Advisor
Colorado State University
Center for the New Energy Economy

MEMORANDUM

To: **Pocantico Participants**
Subject: **Accelerating State Action on Climate Change**
July 17-18, 2019

The 2018 elections brought forward a new group of state leaders – governors, legislators, policy makers, and agency officials – committed to reducing greenhouse gas emissions in their states. This new group of state leaders joins those of you who have been leading the charge for a decade or more. We are thrilled that so many of you are able to join us for this event where we will discuss ways to accelerate state action and ensure that the progress being made by U.S. leadership states is recognized and understood across the U.S. and at a global level.

While our time together at Pocantico is short, we hope to address each of the following topics:

- What are the leading edge clean energy policies and GHG reduction programs being enacted and implemented by U.S. states? We will focus especially on electricity, buildings and transportation, but hope we can also touch on other gases (methane and HFC's), land use, and carbon pricing.

- How can this group of state leaders support each other and also work together to bring other states into the fold? Can states do more to drive bipartisan approaches to climate actions?

- Can states working together accelerate market creation for cleaner vehicles, non-gas solutions, and appliances?

- What steps can states be taking over the next 18 months to show the way forward for a federal administration that supports clean energy and climate action?

- How can we ensure that leadership state voices (alongside other subnational leaders) offer encouragement to multilateral climate negotiations in the run-up to COP 26 in December 2020?

With these questions in mind, we will kick things off on Wednesday night with a discussion of the state of play in the international climate negotiations. Dr. Andrew Steer, President and CEO of the World Resources Institute will join us for that conversation. We want to understand where the U.S. needs to be in order to play a constructive role in international discussions.

This has bearing on what level of ambition states must aim for. Kathleen Frangione, Chief Policy Advisor to New Jersey Governor, Phil Murphy, will describe the ambitious Paris-aligned approach her state has taken since Governor Murphy took office last year, how it has been framed, and how it has gathered momentum. We then want each of the participating states to weigh in on how they are thinking about this. We want to get lessons, good ideas, and questions on the table to help frame our conversation on Thursday. A core concern is how to get the politics right in order to maintain forward momentum.

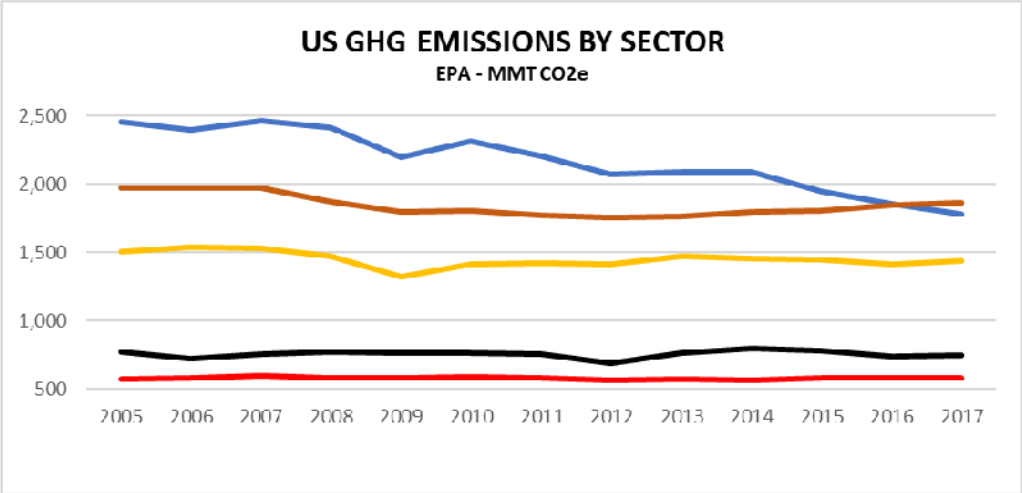
Thursday morning we will start with a rapid fire review of the high ambition policies states are implementing to get to net zero carbon. Rather than reviewing the full suite of leading edge policies in detail, we plan to focus in on a few key policy challenges.

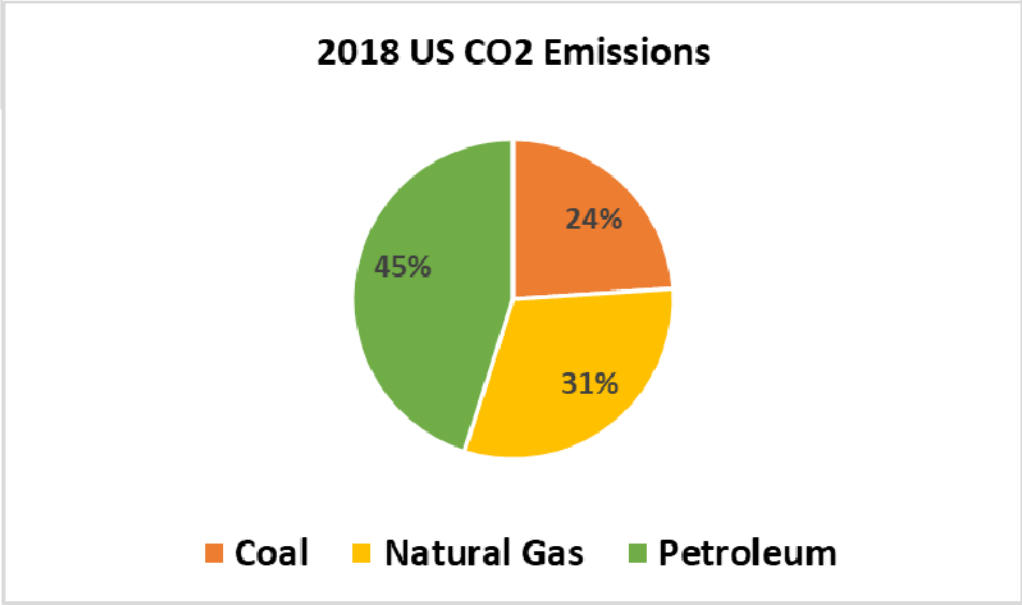
Prior to the meeting, we will send two additional pieces of background material. One laying out the specific policies each state in the room has enacted and another that describes leading edge policies being enacted even more broadly in the world sector-by-sector.

In the afternoon, we will tackle several questions, including how best to encourage other states to enact leadership policies, how states can work together with cities and business, how to use state action to lay the groundwork for ambitious federal policy as soon as 2021, and how to make state, and other subnational, voices present during a string of important upcoming international climate meetings in 2019 and 2020.

Finally, below is some context to help us get the policy conversation started on Thursday morning.

Transportation. We will begin with a conversation on how to meet the challenge posed by emissions from the transportation sector. As we all know by now, the transportation sector has surpassed the electricity sector as the largest source of GHG emissions in the US. In 2018, emissions from the combustion of petroleum products were almost twice that of coal. Moreover, while emissions from coal continue to decline, emissions from the transportation sector have increased each year since 2012.





Vehicle Standards. Front and center in the discussion of how to reduce emissions from the transportation sector is the pending rollback of federal standards and the potential revocation of California's waiver, which would impact many of your states. We are fortunate that Mary Nichols will be with us to lead this discussion and help all the states in attendance figure out how you can work together to protect the progress you've made in this area.

Electric Vehicles. While each state in the room has some policies and programs in place to incentivize electric vehicle purchases and charging infrastructure, some states are going farther. A group of Northeast states is evaluating a market-based approach to reducing emissions from the transportation sector (Transportation Climate Initiative), while California and Oregon both have a low-carbon fuel standard. We will ask participating states to share their ideas for additional policies and programs to drive down emissions from the transportation sector.

Electricity. To date, states have had the greatest success in reducing emissions from the electric power sector. This is an area where states have a number of effective policy options, like renewable portfolio standards/clean energy standards, and you have used these policies to achieve substantial CO2 emissions reductions from the electric power sector over the last 10 years (-30% nationwide). Building on this success, you are moving to achieve even more progress with many states and utilities setting aggressive near-term targets for renewable energy, along with the long-term goal of 100% clean energy. What challenges are emerging and how can states successfully implement these bold electricity goals?

Natural Gas. One of the primary challenges to deep de-carbonization of the electric power sector is the reliance on natural gas as the replacement for coal. On the Eastern grid, coal generation has fallen by almost half over the last ten years, but 75% of that has been replaced by natural gas generation. We will review the current landscape of state policies for clean and renewable electricity, share ideas for next steps, and then discuss how you can work together – and with other states/regions – to make continued progress on the transition to a clean electric power sector.

Buildings. Residential and commercial buildings and industry are source categories where emissions have plateaued as square footage has increased, but where steep reductions have not yet begun. We will discuss what states are currently doing to transition buildings to clean energy, and then identify what options exist for states to expand their policies and programs in areas like net zero building codes, mandatory retrofits, and electrification.

Industrial Sector. Reducing emissions from the industrial sector poses a set of challenges similar to those associated with buildings, including continued reliance on natural gas as a primary energy source.

Methane and HFC's. Some states are also dealing with very significant methane emissions problems associated with oil and gas production, and from industrial livestock operations. States also have a chance to reduce methane leaks from aging residential heating infrastructure. Some states have also taken action on eliminating HFC's, and since methane and HFC's are super greenhouse gases, progress in the near-term can be extremely meaningful.

Land use is an additional category we hope to make some time for in the discussion if possible. Pacific states and Climate Alliance states have taken some actions here that we can learn from.

We will also check in on **carbon pricing** programs. The US Chamber of Commerce and the oil sector have said they are open to carbon pricing. Recent state attempts to enact carbon pricing in Washington, Oregon, and Virginia offer lessons we should consider as well.

From: Jill Adams <j
Sent: Thursday, July 11, 2019 11:09 AM EDT
To: Cummins,Patrick ; Michael Northrop
CC: Regina Creegan
Subject: Guest List

Hi Patrick & Michael,

Please review the guest list and let me know if there are any changes, corrections or concerns.

https://rockefellerbrothersfund.box.com/s/s4y0pps99ttbsq8ijrfr2n8aey2y9p1a
(open link)

Best,
Jill

Jill Adams, Conference and Office Services Coordinator
The Pocantico Center

www.rbf.org

Rockefeller Brothers Fund | Philanthropy for an Interdependent World

From: Cummins,Patrick on behalf of Cummins,Patrick
Sent: Saturday, June 29, 2019 12:53 PM EDT
To: mnorthrop
Subject: list of attendees and emails
Attachment(s): "List of Attendees.pdf","Copy of 6-25_registrant_details_report (3).xlsx"

Michael – list of attendees attached

You should be able to just copy and paste these emails into the TO and CC boxes

TO:
kate.gordon ; mary.nichols ; zach.pierce ; will.toor ; katie.dykes
leo.r.asuncion ; Hannah.Pingree ben.grumbles kathleen.theoharides
dbobzien kathleen.frangione sandra.ely sarah.propst
dale.bryk nik.blosser janet.coit ; peter.walke chris.davis
reed.schuler ; mnorthrop dburke ; Bill.Ritter Patrick.Cummins
jk2128 ; jcorvidae cfrisch katie.mccormack

CC:
shelby.mcmichael ; shannon.stewart nancey.steinheimer Carmen.Colon
shanell.k.feliciano ; kathy.bishop ; victoria.s.grimes pamalloy
Barbara.Panebianco ; Minerva.Cano jennifer.j.andrew v; Suzanne.Amerault
Wendy.Hartzell

Please let me know if you need anything else on this. All the best, PC

Patrick Cummins
Senior Policy Advisor
Colorado State University
Center for the New Energy Economy

	A	B	C	D	E
1	LIST OF ATTENDEES - ACCELERATING STATE ACTION ON CLIMATE CHANGE - JULY 17-18, 2019 AT THE POCANTICO CENTE				
2	First Name:	Last Name:	Email Address:	Assistant /cc	Job Title:
3	Kate	Gordon			Director
4	Mary	Nichols			Chair
5	Zach	Pierce			Senior Policy Advisor
6	Will	Toor			Executive Director
7	Katie	Dykes			Commissioner
8	Leo	Asuncion			Commissioner
9	Hannah	Pingree			Director
10	Ben	Grumbles			Secretary
11	Kathleen	Theoharides			Secretary
12	David	Bobzien			Director
13	Bradley	Crowell			Director
14	Kathleen	Frangione			Chief Policy Advisor
15	Sandra	Ely			Director
16	Sarah	Cottrell Propst			Cabinet Secretary
17	Dale	Bryk			Dep. Sec. for Energy & Environment
18	Nik	Blosser			Chief of Staff
19	Janet	Coit			Director
20	Peter	Walke			Deputy Secretary
21	Chris	Davis			Senior Advisor
22	Reed	Schuler			Senior Advisor
23	Michael	Northrop			Program Director
24	Deborah	Burke			Program Associate
25	Bill	Ritter, Jr.			Director
26	Patrick	Cummins			Senior Policy Advisor
27	Joe	Kruger			Director for Research & Strategy
28	Jacob	Corvidae			Principal
29	Carla	Frisch			Principal
30	Katie	McCormack			Program Director, West Policy

	F
1	R
2	Organization:
3	California Governor's Office of Planning and Research
4	California Air Resources Board
5	Colorado Governor's Office
6	Colorado Energy Office
7	CT Department of Energy and Environmental Protection
8	Hawaii Public Utilities Commisson
9	Maine Office of Innovation, and the Future
10	Maryland Department of the Environment
11	Mass. Executive Office of Energy & Environmental Affairs
12	Nevada Governor's Office of Energy
13	Nevada Department of Conservation and Natural Resources
14	Office of the Governor, NJ
15	New Mexico Environmental Protection Division
16	New Mexico Energy, Minerals, and Natural Resources Dept.
17	Office of the Governor, NY
18	Office of the Governor, OR
19	Rhode Island Department of Environmental Management
20	Vermont Agency of Natural Resources
21	Office of WA Governor Jay Inslee
22	Office of WA Governor Jay Inslee
23	Rockefeller Brothers Fund
24	Rockefeller Brothers Fund
25	Center for the New Energy Economy
26	Center for the New Energy Economy
27	Georgetown Climate Center
28	Rocky Mountain Institute
29	Rocky Mountain Institute
30	Energy Foundation

#D

LIST OF ATTENDEES - ACCELERATING STATE ACTION ON CLIMATE CHANGE - JULY 17-18, 2019 AT THE POCANTICO CENTER

First Name:	Last Name:	Job Title:	Organization:
Kate	Gordon	Director	California Governor's Office of Planning and Research
Mary	Nichols	Chair	California Air Resources Board
Zach	Pierce	Senior Policy Advisor	Colorado Governor's Office
Will	Toor	Executive Director	Colorado Energy Office
Katie	Dykes	Commissioner	CT Department of Energy and Environmental Protection
Leo	Asuncion	Commissioner	Hawaii Public Utilities Commisson
Hannah	Pingree	Director	Maine Office of Innovation, and the Future
Ben	Grumbles	Secretary	Maryland Department of the Environment
Kathleen	Theoharides	Secretary	Mass. Executive Office of Energy & Environmental Affairs
David	Bobzien	Director	Nevada Governor's Office of Energy
Bradley	Crowell	Director	Nevada Department of Conservation and Natural Resources
Kathleen	Frangione	Chief Policy Advisor	Office of the Governor, NJ
Sandra	Ely	Director	New Mexico Environmental Protection Division
Sarah	Cottrell Propst	Cabinet Secretary	New Mexico Energy, Minerals, and Natural Resources Dept.
Dale	Bryk	Dep. Sec. for Energy & Environment	Office of the Governor, NY
Nik	Blosser	Chief of Staff	Office of the Governor, OR
Janet	Coit	Director	Rhode Island Department of Environmental Management
Peter	Walke	Deputy Secretary	Vermont Agency of Natural Resources
Chris	Davis	Senior Advisor	Office of WA Governor Jay Inslee
Reed	Schuler	Senior Advisor	Office of WA Governor Jay Inslee
Michael	Northrop	Program Director	Rockefeller Brothers Fund
Deborah	Burke	Program Associate	Rockefeller Brothers Fund
Bill	Ritter, Jr.	Director	Center for the New Energy Economy
Patrick	Cummins	Senior Policy Advisor	Center for the New Energy Economy
Joe	Kruger	Director for Research & Strategy	Georgetown Climate Center
Jacob	Corvidae	Principal	Rocky Mountain Institute
Carla	Frisch	Principal	Rocky Mountain Institute
Katie	McCormack	Program Director, West Policy	Energy Foundation

From: Cummins,Patrick on behalf of Cummins,Patrick
Sent: Monday, July 08, 2019 10:59 AM EDT
To: Michael Northrop ; leo.r.asuncion <leo.r.asuncion
Hannah.Pingree < >; dale.bryk <dale.bryk
chris.davis <chris.davis ; Deborah Burke ; jcorvidae
<jcorvidae ; cfrisch <cfrisch asteer <asteer
CC: shanell.k.feliciano <shanell.k.feliciano ; Minerva.Canc
<Minerva.Canc ; eda.lee <eda.lee ; Regina Creegan
Subject: Please Register: July 17-18

Resending this to those who have recently been invited and also to who have not yet registered:

So that we can confirm your attendance, and to provide our Pocantico hosts with some information for your stay, please click here to complete a short registration form.
http://events.constantcontact.com/register/event?llr=fji8qakab&oeidk=a07ege9eh81b217f8f4

State officials requiring travel support to attend this meeting can have Travel Leaders Corporate book and pay for their flight/train ticket. You may contact TLC at Georgetown@tlcorporate.com. When requesting travel from TLC, please copy Megan Burnett on the email.

Patrick Cummins
Senior Policy Advisor
Colorado State University
Center for the New Energy Economy

From: Ortiz, Melayna, NMENV
Sent: Tuesday, July 02, 2019 5:40 PM EDT
To: Cummins,Patrick
Subject: Pocantico July 17-18: Travel from LaGuardia Airport to Pocantico
Attachment(s): "image001.png"

Good Afternoon Mr. Cummins,

New Mexico Environment Department – Environmental Protection Division Director Sandra Ely has a confirmed arrival time to La Guardia Airport on **July 17, 2019 at 3:29 PM**. Please assist with arrangements for pickup and travel to the Pocantico Center. I believe Sarah Propst of the New Mexico Energy, Minerals and Natural Resources Department will also arrive at the La Guardia Airport about 3:00 PM, if this helps you to coordinate a shuttle or travel to the Center. Please let me know if you can assist with this request.

Kind regards,

Melayna Ortiz
Executive Secretary & Administrative Assistant
New Mexico Environment Department
1190 St. Francis Drive |Santa Fe, New Mexico 87505
| Fax: (505) 827-1628
Twitter: @NMEnvDep | #IamNMED
www.env.nm.gov

From: Cummins,Patrick on behalf of Cummins,Patrick
Sent: Wednesday, July 10, 2019 10:22 AM EDT
To: Regina Creegan ; Michael Northrop ; Deborah Burke
Subject: RE: 071719questionnaire
Attachment(s): "registrations.xlsx","list of attendees.xlsx"

Regina –

Here is the updated print out from our registration form. 3 people did not fill it out, but we expect them – they are just out on vacation this week (I added their names – highlighted) Not everyone filled in their travel and arrival/departure info, but many did. Still just one vegetarian and no other food issues.

The second version (list of attendees) is the one you can use for name tags and table tents. There are 30 altogether, but it is my understanding that two (Betsy Campbell and Andrew Steer) will only be with us for dinner on the first night. And one (Hannah Pingree) will arrive late on Wed.

Please let me know if you have any questions. Thank you! PC

Patrick Cummins
Senior Policy Advisor
Colorado State University
Center for the New Energy Economy

From: Regina Creegan
Sent: Tuesday, July 9, 2019 7:11 PM
To: Michael Northrop ; Deborah Burke ; Cummins,Patrick

Subject: Re: 071719questionnaire

Thank you Michael, I appreciate it.
Patrick, I will look at the sheet you sent a bit more closely tomorrow. Have you received any more information, if so please forward. Thanks.
Best,
Regina

From: Michael Northrop
Sent: Tuesday, July 9, 2019 8:34:10 PM
To: Regina Creegan; Deborah Burke; Cummins,Patrick
Cc: Michael Northrop
Subject: 071719questionnaire

Patrick, can you look at the attached? I filled it out but added notes for you in a few places.
Regina needs a total number of participants (count Betsy Campbell from the RBF who is coming to dinner)
Regina needs arrival info for everyone
We also want to know who besides Hannah wants to do the tour on Thursday at 4. I'll join Hannah if she is alone. A note to everyone to say a 4pm tour on Thursday is an option would be great. Regina requests we call it a tour of Kykuit, the Rockefeller Family home, not a tour of the Rockefeller Estate
Regina, let us know what else you need.
Regina, I apologize we have been a little less organized than we should have been. We have been wildly spoiled by Wilson Rickerson obviously.
Thank you!
Michael

	A	B	C	D	E
1	LIST OF ATTENDEES - ACCELERATING STATE ACTION ON CLIMATE CHANGE - JULY 17-18, 2019 AT THE POCANTICO CENTE				
2	First Name:	Last Name:	Email Address:		Job Title:
3	Leo	Asuncion			Commissioner
4	Nik	Blosser			Chief of Staff
5	David	Bobzien			Director
6	Dale	Bryk			Dep. Sec. for Energy & Environment
7	Deborah	Burke			Program Associate
8	Betsy	Campbell			Vice President for Programs
9	Janet	Coit			Director
10	Jacob	Corvidae			Principal
11	Sarah	Cottrell Propst			Cabinet Secretary
12	Bradley	Crowell			Director
13	Patrick	Cummins			Senior Policy Advisor
14	Chris	Davis			Senior Advisor
15	Katie	Dykes			Commissioner
16	Sandra	Ely			Director
17	Kathleen	Frangione			Chief Policy Advisor
18	Carla	Frisch			Principal
19	Kate	Gordon			Director
20	Ben	Grumbles			Secretary
21	Joe	Kruger			Director for Research & Strategy
22	Katie	McCormack			Program Director, West Policy
23	Mary	Nichols			Chair
24	Michael	Northrop			Program Director
25	Zach	Pierce			Senior Policy Advisor
26	Hannah	Pingree			Director
27	Bill	Ritter, Jr.			Director
28	Reed	Schuler			Senior Advisor
29	Andrew	Steer			President and CEO
30	Kathleen	Theoharides			Secretary
31	Will	Toor			Executive Director
32	Peter	Walke			Deputy Secretary

#D

	F
1	R
2	**Organization:**
3	Hawaii Public Utilities Commisson
4	Office of the Governor, Oregon
5	Nevada Governor's Office of Energy
6	Office of the Governor, New York
7	Rockefeller Brothers Fund
8	Rockefeller Brothers Fund
9	Rhode Island Department of Environmental Management
10	Rocky Mountain Institute
11	New Mexico Energy, Minerals, and Natural Resources Dept.
12	Nevada Department of Conservation and Natural Resources
13	Center for the New Energy Economy
14	Office of Washington Governor Jay Inslee
15	Connecticut Dept. of Energy & Environmental Protection
16	New Mexico Environmental Protection Division
17	Office of the Governor, New Jersey
18	Rocky Mountain Institute
19	California Governor's Office of Planning and Research
20	Maryland Department of the Environment
21	Georgetown Climate Center
22	Energy Foundation
23	California Air Resources Board
24	Rockefeller Brothers Fund
25	Colorado Governor's Office
26	Goveror's Office of Policy Innovation and the Future
27	Center for the New Energy Economy
28	Office of Washington Governor Jay Inslee
29	World Resources Institute
30	Massachusetts Exec. Office of Energy & Environmental Affairs
31	Colorado Energy Office
32	Vermont Agency of Natural Resources

#D

	A	B	C	D	E	F	G
1	First Name:	Last Name:	Email Address:	Organization:	Job Title:	Phone:	Mode of travel:
2	Leodoloff	Asuncion, Jr.		Hawaii Public Utilities Commission	Commissioner		Flight
3	Nik	Blosser		Office of the Governor	Chief of Staff		Flight
4	David	Bobzien		Nevada Governor's Office of Energy	Director		Flight
5	Dale	Bryk		New York State Executive Chamber	New York State Executiv		Train
6	Deborah	Burke		Rockefeller Brothers Fund	Sustainable Development P		Train
7	Betsy	Campbell		RBF	Vice President for Progra		
8	Janet	Coit		Rhode Island Department of Environme	Director	24	Driving
9	Jacob	Corvidae		RMI	Principal		
10	Sarah	Cottrell Propst		New Mexico Energy, Minerals & Natur	Cabinet Secretary		Flight
11	Bradley	Crowell		Nevada Department of Conservation an	Director		Flight
12	Patrick	Cummins		Center for the New Energy Economy	Senior Policy Advisor		Flight
13	Chris	Davis		Governor Jay Inslee	Senior Advisor		
14	Katherine	Dykes		Department of Energy and Environmen	Commissioner		
15	Sandra	Ely		New Mexico Environment Department	Director - Environmental		Flight
16	Kathleen	Frangione		Office of the Governor, NJ	Office of the Governor, NJ		Driving
17	Carla	Frisch		Rocky Mountain Institute	Rocky Mountain Institute		
18	Kate	Gordon		California Governor's Office of Plannin	Director		Flight
19	Ben	Grumbles		Maryland Department of the Environme	Maryland Department of t		Train
20	Joe	Kruger		Georgetown Climate Center	Director for Research and		Train
21	Katie	McCormack		Energy Foundation	Program Director, West Pc		Flight
22	Mary	Nichols		CA Air Resources Board	Chair		Flight
23	Michael	Northrop		Rockefeller Brothers Fund	Sustainable Development P		Driving
24	Zach	Pierce		Colorado Governor's Office	Senior Policy Advisor		Flight
25	Hannah	Pingree		Governor's Office of Policy Innovation	Director		Flight
26	Bill	Ritter, Jr.		Center for the New Energy Economy	Director		Flight
27	Reed	Schuler		Governor Jay Inslee	Senior Advisor		Flight
28	Andrew	Steer		World Resources Institute	President & CEO		Train
29	Kathleen	Theoharides		Executive Office of Energy and Enviro	Secretary		Driving
30	Will	Toor		Colorado Energy Office	Executive Director		
31	Peter	Walke		Vermont Agency of Natural Resources	Deputy Secretary		Driving

	H	I	J	K
1	Name of arriving airport and arrival time:	Name of departing airport and departure	Please note any dietary restrictions:	
2	LaGuardia Airport; 1:30 p.m.	LaGuardia Airport; 10:00 a.m.		
3	Newark, NJ @2:13pm	Newark, NJ 6:59pm	vegetarian	
4	JFK Wed 1:29pm	JFK Monday 6:53 (staying over for week	none	
5				
6	N/A	N/A	none	
7				
8	n/a (driving); arrival around 5PM	n/a (driving)	n/a	
9				
10	LGA 3pm	LGA 6:30pm		
11	TBD	TBD	n/a	
12	LGA 3pm	LGA 7:15 pm	none	
13				
14			None	
15		Santa Fe Regional Airport		
16	n/a	n/a	none	
17				
18	Newark Liberty International Airport, 2:56 PM	Newark Liberty International Airport, 9:0	N/A	
19		BWI		
20	NA	NA	NA	
21	White Plains, United3837 arrives (if Chicago co	White Plains, United 3836 to Chicago dep	None	
22	ITH; no arrival time as yet; will drive personal	JFK; no depart time as yet	None	
23	N/A	N/A	none	
24	LGA, 3 pm	LGA, 6:30 pm	n/a	
25	LGA, 7:30pm	LGA, 9pm	none	
26	LGA, 3 pm	LGA, 6:30 pm	N/A	
27	LGA, time TBD	LGA, time TBD		
28	TBC: Penn Station, then Tarrytown Station	TBC: Tarrytown Station	n/a	
29				
30				
31				

From: Cummins,Patrick on behalf of Cummins,Patrick
Sent: Wednesday, July 10, 2019 10:52 AM EDT
To: Michael Northrop ; Regina Creegan ; Deborah Burke
Subject: RE: 071719questionnaire

Please do take a close look at this as I don't want to be the decider of who's a VIP and if they should be in Coach Barn or at Kykuit. I'm just not familiar enough with all the people or the facility….we could also run down the list quickly on the phone

Patrick Cummins
Senior Policy Advisor
Colorado State University
Center for the New Energy Economy

From: Cummins,Patrick
Sent: Wednesday, July 10, 2019 8:46 AM
To: Michael Northrop ; Regina Creegan ; Deborah Burke
Subject: FW: 071719questionnaire

Michael – I think you answered all the questions. Regarding rankings and room assignments: Here are my thoughts, which you can certainly modify.

To the best of my knowledge, the hike up the hill will not be a problem for most.

But we should have the following stay in deluxe rooms in the Coach Barn:
Leo Asuncion
Mary Nichols

Per Michael, organizers to stay in Coach Barn, but don't need deluxe rooms:

Deborah	Burke
Jacob	Corvidae
Patrick	Cummins
Carla	Frisch
Joe	Kruger
Michael	Northrop
Bill	Ritter, Jr.

After that, it's pretty subjective who is a VIP and whether you want them in Coach Barn or at Kykuit. Here are my thoughts – I've added VIP or either next to the remaining names.

Nik	Blosser – vip
David	Bobzien – either
Dale	Bryk - either
Betsy	Campbell - VIP
Janet	Coit – either (Coach Barn for convenience)
Sarah	Cottrell Propst - either
Bradley	Crowell - either
Chris	Davis – either
Katie	Dykes – either (coach barn for convenience)
Sandra	Ely – either
Kathleen	Frangione - VIP
Carla	Frisch - either
Kate	Gordon - VIP
Ben	Grumbles - either
Katie	McCormack – either (coach barn for convenience)
Zach	Pierce - either
Hannah	Pingree – coach barn
Reed	Schuler - either
Andrew	Steer - VIP
Kathleen	Theoharides - either
Will	Toor - either
Peter	Walke - either

From: Michael Northrop
Sent: Tuesday, July 9, 2019 6:34 PM
To: Regina Creegan ; Deborah Burke >; Cummins,Patrick >
Cc: Michael Northrop
Subject: 071719questionnaire

Patrick, can you look at the attached? I filled it out but added notes for you in a few places.
Regina needs a total number of participants (count Betsy Campbell from the RBF who is coming to dinner)
Regina needs arrival info for everyone
We also want to know who besides Hannah wants to do the tour on Thursday at 4. I'll join Hannah if she is alone. A note to everyone to say a 4pm tour on Thursday is an option would be great. Regina requests we call it a tour of Kykuit, the Rockefeller Family home, not a tour of the Rockefeller Estate
Regina, let us know what else you need.
Regina, I apologize we have been a little less organized than we should have been. We have been wildly spoiled by Wilson Rickerson obviously.
Thank you!
Michael

From: Cummins,Patrick on behalf of Cummins,Patrick
Sent: Wednesday, July 10, 2019 11:32 AM EDT
To: Propst, Sarah, EMNRD ; Michael Northrop
Subject: RE: [EXT] RE: July 17-18 Pocantico Leadership States Meeting: Background Note, Agenda, Participant List, and Pocantico Center Information

Sarah – Governor Ritter and others have the same flight time, so you should be fine. Are you going through Denver by chance. Could even be the same flight….

Patrick Cummins
Senior Policy Advisor
Colorado State University
Center for the New Energy Economy

From: Propst, Sarah, EMNRD <
Sent: Wednesday, July 10, 2019 9:30 AM
To: Michael Northrop
Cc: Cummins,Patrick
Subject: RE: [EXT] RE: July 17-18 Pocantico Leadership States Meeting: Background Note, Agenda, Participant List, and Pocantico Center Information

Michael – The travel agency booked me on a return flight that departs LaGuardia at 6:30pm on Thursday. I think it is the latest flight that gets me back to NM that day, as it wasn't clear that there was lodging available that night. Do you think I can make that, or should I ask them to change it to the next day?

From: Michael Northrop
Sent: Monday, July 8, 2019 6:43 AM
To: kate.gordon ; mary. ; zach.pierce ; will.toor ; katie.dykes ; leo.r.asuncion Hannah.Pingree ben.grumbles ; kathleen.theoharides dbobzien bcrowell ; kathleen.frangione Ely, Sandra, NMENV Propst, Sarah, EMNRD < >; dale. ; nik.blosser ; janet.coil ; peter.walke ; chris.davis ; reed.schuler ; Deborah Burke Bill.Ritter Patrick.Cummins jk2128 jcorvidae cfrisch katie.mccormack ; asteer Betsy Campbell
Cc: shelby.mcmichael shannon.stewart nancey.steinheimer ; Carmen.Colon ; shanell.k.feliciano ; kathy.bishop victoria.s.grimes pamalloy Barbara.Panebianco Minerva.Canc ; jennifer.j.andrew ; Suzanne.Amerault Wendy.Hartzell ; eda.lee ; Claudia Hernandez ; Regina Creegan >; 'Vicki Arroyo' <
Subject: [EXT] RE: July 17-18 Pocantico Leadership States Meeting: Background Note, Agenda, Participant List, and Pocantico Center Information

Getting this to the top of your inbox in case you've been offline for the long weekend.

From: Michael Northrop
Sent: Thursday, July 4, 2019 1:21 PM
To: 'kate.gordon >; 'mary.nichols ' < 'zach.pierce ' 'will.toor ; 'katie.dykes >; 'leo.r.asuncion ' < ; 'Hannah.Pingree <Hannah. ; 'ben.grumbles <ben.grumbles ; 'kathleen.theoharides < ; 'dbobzien ' < >; 'bcrowell < >; 'kathleen.frangione < >; 'sandra.ely >; 'sarah.propst ' < >; 'dale.bryk ' < >; 'nik.blosser ' >; 'janet.coil ' <janet.coil >; 'peter.walke ' <peter.walke >; 'chris.davis ' < >; 'reed.schuler ' <reed.schuler >; Michael Northrop < ; Deborah Burke >; 'Bill.Ritter ' < ; 'Patrick.Cummins >; 'jk2128 ' >; 'jcorvidae ' ; 'cfrisch ' < >; 'katie.mccormack ' >; 'asteer >; Betsy Campbell) < >
Cc: 'shelby.mcmichael ' < >; 'shannon.stewart >; 'nancey.steinheimer ' >; 'Carmen.Colon ' < >; 'shanell.k.feliciano >; 'kathy.bishop@ >; 'victoria.s.grimes ' >; 'pamalloy ' < >; 'Barbara.Panebianco < >; 'Minerva.Canc < >; 'jennifer.j.andrew >; 'Suzanne.Amerault ' >; 'Wendy.Hartzell ' < ; 'eda.lee >; Claudia Hernandez >; Regina Creegan >; 'Vicki Arroyo' >
Subject: July 17-18 Pocantico Leadership States Meeting: Background Note, Agenda, Participant List, and Pocantico Center

Information

Happy July 4th!

Hopefully you are outside enjoying the day and not reading this email.

Attached are materials for the July 17-18th State Climate Leadership meeting at Pocantico. You will find a background note, a draft agenda, a participant list, and an information note on Pocantico.

We are trying to pack a lot into our short time together. The organizers still have some work to do to make sure we surface key points in each part of the discussion. We may reach out to you next week to help with specific parts of the agenda.

Please plan to arrive no later than 5:00pm on July 17th at the Pocantico Center. We plan an early dinner and important discussions over dinner and after dinner on Wednesday night.

If you are arriving at one of the regional airports (LaGuardia, JFK, Newark, or Westchester), please grab an Uber to the conference Center or ask us for help. We can arrange cars to pick you up at airports if necessary. Please alert Regina Creegan if you need a car from an airport. Her email is

If you plan on coming through New York City on your way to Pocantico, there are 3 trains an hour from Grand Central Station on Metro North Railroad to Tarrytown (45-minute trip), where you can get a taxi to Pocantico (10 minutes). If you are planning to come by train, please alert Regina so we will know when you are arriving. Regina can make sure there is a taxi waiting for you at the Tarrytown train station too. If you are driving yourself, please also let Pocantico know in advance.

Pocantico staff will arrange your travel back to Manhattan or to area airports at the conclusion of the meeting on Thursday afternoon. We can get those details figured out during the meeting. We plan to adjourn at 4:00pm on July 18th. **If you can stick around after 4:00pm, we are arranging a 75-90 minute tour of the Rockefeller Estate.**

Thank you again for making the time for this discussion.

All the best,

Michael

Michael Northrop, Program Director
Sustainable Development Program
Rockefeller Brothers Fund |

Philanthropy for an Interdependent World

From: Cummins,Patrick on behalf of Cummins,Patrick >
Sent: Tuesday, July 02, 2019 1:58 PM EDT
To: Michael Northrop
CC: Hoffer,Trina
Subject: RE: Background Note for July 17-18
Attachment(s): "Background Note for July 17-18 pc clean.docx","Background Note for July 17-18 pc mark up.docx"

Looks good! I suggest moving up some of the stuff that was at the end - putting it in front of the sector specific policy discussion. Other than that, just some minor edits. Attaching both a clean version with my changes the mark up version

If you want to include this as an attached memo (as opposed to just in the body of an email), I can ask our team to do some formatting with logos, etc. Just let me know either way.

Patrick Cummins
Senior Policy Advisor
Colorado State University
Center for the New Energy Economy

From: Michael Northrop
Sent: Tuesday, July 2, 2019 11:17 AM
To: Cummins,Patrick < >
Cc: Michael Northrop
Subject: Background Note for July 17-18

How does this look? Edits welcome. Formatting welcome too.

To: **Pocantico Participants**
From: **CSU, GCC, RMI, RBF**
Subject: **Accelerating State Action on Climate Change, July 17-18, 2019**

The 2018 elections brought forward a new group of state leaders – governors, legislators, policy makers, and agency officials – committed to reducing greenhouse gas emissions in their states. This new group of state leaders joins those of you who have been leading the charge for a decade or more. We are thrilled that so many of you are able to join us for this event where we will discuss ways to accelerate state action and ensure that the progress being made by U.S. leadership states is recognized and understood across the U.S. and at a global level.

While our time together at Pocantico is short, we hope to address each of the following topics:

- What are the leading edge clean energy policies and GHG reduction programs being enacted and implemented by U.S. states? We will focus especially on electricity, buildings and transportation, but hope we can also touch on other gases (methane and HFC's), land use, and carbon pricing.

- How can this group of state leaders support each other and also work together to bring other states into the fold? Can states do more to drive bipartisan approaches to climate actions?

- Can states working together accelerate market creation for cleaner vehicles, non-gas solutions, and appliances?

- What steps can states be taking over the next 18 months to show the way forward for a federal administration that supports clean energy and climate action?

- How can we ensure that leadership state voices (alongside other subnational leaders) offer encouragement to multilateral climate negotiations in the run-up to COP 26 in December 2020?

With these questions in mind, we will kick things off on Wednesday night with a discussion of the state of play in the international climate negotiations. Dr. Andrew Steer, President and CEO of the World Resources Institute will join us for that conversation. We want to understand where the U.S. needs to be in order to play a constructive role in international discussions.

This has bearing on what level of ambition states must aim for. Kathleen Frangione, Chief Policy Advisor to New Jersey Governor, Phil Murphy, will describe the ambitious Paris-aligned approach her state has taken since Governor Murphy took office last year, how it has been framed, and how it has gathered momentum. We then want each of the participating states to weigh in on how they are thinking about this. We want to get lessons, good ideas, and questions on the table to help frame our conversation on Thursday. A core concern is how to get the politics right in order to maintain forward momentum.

Thursday morning we will start with a rapid fire review of the high ambition policies states are implementing to get to net zero carbon. Rather than reviewing the full suite of leading edge policies in detail, we plan to focus in on a few key policy challenges.

Prior to the meeting, we will send two additional pieces of background material. One laying out the specific policies each state in the room has enacted and another that describes leading edge policies being enacted even more broadly in the world sector-by-sector.

In the afternoon, we will tackle several questions, including how best to encourage other states to enact leadership policies, how states can work together with cities and business, how to use state action to lay the groundwork for ambitious federal policy as soon as 2021, and how to make state, and other subnational, voices present during a string of important upcoming international climate meetings in 2019 and 2020.

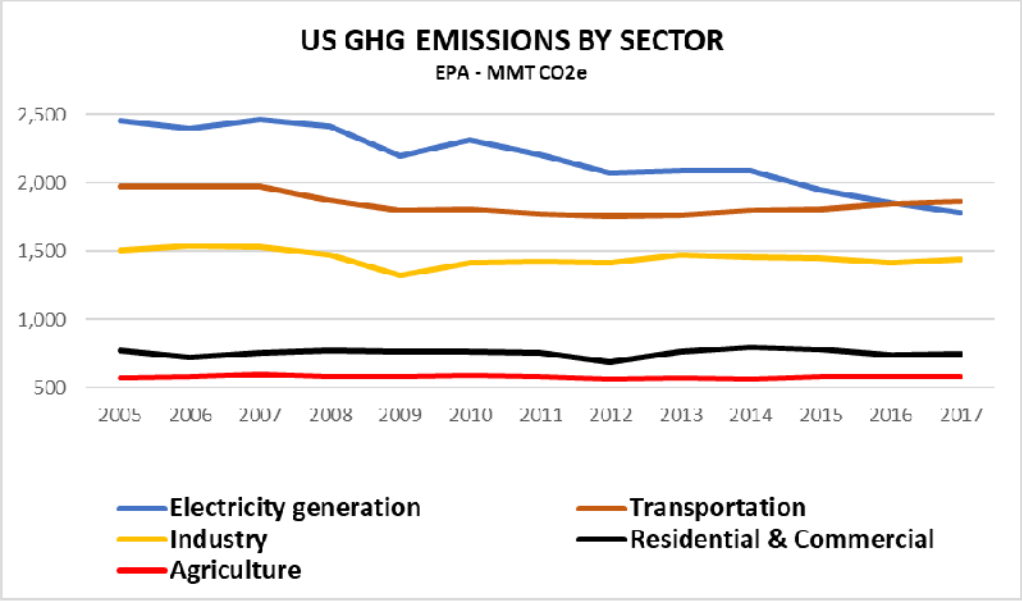
Please also plan to arrive no later than 5:00pm on July 17th at the Pocantico Center. We plan an early dinner and important dinner and after dinner discussions. If you are arriving at one of the regional airports (LaGuardia, JFK, Newark, or Westchester), please grab an Uber to the conference Center or ask us for help. We can arrange cars to pick you up at airports if necessary.

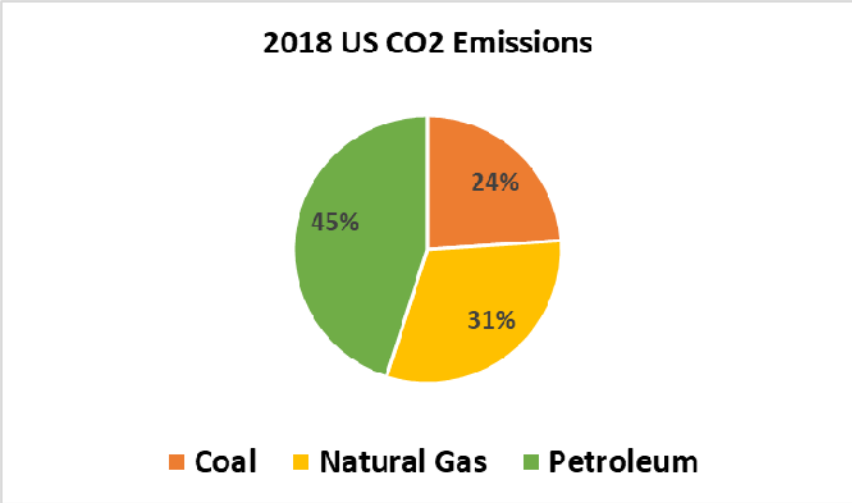
If you are arriving in New York early, there are 3 trains an hour from Grand Central Station to Tarrytown (45-minute trip), where you can get a get a taxi to Pocantico (10 minutes).

Pocantico staff will arrange your travel back to Manhattan or to area airports. We can get those details figured out during the meeting. We plan to adjourn at 4:00pm on July 18th. **If you can stick around after 4:00pm, we will arrange a tour of the Rockefeller Estate.**

Finally, below is some context to help us get the policy conversation started on Thursday morning.

Transportation. We will begin with a conversation on how to meet the challenge posed by emissions from the transportation sector. As we all know by now, the transportation sector has surpassed the electricity sector as the largest source of GHG emissions in the US. In 2018, emissions from the combustion of petroleum products were almost twice that of coal. Moreover, while emissions from coal continue to decline, emissions from the transportation sector have increased each year since 2012.





Vehicle Standards. Front and center in the discussion of how to reduce emissions from the transportation sector is the pending rollback of federal standards and the potential revocation of California's waiver, which would impact many of your states. We are fortunate that Mary Nichols will be with us to lead this discussion and help all the states in attendance figure out how you can work together to protect the progress you've made in this area.

Electric Vehicles. While each state in the room has some policies and programs in place to incentivize electric vehicle purchases and charging infrastructure, some states are going farther. A group of Northeast states is evaluating a market-based approach to reducing emissions from the transportation sector (Transportation Climate Initiative), while California and Oregon both have a low-carbon fuel standard. We will ask participating states to share their ideas for additional policies and programs to drive down emissions from the transportation sector.

Electricity. To date, states have had the greatest success in reducing emissions from the electric power sector. This is an area where states have a number of effective policy options, like renewable portfolio standards/clean energy standards, and you have used these policies to achieve substantial CO2 emissions reductions from the electric power sector over the last 10 years (-30% nationwide). Building on this success, you are moving to achieve even more progress with many states and utilities setting aggressive near-term targets for renewable energy, along with the long-term goal of 100% clean energy. What challenges are emerging and how can states successfully implement these bold electricity goals?

Natural Gas. One of the primary challenges to deep de-carbonization of the electric power sector is the reliance on natural gas as the replacement for coal. On the Eastern grid, coal generation has fallen by almost half over the last ten years, but 75% of that has been replaced by natural gas generation. We will review the current landscape of state policies for clean and renewable electricity, share ideas for next steps, and then discuss how you can work together – and with other states/regions – to make continued progress on the transition to a clean electric power sector.

Buildings. Residential and commercial buildings and industry are source categories where emissions have plateaued as square footage has increased, but where steep reductions have not yet begun. We will discuss what states are currently doing to transition buildings to clean energy, and then identify what options exist for states to expand their policies and programs in areas like net zero building codes, mandatory retrofits, and electrification.

Industrial Sector. Reducing emissions from the industrial sector poses a set of challenges similar to those associated with buildings, including continued reliance on natural gas as a primary energy source.

Methane and HFC's. Some states are also dealing with very significant methane emissions problems associated with oil and gas production, and from industrial livestock operations. States also have a chance to reduce methane leaks from aging residential heating infrastructure. Some states have also taken action on eliminating HFC's, and since methane and HFC's are super greenhouse gases, progress in the near-term can be extremely meaningful.

Land use is an additional category we hope to make some time for in the discussion if possible. Pacific states and Climate Alliance states have taken some actions here that we can learn from.

We will also check in on **carbon pricing** programs. The US Chamber of Commerce and the oil sector have said they are open to carbon pricing. Recent state attempts to enact carbon pricing in Washington, Oregon, and Virginia offer lessons we should consider as well.

To: **Pocantico Participants**
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~~Later i~~In the afternoon, we will tackle several questions, including how best to encourage other states to enact leadership policies, how states can work together with cities and business, how to use state action to lay the groundwork for ambitious federal policy as soon as 2021, and how to make state, and other subnational, voices present during a string of important upcoming international climate meetings in 2019 and 2020.

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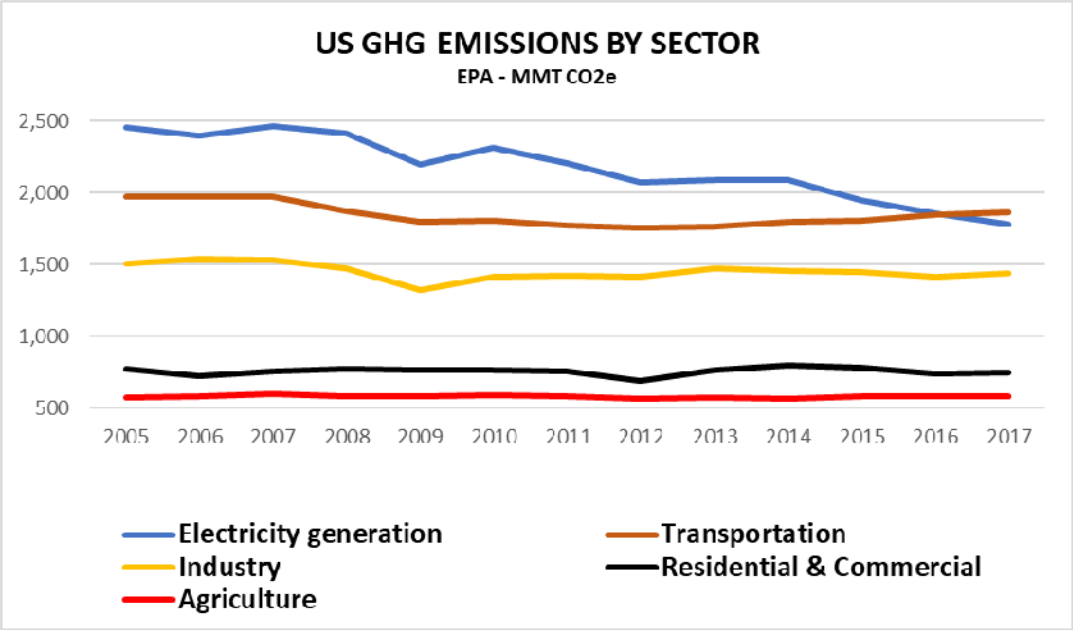

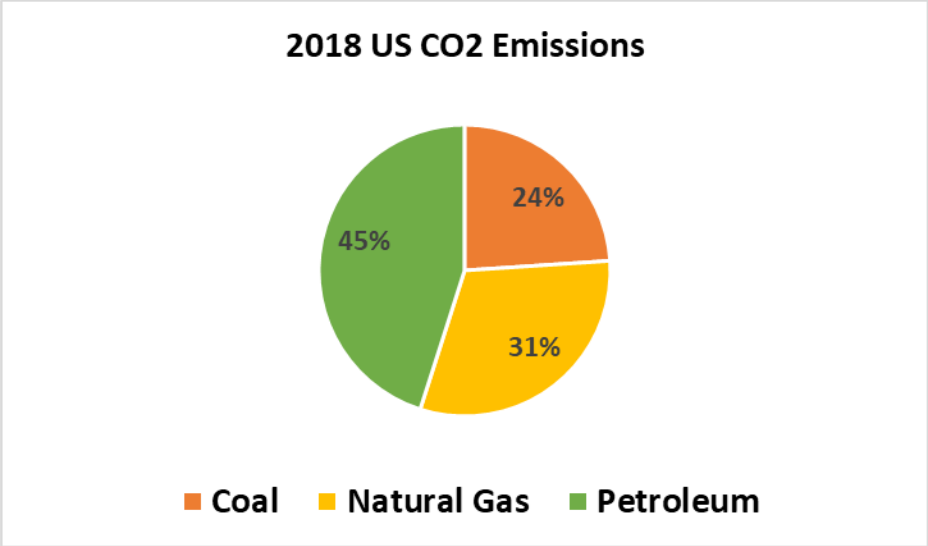

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~~Later in the afternoon, we will tackle several questions, including how best to encourage other states to enact leadership policies, how states can work together with cities and business, how to use state action to lay the groundwork for ambitious federal policy as soon as 2021, and how to make state, and other subnational, voices present during a string of important upcoming international climate meetings in 2019 and 2020.~~

~~Please bring the lessons you've learned, ideas you want to test out, and your questions.~~

~~Please also plan to arrive no later than 5:00pm on July 17th at the Pocantico Center. We plan an early dinner and important dinner and after dinner discussion. If you are arriving at one of the regional airports (Laguardia, JFK, Newark, or Westchester, please grab an Uber to the conference Center or ask~~

~~us for help. We can arrange cars to pick you up at airports if necessary. If you are arriving in New York on the 16th, there are 3 trains an hour from Grand Central Station to Tarrytown (45-minute trip), where you can get a get a taxi to Pocantico (10 minutes). Pocantico staff will arrange your travel back to Manhattan or to area airports. We can get those details figured out during the meeting. We plan to adjourn at 4:00pm on July 18th.~~ **~~If you can stick around after 4:00pm, we will arrange a tour of the Rockefeller Estate.~~**

From: Eda Lee >
Sent: Friday, July 12, 2019 4:31 PM EDT
To: Cummins,Patrick
CC: Courtney McComber
Subject: RE: Can we arrange time to talk by phone to prep for your July 17th dinner remarks?

Dear Patrick,

I hope this finds you well. I'm writing again to double check whether there are any additional steps I need to take in order to confirm Andrew Steer's accommodations for the night of July 17th for the meeting next week. We would like to include a confirmation document for his travel briefing packet if possible.

Many thanks for your patience and assistance on this—

Eda

Eda Lee
Assistant to the President & CEO
World Resources Institute
WRI.org

From: Eda Lee
Sent: Monday, July 8, 2019 3:23 PM
To: Michael Northrop >; Andrew Steer <
Cc: Cummins,Patrick < Fiona McRaith
Subject: RE: Can we arrange time to talk by phone to prep for your July 17th dinner remarks?
Importance: High

Dear Mr. Northrop,

I hope you had a great weekend, thank you for your email! Andrew is currently on holiday with family--please excuse me for writing on his behalf in the interim. He'll be back this weekend.

For the call regarding his remarks, might you be able to speak on Monday morning at 9am Eastern? Fiona will likely need to join as well, so I can set up a conference line.

I have registered Andrew for the event, and we are waiting to finalize his travel logistics. Are there any additional steps to confirming Andrew's accommodations? I understand attendees will be at Coach Barn (Conference Center) or Kykuit, but please let me know if there is any further information I need to provide for Andrew's overnight stay.

Many thanks for your patience and assistance,
Eda

Eda Lee
Assistant to the President & CEO
World Resources Institute
WRI.org

From: Michael Northrop
Sent: Monday, July 8, 2019 1:08 PM
To: Andrew Steer Eda Lee
Cc: Cummins,Patrick
Subject: Can we arrange time to talk by phone to prep for your July 17th dinner remarks?
Importance: High

Dear Andrew and Eda,
Two quick things.
-Can you please fill in the registration material below?

-Could we arrange time for a call to prep for your dinner remarks July 17th?
Many thanks,
Michael

From: Cummins,Patrick <
Sent: Monday, July 8, 2019 11:00 AM
To: Michael Northrop ; leo.r.asuncion ; Hannah.Pingree ; dale.bryk ; chris.davis Deborah Burke <dburke ; jcorvidae cfrisch asteer
Cc: shanell.k.feliciano ; Minerva.Canc ; eda.lee Regina Creegan <r >
Subject: Please Register: July 17-18
Importance: High

Resending this to those who have recently been invited and also to who have not yet registered:

So that we can confirm your attendance, and to provide our Pocantico hosts with some information for your stay, please click here to complete a short registration form.
http://events.constantcontact.com/register/event?llr=fji8qakab&oeidk=a07ege9eh81b217f8f4

Patrick Cummins
Senior Policy Advisor
Colorado State University
Center for the New Energy Economy

From: Cummins,Patrick on behalf of Cummins,Patrick
Sent: Friday, June 28, 2019 5:20 PM EDT
To: Michael Northrop ; Jacob Corvidae ; Joseph.Kruger
< >
Subject: RE: Can we get a time on the calendar early next week for the 4 of us to talk about the states meeting on July 17-18?

I can do 9 am MT / 11 am ET Monday morning or Tuesday anytime after 11 am MT / 1 pm ET. Let me know what works for each of you and I'll send a conference line.

Patrick Cummins
Senior Policy Advisor
Colorado State University
Center for the New Energy Economy

-----Original Message-----
From: Michael Northrop <
Sent: Friday, June 28, 2019 3:15 PM
To: Jacob Corvidae < >; Cummins,Patrick < >; Joseph.Kruger ; Michael Northrop

Subject: Can we get a time on the calendar early next week for the 4 of us to talk about the states meeting on July 17-18?

Thanks,
Michael

Sent from my iPhone

From: Cummins,Patrick on behalf of Cummins,Patrick < >
Sent: Tuesday, July 02, 2019 2:45 PM EDT
To: Michael Northrop < >
CC: Hoffer,Trina <K >
Subject: RE: Draft Agenda Pocantico Leadership States July 17-18, 2019
Attachment(s): "Agenda Pocantico Leadership States July 17-18 2019 pc clean.docx","Agenda Pocantico Leadership States July 17-18 2019 pc mark up.docx"

I think it's good, so I just made few minor edits. I think we can be flexible with the times for each section depending on how the conversation is going – cut it short or extend, depending - and when we feel a break is needed.

One idea – not sure what you have in mind for the opening session, but I think it might work well to start the meeting by having each state take 2-3 minutes to identify what they believe are the 3-4 most important things (high ambition policies) that have happened or are happening in their state. A lightning round with a strict moderator – no speeches. Gets them engaged in the meeting and us hearing from them instead of us talking at them?

Patrick Cummins
Senior Policy Advisor
Colorado State University
Center for the New Energy Economy

From: Michael Northrop < >
Sent: Tuesday, July 2, 2019 12:13 PM
To: Cummins,Patrick < >
Cc: Michael Northrop < >
Subject: Draft Agenda Pocantico Leadership States July 17-18, 2019

Please edit and improve….

Agenda

Accelerating State Action on Climate Change

The Pocantico Center

200 Lake Road

Tarrytown, New York

July 17-18, 2019

This meeting will provide an opportunity for officials from leadership states to share information on recent developments and strategize together on the most promising ways to accelerate implementation in response to the increasingly ambitious climate goals being established by their governors and state legislatures. The group will also discuss how state action can influence and underpin future federal action and how U.S. federal action needs to be positioned within the global climate negotiations.

Wednesday, July 17

6:00 pm Reception in Loggia area of the Coach Barn

7:00 Dinner and Introductions

8:30 Hayloft conversation on the international climate negotiations, and on how states are setting science-based targets. Opening remarks:
Dr. Andrew Steer, President and CEO, World Resources Institute
Kathleen Frangione, Chief Policy Advisor to Governor Phil Murphy

Thursday, July 18

7:00 am **Breakfast buffet available in Coach Barn**

8:00 **Agenda Review and Meeting Objectives, Governor Bill Ritter, CNEE**

8:15 **Summary Review of High Ambition Policies.**
Please review the two documents provided in advance. Please share your questions and suggestions for additions to these policy resources. These are intended to be resources you and others can use to further policy goals in your states.

9:00 **Meeting the Challenges Posed by the Transportation Sector**

- Update on federal vehicle standards and state responses
  - How can states work together to establish ambitious federal and state emission standards for new cars and trucks?
- Status of Transportation and Climate Initiative
  - What can other states learn from this effort?
- Discussion of other strategies to address CO2 emissions from transportation (e.g., incentives for EV purchases and charging infrastructure, Low-Carbon Fuel Standards.)

10:00 **Power Sector**

- The pathway to 100% Clean Energy
- Limiting investments in natural gas to replace coal

11:00 **Net Zero Buildings**

- Standard Setting and Mandatory Retrofits
- Electrification Instead of Gas

12:00pm **Working Lunch: Industrial Sources, Oil & Gas, Methane and HFCs, Land Use**
Moving industrial sources away from fossil fuels and onto clean energy sources poses a set of challenges similar to those associated with buildings in terms of efficiency, retrofits and electrification. In addition, some states face the issue of a rapidly expanding oil & gas sector and associated methane emissions.

- What are tools, policies and incentives states can use to make progress in these sectors?
- Examples of state action on HFCs, methane, and land use – model policy

1:30 **Carbon pricing strategies**

- Tough sledding in WA, OR, and VA
- Opportunities to expand existing programs (RGGI, TCI, WCI, EU, China) and enhance collaboration between programs
- Carbon tax

2:00 **Collaborative Opportunities**

- Group actions by leadership states on policy and market creation
- Outreach / support for opportunity states
- Setting the Policy Stage for Federal Action in 2021 / Preparing for the Worst
- Participation in upcoming COPs in Santiago and London

3:30 **Next Steps**

4:00 **Adjourn**

~~*Draft*~~ ***Agenda***

Accelerating State Action on Climate Change

The Pocantico Center

200 Lake Road

Tarrytown, New York

July 17-18, 2019

This meeting will provide an opportunity for officials from leadership states ~~taking action on climate change~~ to share information on recent developments ~~in their states~~ and ~~to~~ strategize together on the most promising ways to accelerate ~~the pace of~~ implementation in response to the increasingly ambitious climate goals being established by their ~~se states'~~ governors and state legislatures. The group will also discuss how state action can influence and underpin future federal action and how U.S. federal action needs to be positioned within the global climate negotiations.

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10:00 **Power Sector**

- The pathway to ~~Achieving~~ 100% Clean Energy
- Limiting investments in ~~Replacing Coal with N~~natural ~~G~~gas to replace coal~~?~~

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- Electrification Instead of Gas

12:00pm **Working Lunch: Industrial Sources, Oil & Gas, Methane~~,~~ and HFCs, Land Use**
Moving industrial sources away from fossil fuels and onto clean energy sources poses a set of challenges similar to those associated with buildings in terms of efficiency, retrofits and electrification. In addition, some states face the issue of a rapidly expanding oil & gas sector and associated methane emissions.

- What are tools, policies and incentives states can use to make progress in these sectors?
- Examples of state action on HFCs, methane, and land use – model policy

1:30 **Carbon pricing strategies**

- Tough sledding in WA, OR, and VA
- Opportunities to expand existing programs (RGGI, TCI, WCI, EU, China) and enhance collaboration between programs
- Carbon tax

2:00 **Collaborative Opportunities**

- Group actions by leadership states on policy and market creation
- Outreach / support for opportunity states
- Setting the Policy Stage for Federal Action in 2021 / Preparing for the Worst
- Participation in upcoming COPs in Santiago and London

3:30 **Next Steps**

4:00 **Adjourn**

From: Cummins,Patrick on behalf of Cummins,Patrick < >
Sent: Monday, July 01, 2019 7:11 PM EDT
To: Michael Northrop < >
Subject: RE: Emailing: sectors_2016 (4)

The only sector that's changing significantly year to year is electricity. Everything else is pretty flat to slightly up.

I'll run some electricity sector numbers from EPA's acid rain database.

Patrick Cummins
Senior Policy Advisor
Colorado State University
Center for the New Energy Economy

From: Michael Northrop <
Sent: Monday, July 1, 2019 5:07 PM
To: Cummins,Patrick <
Subject: Re: Emailing: sectors_2016 (4)

Interesting. Thanks. Do you think 2017 or 2018 data are any different?

Sent from my iPhone

On Jul 1, 2019, at 5:18 PM, Cummins,Patrick > wrote:

> These 15 states = 34% of US population
>
> *Patrick Cummins*
> *Senior Policy Advisor*
> *Colorado State University*
> *Center for the New Energy Economy*
>
> ---
>
> **From:** Cummins,Patrick
> **Sent:** Monday, July 1, 2019 3:07 PM
> **To:** Michael Northrop >; jk2128 jcorvidae Hoffer,Katherine >
> **Subject:** Emailing: sectors_2016 (4)

Table 3. 2016 State emissions by sector
https://www.eia.gov/environment/emissions/state/

Million metric tons of carbon dioxide

	Commercial	Electric power	Residential	Industrial	Transportation	Total
California	19	37	24	69	213	361
Colorado	4	35	7	14	28	89
Connecticut	4	7	6	2	15	34
Hawaii	0	7	0	1	10	18
Maine	2	1	3	2	9	16
Maryland	5	17	5	2	28	58
Massachusetts	7	11	11	3	32	64
Nevada	2	14	2	3	15	37
New Jersey	10	20	14	10	58	111
New Mexico	2	23	2	7	14	48
New York	22	28	31	8	75	164
Oregon	2	8	3	5	20	38
Rhode Island	1	3	2	1	4	10
Vermont	1	0	1	0	3	6
Washington	4	10	5	11	49	79
15 Pocantico States	85	219	117	139	574	1,133
US States total (unadjusted)	233	1,796	299	940	1,892	5,161
	36%	**12%**	**39%**	**15%**	**30%**	**22%**

Source: U.S. Energy Information Administration, State Energy Data System

From: Cummins,Patrick on behalf of Cummins,Patrick < >
Sent: Monday, July 01, 2019 7:20 PM EDT
To: Michael Northrop <
Subject: RE: Emailing: sectors_2016 (4)

Their power sector share in 2018 is about 11%, down from 12% in 2016

Patrick Cummins
Senior Policy Advisor
Colorado State University
Center for the New Energy Economy

From: Michael Northrop <
Sent: Monday, July 1, 2019 5:19 PM
To: Cummins,Patrick < >
Subject: Re: Emailing: sectors_2016 (4)

Makes sense. Thanks.

Sent from my iPhone

On Jul 1, 2019, at 7:11 PM, Cummins,Patrick > wrote:

> The only sector that's changing significantly year to year is electricity. Everything else is pretty flat to slightly up.
>
> I'll run some electricity sector numbers from EPA's acid rain database.
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> >
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> >
> > **From:** Cummins,Patrick
> > **Sent:** Monday, July 1, 2019 3:07 PM
> > **To:** Michael Northrop < >; jk2128 ; jcorvidae ; Hoffer,Katherine < >
> > **Subject:** Emailing: sectors_2016 (4)
> >
> > **Table 3. 2016 State emissions by sector**
> > https://www.eia.gov/environment/emissions/state/
> >
> > **Million metric tons of carbon dioxide**
> >
> > | | Commercial | Electric power | Residential | Industrial | Transportation | Total |
> > |---|---|---|---|---|---|---|
> > | California | 19 | 37 | 24 | 69 | 213 | 361 |
> > | Colorado | 4 | 35 | 7 | 14 | 28 | 89 |
> > | Connecticut | 4 | 7 | 6 | 2 | 15 | 34 |
> > | Hawaii | 0 | 7 | 0 | 1 | 10 | 18 |
> > | Maine | 2 | 1 | 3 | 2 | 9 | 16 |
> > | Maryland | 5 | 17 | 5 | 2 | 28 | 58 |
> > | Massachusetts | 7 | 11 | 11 | 3 | 32 | 64 |
> > | Nevada | 2 | 14 | 2 | 3 | 15 | 37 |
> > | New Jersey | 10 | 20 | 14 | 10 | 58 | 111 |

New Mexico	2	23	2	7	14	48
New York	22	28	31	8	75	164
Oregon	2	8	3	5	20	38
Rhode Island	1	3	2	1	4	10
Vermont	1	0	1	0	3	6
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	36%	**12%**	**39%**	**15%**	**30%**	**22%**

Source: U.S. Energy Information Administration, State Energy Data System

From: Regina Creegan <
Sent: Monday, July 08, 2019 9:13 AM EDT
To: Michael Northrop <
CC: Cummins,Patrick <
Subject: RE: July 17-18 Pocantico Leadership States Meeting: Background Note, Agenda, Participant List, and Pocantico Center Information

Hi Michael,

Hope you had a nice long weekend.

Thanks for offering my services. I arrange arrivals for our Board Meeting only. Normally the organizer gets all the information from the attendees and makes the arrangements directly with Tri-State or National Taxi etc and sends me the Participant sheet with all of the information. We are always happy to assist with departures. I haven't heard from anyone yet except for one person taking the train Kate Gordon so hopefully it's not too bad.

I took a look at the agenda, I noticed the optional tour at the end. Is there a way you can find out who is interested in a tour at the end of the meeting as from experience, most people just want to head home. I'll be happy to arrange a guide for 4:00 p.m. – 5:00 p.m. for now. In your next agenda can you please call it Optional Tour of Kykuit please instead of Optional Tour of the Rockefeller Estate.
Also, I'm assuming the Carbon Pricing Strategies session is back in the meeting room correct?

Looking forward to the menu selections, the answers to my questionnaire as well as the participant excel sheet.

Best,
Regina

From: Michael Northrop
Sent: Thursday, July 4, 2019 1:21 PM
To: kate.gordon ; mary.nichols ; zach.pierce ; will.toor ; katie.dykes ; leo.r.asuncion Hannah.Pingree ; ben.grumbles ; kathleen.theoharides ; dbobzien ; bcrowell v; kathleen. ; sandra.ely sarah.propst ; dale.bryk ; nik.blosser ; janet.coil ; peter.walke ; chris.davis v; reed.schuler Michael Northrop <>; Deborah Burke < ; Bill.Ritter Patrick.Cummins ; jk2128 ; jcorvidae ; cfrisch ; katie.mccormack asteer ; Betsy Campbell <
Cc: shelby.mcmichael ; shannon.stewart ; nancey.steinheimer s; Carmen.Colon ; shanell.k.felicianc v; kathy.bishop v; victoria.s.grimes ; pamalloy Barbara.Panebiancc ; Minerva.Canc ; jennifer.j.andrew Suzanne.Amerault ; Wendy.Hartzell eda.lee ; Claudia Hernandez <>; Regina Creegan < ; 'Vicki Arroyo' <
Subject: July 17-18 Pocantico Leadership States Meeting: Background Note, Agenda, Participant List, and Pocantico Center Information

Happy July 4th!

Hopefully you are outside enjoying the day and not reading this email.

Attached are materials for the July 17-18th State Climate Leadership meeting at Pocantico. You will find a background note, a draft agenda, a participant list, and an information note on Pocantico.

We are trying to pack a lot into our short time together. The organizers still have some work to do to make sure we surface key points in each part of the discussion. We may reach out to you next week to help with specific parts of the agenda.

Please plan to arrive no later than 5:00pm on July 17th at the Pocantico Center. We plan an early dinner and important discussions over dinner and after dinner on Wednesday night.

If you are arriving at one of the regional airports (LaGuardia, JFK, Newark, or Westchester), please grab an Uber to the conference Center or ask us for help. We can arrange cars to pick you up at airports if necessary. Please alert Regina Creegan if you need a car from an airport. Her email is

If you plan on coming through New York City on your way to Pocantico, there are 3 trains an hour from Grand Central Station on Metro North Railroad to Tarrytown (45-minute trip), where you can get a taxi to Pocantico (10 minutes). If you are planning to come by train, please alert Regina so we will know when you are arriving. Regina can make sure there is a taxi waiting for you at the Tarrytown train station too. If you are driving yourself, please also let Pocantico know in advance.

Pocantico staff will arrange your travel back to Manhattan or to area airports at the conclusion of the meeting on Thursday afternoon. We can get those details figured out during the meeting. We plan to adjourn at 4:00pm on July 18th. **If you can stick around after 4:00pm, we are arranging a 75-90 minute tour of the Rockefeller Estate.**

Thank you again for making the time for this discussion.

All the best,

Michael

Michael Northrop, Program Director
Sustainable Development Program
Rockefeller Brothers Fund | 475 Riverside Drive, Suite 900 | New York, NY 10115

Philanthropy for an Interdependent World

From: Cummins,Patrick on behalf of Cummins,Patrick >
Sent: Monday, July 08, 2019 11:14 AM EDT
To: Regina Creegan < >; Michael Northrop >
CC: Deborah Burke < >
Subject: RE: July 17-18 Pocantico Leadership States Meeting: Background Note, Agenda, Participant List, and Pocantico Center Information
Attachment(s): "list of attendees.xlsx","Copy of 6-25_registrant_details_report (3).xlsx"

Regina –

We've been working, with mixed results, to get folks to fill out a short registration form. I just resent that to those who have not yet filled it out, and have attached the latest printout which shows you what I've gotten back so far. It includes some information on people's travel plans. The complete list of attendees is also attached.

Regarding travel to Pocantico: we are telling all those who are flying to simply take an Uber from the airport, so you should not need to worry about arranging any travel to the conference.

Regarding departures: We expect almost everyone will stay until the end, or close to the end, of the meeting. Perhaps we can get complete information on people's departure plans when they arrive at Pocantico and coordinate returns from there?

Only one person has, so far, indicated any dietary restriction – Nik Blosser, vegetarian.

I don't think we need nametags, but table tents would be good. Michael – do you agree?

Michael/Deborah – will you sort out the menus?

I'm sorry this is so piecemeal. Perhaps we can all get on the phone today or tomorrow to talk it over and make sure we get you what you need. Thanks, PC

Patrick Cummins
Senior Policy Advisor
Colorado State University
Center for the New Energy Economy

From: Regina Creegan <
Sent: Monday, July 8, 2019 7:14 AM
To: Michael Northrop < >
Cc: Cummins,Patrick < >
Subject: RE: July 17-18 Pocantico Leadership States Meeting: Background Note, Agenda, Participant List, and Pocantico Center Information

Hi Michael,

Hope you had a nice long weekend.

Thanks for offering my services. I arrange arrivals for our Board Meeting only. Normally the organizer gets all the information from the attendees and makes the arrangements directly with Tri-State or National Taxi etc and sends me the Participant sheet with all of the information. We are always happy to assist with departures. I haven't heard from anyone yet except for one person taking the train Kate Gordon so hopefully it's not too bad.

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Best,
Regina

From: Michael Northrop
Sent: Thursday, July 4, 2019 1:21 PM
To: kate.gordon mary.nichols ; zach.pierce ; will.toor ; katie.dykes ; leo.r.asuncion ; Hannah.Pingree ben.grumbles kathleen.theoharides ; dbobzien ; bcrowell ; kathleen.frangione sandra.ely sarah.propst ; dale.bryk ; nik.blosser ; janet.coit ; peter.walke ; chris.davis reed.schuler ; Michael Northrop <mnorthrop >; Deborah Burke >; Bill.Ritter ; Patrick.Cummins u; jk2128 jcorvidae ; cfrisch ; katie.mccormack ; asteer Betsy Campbell >

Cc: shelby.mcmichael ; shannon.stewart ; nancey.steinheimer ; Carmen.Colon shanell.k.feliciano kathy.bishop ; victoria.s.grimes pamalloy ; Barbara.Panebianco Minerva.Canc ; jennifer.j.andrew ; Suzanne.Ameraul Wendy.Hartzell ; eda.lee Claudia Hernandez >; Regina Creegan <r >; 'Vicki Arroyo' <arroyo >
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Michael

Michael Northrop, Program Director
Sustainable Development Program
Rockefeller Brothers Fund | 475 Riverside Drive, Suite 900 | New York, NY 10115

Philanthropy for an Interdependent World

	A	B	C	D	E	F
1	First Name:	Last Name:	Email Address:	Phone:	Mode of travel:	Name of arriving airport and arrival time:
2	David	Bobzien			Flight	JFK Wed 1:29pm
3	Janet	Coit			Driving	n/a (driving); arrival around 5PM
4	Bradley	Crowell			Flight	TBD
5	Patrick	Cummins			Flight	LGA
6	Katherine	Dykes				
7	Kathleen	Frangione			Driving	n/a
8	Kate	Gordon			Flight	Newark Liberty International Airport, 2:56 PM
9	Ben	Grumbles			Train	
10	Joe	Kruger			Train	NA
11	Katie	McCormack			Flight	White Plains, United3837 arrives (if Chicago connec
12	Mary	Nichols			Flight	ITH; no arrival time as yet; will drive personal vehi
13	Zach	Pierce			Flight	not confirmed
14	Bill	Ritter, Jr.			Flight	LGA, TBD
15	Kathleen	Theoharides			Driving	
16	Will	Toor				
17	Peter	Walke			Driving	
18	Total	16				

	G	H
1	Name of departing airport and departure time:	Please note any dietary restrictions:
2	JFK Monday 6:53 (staying over for weekend)	none
3	n/a (driving)	n/a
4	TBD	n/a
5	LGA	none
6		None
7	n/a	none
8	Newark Liberty International Airport, 9:00 PM	N/A
9	BWI	
10	NA	NA
11	White Plains, United 3836 to Chicago departs 6:11PM	None
12	JFK; no depart time as yet	None
13	not confirmed	n/a
14	LGA, TBD	N/A
15		
16		
17		
18		

	A	B	C	D	E
1	LIST OF ATTENDEES - ACCELERATING STATE ACTION ON CLIMATE CHANGE - JULY 17-18, 2019 AT THE POCANTICO CENTE				
2	First Name:	Last Name:	Email Address:	Assistant /cc	Job Title:
3	Leo	Asuncion			Commissioner
4	Nik	Blosser			Chief of Staff
5	David	Bobzien			Director
6	Dale	Bryk			Dep. Sec. for Energy & Environment
7	Deborah	Burke			Program Associate
8	Janet	Coit			Director
9	Jacob	Corvidae			Principal
10	Sarah	Cottrell Propst			Cabinet Secretary
11	Bradley	Crowell			Director
12	Patrick	Cummins			Senior Policy Advisor
13	Chris	Davis			Senior Advisor
14	Katie	Dykes			Commissioner
15	Sandra	Ely			Director
16	Kathleen	Frangione			Chief Policy Advisor
17	Carla	Frisch			Principal
18	Kate	Gordon			Director
19	Ben	Grumbles			Secretary
20	Joe	Kruger			Director for Research & Strategy
21	Katie	McCormack			Program Director, West Policy
22	Mary	Nichols			Chair
23	Michael	Northrop			Program Director
24	Zach	Pierce			Senior Policy Advisor
25	Hannah	Pingree			Director
26	Bill	Ritter, Jr.			Director
27	Reed	Schuler			Senior Advisor
28	Andrew	Steer			President and CEO
29	Kathleen	Theoharides			Secretary
30	Will	Toor			Executive Director
31	Peter	Walke			Deputy Secretary

	F
1	R
2	**Organization:**
3	Hawaii Public Utilities Commisson
4	Office of the Governor, Oregon
5	Nevada Governor's Office of Energy
6	Office of the Governor, New York
7	Rockefeller Brothers Fund
8	Rhode Island Department of Environmental Management
9	Rocky Mountain Institute
10	New Mexico Energy, Minerals, and Natural Resources Dept.
11	Nevada Department of Conservation and Natural Resources
12	Center for the New Energy Economy
13	Office of Washington Governor Jay Inslee
14	Connecticut Dept. of Energy & Environmental Protection
15	New Mexico Environmental Protection Division
16	Office of the Governor, New Jersey
17	Rocky Mountain Institute
18	California Governor's Office of Planning and Research
19	Maryland Department of the Environment
20	Georgetown Climate Center
21	Energy Foundation
22	California Air Resources Board
23	Rockefeller Brothers Fund
24	Colorado Governor's Office
25	Maine Office of Innovation and the Future
26	Center for the New Energy Economy
27	Office of Washington Governor Jay Inslee
28	World Resources Institute
29	Massachusetts Exec. Office of Energy & Environmental Affairs
30	Colorado Energy Office
31	Vermont Agency of Natural Resources

#D

From: Cummins,Patrick on behalf of Cummins,Patrick <
Sent: Wednesday, July 10, 2019 3:53 PM EDT
To: Michael Northrop
Subject: RE: Maine Hits Clean Energy Grand Slam - Union of Concerned Scientists

Yes, it's all in there

Patrick Cummins
Senior Policy Advisor
Colorado State University
Center for the New Energy Economy

-----Original Message-----
From: Michael Northrop >
Sent: Wednesday, July 10, 2019 1:48 PM
To: Cummins,Patrick <
Subject: Re: Maine Hits Clean Energy Grand Slam - Union of Concerned Scientists

Really impressive!
Will this all be in the policy spreadsheet?
Too bad she's coming late. She'd be great after dinner with all this.

Sent from my iPhone

> On Jul 10, 2019, at 2:49 PM, Cummins,Patrick < > wrote:
>
> https://blog.ucsusa.org/steve-clemmer/maine-hits-clean-energy-grand-slam
>
>
> Sent from my iPhone

From: Cummins,Patrick on behalf of Cummins,Patrick < >
Sent: Tuesday, July 02, 2019 5:57 PM EDT
To: Ortiz, Melayna, NMENV < s>
Subject: Re: Pocantico July 17-18: Travel from LaGuardia Airport to Pocantico
Attachment(s): "image002.png"

Thank you, Melayna. I will coordinate with Sandra and Sarah on ground transportation to the conference.

Sent from my iPhone

On Jul 2, 2019, at 3:40 PM, Ortiz, Melayna, NMENV > wrote:

> Good Afternoon Mr. Cummins,
>
> New Mexico Environment Department – Environmental Protection Division Director Sandra Ely has a confirmed arrival time to La Guardia Airport on **July 17, 2019 at 3:29 PM**. Please assist with arrangements for pickup and travel to the Pocantico Center. I believe Sarah Propst of the New Mexico Energy, Minerals and Natural Resources Department will also arrive at the La Guardia Airport about 3:00 PM, if this helps you to coordinate a shuttle or travel to the Center. Please let me know if you can assist with this request.
>
> Kind regards,
>
> <image002.png>Melayna Ortiz
> Executive Secretary & Administrative Assistant
> New Mexico Environment Department
> 1190 St. Francis Drive |Santa Fe, New Mexico 87505
> | Fax: (505) 827-1628
> Twitter: @NMEnvDep | #IamNMED
> www.env.nm.gov

From: Cummins,Patrick on behalf of Cummins,Patrick < >
Sent: Monday, July 08, 2019 4:49 PM EDT
To: ANDREW Jennifer J * GOV <
Subject: RE: Pocantico, July 17-18: Accelerating State Action on Climate Change

Jen - Thanks for checking. The best thing is for him to plan on just grabbing an Uber or Lyft from the airport. I will let you know later this week if there's anyone for him to share a ride with. He can submit the car fare for reimbursement.

Unfortunately, we are unable to stay over at Pocantico an extra night. So he'll have to locate a hotel that's convenient for him. Let me know if you need anything else.

Patrick Cummins
Senior Policy Advisor
Colorado State University
Center for the New Energy Economy

From: ANDREW Jennifer J * GOV < >
Sent: Monday, July 8, 2019 2:45 PM
To: Cummins,Patrick
Subject: RE: Pocantico, July 17-18: Accelerating State Action on Climate Change

Hi Patrick-

I have a couple questions that I am hoping you might be able to help me with?

1) Have you heard of anyone else flying into Newark that Nik might ride with? I saw in the email from Michael Northrop, it said to contact Regina Creegan if he needs a car from the airport, but wasn't sure if I should check with you first?
2) Nik was thinking about possibly staying the night of the 18th and flying out the next day instead of flying out on the 18th. Do you happen to know if the accommodations are still available if he wanted to do that? Are others staying as well?

Thank you so much!
-Jen
Jen Andrew
Executive Assistant to Chief of Staff Nik Blosser
Executive Assistant for Tribal Affairs
Office of the Governor Kate Brown
900 Court Street NE, Ste. 254
Salem, Oregon 97301-4096

From: Cummins,Patrick <
Sent: Thursday, June 20, 2019 9:00 AM
To: ANDREW Jennifer J * GOV <J >
Subject: RE: Pocantico, July 17-18: Accelerating State Action on Climate Change

Yes, that's fine. Please just keep me posted. If Nik is unable to attend, we still hope to get an OR rep to the meeting. I know Kristen can't make it, so maybe Colin McConnaha?

Patrick Cummins
Senior Policy Advisor
Colorado State University
Center for the New Energy Economy
0

From: ANDREW Jennifer J * GOV < >
Sent: Thursday, June 20, 2019 9:58 AM
To: Cummins,Patrick < >
Subject: RE: Pocantico, July 17-18: Accelerating State Action on Climate Change

Hi Patrick-

I apologize but we will not be able to confirm Nik's attendance for sure until the end of June, so I thought it might be best to hold off on registering him until then.

Please let me know if that will work ok.

Thank you!
-Jen
Jen Andrew
Executive Assistant to Chief of Staff Nik Blosser
Executive Assistant for Tribal Affairs
Office of the Governor Kate Brown
900 Court Street NE, Ste. 254

Salem, Oregon 97301-4096

From: Cummins,Patrick < >
Sent: Thursday, June 20, 2019 8:00 AM
To: ANDREW Jennifer J * GOV <
Subject: FW: Pocantico, July 17-18: Accelerating State Action on Climate Change

Jen –

Will you please take a moment to use the link below to confirm and register Nik for this meeting. If you don't have flight details yet, that's fine. You can provide those later. And, of course, don't hesitate to let me know if you have any questions or need more information.

Thank you, PC

Patrick Cummins
Senior Policy Advisor
Colorado State University
Center for the New Energy Economy

From: Cummins,Patrick
Sent: Wednesday, June 12, 2019 7:18 AM
Subject: Pocantico, July 17-18: Accelerating State Action on Climate Change

Dear Pocantico Participants:

So that we can confirm your attendance, and to provide our Pocantico hosts with some information for your stay, please click here to complete a short registration form.
http://events.constantcontact.com/register/event?llr=fji8qakab&oeidk=a07ege9eh81b217f8f4

We appreciate your participation in this timely gathering of state leaders for an action-oriented conversation on advancing clean energy and climate strategies across the country. Michael, Vicki, and I will touch base with each of you later this month to get further input on the agenda in order to ensure our time together is as productive as possible.

In the meantime, please do not hesitate to contact me with any questions about this event. All the best, PC

p.s. - State officials requiring travel support to attend this meeting can have Travel Leaders Corporate book and pay for their flight/train ticket. You may contact TLC at Georgetown@tlcorporate.com. When requesting travel from TLC, please copy Megan Burnett on the email.

Patrick Cummins
Senior Policy Advisor
Colorado State University
Center for the New Energy Economy

From: Cummins,Patrick on behalf of Cummins,Patrick >
Sent: Saturday, June 29, 2019 1:55 PM EDT
To: Michael Northrop < >
Subject: RE: Pocantico-States Leading Decarbonization - 2019-6-25.docx
Attachment(s): "Pocantico-States Leading Decarbonization - 2019-6-25 pc.docx"

Michael - I hate to throw cold water on this paper, but it does give me some heartburn. I've included a bit of mark up and added some comments to try and highlight my concerns. This is why I think we should talk it through with Jacob (I don't know him) and try to rework it before sending. I'd rather you not share my comments with him right now as I don't want to come across so critical before I ever talk to him.

I think the overall narrative related to the US withdrawal from Paris and states and others stepping up is pretty dated at this point - especially for this group of states who are the ones actually doing it. Can we give them something that is more forward looking - now that they have all this to show, how does it play into Santiago and London?

I also think the attempt in the second half of the paper to lay out a specific set of policy proposals misses the mark for this group of states. I wonder if we wouldn't be better off sending links to some existing reports that are more comprehensive instead of trying to lay out a program in this memo.

I know this is just a draft and was produced on short notice, so I hate to be so critical. I just think we have to be cognizant of our audience - these folks are way out front and have notched major victories over the last year. What we send them and how we frame the discussion should recognize this so we come out of this meeting with next steps that go beyond where they are now.

Sorry to be such a pain in the ass - and I may be wrong. Just want to make sure we think through this carefully. As I know you understand, I will get on board with whatever you decide and will help as best I can.

Patrick Cummins
Senior Policy Advisor
Colorado State University
Center for the New Energy Economy

-----Original Message-----
From: Michael Northrop g>
Sent: Tuesday, June 25, 2019 7:10 PM
To: Cummins,Patrick >
Subject: Pocantico-States Leading Decarbonization - 2019-6-25.docx

Take a look..

Pocantico Pre-read
States Leading Decarbonization

July 2019
--DRAFT Outline--

THE CONTEXT

The Paris agreement

In 2015, the world came together in Paris to forge the first truly global climate agreement: a robust, long-term framework designed to reduce greenhouse gas pollution in order to hold global temperature increases to well below 2 degrees Celsius and prevent "dangerous anthropogenic interference with the climate system."

Every nation in the world has pledged its support to the Paris Agreement. When President Donald Trump announced his intention to withdraw the United States from the Paris Agreement in June 2017, the response from across the country was swift and significant. An unprecedented coalition of U.S. states, cities, businesses, universities, and other organizations spoke out in continued support for America's climate pledge to the world.

Across the country, real economy actors have established policies and commitments which, as they are implemented, will ~~drive continued substantial~~ help make progress towards the Paris pledge. Current federal? and real economy commitments (what about state policies?), combined with market forces (this is really only true in the power sector), will drive U.S. emissions to 17 percent below 2005 levels by 2025, roughly two-thirds of the way to the original U.S. target under the Paris Agreement of 26-28 percent below 2005 levels by 2025.

Commented [C1]: Seems like we should be emphasizing that we are going to miss the target and that is why we need to accelerate state action – which is the theme of this meeting.

"We find that US emissions under current policy are heading towards 12 to 20% below 2005 levels in 2025, a far cry from the US Paris commitment of a 26-28% reduction. This wide range represents uncertainty surrounding the fate of federal climate policies, how much pollution will be offset by sequestration from US forests, and the long-term viability of today's low-carbon energy trends. Cheap natural gas and renewables continue to thrust coal out of the market, but after 2025 those same forces push a larger share of zero-emitting nuclear plants into retirement — leading to a rebound in power sector emissions. Transportation remains America's largest source of emissions through most of our outlook, and while more affordable electric vehicles start to bend the curve, we find there is little downward pressure on economy-wide emissions post-2025."
https://rhg.com/research/taking-stock-2018/

The U.S. role moving forward

The insights gained regarding bottom-up climate action potential in the United States may also hold important lessons for the broader international community as

policymakers and leaders across society consider how to accelerate and deepen implementation of the Paris Agreement. While national governments and policies were in the spotlight during the run-up to the Paris Agreement in 2015, the focus of international negotiations has now shifted to a more detailed examination of what it will take to formulate and implement increasingly ambitious national climate goals. The case of the United States demonstrates that state leadership ~~real economy actors~~ can motivate ~~lead ambitious and sustained~~ commitments to climate action from all levels of government and across the economy. The example of US states ~~results of this analysis are therefore~~ can help serve as a call to action for the global community as a whole.

~~**Now we must face the risk of whether we will fulfill those commitments.**~~ **The challenge now is to implement the actions needed in the next few years to ~~build momentum toward~~ achieve both short-term (2030) and long-term (2050) decarbonization goals. The group of states participating in this meeting have demonstrated their commitment to taking strong action on climate and are uniquely positioned to accelerate progress in their states and also to show other states the path forward.**

~~Over 3,700 real economy actors have pledged their support for the Paris Agreement and commitment to continued action on climate change by joining the "We Are Still In" declaration and participating in other networks such as the U.S. Climate Alliance and the Climate Mayors.~~

~~The economic activity of this "coalition of the willing" is significant, equivalent to that of the third-largest country in the world. Specifically, the U.S. states, cities, businesses, and other leaders of the real economy that remain committed to the Paris Agreement represent over half of the U.S. population (173 million people), over half of the American economy ($11.4 trillion), and over 35 percent of nationwide GHG emissions.~~

~~**Organizing this effort**~~

- ~~**USCA (US Climate Alliance)-** A bipartisan coalition of 24 governors committed to upholding the Paris Agreement. Represent 55% of US population, 60% of the US economy, and 40% of US emissions.~~
- ~~**WASI (We are Still In)-** A coordinated campaign of 3,788 cities, states, businesses, universities, and other non-federal organizations that have declared commitments to meeting the US Paris Agreement goals. A coalition of coalitions. Represent 155 million people and $9.5 trillion across 50 states.~~
- ~~**AP (America's Pledge)-** An initiative to aggregate, quantify, and report on the collective action of WASI signatories and other coalitions of non-federal actors, like USCA, who are cutting carbon emissions to meet America's 2020 targets under the Paris Agreement.~~

STATE ACTION

States are in the lead, and first mover states set the tone and example for other states. Once a critical mass of leader states has made policy progress, action becomes more of the expected norm and other states follow.

For example, if enough states enforce regulations to phase out HFCs, this critical mass would act as a *de facto* federal standard.

States are key messengers to society, including through sending market signals to private actors. Top line decarbonization goals and sector level goals can inspire and set the tone for cities, counties, businesses, universities, and others within a state.

Collective impacts

The 12 states attending (*Will update when we have the final list)* represent X% of total U.S. emissions, X% of electricity emissions, X% of transportation emissions, X% of building emissions, and X% of industry emissions. If this group implement ambitious climate policy commitments a substantial portion of the U.S.'s GHGs can be addressed (*maybe compare this state grouping relative to other large countries emissions*)

Driving federal action

State policies can also be designed to support future federal replication. Typically, national policy progress in the U.S. follows shifts in public opinion and builds on existing policy designs. State policy design must fit the particular state's needs and situation, but consideration can be given to a design that could later be replicated in other states or at the federal level. Likewise, once several states have similar policies, it can be easier for federal regulators or legislatures to replicate that policy nationally.

States can coordinate to proactively request federal action through communication with elected representatives and federal agencies.

State impact on global action

U.S. state action sets the stage for international action. Many other countries are not poised to deliver their national commitments, but the states, provinces, regions, and cities within those countries can. Both national and regional governments across the world are looking to U.S. states for inspiration.

~~IMMEDIATE ACTION PRIORITIES~~

> ~~*"The work we pursue today must be focused on impact. Commitments? Yes. Planning? Yes. But commitments and plans won't solve the problem. We must take action now. "Action now" has to be our mantra. Actions vault us from a hope for tomorrow to making that vision reality. Our time and resources are always limited, so let's put them to use where they will drive the greatest changes. As my colleagues at RMI say, if you have to choose between making plans or making progress, then make progress."*~~
>
> ~~*- Jules Kortenhorst, in the forward letter to The Carbon-Free Regions Handbook*~~

Climate change's unique complexity can complicate decision-making for real economy actors. However, numerous governmental, nongovernmental, industrial, and

scientific analyses have coalesced around a few primary strategies to achieving significant emissions reductions.

Our decarbonization efforts should prioritize the following four strategies to create a thriving carbon-free state:

- Decarbonize the power sector
- Electrify buildings and eliminate methane leakage
- Electrify transportation
- Land Use

The first three strategies combine to create a wholistic decarbonization strategy, while the fourth lays a foundation for carbon sinks and reduced energy consumption. Below is additional information on each strategy

Commented [C2]: This just strikes me as way too vague and squishy. The states participating in this meeting are way past the conceptual model described here.

1. Decarbonize the power sector

Energy generation from low or zero carbon sources is the backbone of beneficial electrification. Fortunately, a pathway to a clean electricity sector has already been established as commercially and technically viable. The private, public, and philanthropic sectors have propelled significant progress in decreasing the power sector's carbon intensity through policy and investment, and while there are nuances around storage and grid stability to iron out, this progress will continue. The electric grid is already clean enough that building and transportation end-uses that shift from fossil fuels to electricity will see immediate emission reductions in most places. It's already clean enough in most places in the U.S. and projections show will be everywhere soon.

As the electric grid gets cleaner, everything else connected to it gets cleaner. Every incremental decrease in the grid's carbon intensity lowers the carbon footprint of each electric device, from computers to cars. With a progressively cleaner electric grid as the central leverage point, the emissions impacts of millions of end-uses in all other economic sectors will be continuously improved over time. This contrasts with the current complications of managing fossil fuel-based technologies, which requires setting and updating individual efficiency standards across many diverse end-uses and running up against limits to efficiency that are unlikely to achieve zero carbon emissions.

Top steps for ambitious action on decarbonizing the power sector:

- Renewable Portfolio Standard - Set 100% clean energy goals through a Renewable Portfolio Standard or Integrated Resource Planning requirements.
- Coal Plant Retirement - Retire coal plants and reject plans for new coal plants
- Natural Gas Plant Retirement - Retire natural gas plants and reject plans for new natural gas plants
- Responsive Grid Planning – support grid planning that puts distributed energy resources on an equal footing with other generation sources
- Support Utilities for Clean Energy – Support utility and rural coops as they work on clean electricity deployment

2. Electrify buildings and eliminate methane leakage

Solutions to electrify nearly all buildings already exist and can be deployed starting now. For example, electric heat pumps can replace gas-fired boilers and water heaters in addition to providing cooling, induction cookstoves are highly efficient substitutes for gas stovetops. These efforts also create important equity and health impacts by reducing the health and safety risks that are becoming more alarming.

Top steps for ambitious action on electrifying buildings and eliminating methane leakage

- Engage with key stakeholders to build a strong, inclusive and durable vision and plan for decarbonizing the state's buildings, including setting clear timelines that aligns with state's climate goals
- Ensure new buildings are all-electric through building codes or other authorities
- Begin orderly retrofit of existing buildings, starting with aligning incentives and programs with climate goals and focusing on existing replacement schedules
- Stop expanding gas distribution system and start planning for staged transition, while stopping methane leaks throughout the supply chain, primarily through enhanced leak detection and monitoring technologies.
- Assess the medical and other costs associated with burning of gas and other fossil fuels in our buildings, including the indoor and outdoor air quality impacts, and implement programs to eliminate such burdens

3. Electrify transportation

The electric vehicle revolution is already underway, providing greater performance and reducing air and noise pollution while supporting decarbonization. For regional governments the focus should be on enabling cities to invest in better options and building the interconnections that integrate these services across municipal boundaries as well as supporting rural communities. Ideally this will be combined with other mobility efforts such as public transit and mobility alternatives such as non-motorized transportation.

Top steps for ambitious action on electrifying transportation

- Establish a top-level transportation goal and work with key stakeholders to develop an inclusive, sustainable transportation roadmap that aligns with the state's climate action goals and includes best practices, implementation strategies, and a clear path forward
- Enable smart mobility by integrating transportation policy with land-use policy
- Establish statewide electric vehicle adoption requirements with near-term benchmarks and implement market enablers that drive adoption
- Build on and update existing low carbon fuels standards where they exist. For new policies, work towards the next generation of clean fuel standards that

prioritize clean electricity as a fuel source while aggressively decreasing the carbon intensity of difficult-to-electrify, heavy-duty transport, shipping, and aviation

- Remove barriers to building out charging infrastructure and work with public utility commissions (PUCs) to reassess regulatory approaches to pricing and vehicle-grid integration

4. Land Use

Land use issues present both a great threat and a great opportunity to climate goals. Cities miss most of the rural impacts associated with land use and so state governments are best postioned to deliver impact. Management of our forest, crop, and grazing lands, which either absorb and store carbon or contribute to further carbon emissions is critically important in many state. Forests, grasslands, and wetlands play a vital role in sequestering 10-15% of US carbon emissions, while methane emitted from livestock operations represents a significant portion of the agricultural sector's climate impact.

Top steps for ambitious action on land use

- Open Space Conservation – Preserve and conserve forests and other open spaces to support carbon sequestration and pursue smart-growth development policies aimed at addressing development pressure
- Agricultural methane capture – promote methane capture form livestock waste while building infrastructure and markets for biogas system products
- Sustainable Land management – Reduce deforestation and degradation; expand the area of land under sustainable management

Also of note:

Phasing down super-polluting HFCs in electric appliances is another important action ready for implementation:

- Adopt state HFCs standards and partner with businesses and manufacturers that are already transitioning away from super-polluting HFCs
- Incentivize businesses and residences to switch to HFCs alternatives

While not easy, these strategies create a digestible four-pronged plan for statewide decarbonization. Furthermore, they are not simply generalized strategies, but each has specific actions with existing precedents to build upon. With alignment among multiple states, these actions can happen faster and cheaper. They can also spur even broader impacts beyond your immediate jurisdictions.

Commented [C3]: I'm concerned with putting this forth as a program for action. It includes lots of things that these states are already doing and is missing some of the key policies and programs that will be needed to hit their carbon goals. I think we seem out of touch if we send them a document that includes "reject plans for new coal plants"

From: Hoffer,Trina <
Sent: Tuesday, July 02, 2019 10:47 AM EDT
To: Cummins,Patrick >
Subject: RE: Policy Table
Attachment(s): "Pocantico States Policy Table.pdf","Pocantico States Policy Table.docx"

Here you are.

From: Hoffer,Trina
Sent: Monday, July 1, 2019 6:53 PM
To: Cummins,Patrick
Subject: Re: Policy Table

It's done and attached. I'll send you the pdf version as soon as I can after I get into the office tomorrow (my Mac does not abide pdfing).

From: Cummins,Patrick
Sent: Monday, July 1, 2019 1:07:27 PM
To: Hoffer,Trina
Subject: FW: Policy Table

It's a late ask, so if we can't get it done that's fine. We will know exact timing of next email to the group when we talk at 2 tomorrow. Even adding the top 3-5 things for HI would be fine.

Patrick Cummins
Senior Policy Advisor
Colorado State University
Center for the New Energy Economy

From: Cummins,Patrick
Sent: Monday, July 1, 2019 1:05 PM
To: Hoffer,Katherine
Subject: RE: Policy Table

Tomorrow if possible

Patrick Cummins
Senior Policy Advisor
Colorado State University
Center for the New Energy Economy

From: Hoffer,Trina >
Sent: Monday, July 1, 2019 12:58 PM
To: Cummins,Patrick
Subject: RE: Policy Table

I can't get that done today. I have a paper I have to have reviewed by COB. When do you need it?

From: Cummins,Patrick >
Sent: Monday, July 1, 2019 12:50 PM
To: Hoffer,Trina
Subject: RE: Policy Table

This is terrific. Thank you! Any chance you would have time to add a few highlights for Hawaii? They are a late add to the meeting. Does not need to be comprehensive for them, but the big ticket items would be great. Let me know. Thank you! PC

Patrick Cummins
Senior Policy Advisor
Colorado State University
Center for the New Energy Economy

From: Hoffer,Katherine >
Sent: Thursday, June 27, 2019 4:30 PM
To: Cummins,Patrick >
Subject: Policy Table

Here you are.

Katherine Heriot Hoffer, PhD
Research Manager | Center for the New Energy Economy


CENTER FOR THE
NEW ENERGY
ECONOMY
Colorado State University

State Climate / Carbon Policies

State	Emissions / GHG Goals	Other Carbon / Climate Activities and Policies
California	Adopted in 2006 (AB 05-32): 1990 levels by 2020; amended in 2016 (SB 15-32): 40% below 1990 levels by 2030. E.O. S-03 in 2005: 80% below 1990 levels by 2050.	Cap & Trade Program EO B-55-2018: achieve carbon-neutrality by 2045 and net-negative emissions thereafter. AB 17-398: extends cap-and-trade through 2030. SB 15-350: directs CARB to adopt rules removing disincentives for utilities' emissions reductions programs.
Colorado	Adopted 2019 (HB 19-1261): more than 26% from 2005 levels by 2025, 50% below 2005 levels by 2030, and 90% below 2005 levels by 2050.	HB 19-1261: in addition to expanding GHG reduction goals, provides for possibility of joining other jurisdictions in regional abatement schemes. SB 19-096: directs the Air Quality Control Commission to track long-term emissions data and publish an inventory. SB 19-236: utilities must include emissions reductions plans in their IRPs, and PUC must consider social cost of carbon.
Connecticut	Originally adopted 2004 (SB 04-595), last amended 2018 (SB 18-7): 10% below 1990 levels by 2020, 45% below 2001 levels by 2030, and 80% below 2001 levels by 2050.	The 2018 amendment to the GHG targets (SB 7) also requires publication of seal level rise scenarios. In 2018, the Governor's Council on Climate Change put forward several policy recommendations for reducing emissions.
Hawaii	Adopted 2018 (HB 18-2182): carbon neutral by 2045.	HB 18-2182 also creates the Greenhouse Gas Sequestration Task Force to examine incentives and policies that will help the state further reduce emissions. Hawaii is on track to reduce GHG emissions to 1990 levels by 2020. The legislature set this target in 2007 (HB 226).
Maine	Adopted 2019 (LD 19-1679): 45% below 1990 levels by 2030, 80% below 1990 levels by 2050.	LD 19-1679: establishes the Maine Climate Council, tasked with developing a climate action plan and clean energy economy transition plan.
Maryland	Adopted 2009, reauthorized and amended in 2016 (SB 16-323): 25% below 2006 levels by 2020, and 40% below 2006 levels by 2030.	HB 19-277: Authorizes Governor to include the state as full participant in regional initiatives (TCI) to reduce emissions from transportation. SB 19-516: Among other provisions, increases the state's RPS to 50% by 2030. Requires study of a 100% renewable energy goal.

State	Emissions / GHG Goals	Other Carbon / Climate Activities and Policies
Massachusetts	Adopted 2008 (the Global Warming Solutions Act): 25% below 1990 levels by 2020, and 80% below 1990 levels by 2050.	E.O. 2016-569: requires the Secretary of Energy and Environmental Affairs to consult the GWSA Implementation Advisory Committee to establish statewide limits for 2030 and 2040, achieve further reductions from government operations, work to develop regional transportation policies, and lead reform on capacity and wholesale markets to achieve state mandates. DEP must also consider limits on sources such as natural gas pipelines and the transportation sector. The state's 2015 update to its Clean Energy and Climate Plan provides a comprehensive suite of policies to reduce statewide emissions.
Nevada	Adopted 2019 (SB 19-254): 28% below 2005 levels by 2025, 45% below 2005 levels by 2030, and "zero or near-zero" by 2050.	SB 19-254: requires DCNR to submit a report on whether existing/pending state policies can ensure that the state achieves zero carbon emissions by 2050.
New Jersey	Adopted 2007 (AB 07-3301): 1990 levels by 2020, and 80% below 2006 levels by 2050.	The Draft 2019 New Jersey Energy Master Plan outlines multiple strategies for emissions reductions in the energy, transportation, and building sectors.
New Mexico	Adopted 2019 (E.O 003): 45% below 2005 levels by 2030.	Governor Grisham's executive order on climate also created the interagency Climate Change Task Force to evaluate and report on mitigation and adaptation policies, including a market-based program to reduce carbon emissions. SB 19-489 requires that the Environmental Improvement Board (EIB) promulgate a rule limiting CO_2 emissions from coal fired generating plants to an emissions standard of 1,100 lbs-CO_2/MWh on or after January 1, 2023.
New York	Adopted by Executive Order 24 in 2009, reaffirmed as a goal of the Reforming the Energy Vision initiative: 40% below 1990 levels by 2030, and 80% below 1990 levels by 2050. Senate Bill 19-6599 will create GHG emissions targets of 40% below 1990 levels by 2030 and 85% below 1990 levels by 2050, with the remaining 15% offset. The bill also requires the PSC to create a clean energy standard of 70% renewable energy by 2030 and 100% zero emissions by 2040.	The state Soil & Water Conservation Committee administers a Climate Resilient Farming Program to reduce agricultural emissions. Governor Cuomo's REV initiative is a series of smaller initiatives to achieve carbon emissions reductions from multiple sectors, including transportation and buildings.
Oregon	Adopted 2007 (HB 07-3543): 10% below 1990 levels by 2020 and 75% below 1990 levels by 2050.	HB 19-2020 (second reading in Senate on 6/19) would create a GHG emissions standard of 45% below 1990 levels by 2035

State	Emissions / GHG Goals	Other Carbon / Climate Activities and Policies
Rhode Island	Adopted 2014 (the Resilient Rhode Island Act): 10% below 1990 levels by 2020, 45% below 1990 levels by 2035, and 80% below 1990 levels by 2050.	Governor Raimondo's executive order 2017-10 required the development of a statewide Climate Resilience Action Strategy by June 2018.
Vermont	Adopted 2006 (S 06-259): 50% below 1990 levels by 2028, and if feasible, 75% below 1990 levels by 2050.	Executive Order 2017-12 created the Vermont Climate Action Committee. The Committee's 2018 report recommends using market-based mechanisms, sequestration measures, and carbon offset projects to address emissions.
Washington	Adopted 2008 (HB 08-2815): 1990 levels by 2020, 25% below 1990 levels by 2035, and 50% below 1990 levels by 2050 or 70% below the state's expected emissions in 2050.	SB 19-5116: Requires utilities to use emissions-free resources by 2045. Social cost of carbon must factor into IRP process.

State Energy Policies and Utility Goals

State	Renewable / Clean Energy Targets	EERS	Utility Commitments / Goals
California	Adopted 2002, last amended 2018: 33% by 2020, 60% by 2030, with a target of 100% carbon-free by 2045.	Electric: Long-term goals average about 1.15% of retail sales through 2024. Average incremental savings targets average about 1.3% of retail sales electricity from 2020-2025. Natural Gas: Incremental savings target of 0.56% through 2024. SB 15-350 requires state agencies and utilities to double cumulative efficiency savings achieved by 2030. Work to develop specific utility targets is ongoing.	Pacific Gas & Electric: Member of the WeAreStill in coalition. Goal to avoid one million tons of cumulative greenhouse gas emissions from 2018 through 2022, compared to a 2016 baseline. SMUD: 33% renewable energy by 2020, 60% by 2030, and reduce retail load GHG emissions to net zero by 2040. Sempra Energy: 35% below 2010 emissions by 2021, SDG&E is on track to meet CA's 50% by RE target.
Colorado	Adopted 2004: 30% by 2020 (IOUs), 10% or 20% by 2020 for municipalities and electric cooperatives depending on size. Polis Administration's Roadmap to 100% Renewable Energy by 2040.	Electric: Flat target of 500 GWh or roughly 1.7% of sales per year. Black Hills follows Xcel's targets. HB 17-1227 extended electric efficiency programs to 2028 and required the commission to set goals of at least 5% peak demand reduction and 5% energy savings (as compared to 2018) by 2028 for demand-side management programs implemented during 2019 through 2028. Natural Gas: Savings targets commensurate with spending targets (at least 0.5% of prior year's revenue).	Xcel Energy: 55% RE by 2026, 80% GHG reduction by 2030, carbon-free by 2050. Platte River Power Authority: Zero carbon emissions by 2030. Holy Cross Energy: 70% emissions reduction by 2030. Poudre Valley Rural Electric Association: increase carbon-free energy from 33% to 80% by 2030. Colorado Springs Utilities: 20% renewable energy by 2020.

State	Renewable / Clean Energy Targets	EERS	Utility Commitments / Goals
Connecticut	Adopted 1998, last amended 2018: Class 1: 21% by 2020, 30% by 2025, 40% by 2030 (plus 4% class 1 or 2 by 2018, 4% class 3 by 2010).	Electric: Average incremental savings of 1.11% of sales from 2019 through 2021.The state's renewable portfolio standard (RPS), established in 1998 and revised thereafter, requires that electricity providers and wholesale suppliers obtain 27% of their retail load from renewable energy and energy efficiency by 2020. Natural Gas: Average incremental savings of 0.59% per year from 2019 through 2021.	AVANGRID (the United Illuminating Company is a subsidiary): increase installed renewable capacity by 2GW, reduce emissions intensity 25% below 2015 levels by 2020, 100% carbon neutral by 2035.
Hawaii	Adopted 2015 (HB 15-623): 40% by 2030, 70% by 2040, and 100% by 2045.	Electric: reduce electricity consumption by 4,300 GWh by 2030 (equal to approximately 30% of forecast electricity sales or 1.4% annual savings). Natural Gas: N/A (Natural gas plays a limited role in the state's energy generation mix.)	Hawaiian Electric Company: reduce GHG emissions more than 16% below 2010 levels by 2020. Achieved: 2014. Committed to meeting the 100% renewable energy target. Kaua'i Island Cooperative: 70% renewable by 2030.
Maine	Adopted 2019 (LD 19-1494): 80% by 2030, 100% by 2050.	Electric: Savings of 20% by 2020, with incremental savings targets of ~ 1.6% per year for 2014-2016 and ~2.4% per year for 2017-2019. While Efficiency Maine operates under an all cost-effective mandate, the agency has fallen short of targets in recent years due to budget cuts. Natural Gas: Incremental savings of ~0.2% per year for 2017-2019.	AVANGRID (Central Maine Power is a subsidiary): increase installed renewable capacity by 2GW, reduce emissions intensity 25% below 2015 levels by 2020, 100% carbon neutral by 2035.
Maryland	Adopted 2004, last amended 2019 (SB 19-516): 28% by 2020, 40% by 2025, and 50% by 2030.	Electric: 2% incremental energy savings goal through 2023. Utilities must also file an energy efficiency program plan every 3 years to be approved by the PSC. Natural Gas: goals and limited income goals are being developed.	FirstEnergy (Potomac Edison Company is subsidiary in MD): 90% below 2005 emission levels by 2045.

State	Renewable / Clean Energy Targets	EERS	Utility Commitments / Goals
Massachusetts	Adopted 1997, last amended 2018 (Clean Energy Standard): 20% by 2020, 40% by 2030, 60% by 2040, and 80% by 2050. RPS: 13% by 2018, 55% by 2050.	Electric: Net annual savings of 3.45 million MWh (not including fuel switching) for 2019-2021, equivalent to savings of ~2.7% of retail sales per year. Natural Gas: 1.25% of retail sales. Net savings of 95.89 MMTherms for 2019-2021. Additional goal of 261.9 million net lifetime MMBtu for 2019-2021.	NationalGrid: 45% below 1990 emission levels by 2020, 70% below 1990 levels by 2030, and 80% below 1990 levels by 2050.
Nevada	Adopted 1997, last amended 2019: 24% by 2021, 50% by 2030, with 100% by 2050 goal (up to 10% of the standard can be met using energy efficiency from 2020-2024.	SB 17-150 set baseline targets for electricity suppliers: 1% in 2018, 1.5% for 2021-2025.	NV Energy: seeks to double renewable generation by 2023. The utility included $2 billion in renewable projects in its 2018 IRP, and expects to retire or divest 100% of its coal generation by the end of 2025.
New Jersey	Adopted 1999, last amended 2018: 35% by 2025, 50% by 2030.	Electric: 2% electric savings (as a percent of average annual usage from the prior three years) within five years of the initial implementation of a utility's plan. In April, consultants presented the New Jersey Board of Public Utilities with the draft strategic plan for 2019-2022 for the statewide Clean Energy Program, including an energy efficiency portfolio achieving a 56% increase in savings by 2022. Natural Gas: 0.75% savings (as a percent of average annual usage from the prior three years) within five years of the initial implementation of a utility's plan.	FirstEnergy (Jersey Central Power & Light is a subsidiary): 90% below 2005 emission levels by 2045. Public Service Electric and Gas: eliminate 13 million metric tons of CO2 equivalent by 2030 (from 2005 levels).

State	Renewable / Clean Energy Targets	EERS	Utility Commitments / Goals
New Mexico	Adopted 2004, last amended 2019 (Carbon-free Resource Standard): Distribution cooperatives: 10% by 2020, 40% by 2025, 50% by 2030, and zero-carbon (at least 80% RE) by 2050. IOUs: 20% by 2020, 40% by 2025, 50% by 2030, 80% by 2040, and carbon-free by 2045.	Electric: The state's three public utilities must achieve 5% savings of 2020 retail sales by 2025. HB 19-291 directs the Public Regulation Commission to set additional targets through 2030.	Xcel Energy: 55% RE by 2026, 80% GHG reduction by 2030, and carbon-free by 2050. PNM: carbon-free by 2040 (5 years ahead of the deadline established by SB 19-489). PNM plans to retire San Juan by 2022.
New York	Adopted 2016 (Clean Energy Standard): 50% by 2030.	Statewide all-fuels target of 185 TBtu cumulative annual savings for 2015-2025, or approximately 3% of incremental electric sales. Electric: detailed proposals are to be submitted by the utilities to the PSC. The PSC assumes that these plans will account for 2% of the statewide goal, with the remainder accounted for by NYSERDA, codes and standards, and other state activities. Natural Gas: no specific targets, but savings will count toward statewide goal.	Long Island Power Authority: add 800 MW of clean energy by 2030. AVANGRID (New York State Electric & Gas Corporation and Rochester Gas & Electric Corporation are subsidiaries): increase installed renewable capacity by 2GW, reduce emissions intensity 25% below 2015 levels by 2020, and 100% carbon neutral by 2035. NationalGrid: 45% below 1990 emission levels by 2020, 70% below 1990 levels by 2030, and 80% below 1990 levels by 2050.
Oregon	Adopted 2007, last amended 2016: Large IOUs (3% or more of state's load): 50% by 2040 Large COUs: 25% by 2025 Small Utilities (1.5 to <3% of state's load): 10% by 2025 Smallest Utilities (<1.5% of	Electric: Incremental targets average ~1.3% of sales annually for the period 2015-2019. Natural Gas: Incremental savings of 0.3% of sales annually for the period 2015-	Portland General Electric and Pacific Power will be nearly coal free by 2030, entirely coal free by 2035. Avista: carbon-neutral electricity supply by 2027; 100% clean by 2045.

	state's load): 5% by 2025 Total coal phase out by 2035.[1]	2019.	
State	**Renewable / Clean Energy Targets**	**EERS**	**Utility Commitments / Goals**
Rhode Island	Adopted 2004, last amended 2016: 16% by 2020, 31% by 2030, 38.5% by 2036.	Electric: Average incremental savings of 2.5% for 2018-2020. Natural Gas: Average incremental savings of 0.97% for 2018-2020.	NationalGrid: 45% below 1990 emission levels by 2020, 70% below 1990 levels by 2030, 80% below 1990 levels by 2050.
Vermont	Adopted 2015: 55% by 2017, 75% by 2032, and 12% energy transformation projects (EE, EVs, storage) by 2032.	Vermont law requires Energy Efficiency Utility budgets to be set at a level that would realize "all reasonably available, cost-effective energy efficiency" and set specific energy and peak demand savings targets. Average incremental electricity savings totaling 357,400 MWh over 2018-2020, or approximately 2.4% of annual sales. Natural Gas: Three-year annual incremental savings of 192,599 Mcf spanning 2018-2020 or 0.5% of sales.	Green Mountain Power, 2018 Goal: partner with customers to drive down costs and eliminate more than 8,000 metric tons of carbon emissions per year using clean energy for the next two decades.
Washington	Adopted 2006, amended 2019: 15% by 2020, coal phased out by 2025, carbon neutral by 2030, 100% carbon-free by 2045.	Electric: average around 1.4% incremental savings per year. Natural Gas: in 2014, all four IOUs committed to a voluntary pilot program with the potential to save over 280 million therms annually.	Avista: carbon-neutral electricity supply by 2027, 100% clean by 2045. Seattle City Light: carbon neutral since 2005. Puget Sound Energy: reduce carbon emissions 50% by 2040, 100% coal-free generation by the early 2030s.

[1] Utilities that buy into a new coal plant or sign a new contract specifically for new coal power and publicly-owned utilities that annex investor-owned utility territory without consent (aside from municipal utilities under certain conditions) are subject to the “large utility” standards.

State Transportation Policies

State	Regional Transportation Collaborative	LEV Standards? [2]	ZEV Standards? [3]	Low Carbon Fuel Standard?	EV / ZEV Goals
California	Pacific Coast Collaborative	Yes	Yes	Goal: reduce carbon intensity of transportation fuel pool by at least 20% by 2030.	Goal (E.O. B.48-2018): 5 million ZEVs by 2030 and 250,000 ZEV chargers by 2025. Deploy over 100,000 zero emission freight vehicles and associated equipment by 2030. Transit agency requirements: all new bus purchases must be zero emission buses by 2029 (50% by 2026 for large agencies, 25% by 2026 for small agencies)
Colorado	REV West	Yes	Rulemaking in Progress		Goal (E.O. B2019-002): 940,000 EVs by 2030.
Connecticut	Transportation and Climate Initiative[4]	Yes	Yes	*	Goal: 500,000 ZEVs by 2030 (ZEV MOU)
Hawaii	N/A	No	No		
Maine	Transportation and Climate Initiative	Yes	Yes	*	
Maryland	Transportation and Climate Initiative	Yes	Yes	*	Goal: ~300,000 ZEVs by 2025 (ZEV MOU)
Massachusetts	Transportation and Climate Initiative	Yes	Yes	*	Goal: ~300,000 ZEVs by 2025 (ZEV MOU)

[2] States that have adopted LEV Standards not represented below: Delaware and Pennsylvania.
[3] All states that have adopted ZEV Standards are represented below.
[4] Other TCI members not captured here: Delaware, New Hampshire, Pennsylvania, and Virginia.

Nevada	REV West				

State	Regional Transportation Collaborative	LEV Standards?	ZEV Standards?	Low Carbon Fuel Standard?	EV / ZEV Goals
New Jersey	Transportation and Climate Initiative	Yes	Yes	*	Goal: 330,000 EVs by 2025.
New Mexico	REV West	Climate Change Task Force to evaluate adopting.	Climate Change Task Force to evaluate adopting.		Governor Grisham stated that she would like to see 20% of the state fleet electrified.
New York	Transportation and Climate Initiative	Yes	Yes	*	Goal: 800,000 ZEVs by 2025.
Oregon	Pacific Coast Collaborative	Yes	Yes	Requires fuel suppliers to reduce the carbon content of transportation fuels by 10% by 2025.	Goal (E.O. 2017-21): 50,000 EVs by 2020.
Rhode Island	Transportation and Climate Initiative	Yes	Yes	*	Goal: 43,000 ZEVs by 2025 (ZEV MOU)
Vermont	Transportation and Climate Initiative	Yes	Yes	*	Goal: ~50,000 EVs by 2025
Washington	Pacific Coast Collaborative	Yes			Goal: 50,000 EVs by 2020.

* Signatory: Low Carbon Fuel Standard MOU (2009) in which the states agreed to analyze low-carbon fuel supply options, determine the feasibility of achieving a range of carbon reduction goals – including a 10 percent reduction in carbon intensity of fuels – and develop a framework for a regional Low Carbon Fuel Standard (LCFS).

State Appliance and Building Efficiency Policies

State	Appliance Standards Opposing Federal Rollback[5]	Building Efficiency Codes
California	In December 2008, California adopted a 45 lumen per watt standard for general service lamps (GSLs) as defined in the 2007 Energy Independence and Security Act (EISA). California's Title 20 Appliance Efficiency Regulations have existing provisions that backstop all other federal appliance standards in case of repeal or rollback.	Commercial: meets or exceeds ASHRAE 90.1-2013 Residential: meets or exceeds IECC 2015 Solar: The California Energy Commission adopted revisions to the Energy code in May 2018. The most noteworthy new provision is a requirement for all new low-rise homes to install PV equipment with an annual output greater than or equal to the home's annual electric consumption. The proposed amended standards, which still need to be approved by the California Building Standards Commission would go into effect on January 1, 2020.
Colorado	HB 19-1231 updates and adopts standards for water efficiency and energy efficiency that apply to a list of 15 consumer and commercial appliances and other products. The bill also includes a provision to adopt current federal standards to backstop all other federal appliance standards in case of repeal or rollback.	No mandatory statewide code, but any county or municipality that had a building code in place was required to adopt 2003 IECC or 2006 IECC as the minimum energy code standard by July 1, 2008. Solar: Builders of single-family homes are required to offer solar energy as a standard feature to all prospective homebuyers. Builders are required to give the buyer the option to have either a PV system or a solar water heating system installed on their new home or to have all the necessary wiring and plumbing installed so that they can easily add a solar system later.
Connecticut	N/A	Residential and commercial building codes are based on the 2012 IECC, with weakening amendments.
Hawaii	HB 19-556 requires the Department of Business, Economic Development and Tourism to adopt minimum appliance efficiency standards for certain products sold or installed in the State that are substantially equivalent to existing appliance efficiency standards established in California and by the federal government.	Residential and commercial building codes are based on the 2015 IECC, with weakening amendments. Solar: As of January 1, 2010, building permits may not be issued for new single-family homes that do not include a solar water-heating system.

[5] In May 2019, 36 utility companies opposed the DOE proposal to roll back lightbulb efficiency stating that "The 2020 standard for lightbulbs should remain applicable to all common household lightbulbs, and efficiency standards for other products should not be delayed."

State	Appliance Standards Opposing Federal Rollback	Building Efficiency Codes
Maine	N/A	Commercial: based on the 2009 IECC and ASHRAE 90.1-2007 Residential: based on the 2009 IECC
Maryland	N/A	Residential and commercial building codes are based on the 2015 IECC.
Massachusetts	N/A	Commercial: based on the 2015 IECC and ASHRAE 90.1-2013 Residential: based on the 2015 IECC
Nevada	AB 19-54 adopted the federal light bulb standards.	Commercial: 2012 IECC, with amendments or ASHRAE 90.1-2010 Residential: 2012 IECC, with amendments
New Jersey	N/A	Commercial: based on ASHRAE 90.1-2013 Residential: based on 2015 IECC Solar: Developers of residential developments with 25 or more dwelling units must "offer to install, or to provide for installation of, a solar energy system" when technically feasible. The law took effect immediately upon enactment; however, the Department of Community Affairs (DCA), in cooperation with the New Jersey Board of Public Utilities (BPU), must develop rules and standards for its implementation. The law does not provide a time frame for the adoption of regulations and it does not appear that such rules have been established.
New Mexico	N/A	Commercial and residential are based on the 2009 IECC, with amendments
New York	N/A	Commercial: based on the 2015 IECC and ASHRAE 90.1-2013, as modified by the 2016 supplement Residential: based on the 2015 IECC, as modified by the 2016 supplement
Oregon	N/A	Commercial: based on ASHRAE 90.1-2010 Residential: more stringent than the 2009 IECC
Rhode Island	SB 19-552, which has been "held for further study", would establish minimum appliance energy efficiency standards.	Commercial: based on the 2012 IECC and ASHRAE 90.1-2010 Residential: based on the 2012 IECC, with amendments

State	Appliance Standards Opposing Federal Rollback	Building Efficiency Codes
Vermont	H 17-411 provides that the state will enforce federal standards if they are "withdrawn, repealed or otherwise voided" at the federal level. Efficiency measures protected by the new Vermont law include all standards on the federal books as of January 17, 2017, including ones that have yet to take effect, including the light bulb standards slated for implementation in 2020.	Commercial: based on the 2015 IECC and ASHRAE 90.1-2013, with amendments Residential: based on the 2015 IECC
Washington	HB 19-1444 adopts federal light bulb standards, providing a backstop to a potential federal rollback.	Commercial and Residential: based on the 2015 IECC, with amendments HB 19-1257: Department of Commerce is to create a State Energy Performance Standard by November 1, 2020 to reduce energy use and GHG emissions associated with large commercial buildings.

State Methane and HFC Emissions Policies

State	Methane Emissions Policy	HFC Emissions Policy
California	CARB adopted stringent methane regulations for monitoring and repairing pipeline leaks in 2017 (required by SB 16-1383). The CPUC ordered utilities to file methane abatement compliance plans by March 2019 (pursuant to SB 14-1371).	SB 18-1013 creates the Fluorinated Gases Emission Reduction Incentive Program to promote the adoption of low-global warming potential refrigerants. The schedule to ban products made with HFCs begins 2022.
Colorado	SB 19-181 directs the Air Quality Control Commission to bolster methane regulations by promulgating rules for all points in the natural gas supply chain (processing, gathering & boosting, storage, and transmission). The legislation also affirms local authority over oil and gas siting and sets objectives to protect public health.	SB19-096 requires the development of a GHG inventory, which will include HFCs.
Connecticut	N/A. Connecticut's omnibus energy bill, HB 19-5002, did not include regulations for methane emissions. Studies of CT pipelines reveal the need to modernize gas infrastructure.	Governor Malloy directed DEEP to develop HFC controls modelled after CARB's that would fit within the state's air quality regulatory framework. New regulations are expected in 2020.
Hawaii	N/A	N/A
Maine	Maine's policy establishes a classification system for pipeline leaks, and sets detection and repair requirements for pipeline operators. Governor Mills joined 15 other attorneys general in suing the Trump administration for halting enforcement of federal methane rules.	N/A
Maryland	The Greenhouse Gas Emissions Reductions Act requires the maintenance of GHG emissions inventories. The Maryland Department of Environment (MDE) publishes data on methane from wastewater, landfills, and oil and gas operations. MDE is in the process of developing proposed methane regulations - Methane Emissions Minimization Plans (MEMPs) - for curbing leaks across the natural gas supply chain.	MDE is in the process of developing HFC regulations for foam and refrigerant products pursuant to SB 16-323 (the Greenhouse Gas Emissions Reduction Act).

State	Methane Emissions Policy	HFC Emissions Policy
Massachusetts	To meet state emissions reductions goals, the DEP adopted rules in 2017 to require natural gas operators to reduce methane emissions annually (specified by utility), keep inventories, and repair pipeline leaks. The DPU adopted rules in March 2019 that establish methods for identifying high-priority leaks. The rules also require that gas operators accelerate repairs when leaks are located in 'environmentally sensitive areas'.	Massachusetts published its Comprehensive Energy Plan in late 2018. HFC regulations have not been announced, but the state's Attorney General joined 10 other states to sue the EPA for its HFC rule rollback in 2018.
Nevada	N/A	N/A
New Jersey	S 19-3207, if enacted, would bolster the state's GHG emissions reporting requirements and require the development of a comprehensive statewide strategy for mitigating 'short-lived' GHGs, including methane. As of May 2019, the bill had been passed by both chambers of the legislature.	S 19-3207 includes a provision requiring the development of a comprehensive strategy to reduce emissions of short-lived climate pollutants in the State. This requirement is based on legislation adopted and implemented in California.
New Mexico	Governor Grisham's EO 2019-003 directs EMNRD and NMED to develop a regulatory framework to reduce oil and gas sector methane emissions. The NMED maintains an interactive map of oil and gas site emissions.	N/A
New York	Governor Cuomo's Methane Reduction Plan (2017) outlines multiple policies to achieve emissions reductions targets, including monitoring and repair of natural gas pipelines.	The New York State Department of Environmental Conservation is developing regulations to phase out HFCs between 2020 and 2024, a draft proposal was released in September of 2018.
Oregon	HB 19-2020 would have directed the Environmental Quality Commission to develop rules regulating methane emissions from landfills, agriculture, and forestry. No legislation or regulations are in place for pipeline leaks.	N/A
Rhode Island	The Rhode Island Energy 2035 Plan (2015) recommended reviewing the state's natural gas replacement and repair policy, suggesting an update to National Grid's Gas Infrastructure, Safety, and Reliability Plan for detecting and repairing pipeline leaks.	N/A
Vermont	Gas utilities must 'routinely' inspect for leaks. No comprehensive program for pipeline emissions reductions is in place.	S 19-0030 establishes a schedule between 2020 and 2024 for when certain products must be manufactured without HFCs.
Washington	State law establishes a classification system for pipeline leaks and requires utilities to maintain permanent leak records and conduct a self-audit every five years.	HB 19-1112 establishes a regulatory framework for phasing out HFCs in the state, banning specific products beginning in 2020.

State	Bill Number	Summary
California	SB 18-1013	Codifies the prohibitions on certain ozone depleting substances and HFC) adopted by the U.S. EPA as part of the Significant New Alternatives Policy (SNAP) Program.
Colorado	HB 19-1261	Sets statewide GHG emissions reduction goals to more than 26% from 2005 levels by 2025, 50% below 2005 levels by 2030, and 90% below 2005 levels by 2050.
	SB 19-096	Requires the AQCC to collect greenhouse gas emissions data from greenhouse gas-emitting entities, report on the data, develop a forecast of future emissions, and propose a draft rule to address the emissions by July 1, 2020.
	SB 19-181	Modifies the composition of the COGCC, requires that the COGCC review and, if necessary, amend existing rules related to methane emissions and oil and gas operations, removes the state preemption of oil and gas regulation, and expands the authority of local governments to regulate oil and gas development.
	SB 19-236	Among other provisions, the bill supplements existing state renewable energy standard laws by establishing targets for the reduction of CO_2 emissions by Xcel Energy (80% below 2005 levels by 2030, 100% by 2050 and thereafter, if practicable). Other utilities may opt in to submitting clean energy plans. The bill also allows utilities to apply to the PUC for approval of a financing order to issue securitized utility ratepayer-backed bonds when retiring an electric generating facility. Bonds are to be used by the utility to purchase, build, or invest in electric generating resources or electricity storage, and repaid through a distinct charge on ratepayers. The bill requires the PUC to promulgate rules that require each wholesale electric cooperative to submit an application for approval of an integrated or electric resource plan. The PUC must evaluate the plans using rules adopted that are applicable to these cooperatives. The bill also requires the PUC to promulgate rules establishing requirements for IOUs to file electric distribution plans; requires IOUs to include a workforce transition plan when proposing the retirement of an electric generating facility; directs the PUC to require electric public utilities to consider the cost of carbon dioxide emissions in certain proceedings; requires the PUC to conduct an investigation of financial performance-based incentives and performance-based metric tracking; and directs the PUC to open an investigatory proceeding to evaluate the costs and benefits associated with regional transmission organizations, energy imbalance markets, joint tariffs, and power pools.
Connecticut		
Hawaii		
Maine	LD 19-1679	Updates the state's GHG emissions reduction targets to 45% below 1990 levels by 2030, and 80% below 1990 levels by 2050. Establishes the Maine Climate Council, comprised of state agencies and stakeholders tasked with developing a climate action plan and a clean energy economy transition plan.

State	Bill Number	Summary

Maryland	HB 19-277	Authorizes the Governor to include the state in any regional governmental initiative, agreement, or compact that limits or reduces greenhouse gas emissions from the transportation sector; requires the Department of the Environment and the Department of Transportation to submit a report on the status of any regional initiative before November 1, 2019.
	SB 19-516	Among other provisions, increases the state's RPS to 50% by 2030. Requires study of a 100% renewable energy goal.
Massachusetts	H 18-4857	Establishes an energy storage target of 1,000 MWh by 2025. Requires electric suppliers to provide a minimum percentage, as determined by the Department of Energy Resources (DER), of kWh sales from clean peak resources. Also provides for EDCs to submit distribution system resiliency reports to the DER. Allows EDCs to hold competitive solicitations for procurement of non-wires alternatives from third party developers. Establishes reporting requirements for lost and unaccounted for gas for gas companies for the purpose of reducing GHG emissions. Requires the DER to study the costs and benefits of requiring EDCs to issue competitive bids for up to 1,600 MW of additional offshore wind.
Nevada	SB 19-254	Sets GHG emissions reduction targets: 28% below 2005 levels by 2025, 45% below 2005 levels by 2030, and "zero or near-zero" by 2050. Also requires DCNR to submit an emissions report, and provide analysis of whether existing/pending state policies can ensure that the state achieves zero carbon emissions by 2050.
	SB 19-358	Increases the state's clean energy standard to 50% by 2030. Includes a zero carbon by 2050 goal.
New Jersey	AB 18-3723	Requires the BPU to conduct an energy storage analysis, make changes to the solar renewable energy certificate program, adopt energy efficiency and peak demand reduction programs, adopt a "Community Solar Energy Pilot Program," and provide tax credits for certain offshore wind energy projects. The bill also requires the Department of Labor and Workforce Development to establish job training programs for those who work in manufacturing and servicing of offshore wind energy equipment.
	SB 19-3207	If enacted, the bill will establish new timeframes for the implementation of certain requirements in the "Global Warming Response Act" (GWRA), and require the Department of Environmental Protection (DEP) to adopt a strategy to reduce short-lived climate pollutants.
New Mexico	SB 19-489	Increases the state's RPS as follows: Distribution cooperatives: 10% by 2020, 40% by 2025, 50% by 2030, zero-carbon (at least 80% RE) by 2050. IOUs: 20% by 2020, 40% by 2025, 50% by 2030, 80% by 2040, and resources must be carbon-free by 2045. Also authorizes an alternative mechanism ("energy transition bonds" or "securitization") for financing the retirement of coal-fired power plants. The mechanism has been designed to accommodate the retirement in 2022 of units 1 and 4 of the San Juan Generation Station (SJGS) and to anticipate the closure of the Four Corners Power Plant in 2031. The bill also requires that the Environmental Improvement Board (EIB) promulgate a rule limiting carbon dioxide emissions from coal fired generating plants to an emissions standard of 1,100 lbs-CO2/MWh on or after January 1, 2023.

State	**Bill Number**	**Summary**

New York	SB 19-6599	If enacted, will create GHG emissions targets of 40% below 1990 levels by 2030 and 85% below 1990 levels by 2050, with the remaining 15% offset. The bill also requires that the PSC creates a clean energy standard of 70% renewable energy by 2030 and 100% zero emissions by 2040.
Oregon		
Rhode Island		
Vermont	HB 19-529	Excludes from the definition of a net metering system a plant for generation of electricity that primarily supplies electricity to electric vehicle supply equipment for the resale of electricity. Requires the Public Utility Commission to report on steps necessary to implement fees on plug-in electric vehicle charging and how to address net metering and net metering credits by December 15, 2019. Establishes the vehicle incentive and emissions repair programs, which, among other things, provide point-of-sale vouchers for the purchase or lease of new plug-in electric vehicles. Permits State agencies that own or control electric vehicle supply equipment (EVSE) to establish, set, and adjust fees for the use of EVSE available to the public for three years starting on July 1, 2019. Specifies that the PUC does not have jurisdiction over persons otherwise not regulated by the PUC that engage in the siting, construction, ownership, operation, or control of a facility that sells or supplies electricity to the public exclusively for charging a plug-in electric vehicle. Requires the Commissioner of Buildings and General Services, to the maximum extent practicable, to purchase and lease hybrid or plug-in electric vehicles for the State fleet with a minimum of 50%, bumped to 75% on July 1, 2021, of newly purchased and leased vehicles being hybrid or plug-in electric vehicles.
	S 19-30	Establishes a schedule between 2020 and 2024 for when certain products must be manufactured without HFCs.
Washington	HB 19-1112	Establishes a schedule between 2020 and 2024 for when certain products must be manufactured without HFCs.
	HB 19-1257	Requires the State Building Code Council to develop rules that require and regulate electric vehicle charging capability at all new buildings that provide on-site parking. Requires the Department of Commerce to create a State Energy Performance Standard by November 1, 2020 to reduce energy use and GHG emissions associated with large commercial buildings. Requires gas companies to identify and acquire all conservation measures that are available and cost-effective. The cost-effectiveness analysis must include the societal costs of GHG emissions. The targets must be based on a conservation potential assessment prepared by an independent third party and approved by the UTC. A gas company may propose a renewable natural gas program under which the company would supply renewable natural gas for a portion of the natural gas sold or delivered to its retail customers. Each gas company must offer by tariff a voluntary renewable natural gas service available to all customers to replace any portion of the natural gas that would otherwise be provided by the gas company. The UTC must monitor the GHG emissions resulting from natural gas and renewable natural gas delivered by each gas company to its customers, relative to the proportionate share of the state's GHG emissions goal.
	HB 19-1512	Allows municipal utilities to adopt transportation electrification plans. Regulated utilities may adopt plans that provide EV charging equipment incentives and support for other transportation electrification programs. Utility Electric Transportation Plan Authorization: The governing authority of a utility or a regulated electric utility, with the approval of the UTC, may adopt an electric transportation plan that proves that utility outreach and

		investment in the electrification of transportation infrastructure does not increase net costs to ratepayers in excess of 0.25%. The governing authority or the UTC may consider items such as the impact of electrification on the utility's load, demand response and load management opportunities, system reliability and distribution system efficiencies, and interoperability concerns. Upon making this determination, electric utilities may offer incentive programs for customers.
	HB 19-2042	Extends and establishes tax credits for electric vehicles and electric vehicle supply equipment (EVSE). Establishes a grant program to assist transit authorities in fleet electrification and alternative fuel use; a car sharing pilot grant program to support car sharing for underserved communities; and extends an existing EV charging infrastructure grant program. Amends provisions authorizing investor-owned utilities' incentive rate of return on investments in EV supply equipment. Extends a technical assistance and education program on alternative fuel vehicles for public agencies within Washington State University's Extension Energy Program. Authorizes the Department of Commerce to conduct a study on reducing barriers to battery and hydrogen fuel cell electric vehicle adoption by lower income residents.
	SB 19-5116	Requires that by December 31, 2025, all electric utilities eliminate coal-fired resources from their allocation of electricity. For IOUs, the UTC is required to accelerate depreciation for any coal-fired resource owned by an IOU and is allowed to accelerate depreciation for any qualified transmission line to no later than December 31, 2025. The UTC must allow in rates prudently incurred undepreciated investments in a fossil-fuel generating resource that has been retired from service under specific conditions. By January 1, 2030, each electric utility must make all retail sales of electricity to Washington customers GHG neutral. An electric utility must achieve compliance with the GHG neutral standard for multiyear compliance periods beginning January 1, 2030, through December 31, 2044. By January 1, 2045, each electric utility must meet 100 percent of its retail electric load to Washington customers using non-emitting electric generation and electricity from renewable resources.

State EV and EVSE Policies and Incentives

California

EV Policies and Incentives

Low Emission Truck and Bus Purchase Vouchers: fleet owners.

Light-duty PHEV and ZEV Rebates

HOV and High Occupancy Toll (HOT) Lane Exemption

The California Clean Truck, Bus, and Off-Road Vehicle and Equipment Technology Program: funding for development, demonstration, pre-commercial pilot, and early commercial implementation projects for zero and near-zero emission trucks, buses, and off-road vehicles and equipment.

Through the California Clean Miles Standard and Incentive Program, the California Air Resources Board (ARB) will establish annual emissions reduction targets for transportation network companies, including goals for increasing the number of miles traveled using zero emission vehicles.

Zero and Near-Zero Emission Vehicle Component Rebates

Vehicle Acquisition and Petroleum Reduction Requirements: beginning in fiscal year 2024, at least 50% of the light-duty vehicles purchased by the state must be ZEVs. At least 30% of the Department of General Service's fleet of new vehicles with a gross vehicle weight of 19,000 pounds or more must be ZEVs by 2030.

Freight Efficiency Action Plan: establishes targets to improve freight efficiency and transition to zero emission technologies.

EV Supply Equipment (EVSE) Policies and Incentives

EVSE Incentive Program Support: provides guidance and funding for local governments and organizations to develop and implement EVSE incentive programs.

EVSE Loan and Rebate Program: available to small businesses.

Emissions Reductions Grants

Residential PACE EVSE Financing Program

EVSE Policies for Residential and Commercial Renters: The lessor of a dwelling or commercial property must approve written requests from a

lessee to install EVSE at a parking space allotted for the lessee on qualified properties. Certain exclusions apply to residential dwellings and commercial properties.

EVSE Policies for Multi-Unit Dwellings: A common interest development, including a community apartment, condominium, and cooperative development, may not prohibit or restrict the installation or use of EVSE or a PEV-dedicated TOU meter in a homeowner's designated parking space or unit. These entities may put reasonable restrictions on EVSE, but the policies may not significantly increase the cost of the EVSE or significantly decrease its efficiency or performance.

Mandatory EVSE Building Standards

EVSE Open Access Requirements: EVSE service providers may not charge a subscription fee or require membership for use of their public charging stations.

PEV Charging Access: Municipalities may not restrict the types of PEVs that may access a public PEV charging station that is intended for passenger vehicle use, and funded, at least in part, by the state or money from utility ratepayers.

EVSE Location Assessment: The State Energy Resources Conservation and Development Commission, in partnership with CARB, must assess whether EVSE in California is located disproportionately by population density, geographical area, or population income level. If EVSE has been disproportionately installed unreasonably, the agencies must proportionately install new EVSE, unless it is determined that the current locations of EVSE further California's policy goals.

EVSE Assessment: The California State Energy Resources Conservation and Development Commission, in partnership with CARB and the CPUC, must publish a statewide assessment of the EVSE infrastructure needed to support the levels of PEV adoption required for at least five million zero emission vehicles to operate in California by 2030. The assessment must consider the EVSE infrastructure needs for all vehicle categories, and must analyze the existing and future infrastructure needs across California, including in low-income communities. The assessment must be updated at least once every two years.

Public Utility Definition: A corporation or individual that owns, controls, operates, or manages public EVSE is not defined as a public utility.

State Agency EVSE Installation: California state agencies must actively identify and pursue opportunities to install EVSE, and accommodate future EVSE demand, at state employee parking facilities in new and existing agency buildings.

EVSE Local Permitting Policies: Cities and counties must adopt an ordinance that creates an expedited, streamlined permitting process for EVSE.

Colorado

EV Policies and Incentives

PEV Tax Credit: $5,000 - 20,000 in 2017-2019; $4,000 - 16,000 in 2020; $2,500 - 10,000 in 2021.

Alternative Fuel Vehicles and Infrastructure Grant Program: CEO, RAQC, and CDOT, have partnered to provide grants through the ALT Fuels Colorado program for new fleet purchases of EVs.

PEV and EVSE Grants: available to individual drivers and fleet owners.

High Occupancy Vehicle (HOV) Lane Exemption

EV Supply Equipment (EVSE) Policies and Incentives

Alternative Fuel Vehicles and Infrastructure Grant Program: Provides grants through the ALT Fuels Colorado program for new, publicly accessible co-located electric vehicle charging and propane station equipment at funded CNG stations, and EVs.

EVSE Multi-Unit Dwelling Installations and Access: A residential tenant may install Level 1 or Level 2 EVSE at their own expense on or in leased premises. The landlord may seek a fee or reimbursement for the actual cost of electricity as well as the cost of installation or upgrades to existing equipment. In addition, the tenant may request that the EVSE be accessible by other tenants, in which case the EVSE must be in compliance with all applicable requirements, and the landlord may seek a fee to reserve a specific parking space.

Alternative Fuel Resale and Generation Regulations: A corporation or individual that resells alternative fuel supplied by a public utility for use in an AFV is not subject to regulation as a public utility. Additionally, a corporation or individual that owns, controls, operates, or manages a facility that generates electricity exclusively for use in AFV charging or fueling facilities is not subject to regulation as a public utility provided that the electricity is generated on the property where the charging or fueling facilities are located and the electricity is generated from a renewable resource.

Connecticut

EV Policies and Incentives

Heavy-Duty Vehicle Emissions Reduction Grants: DEEP allocates a portion of its designated funds from the Volkswagen Environmental Mitigation Trust for the replacement or repower of eligible heavy-duty on-road vehicles through its Diesel Emissions Mitigation Program.

Hydrogen and PEV Rebate

Loans for PEVs and Residential Charging Infrastructure: The Connecticut Green Bank offers Smart-E low-interest loans of up to $30,000 for Connecticut residents to purchase a new or used PEV. The vehicle must be registered with the Connecticut Department of Motor Vehicles. Loans are also available for Connecticut PEV drivers to purchase EVSE. To qualify, applicants must own or lease a model year 2012 or later PEV and occupy the residence at which the EVSE will be installed.

Reduced Registration Fee for Electric Vehicles

AFV Procurement Preference: In determining the lowest responsible qualified bidder for the award of state contracts, the Connecticut Department of Administrative Services may give a price preference of up to 10% for the purchase of AFVs or for the purchase of conventional vehicles plus the conversion equipment to convert the vehicles to dual or dedicated alternative fuel use.

EV Supply Equipment (EVSE) Policies and Incentives

EVSE Grants: available to municipalities, state agencies, and private businesses.

Public EVSE Requirements: Owners and operators of public EVSE that require payment must allow multiple payment options that allow access by the public. In addition, payment should not require users to pay a subscription fee or obtain a membership of any kind, however payment required may be based on price schedules for such memberships. Owners and operators can impose restrictions on the amount of time a vehicle can use the EVSE. In addition, owners and operators of a public EVSE must disclose the location and characteristics of each EVSE to the U.S. Department of Energy's Alternative Fuels Data Center.

Public Utility Definition: An owner of an EV charging station is not defined as a public utility.

Utility Company PEV Rates: By July 1, 2018, utility companies must evaluate if it is appropriate to implement PEV time of day rates for residential and commercial customers.

Hawaii

EV Policies and Incentives

PEV HOV Lane and Parking Fee Exemptions.

State and county agencies must purchase light-duty vehicles that reduce petroleum consumption and meet the needs of the agency. Exemptions may apply.

EV Supply Equipment (EVSE) Policies and Incentives

Public Utility Definition: An entity that owns, controls, operates, or manages a plant or facility primarily used to charge or discharge a vehicle battery that provides power for vehicle propulsion is not defined as a public utility.

All parking facilities that are available for use by the general public and include at least 100 parking spaces must designate at least one parking space specifically for PEVs, provided that no parking spaces required by the Americans with Disabilities Act Accessibility Guidelines are reduced or displaced.

A multi-family residential dwelling or townhouse owner may install EVSE on or near a parking stall at the dwelling as long as the EVSE is in compliance with applicable rules and specifications, the EVSE is registered with the private entity within 30 days of installation, and the homeowner receives consent from the private entity if the EVSE is placed in a common area. Private entities may adopt rules that restrict the placement and use of EVSE but may not charge a fee for the placement. The EVSE owner is responsible for any damages resulting from the installation, maintenance, repair, removal, or replacement of the EVSE.

Maine

EV Policies and Incentives

An insurer may credit or refund any portion of the premium charged for an insurance policy on a clean fuel vehicle in order to encourage its policyholders to use clean fuel vehicles, as long as insurance premiums on other vehicles are not increased to fund these credits or refunds.

EV Supply Equipment (EVSE) Policies and Incentives

EVSE Funding: Efficiency Maine Trust is accepting applications through July 10, 2019, for funding of public, workplace, and multi-unit dwelling Level 2 EVSE in strategic locations within Maine. EVSE along specific roads and at locations that will likely experience a high frequency of use will be prioritized.

PEV Charging Regulation Exemption: An entity that sells electricity for the sole purpose of charging the battery of a PEV is not defined or regulated as an electricity provider. An EVSE provider may charge a submetered user only for kilowatt-hours used.

Maryland

EV Policies and Incentives

PEV and Fuel Cell Electric Vehicle (FCEV) Tax Credit: up to $3,000.

PEV HOV Lane Exemption

AFV Voucher Program: for the purchase of new and converted AFVs registered in Maryland. Vehicles must be used by commercial, non-profit, or public entities.

Zero Emission School Bus Grant Program and Study: The Maryland Department of the Environment will administer a Zero Emission School Bus Transition Grant Program to purchase zero emission school buses, install charging infrastructure, and transition to zero emission school bus fleets.

ZEV State Fleet Goal: state agencies must increase the number of ZEV acquisitions in light-duty fleets to at least 25% of annual fleet purchases by 2025.

EV Supply Equipment (EVSE) Policies and Incentives

EVSE Rebate Program

Alternative Fuel Infrastructure Grants: The Maryland Energy Administration administers the Maryland Alternative Fuel Infrastructure Program (AFIP), which provides grants to plan, install, and operate public access alternative fueling and charging infrastructure.

EVSE Regulation Exemption: Owners and operators of EVSE are not subject to state regulation as electricity suppliers or public service companies. For the purpose of this regulation, owners and operators of EVSE are considered retail electric customers.

PEV Information Disclosure: The Maryland Motor Vehicle Administration is allowed to provide the address of a registered PEV owner and information about the vehicle to electric companies for their use. Electric companies may only use this information in planning for the electric power supply and may not use it for marketing or solicitation.

PEV Infrastructure Promotion: The Maryland EV Infrastructure Council promotes the use of PEVs in the state. Specific responsibilities of the Council include the following:

- developing an action plan to facilitate successful integration of PEVs into the Maryland transportation network;
- assisting in developing and coordinating statewide standards for streamlined permitting and installation of EVSE;
- recommending a statewide charging infrastructure plan and incentives to support investment in PEVs;
- developing targeted policies to support fleet purchases of PEVs; encouraging local and regional efforts to promote the use of PEVs; and
- developing model procurement practices.

Effective July 1, 2019, the Council will be renamed the Zero Emission Electric Vehicle Council and will incorporate fuel cell electric vehicles in all of the Council responsibilities.

Massachusetts

EV Policies and Incentives

Vehicle Emissions Reduction Grants: The (MassDEP) Volkswagen Open Solicitation Grant Program provides up to 80% of the cost of new diesel or alternative fuel replacements and repowers for eligible government entities.

PEV and EVSE Grants for Public Fleets: available to local governments, public universities and colleges, and state agencies.

Plug-In and ZEV Rebates
AFV and Infrastructure Grants: The Massachusetts Department of Energy Resources' Clean Vehicle Project offers grants for public and private fleets to purchase AFVs and infrastructure.

When purchasing new motor vehicles, the Commonwealth of Massachusetts must purchase hybrids or AFVs to the maximum extent feasible and consistent with the ability of such vehicles to perform their intended functions.

EV Supply Equipment (EVSE) Policies and Incentives

Public Access EVSE Grants: Qualified EVSE must be available to the public at least 12 hours per day.

Multi-Unit Dwelling (MUD) EVSE Grants: available to private, public, or non-profit MUDs with ten or more residential units.

Workplace EVSE Grants: available to private, public, or non-profit workplaces with 15 or more employees on site.

Public EVSE Requirements: Owners and operators of public EVSE that require payment must provide payment options that allow access by the public. In addition, payment should not require users to pay a subscription fee or obtain a membership of any kind; however, required fees may be conditional on such memberships. Owners and operators can impose reasonable restrictions on EVSE use, such as limiting access to visitors of the business. In addition, owners and operators of public EVSE must provide the location, hours of operation, payment, and characteristics of each EVSE to the U.S. Department of Energy's Alternative Fuels Data Center.

EVSE Building Standards: The Massachusetts State Board of Building Regulations and Standards and the Massachusetts Department of Energy Resources will develop building and electric code requirements for residential and appropriate commercial buildings for EVSE.

Public Utility Definition: An entity that owns, operates, leases, or controls EVSE is not defined as a public utility.

Nevada

EV Policies and Incentives

AFV and Infrastructure Grants Authorization: The Nevada Office of Energy will establish the Nevada Clean Energy Fund to fund qualified clean energy projects, including any program, technology, product, or service that supports the deployment of AFVs and related infrastructure.

Authorization for HOV Lane Exemption: The NDOT, in consultation with the Federal Highway Administration and U.S. EPA, may establish a program allowing federally certified low emission, energy-efficient, and alternative fuel vehicles to operate in HOV lanes regardless of the number of passengers.

AFV Acquisition Requirement: Fleets containing 50 or more vehicles that are owned, leased, or operated by the state, a state agency, or a political subdivision of the state in a county with a population of 100,000 or more must acquire AFVs or U.S. EPA certified Ultra Low Emission Vehicles (ULEVs). Covered fleets are required to purchase either AFVs or certified ULEVs for 20% of new vehicles obtained. A fleet may meet the acquisition requirements by converting existing or newly acquired vehicles to operate on alternative fuels. An AFV acquired in compliance with this mandate must operate solely on the alternative fuel except when operating in an area where the appropriate alternative fuel is unavailable. Fleets with buses or heavy-duty vehicles are included.

SB 19-299: allows utilities to provide an incentive of 75% of the cost for school districts to develop charging infrastructure or purchase electric school buses.

EV Supply Equipment (EVSE) Policies and Incentives

EVSE Demonstration Program Requirements: The Electric Vehicle Infrastructure Demonstration Program requires Nevada utilities to promote and incentivize the deployment of EVSE. Utilities must submit an annual plan for implementing the Program in their service areas to the PUCN. Plans may include, but are not limited to, the following measures:

- payment of incentives to customers that install EVSE;
- time-of-use rates for electricity used to charge plug-in electric vehicles;
- EVSE education and awareness programs for customers; and
- technical assistance programs for government fleets and private organizations.

Utilities may request to recover the costs associated with carrying out the program, including customer incentives, by filing an application with the PUCN.

The Nevada Electric Highway initiative, a partnership created between the state and NV Energy in 2015, seeks to build a complete electric highway system along the I-95 corridor by 2020. 15% of the Nevada's $25 million allocation from the VW settlement agreement will be used to support electric highway projects.

New Jersey

EV Policies and Incentives

ZEV Tax Exemption: does not apply to partial ZEVs, including hybrid electric vehicles.

High Occupancy Vehicle (HOV) Lane Exemption

PEV Toll Discount Program

Low Emission or Alternative Fuel Bus Acquisition Requirement: All buses purchased by the New Jersey Transit Corporation must be: 1) equipped with improved pollution controls that reduce particulate emissions; or 2) powered by a fuel other than conventional diesel.

EV Supply Equipment (EVSE) Policies and Incentives

EVSE Grants: offered on a first-come, first-served basis for the cost of installation of eligible EVSE at workplaces, government and educational facilities, non-profits, parking facilities, and multi-unit dwellings.

State Interagency EV Partnership: Announced June 3, 2019, will be co-led by the BPU, DEP, and the EDA to develop and implement a statewide charging deployment initiative.

New Mexico

EV Policies and Incentives

Alternative Fuel and Advanced Vehicle System Manufacturing Incentive: The Alternative Energy Product Manufacturers Tax Credit provides credit against combined reporting taxes (gross receipts, compensating, and withholding) for qualified manufacturers of alternative energy products, including hydrogen and fuel cell vehicle systems, and electric and hybrid electric vehicles.

AFV Loans: available to state agencies, political subdivisions, and educational institutions for AFV acquisitions. Funds must be used for the purchase of vehicles that operate on natural gas, propane, electricity, or hydrogen.

Government fleets may finance alternative fuel vehicles or related infrastructure through guaranteed utility savings contracts where vehicle operational and fuel cost savings pay for the capital investment.

AFV and HEV Acquisition Requirements: A minimum of 75% of state government and educational institution fleet light-duty vehicles purchased must be HEVs, bi-fuel, or dedicated AFVs.

The New Mexico General Services Department (GSD) launched plans to electrify state vehicles, devoting $2.5 million to public fleet electrification, $1.2 million of which will be used for solar-powered charging stations in Santa Fe. In a statement, Governor Grisham noted she would like to see 20% of the state fleet electrified.

EV Supply Equipment (EVSE) Policies and Incentives

Public Utility Definition: An entity that is not a regulated utility that resells natural gas or electricity as motor fuel is not defined as a public utility.

New York

EV Policies and Incentives

PEV Rebate Program

Heavy-Duty Alternative Fuel and Advanced Vehicle Purchase Vouchers

ZEV and Fueling Infrastructure Rebates for Municipalities: available to cities, towns, villages, counties, and New York City boroughs.

Workplace EVSE and PEV Incentives: NYSERDA is offering employers in the greater New York City region an $8,000 rebate per dual-connector EVSE installed. Employees of organizations that receive the rebate are eligible for a $500 rebate toward the purchase or lease of a qualified PEV.

HOV Lane Exemption

PEV Toll Discount Program

HEV Taxicabs: By February 3, 2019, the New York City Taxi and Limousine Commission must approve one or more HEV models for immediate use as a taxicab by medallion owners.

EV Supply Equipment (EVSE) Policies and Incentives

EVSE Rebate: available to public and private entities for installations at public parking facilities, workplaces, and multi-unit dwellings.

Alternative Fueling Infrastructure Tax Credit:
PEV and Charging Infrastructure Support: The New York Power Authority's EVolve NY program has allocated up to $250 million to support PEVs and address charging infrastructure gaps throughout the state.

PEV Charging Tariff: Each investor-owned utility selling electricity was required to file a tariff with the NYPSC by April 1, 2018, to allow a customer to purchase electricity solely for the purpose of charging a PEV. The utility must make the tariff available to customers within 60 days of PSC approval.

Electric Corporation Definition: PEV charging stations are not defined as electric plants and owners and operators of charging stations are not defined as electric corporations. The PSC does not have jurisdiction over publicly available PEV charging stations, the owners and operators of the stations, or the transactions between the owners and operators of the stations, as long as the owners and operators do not fall within the definition of an electric corporation.

Governor Andrew M. Cuomo announced in February 2019 that New York is making up to $31.6 million available to ramp-up the expansion of electric vehicle fast charging stations. The plan was approved by the NYPSC and will leverage existing NYSERDA and NYPA funds.

Oregon

EV Policies and Incentives

Support for PEV Adoption: In order to support the state goal of at least 50,000 PEVs registered and operating in Oregon by 2020, the ZEV Working Group will develop goals and progress metrics for PEV adoption. The Working Group will aim to remove barriers to PEVs and PEV charging stations, and establish a website to share information about their efforts with the public.

PEV Rebate: available to residents, businesses, non-profit organizations, and government agencies.

Establishment of Recognition Programs for PEV Adoption: The ODOE must design and establish Governor's Awards for automobile dealerships to encourage sales of PEVs. ODOE must also design and establish Governor's Awards for businesses and organizations that support PEV adoption through installing charging infrastructure and using PEVs in their fleets.

Support for Zero-Emission Buses: ODOE, with ODOT, the PUC, the DEQ, and the Department of Education, must develop tools and provide assistance to school districts and transit agencies about using zero-emission bus options.

AFV Acquisition, Fuel Use, and Emissions Reductions Requirements: All state agencies and transit districts must purchase AFVs and use alternative fuels to operate those vehicles to the maximum extent possible, except in regions where it is not economically or logistically possible to fuel an AFV. DAS and ODO) must improve the PEV bulk procurement process to reduce costs for state agency PEV purchases. DAS must develop a “LEV First" policy to encourage state employees to use PEVs or other LEVs in the state fleet. DAS and ODOE must also develop a tool to calculate the long-term return on investment and life-cycle costs of PEVs to inform agencies of potential cost savings. In addition, DAS must inform and support legislative changes that enable increased charging infrastructure and state agency PEV purchases.

EV Supply Equipment (EVSE) Policies and Incentives

Mandatory EVSE Building Standards: The Oregon Department of Business and Consumer Services, Building Code Division, must amend the state building code to require that all newly constructed residential and commercial building parking structures can support the installation of at least one level 2 EVSE by October 1, 2022.

State Agency EVSE Installation: State agencies may install publicly-accessible EVSE on their premises or contract with a vendor to do so. The Oregon Department of Administrative Services (DAS) will establish criteria to determine the appropriate number of locations for EVSE at each agency. DAS must add PEV charging capacity for employee and public visitor parking lots, develop contracts to procure and install charging infrastructure, and incorporate PEV charging as a tenant improvement for state-leased buildings.

Electricity Provider and PEV Charging Rate Regulations: Regulated electric utility tariffs must explicitly permit customers to resell electricity for use as a motor fuel, as long as the entity is not considered a public utility as defined in Oregon Revised Statutes 757.005 and does not provide any utility service. Additionally, each regulated electric utility must provide customers with a choice of flat rate or time of use electricity rates specific to PEV owners. Finally, an investor-owned utility can own and operate PEV charging equipment using its own funds or petition the OPUC for rate recovery.

Rented Commercial Property EVSE Installations: The tenant of a commercial space may submit an application to install EVSE for the use of the tenant, employees of the tenant, and customers of the tenant. Unless the premises does not have at least one parking space per rental unit, the landlord must approve a completed application no more than 60 days after the tenant submits the application. In the absence of a different tenant-landlord agreement, the EVSE will be personal property of the tenant.

Planned Community and Condominium EVSE Installations: The owner of a lot in a planned community or unit in a condominium may submit an application to install EVSE for their personal use in a parking space subject to the exclusive use of the owner. The HOA must approve a complete application within 60 days. The owner is responsible for all costs associated with the EVSE installation and use, must disclose the existence of the EVSE and related responsibilities to a prospective buyer, and must ensure that the infrastructure meets insurance and safety

requirements. EVSE installed under these regulations on or before June 4, 2015, is considered to be the personal property of the lot or unit owner with which the EVSE is associated, unless the owner and HOA have negotiated a different outcome.

Rhode Island

EV Policies and Incentives

AFV and ZEV Acquisition Requirements: at least 75% of state motor vehicle acquisitions must be AFVs, and the remaining 25% must be HEVs to the greatest extent possible. By 2025, 25% of state motor vehicle acquisitions must be ZEVs.

EV Supply Equipment (EVSE) Policies and Incentives

EVSE and PEV Rebates: The Charge Up! program provides rebates to state and municipal agencies for the purchase and installation of publicly accessible Level 2 or DC fast chargers. Agencies that install EVSE also qualify for up to $15,000 to support the purchase or lease of a new PEV acquired on or after July 1, 2016, as part of their public sector fleet.

Vermont

EV Policies and Incentives

PEV Incentive: provides financial incentives to low- and moderate-income residents for the purchase or lease of a new PEV.

Heavy-Duty Vehicle Emissions Reduction Grants: Through the Vermont Diesel Emissions Reduction Grants Program, the Vermont Department of Environmental Conservation provides funding to local, state and regional agencies or departments, businesses, institutions, and nonprofit organizations for projects focused on reducing emissions from diesel engines and vehicles. Qualifying heavy-duty vehicles include buses and Class 5-8 trucks. Projects eligible for funding include alternative fuel conversions and certified vehicle or equipment replacements.

HEV and PEV Acquisition Requirements: Effective July 1, 2019, the Vermont Department of Buildings and General Services must, to the extent possible, purchase or lease HEVs or PEVs for state use. At least 50% of the vehicles purchased or leased annually must be HEVs or PEVs. Beginning July 1, 2021, at least 75% of the vehicles purchased or leased annually must be HEVs or PEVs.

PEV Analysis: The PUC must evaluate PEVs and PEV charging in the state. The Commission must provide public notice, opportunity for submission of written comments, and one or more workshops on PEVs during the course of its evaluation.

EV Supply Equipment (EVSE) Policies and Incentives

EVSE Grants: available to governments, businesses, non-profit organizations, homeowner associations, electric utilities, and EVSE providers.

Alternative Fueling Infrastructure Incentive: The Vermont State Infrastructure Bank (SIB) offers loan assistance to municipalities, regional development corporations, political subdivisions of the state, and private companies working for the state to finance public electric vehicle charging and natural gas fueling stations.

Public Utility Definition: An entity that supplies electricity to the public exclusively to charge plug-in electric vehicles is not defined as a public utility and may charge for this electricity by the kilowatt-hour.

EVSE Fee Authorization: Effective July 1, 2019, any Vermont agency or department that owns or controls EVSE may establish and set user fees.

EVSE Code Reporting: On or before December 1, 2019, the Vermont Agency of Agriculture, Food and Markets (Agency) must submit a report to the legislature that provides an update on the National Institute of Standards and Technology's (NIST) progress toward adopting a code on EVSE and makes a recommendation for an annual licensing fee for EVSE available to the public. If NIST has not adopted a code on EVSE by December 1, 2020, the Agency must submit an additional report on or before that date which provides an update on NIST's progress toward adopting a code.

Washington

EV Policies and Incentives

Alternative Fuel Commercial Vehicle and Fueling Infrastructure Tax Credit: Businesses are eligible to receive tax credits for purchasing new alternative fuel commercial vehicles and installing alternative fueling infrastructure.

PEV and Fuel Cell Electric Vehicle (FCEV) Infrastructure and Battery Tax: Public lands used for installing, maintaining, and operating PEV infrastructure are exempt from leasehold excise taxes until January 1, 2020. Additionally, the state sales and use taxes do not apply through July 1, 2025 to PEV and FCEV batteries or fuel cells; labor and services for installing, repairing, altering, or improving PEV and FCEV batteries or fuel cells and PEV and hydrogen fueling infrastructure; the sale of property used for PEV and hydrogen fueling infrastructure, and the sale of zero emission buses.

AFV and EV Retail Sales Tax Exemption

PEV Promotion and Infrastructure Development: Any regional transportation planning organization containing a county with a population greater than one million must collaborate with state and local governments to promote PEV use, invest in PEV charging infrastructure, and seek federal or private funding for these efforts.

AFV Car Share Pilot Program: WSDOT will develop a pilot program to provide AFV use opportunities to underserved and low-income communities and to those without easy access to transportation corridors.

AFV Technical Assistance and Education Program: The Washington State University Energy Program will establish and administer a technical assistance and education program on the use of AFVs for public agencies, including state and local governments.

EV and FCEV Low Income Opportunity Study: The Washington State Department of Commerce must conduct a study to identify opportunities to reduce barriers to EV and FCEV adoption by lower income residents through the use of vehicle and infrastructure financing assistance.

Alternative Fuel Use Requirement: All state agencies must, to the extent practicable, use 100% biofuels or electricity to operate all publicly owned vehicles. Agencies must prioritize EVs when leasing or purchasing new vehicles, and all trips that may feasibly use EVs must employ them.

EV Supply Equipment (EVSE) Policies and Incentives

Alternative Fueling Infrastructure Funding Program: WSDOT has developed a pilot funding program to strengthen and expand the West Coast Electric Highway network by deploying DC fast charging infrastructure along highway corridors in Washington.

Utility EVSE ROI Incentive: Utilities may petition the UTC for a rate of return on EVSE installed for the benefit of ratepayers through 2030.

Green Transportation Grant Program: WSDOT will establish a grant program to fund projects including fleet electrification, modification or replacement of facilities to facilitate fleet electrification and hydrogen fueling, upgrades to electrical transmission and distribution systems, and construction of charging and fueling infrastructure. In order to receive funding for a project, a transit authority must provide matching funding that is at least equal to 20% of the total cost of the project.

PEV Charging Regulation Exemption: The UTC may not regulate the rates, services, or facilities of an entity that offers charging facilities to the public for hire. The exemption does not apply if the entity is otherwise subject to UTC jurisdiction as an electrical company, or if an entity's battery charging facilities and services are subsidized by any regulated service. A utility may offer charging facilities as a regulated service, subject to UTC approval.

PEV Charging Infrastructure Availability: Publicly and privately owned PEVs may charge at state office locations if the vehicles are used for state business, conducting business with the state, or as commuter vehicles. Additionally, contingent upon funding, the state must install electrical outlets suitable for charging PEVs in each of the state's fleet parking and maintenance facilities as well as every state-operated highway rest stop.

Local Government PEV Infrastructure Requirements: Jurisdictions must develop regulations to allow the use of PEV infrastructure in all areas except critical areas or areas zoned for residential or resource use.

EVSE and Battery Exchange Station Regulations: State and local governments may lease land for installing, maintaining, and operating EVSE or electric vehicle battery exchange stations for up to 50 years for at least $1 per year. Additionally, the installation of battery charging and exchange stations is categorically exempt from the Washington Environmental Policy Act.

HB 19-1512: Allows municipal utilities to adopt transportation electrification plans. Regulated utilities may adopt plans that provide EV charging equipment incentives and support for other transportation electrification programs. Utility Electric Transportation Plan Authorization: The governing authority of a utility or a regulated electric utility, with the approval of the UTC, may adopt an electric transportation plan that proves that utility outreach and investment in the electrification of transportation infrastructure does not increase net costs to ratepayers in excess of 0.25%. The governing authority or the UTC may consider items such as the impact of electrification on the utility’s load, demand response and load management opportunities, system reliability and distribution system efficiencies, and interoperability concerns. Upon making this determination, electric utilities may offer incentive programs for customers.

State Climate / Carbon Policies

State	Emissions / GHG Goals	Other Carbon / Climate Activities and Policies
California	Adopted in 2006 (AB 05-32): 1990 levels by 2020; amended in 2016 (SB 15-32): 40% below 1990 levels by 2030. E.O. S-03 in 2005: 80% below 1990 levels by 2050.	Cap & Trade Program EO B-55-2018: achieve carbon-neutrality by 2045 and net-negative emissions thereafter. AB 17-398: extends cap-and-trade through 2030. SB 15-350: directs CARB to adopt rules removing disincentives for utilities' emissions reductions programs.
Colorado	Adopted 2019 (HB 19-1261): more than 26% from 2005 levels by 2025, 50% below 2005 levels by 2030, and 90% below 2005 levels by 2050.	HB 19-1261: in addition to expanding GHG reduction goals, provides for possibility of joining other jurisdictions in regional abatement schemes. SB 19-096: directs the Air Quality Control Commission to track long-term emissions data and publish an inventory. SB 19-236: utilities must include emissions reductions plans in their IRPs, and PUC must consider social cost of carbon.
Connecticut	Originally adopted 2004 (SB 04-595), last amended 2018 (SB 18-7): 10% below 1990 levels by 2020, 45% below 2001 levels by 2030, and 80% below 2001 levels by 2050.	The 2018 amendment to the GHG targets (SB 7) also requires publication of seal level rise scenarios. In 2018, the Governor's Council on Climate Change put forward several policy recommendations for reducing emissions.
Hawaii	Adopted 2018 (HB 18-2182): carbon neutral by 2045.	HB 18-2182 also creates the Greenhouse Gas Sequestration Task Force to examine incentives and policies that will help the state further reduce emissions. Hawaii is on track to reduce GHG emissions to 1990 levels by 2020. The legislature set this target in 2007 (HB 226).
Maine	Adopted 2019 (LD 19-1679): 45% below 1990 levels by 2030, 80% below 1990 levels by 2050.	LD 19-1679: establishes the Maine Climate Council, tasked with developing a climate action plan and clean energy economy transition plan.
Maryland	Adopted 2009, reauthorized and amended in 2016 (SB 16-323): 25% below 2006 levels by 2020, and 40% below 2006 levels by 2030.	HB 19-277: Authorizes Governor to include the state as full participant in regional initiatives (TCI) to reduce emissions from transportation. SB 19-516: Among other provisions, increases the state's RPS to 50% by 2030. Requires study of a 100% renewable energy goal.

State	Emissions / GHG Goals	Other Carbon / Climate Activities and Policies
Massachusetts	Adopted 2008 (the Global Warming Solutions Act): 25% below 1990 levels by 2020, and 80% below 1990 levels by 2050.	E.O. 2016-569: requires the Secretary of Energy and Environmental Affairs to consult the GWSA Implementation Advisory Committee to establish statewide limits for 2030 and 2040, achieve further reductions from government operations, work to develop regional transportation policies, and lead reform on capacity and wholesale markets to achieve state mandates. DEP must also consider limits on sources such as natural gas pipelines and the transportation sector. The state's 2015 update to its Clean Energy and Climate Plan provides a comprehensive suite of policies to reduce statewide emissions.
Nevada	Adopted 2019 (SB 19-254): 28% below 2005 levels by 2025, 45% below 2005 levels by 2030, and "zero or near-zero" by 2050.	SB 19-254: requires DCNR to submit a report on whether existing/pending state policies can ensure that the state achieves zero carbon emissions by 2050.
New Jersey	Adopted 2007 (AB 07-3301): 1990 levels by 2020, and 80% below 2006 levels by 2050.	The Draft 2019 New Jersey Energy Master Plan outlines multiple strategies for emissions reductions in the energy, transportation, and building sectors.
New Mexico	Adopted 2019 (E.O 003): 45% below 2005 levels by 2030.	Governor Grisham's executive order on climate also created the interagency Climate Change Task Force to evaluate and report on mitigation and adaptation policies, including a market-based program to reduce carbon emissions. SB 19-489 requires that the Environmental Improvement Board (EIB) promulgate a rule limiting CO_2 emissions from coal fired generating plants to an emissions standard of 1,100 lbs-CO_2/MWh on or after January 1, 2023.
New York	Adopted by Executive Order 24 in 2009, reaffirmed as a goal of the Reforming the Energy Vision initiative: 40% below 1990 levels by 2030, and 80% below 1990 levels by 2050. Senate Bill 19-6599 will create GHG emissions targets of 40% below 1990 levels by 2030 and 85% below 1990 levels by 2050, with the remaining 15% offset. The bill also requires the PSC to create a clean energy standard of 70% renewable energy by 2030 and 100% zero emissions by 2040.	The state Soil & Water Conservation Committee administers a Climate Resilient Farming Program to reduce agricultural emissions. Governor Cuomo's REV initiative is a series of smaller initiatives to achieve carbon emissions reductions from multiple sectors, including transportation and buildings.
Oregon	Adopted 2007 (HB 07-3543): 10% below 1990 levels by 2020 and 75% below 1990 levels by 2050.	HB 19-2020 (second reading in Senate on 6/19) would create a GHG emissions standard of 45% below 1990 levels by 2035 and 80% below 1990 levels by 2050 and achieve those reductions through a cap and trade program.

State	Emissions / GHG Goals	Other Carbon / Climate Activities and Policies
Rhode Island	Adopted 2014 (the Resilient Rhode Island Act): 10% below 1990 levels by 2020, 45% below 1990 levels by 2035, and 80% below 1990 levels by 2050.	Governor Rainmondo's executive order 2017-10 required the development of a statewide Climate Resilience Action Strategy by June 2018.
Vermont	Adopted 2006 (S 06-259): 50% below 1990 levels by 2028, and if feasible, 75% below 1990 levels by 2050.	Executive Order 2017-12 created the Vermont Climate Action Committee. The Committee's 2018 report recommends using market-based mechanisms, sequestration measures, and carbon offset projects to address emissions.
Washington	Adopted 2008 (HB 08-2815): 1990 levels by 2020, 25% below 1990 levels by 2035, and 50% below 1990 levels by 2050 or 70% below the state's expected emissions in 2050.	SB 19-5116: Requires utilities to use emissions-free resources by 2045. Social cost of carbon must factor into IRP process.

State Energy Policies and Utility Goals

State	Renewable / Clean Energy Targets	EERS	Utility Commitments / Goals
California	Adopted 2002, last amended 2018: 33% by 2020, 60% by 2030, with a target of 100% carbon-free by 2045.	Electric: Long-term goals average about 1.15% of retail sales through 2024. Average incremental savings targets average about 1.3% of retail sales electricity from 2020-2025. Natural Gas: Incremental savings target of 0.56% through 2024. SB 15-350 requires state agencies and utilities to double cumulative efficiency savings achieved by 2030. Work to develop specific utility targets is ongoing.	Pacific Gas & Electric: Member of the WeAreStill in coalition. Goal to avoid one million tons of cumulative greenhouse gas emissions from 2018 through 2022, compared to a 2016 baseline. SMUD: 33% renewable energy by 2020, 60% by 2030, and reduce retail load GHG emissions to net zero by 2040. Sempra Energy: 35% below 2010 emissions by 2021, SDG&E is on track to meet CA's 50% by RE target.
Colorado	Adopted 2004: 30% by 2020 (IOUs), 10% or 20% by 2020 for municipalities and electric cooperatives depending on size. Polis Administration's Roadmap to 100% Renewable Energy by 2040.	Electric: Flat target of 500 GWh or roughly 1.7% of sales per year. Black Hills follows Xcel's targets. HB 17-1227 extended electric efficiency programs to 2028 and required the commission to set goals of at least 5% peak demand reduction and 5% energy savings (as compared to 2018) by 2028 for demand-side management programs implemented during 2019 through 2028. Natural Gas: Savings targets commensurate with spending targets (at least 0.5% of prior year's revenue).	Xcel Energy: 55% RE by 2026, 80% GHG reduction by 2030, carbon-free by 2050. Platte River Power Authority: Zero carbon emissions by 2030. Holy Cross Energy: 70% emissions reduction by 2030. Poudre Valley Rural Electric Association: increase carbon-free energy from 33% to 80% by 2030. Colorado Springs Utilities: 20% renewable energy by 2020.

State	Renewable / Clean Energy Targets	EERS	Utility Commitments / Goals
Connecticut	Adopted 1998, last amended 2018: Class 1: 21% by 2020, 30% by 2025, 40% by 2030 (plus 4% class 1 or 2 by 2018, 4% class 3 by 2010).	Electric: Average incremental savings of 1.11% of sales from 2019 through 2021.The state's renewable portfolio standard (RPS), established in 1998 and revised thereafter, requires that electricity providers and wholesale suppliers obtain 27% of their retail load from renewable energy and energy efficiency by 2020. Natural Gas: Average incremental savings of 0.59% per year from 2019 through 2021.	AVANGRID (the United Illuminating Company is a subsidiary): increase installed renewable capacity by 2GW, reduce emissions intensity 25% below 2015 levels by 2020, 100% carbon neutral by 2035.
Hawaii	Adopted 2015 (HB 15-623): 40% by 2030, 70% by 2040, and 100% by 2045.	Electric: reduce electricity consumption by 4,300 GWh by 2030 (equal to approximately 30% of forecast electricity sales or 1.4% annual savings). Natural Gas: N/A (Natural gas plays a limited role in the state's energy generation mix.)	Hawaiian Electric Company: reduce GHG emissions more than 16% below 2010 levels by 2020. Achieved: 2014. Committed to meeting the 100% renewable energy target. Kaua'i Island Cooperative: 70% renewable by 2030.
Maine	Adopted 2019 (LD 19-1494): 80% by 2030, 100% by 2050.	Electric: Savings of 20% by 2020, with incremental savings targets of ~ 1.6% per year for 2014-2016 and ~2.4% per year for 2017-2019. While Efficiency Maine operates under an all cost-effective mandate, the agency has fallen short of targets in recent years due to budget cuts. Natural Gas: Incremental savings of ~0.2% per year for 2017-2019.	AVANGRID (Central Maine Power is a subsidiary): increase installed renewable capacity by 2GW, reduce emissions intensity 25% below 2015 levels by 2020, 100% carbon neutral by 2035.
Maryland	Adopted 2004, last amended 2019 (SB 19-516): 28% by 2020, 40% by 2025, and 50% by 2030.	Electric: 2% incremental energy savings goal through 2023. Utilities must also file an energy efficiency program plan every 3 years to be approved by the PSC. Natural Gas: goals and limited income goals are being developed.	FirstEnergy (Potomac Edison Company is subsidiary in MD): 90% below 2005 emission levels by 2045.

State	Renewable / Clean Energy Targets	EERS	Utility Commitments / Goals
Massachusetts	Adopted 1997, last amended 2018 (Clean Energy Standard): 20% by 2020, 40% by 2030, 60% by 2040, and 80% by 2050. RPS: 13% by 2018, 55% by 2050.	Electric: Net annual savings of 3.45 million MWh (not including fuel switching) for 2019-2021, equivalent to savings of ~2.7% of retail sales per year. Natural Gas: 1.25% of retail sales. Net savings of 95.89 MMTherms for 2019-2021. Additional goal of 261.9 million net lifetime MMBtu for 2019-2021.	NationalGrid: 45% below 1990 emission levels by 2020, 70% below 1990 levels by 2030, and 80% below 1990 levels by 2050.
Nevada	Adopted 1997, last amended 2019: 24% by 2021, 50% by 2030, with 100% by 2050 goal (up to 10% of the standard can be met using energy efficiency from 2020-2024.	SB 17-150 set baseline targets for electricity suppliers: 1% in 2018, 1.5% for 2021-2025.	NV Energy: seeks to double renewable generation by 2023. The utility included $2 billion in renewable projects in its 2018 IRP, and expects to retire or divest 100% of its coal generation by the end of 2025.
New Jersey	Adopted 1999, last amended 2018: 35% by 2025, 50% by 2030.	Electric: 2% electric savings (as a percent of average annual usage from the prior three years) within five years of the initial implementation of a utility's plan. In April, consultants presented the New Jersey Board of Public Utilities with the draft strategic plan for 2019-2022 for the statewide Clean Energy Program, including an energy efficiency portfolio achieving a 56% increase in savings by 2022. Natural Gas: 0.75% savings (as a percent of average annual usage from the prior three years) within five years of the initial implementation of a utility's plan.	FirstEnergy (Jersey Central Power & Light is a subsidiary): 90% below 2005 emission levels by 2045. Public Service Electric and Gas: eliminate 13 million metric tons of CO2 equivalent by 2030 (from 2005 levels).

State	Renewable / Clean Energy Targets	EERS	Utility Commitments / Goals
New Mexico	Adopted 2004, last amended 2019 (Carbon-free Resource Standard): Distribution cooperatives: 10% by 2020, 40% by 2025, 50% by 2030, and zero-carbon (at least 80% RE) by 2050. IOUs: 20% by 2020, 40% by 2025, 50% by 2030, 80% by 2040, and carbon-free by 2045.	Electric: The state's three public utilities must achieve 5% savings of 2020 retail sales by 2025. HB 19-291 directs the Public Regulation Commission to set additional targets through 2030.	Xcel Energy: 55% RE by 2026, 80% GHG reduction by 2030, and carbon-free by 2050. PNM: carbon-free by 2040 (5 years ahead of the deadline established by SB 19-489). PNM plans to retire San Juan by 2022.
New York	Adopted 2016 (Clean Energy Standard): 50% by 2030.	Statewide all-fuels target of 185 TBtu cumulative annual savings for 2015-2025, or approximately 3% of incremental electric sales. Electric: detailed proposals are to be submitted by the utilities to the PSC. The PSC assumes that these plans will account for 2% of the statewide goal, with the remainder accounted for by NYSERDA, codes and standards, and other state activities. Natural Gas: no specific targets, but savings will count toward statewide goal.	Long Island Power Authority: add 800 MW of clean energy by 2030. AVANGRID (New York State Electric & Gas Corporation and Rochester Gas & Electric Corporation are subsidiaries): increase installed renewable capacity by 2GW, reduce emissions intensity 25% below 2015 levels by 2020, and 100% carbon neutral by 2035. NationalGrid: 45% below 1990 emission levels by 2020, 70% below 1990 levels by 2030, and 80% below 1990 levels by 2050.
Oregon	Adopted 2007, last amended 2016: Large IOUs (3% or more of state's load): 50% by 2040 Large COUs: 25% by 2025 Small Utilities (1.5 to <3% of state's load): 10% by 2025 Smallest Utilities (<1.5% of state's load): 5% by 2025 Total coal phase out by 2035.[1]	Electric: Incremental targets average ~1.3% of sales annually for the period 2015-2019. Natural Gas: Incremental savings of 0.3% of sales annually for the period 2015-2019.	Portland General Electric and Pacific Power will be nearly coal free by 2030, entirely coal free by 2035. Avista: carbon-neutral electricity supply by 2027; 100% clean by 2045.

[1] Utilities that buy into a new coal plant or sign a new contract specifically for new coal power and publicly-owned utilities that annex investor-owned utility territory without consent (aside from municipal utilities under certain conditions) are subject to the "large utility" standards.

State	Renewable / Clean Energy Targets	EERS	Utility Commitments / Goals
Rhode Island	Adopted 2004, last amended 2016: 16% by 2020, 31% by 2030, 38.5% by 2036.	Electric: Average incremental savings of 2.5% for 2018-2020. Natural Gas: Average incremental savings of 0.97% for 2018-2020.	NationalGrid: 45% below 1990 emission levels by 2020, 70% below 1990 levels by 2030, 80% below 1990 levels by 2050.
Vermont	Adopted 2015: 55% by 2017, 75% by 2032, and 12% energy transformation projects (EE, EVs, storage) by 2032.	Vermont law requires Energy Efficiency Utility budgets to be set at a level that would realize "all reasonably available, cost-effective energy efficiency" and set specific energy and peak demand savings targets. Average incremental electricity savings totaling 357,400 MWh over 2018-2020, or approximately 2.4% of annual sales. Natural Gas: Three-year annual incremental savings of 192,599 Mcf spanning 2018-2020 or 0.5% of sales.	Green Mountain Power, 2018 Goal: partner with customers to drive down costs and eliminate more than 8,000 metric tons of carbon emissions per year using clean energy for the next two decades.
Washington	Adopted 2006, amended 2019: 15% by 2020, coal phased out by 2025, carbon neutral by 2030, 100% carbon-free by 2045.	Electric: average around 1.4% incremental savings per year. Natural Gas: in 2014, all four IOUs committed to a voluntary pilot program with the potential to save over 280 million therms annually.	Avista: carbon-neutral electricity supply by 2027, 100% clean by 2045. Seattle City Light: carbon neutral since 2005. Puget Sound Energy: reduce carbon emissions 50% by 2040, 100% coal-free generation by the early 2030s.

State Transportation Policies

State	Regional Transportation Collaborative	LEV Standards?[2]	ZEV Standards?[3]	Low Carbon Fuel Standard?	EV / ZEV Goals
California	Pacific Coast Collaborative	Yes	Yes	Goal: reduce carbon intensity of transportation fuel pool by at least 20% by 2030.	Goal (E.O. B.48-2018): 5 million ZEVs by 2030 and 250,000 ZEV chargers by 2025. Deploy over 100,000 zero emission freight vehicles and associated equipment by 2030. Transit agency requirements: all new bus purchases must be zero emission buses by 2029 (50% by 2026 for large agencies, 25% by 2026 for small agencies)
Colorado	REV West	Yes	Rulemaking in Progress		Goal (E.O. B2019-002): 940,000 EVs by 2030.
Connecticut	Transportation and Climate Initiative[4]	Yes	Yes	*	Goal: 500,000 ZEVs by 2030 (ZEV MOU)
Hawaii	N/A	No	No		
Maine	Transportation and Climate Initiative	Yes	Yes	*	
Maryland	Transportation and Climate Initiative	Yes	Yes	*	Goal: ~300,000 ZEVs by 2025 (ZEV MOU)
Massachusetts	Transportation and Climate Initiative	Yes	Yes	*	Goal: ~300,000 ZEVs by 2025 (ZEV MOU)
Nevada	REV West				

[2] States that have adopted LEV Standards not represented below: Delaware and Pennsylvania.
[3] All states that have adopted ZEV Standards are represented below.
[4] Other TCI members not captured here: Delaware, New Hampshire, Pennsylvania, and Virginia.

State	Regional Transportation Collaborative	LEV Standards?	ZEV Standards?	Low Carbon Fuel Standard?	EV / ZEV Goals
New Jersey	Transportation and Climate Initiative	Yes	Yes	*	Goal: 330,000 EVs by 2025.
New Mexico	REV West	Climate Change Task Force to evaluate adopting.	Climate Change Task Force to evaluate adopting.		Governor Grisham stated that she would like to see 20% of the state fleet electrified.
New York	Transportation and Climate Initiative	Yes	Yes	*	Goal: 800,000 ZEVs by 2025.
Oregon	Pacific Coast Collaborative	Yes	Yes	Requires fuel suppliers to reduce the carbon content of transportation fuels by 10% by 2025.	Goal (E.O. 2017-21): 50,000 EVs by 2020.
Rhode Island	Transportation and Climate Initiative	Yes	Yes	*	Goal: 43,000 ZEVs by 2025 (ZEV MOU)
Vermont	Transportation and Climate Initiative	Yes	Yes	*	Goal: ~50,000 EVs by 2025
Washington	Pacific Coast Collaborative	Yes			Goal: 50,000 EVs by 2020.

* Signatory: Low Carbon Fuel Standard MOU (2009) in which the states agreed to analyze low-carbon fuel supply options, determine the feasibility of achieving a range of carbon reduction goals – including a 10 percent reduction in carbon intensity of fuels – and develop a framework for a regional Low Carbon Fuel Standard (LCFS).

State Appliance and Building Efficiency Policies

State	Appliance Standards Opposing Federal Rollback[5]	Building Efficiency Codes
California	In December 2008, California adopted a 45 lumen per watt standard for general service lamps (GSLs) as defined in the 2007 Energy Independence and Security Act (EISA). California's Title 20 Appliance Efficiency Regulations have existing provisions that backstop all other federal appliance standards in case of repeal or rollback.	Commercial: meets or exceeds ASHRAE 90.1-2013 Residential: meets or exceeds IECC 2015 Solar: The California Energy Commission adopted revisions to the Energy code in May 2018. The most noteworthy new provision is a requirement for all new low-rise homes to install PV equipment with an annual output greater than or equal to the home's annual electric consumption. The proposed amended standards, which still need to be approved by the California Building Standards Commission would go into effect on January 1, 2020.
Colorado	HB 19-1231 updates and adopts standards for water efficiency and energy efficiency that apply to a list of 15 consumer and commercial appliances and other products. The bill also includes a provision to adopt current federal standards to backstop all other federal appliance standards in case of repeal or rollback.	No mandatory statewide code, but any county or municipality that had a building code in place was required to adopt 2003 IECC or 2006 IECC as the minimum energy code standard by July 1, 2008. Solar: Builders of single-family homes are required to offer solar energy as a standard feature to all prospective homebuyers. Builders are required to give the buyer the option to have either a PV system or a solar water heating system installed on their new home or to have all the necessary wiring and plumbing installed so that they can easily add a solar system later.
Connecticut	N/A	Residential and commercial building codes are based on the 2012 IECC, with weakening amendments.
Hawaii	HB 19-556 requires the Department of Business, Economic Development and Tourism to adopt minimum appliance efficiency standards for certain products sold or installed in the State that are substantially equivalent to existing appliance efficiency standards established in California and by the federal government.	Residential and commercial building codes are based on the 2015 IECC, with weakening amendments. Solar: As of January 1, 2010, building permits may not be issued for new single-family homes that do not include a solar water-heating system.

[5] In May 2019, 36 utility companies opposed the DOE proposal to roll back lightbulb efficiency stating that "The 2020 standard for lightbulbs should remain applicable to all common household lightbulbs, and efficiency standards for other products should not be delayed."

State	Appliance Standards Opposing Federal Rollback	Building Efficiency Codes
Maine	N/A	Commercial: based on the 2009 IECC and ASHRAE 90.1-2007 Residential: based on the 2009 IECC
Maryland	N/A	Residential and commercial building codes are based on the 2015 IECC.
Massachusetts	N/A	Commercial: based on the 2015 IECC and ASHRAE 90.1-2013 Residential: based on the 2015 IECC
Nevada	AB 19-54 adopted the federal light bulb standards.	Commercial: 2012 IECC, with amendments or ASHRAE 90.1-2010 Residential: 2012 IECC, with amendments
New Jersey	N/A	Commercial: based on ASHRAE 90.1-2013 Residential: based on 2015 IECC Solar: Developers of residential developments with 25 or more dwelling units must "offer to install, or to provide for installation of, a solar energy system" when technically feasible. The law took effect immediately upon enactment; however, the Department of Community Affairs (DCA), in cooperation with the New Jersey Board of Public Utilities (BPU), must develop rules and standards for its implementation. The law does not provide a time frame for the adoption of regulations and it does not appear that such rules have been established.
New Mexico	N/A	Commercial and residential are based on the 2009 IECC, with amendments
New York	N/A	Commercial: based on the 2015 IECC and ASHRAE 90.1-2013, as modified by the 2016 supplement Residential: based on the 2015 IECC, as modified by the 2016 supplement
Oregon	N/A	Commercial: based on ASHRAE 90.1-2010 Residential: more stringent than the 2009 IECC
Rhode Island	SB 19-552, which has been "held for further study", would establish minimum appliance energy efficiency standards.	Commercial: based on the 2012 IECC and ASHRAE 90.1-2010 Residential: based on the 2012 IECC, with amendments

State	Appliance Standards Opposing Federal Rollback	Building Efficiency Codes
Vermont	H 17-411 provides that the state will enforce federal standards if they are "withdrawn, repealed or otherwise voided" at the federal level. Efficiency measures protected by the new Vermont law include all standards on the federal books as of January 17, 2017, including ones that have yet to take effect, including the light bulb standards slated for implementation in 2020.	Commercial: based on the 2015 IECC and ASHRAE 90.1-2013, with amendments Residential: based on the 2015 IECC
Washington	HB 19-1444 adopts federal light bulb standards, providing a backstop to a potential federal rollback.	Commercial and Residential: based on the 2015 IECC, with amendments HB 19-1257: Department of Commerce is to create a State Energy Performance Standard by November 1, 2020 to reduce energy use and GHG emissions associated with large commercial buildings.

State Methane and HFC Emissions Policies

State	Methane Emissions Policy	HFC Emissions Policy
California	CARB adopted stringent methane regulations for monitoring and repairing pipeline leaks in 2017 (required by SB 16-1383). The CPUC ordered utilities to file methane abatement compliance plans by March 2019 (pursuant to SB 14-1371).	SB 18-1013 creates the Fluorinated Gases Emission Reduction Incentive Program to promote the adoption of low-global warming potential refrigerants. The schedule to ban products made with HFCs begins 2022.
Colorado	SB 19-181 directs the Air Quality Control Commission to bolster methane regulations by promulgating rules for all points in the natural gas supply chain (processing, gathering & boosting, storage, and transmission). The legislation also affirms local authority over oil and gas siting and sets objectives to protect public health.	SB19-096 requires the development of a GHG inventory, which will include HFCs.
Connecticut	N/A. Connecticut's omnibus energy bill, HB 19-5002, did not include regulations for methane emissions. Studies of CT pipelines reveal the need to modernize gas infrastructure.	Governor Malloy directed DEEP to develop HFC controls modelled after CARB's that would fit within the state's air quality regulatory framework. New regulations are expected in 2020.
Hawaii	N/A	N/A
Maine	Maine's policy establishes a classification system for pipeline leaks, and sets detection and repair requirements for pipeline operators. Governor Mills joined 15 other attorneys general in suing the Trump administration for halting enforcement of federal methane rules.	N/A
Maryland	The Greenhouse Gas Emissions Reductions Act requires the maintenance of GHG emissions inventories. The Maryland Department of Environment (MDE) publishes data on methane from wastewater, landfills, and oil and gas operations. MDE is in the process of developing proposed methane regulations - Methane Emissions Minimization Plans (MEMPs) - for curbing leaks across the natural gas supply chain.	MDE is in the process of developing HFC regulations for foam and refrigerant products pursuant to SB 16-323 (the Greenhouse Gas Emissions Reduction Act).

State	Methane Emissions Policy	HFC Emissions Policy
Massachusetts	To meet state emissions reductions goals, the DEP adopted rules in 2017 to require natural gas operators to reduce methane emissions annually (specified by utility), keep inventories, and repair pipeline leaks. The DPU adopted rules in March 2019 that establish methods for identifying high-priority leaks. The rules also require that gas operators accelerate repairs when leaks are located in 'environmentally sensitive areas'.	Massachusetts published its Comprehensive Energy Plan in late 2018. HFC regulations have not been announced, but the state's Attorney General joined 10 other states to sue the EPA for its HFC rule rollback in 2018.
Nevada	N/A	N/A
New Jersey	S 19-3207, if enacted, would bolster the state's GHG emissions reporting requirements and require the development of a comprehensive statewide strategy for mitigating 'short-lived' GHGs, including methane. As of May 2019, the bill had been passed by both chambers of the legislature.	S 19-3207 includes a provision requiring the development of a comprehensive strategy to reduce emissions of short-lived climate pollutants in the State. This requirement is based on legislation adopted and implemented in California.
New Mexico	Governor Grisham's EO 2019-003 directs EMNRD and NMED to develop a regulatory framework to reduce oil and gas sector methane emissions. The NMED maintains an interactive map of oil and gas site emissions.	N/A
New York	Governor Cuomo's Methane Reduction Plan (2017) outlines multiple policies to achieve emissions reductions targets, including monitoring and repair of natural gas pipelines.	The New York State Department of Environmental Conservation is developing regulations to phase out HFCs between 2020 and 2024, a draft proposal was released in September of 2018.
Oregon	HB 19-2020 would have directed the Environmental Quality Commission to develop rules regulating methane emissions from landfills, agriculture, and forestry. No legislation or regulations are in place for pipeline leaks.	N/A
Rhode Island	The Rhode Island Energy 2035 Plan (2015) recommended reviewing the state's natural gas replacement and repair policy, suggesting an update to National Grid's Gas Infrastructure, Safety, and Reliability Plan for detecting and repairing pipeline leaks.	N/A
Vermont	Gas utilities must 'routinely' inspect for leaks. No comprehensive program for pipeline emissions reductions is in place.	S 19-0030 establishes a schedule between 2020 and 2024 for when certain products must be manufactured without HFCs.
Washington	State law establishes a classification system for pipeline leaks and requires utilities to maintain permanent leak records and conduct a self-audit every five years.	HB 19-1112 establishes a regulatory framework for phasing out HFCs in the state, banning specific products beginning in 2020.

New and Noteworthy Legislation

State	Bill Number	Summary
California	SB 18-1013	Codifies the prohibitions on certain ozone depleting substances and HFC) adopted by the U.S. EPA as part of the Significant New Alternatives Policy (SNAP) Program.
Colorado	HB 19-1261	Sets statewide GHG emissions reduction goals to more than 26% from 2005 levels by 2025, 50% below 2005 levels by 2030, and 90% below 2005 levels by 2050.
	SB 19-096	Requires the AQCC to collect greenhouse gas emissions data from greenhouse gas-emitting entities, report on the data, develop a forecast of future emissions, and propose a draft rule to address the emissions by July 1, 2020.
	SB 19-181	Modifies the composition of the COGCC, requires that the COGCC review and, if necessary, amend existing rules related to methane emissions and oil and gas operations, removes the state preemption of oil and gas regulation, and expands the authority of local governments to regulate oil and gas development.
	SB 19-236	Among other provisions, the bill supplements existing state renewable energy standard laws by establishing targets for the reduction of CO_2 emissions by Xcel Energy (80% below 2005 levels by 2030, 100% by 2050 and thereafter, if practicable). Other utilities may opt in to submitting clean energy plans. The bill also allows utilities to apply to the PUC for approval of a financing order to issue securitized utility ratepayer-backed bonds when retiring an electric generating facility. Bonds are to be used by the utility to purchase, build, or invest in electric generating resources or electricity storage, and repaid through a distinct charge on ratepayers. The bill requires the PUC to promulgate rules that require each wholesale electric cooperative to submit an application for approval of an integrated or electric resource plan. The PUC must evaluate the plans using rules adopted that are applicable to these cooperatives. The bill also requires the PUC to promulgate rules establishing requirements for IOUs to file electric distribution plans; requires IOUs to include a workforce transition plan when proposing the retirement of an electric generating facility; directs the PUC to require electric public utilities to consider the cost of carbon dioxide emissions in certain proceedings; requires the PUC to conduct an investigation of financial performance-based incentives and performance-based metric tracking; and directs the PUC to open an investigatory proceeding to evaluate the costs and benefits associated with regional transmission organizations, energy imbalance markets, joint tariffs, and power pools.
Connecticut		
Hawaii		
Maine	LD 19-1679	Updates the state's GHG emissions reduction targets to 45% below 1990 levels by 2030, and 80% below 1990 levels by 2050. Establishes the Maine Climate Council, comprised of state agencies and stakeholders tasked with developing a climate action plan and a clean energy economy transition plan.

State	Bill Number	Summary
Maryland	HB 19-277	Authorizes the Governor to include the state in any regional governmental initiative, agreement, or compact that limits or reduces greenhouse gas emissions from the transportation sector; requires the Department of the Environment and the Department of Transportation to submit a report on the status of any regional initiative before November 1, 2019.
	SB 19-516	Among other provisions, increases the state's RPS to 50% by 2030. Requires study of a 100% renewable energy goal.
Massachusetts	H 18-4857	Establishes an energy storage target of 1,000 MWh by 2025. Requires electric suppliers to provide a minimum percentage, as determined by the Department of Energy Resources (DER), of kWh sales from clean peak resources. Also provides for EDCs to submit distribution system resiliency reports to the DER. Allows EDCs to hold competitive solicitations for procurement of non-wires alternatives from third party developers. Establishes reporting requirements for lost and unaccounted for gas for gas companies for the purpose of reducing GHG emissions. Requires the DER to study the costs and benefits of requiring EDCs to issue competitive bids for up to 1,600 MW of additional offshore wind.
Nevada	SB 19-254	Sets GHG emissions reduction targets: 28% below 2005 levels by 2025, 45% below 2005 levels by 2030, and "zero or near-zero" by 2050. Also requires DCNR to submit an emissions report, and provide analysis of whether existing/pending state policies can ensure that the state achieves zero carbon emissions by 2050.
	SB 19-358	Increases the state's clean energy standard to 50% by 2030. Includes a zero carbon by 2050 goal.
New Jersey	AB 18-3723	Requires the BPU to conduct an energy storage analysis, make changes to the solar renewable energy certificate program, adopt energy efficiency and peak demand reduction programs, adopt a "Community Solar Energy Pilot Program," and provide tax credits for certain offshore wind energy projects. The bill also requires the Department of Labor and Workforce Development to establish job training programs for those who work in manufacturing and servicing of offshore wind energy equipment.
	SB 19-3207	If enacted, the bill will establish new timeframes for the implementation of certain requirements in the "Global Warming Response Act" (GWRA), and require the Department of Environmental Protection (DEP) to adopt a strategy to reduce short-lived climate pollutants.
New Mexico	SB 19-489	Increases the state's RPS as follows: Distribution cooperatives: 10% by 2020, 40% by 2025, 50% by 2030, zero-carbon (at least 80% RE) by 2050. IOUs: 20% by 2020, 40% by 2025, 50% by 2030, 80% by 2040, and resources must be carbon-free by 2045. Also authorizes an alternative mechanism ("energy transition bonds" or "securitization") for financing the retirement of coal-fired power plants. The mechanism has been designed to accommodate the retirement in 2022 of units 1 and 4 of the San Juan Generation Station (SJGS) and to anticipate the closure of the Four Corners Power Plant in 2031. The bill also requires that the Environmental Improvement Board (EIB) promulgate a rule limiting carbon dioxide emissions from coal fired generating plants to an emissions standard of 1,100 lbs-CO2/MWh on or after January 1, 2023.

State	Bill Number	Summary
New York	SB 19-6599	If enacted, will create GHG emissions targets of 40% below 1990 levels by 2030 and 85% below 1990 levels by 2050, with the remaining 15% offset. The bill also requires that the PSC creates a clean energy standard of 70% renewable energy by 2030 and 100% zero emissions by 2040.
Oregon		
Rhode Island		
Vermont	HB 19-529	Excludes from the definition of a net metering system a plant for generation of electricity that primarily supplies electricity to electric vehicle supply equipment for the resale of electricity. Requires the Public Utility Commission to report on steps necessary to implement fees on plug-in electric vehicle charging and how to address net metering and net metering credits by December 15, 2019. Establishes the vehicle incentive and emissions repair programs, which, among other things, provide point-of-sale vouchers for the purchase or lease of new plug-in electric vehicles. Permits State agencies that own or control electric vehicle supply equipment (EVSE) to establish, set, and adjust fees for the use of EVSE available to the public for three years starting on July 1, 2019. Specifies that the PUC does not have jurisdiction over persons otherwise not regulated by the PUC that engage in the siting, construction, ownership, operation, or control of a facility that sells or supplies electricity to the public exclusively for charging a plug-in electric vehicle. Requires the Commissioner of Buildings and General Services, to the maximum extent practicable, to purchase and lease hybrid or plug-in electric vehicles for the State fleet with a minimum of 50%, bumped to 75% on July 1, 2021, of newly purchased and leased vehicles being hybrid or plug-in electric vehicles.
	S 19-30	Establishes a schedule between 2020 and 2024 for when certain products must be manufactured without HFCs.
Washington	HB 19-1112	Establishes a schedule between 2020 and 2024 for when certain products must be manufactured without HFCs.
	HB 19-1257	Requires the State Building Code Council to develop rules that require and regulate electric vehicle charging capability at all new buildings that provide on-site parking. Requires the Department of Commerce to create a State Energy Performance Standard by November 1, 2020 to reduce energy use and GHG emissions associated with large commercial buildings. Requires gas companies to identify and acquire all conservation measures that are available and cost-effective. The cost-effectiveness analysis must include the societal costs of GHG emissions. The targets must be based on a conservation potential assessment prepared by an independent third party and approved by the UTC. A gas company may propose a renewable natural gas program under which the company would supply renewable natural gas for a portion of the natural gas sold or delivered to its retail customers. Each gas company must offer by tariff a voluntary renewable natural gas service available to all customers to replace any portion of the natural gas that would otherwise be provided by the gas company. The UTC must monitor the GHG emissions resulting from natural gas and renewable natural gas delivered by each gas company to its customers, relative to the proportionate share of the state's GHG emissions goal.

	HB 19-1512	Allows municipal utilities to adopt transportation electrification plans. Regulated utilities may adopt plans that provide EV charging equipment incentives and support for other transportation electrification programs. Utility Electric Transportation Plan Authorization: The governing authority of a utility or a regulated electric utility, with the approval of the UTC, may adopt an electric transportation plan that proves that utility outreach and investment in the electrification of transportation infrastructure does not increase net costs to ratepayers in excess of 0.25%. The governing authority or the UTC may consider items such as the impact of electrification on the utility's load, demand response and load management opportunities, system reliability and distribution system efficiencies, and interoperability concerns. Upon making this determination, electric utilities may offer incentive programs for customers.
	HB 19-2042	Extends and establishes tax credits for electric vehicles and electric vehicle supply equipment (EVSE). Establishes a grant program to assist transit authorities in fleet electrification and alternative fuel use; a car sharing pilot grant program to support car sharing for underserved communities; and extends an existing EV charging infrastructure grant program. Amends provisions authorizing investor-owned utilities' incentive rate of return on investments in EV supply equipment. Extends a technical assistance and education program on alternative fuel vehicles for public agencies within Washington State University's Extension Energy Program. Authorizes the Department of Commerce to conduct a study on reducing barriers to battery and hydrogen fuel cell electric vehicle adoption by lower income residents.
	SB 19-5116	Requires that by December 31, 2025, all electric utilities eliminate coal-fired resources from their allocation of electricity. For IOUs, the UTC is required to accelerate depreciation for any coal-fired resource owned by an IOU and is allowed to accelerate depreciation for any qualified transmission line to no later than December 31, 2025. The UTC must allow in rates prudently incurred undepreciated investments in a fossil-fuel generating resource that has been retired from service under specific conditions. By January 1, 2030, each electric utility must make all retail sales of electricity to Washington customers GHG neutral. An electric utility must achieve compliance with the GHG neutral standard for multiyear compliance periods beginning January 1, 2030, through December 31, 2044. By January 1, 2045, each electric utility must meet 100 percent of its retail electric load to Washington customers using non-emitting electric generation and electricity from renewable resources.

State EV and EVSE Policies and Incentives

California

EV Policies and Incentives

Low Emission Truck and Bus Purchase Vouchers: fleet owners.

Light-duty PHEV and ZEV Rebates

HOV and High Occupancy Toll (HOT) Lane Exemption

The California Clean Truck, Bus, and Off-Road Vehicle and Equipment Technology Program: funding for development, demonstration, pre-commercial pilot, and early commercial implementation projects for zero and near-zero emission trucks, buses, and off-road vehicles and equipment.

Through the California Clean Miles Standard and Incentive Program, the California Air Resources Board (ARB) will establish annual emissions reduction targets for transportation network companies, including goals for increasing the number of miles traveled using zero emission vehicles.

Zero and Near-Zero Emission Vehicle Component Rebates

Vehicle Acquisition and Petroleum Reduction Requirements: beginning in fiscal year 2024, at least 50% of the light-duty vehicles purchased by the state must be ZEVs. At least 30% of the Department of General Service's fleet of new vehicles with a gross vehicle weight of 19,000 pounds or more must be ZEVs by 2030.

Freight Efficiency Action Plan: establishes targets to improve freight efficiency and transition to zero emission technologies.

EV Supply Equipment (EVSE) Policies and Incentives

EVSE Incentive Program Support: provides guidance and funding for local governments and organizations to develop and implement EVSE incentive programs.

EVSE Loan and Rebate Program: available to small businesses.

Emissions Reductions Grants

Residential PACE EVSE Financing Program

EVSE Policies for Residential and Commercial Renters: The lessor of a dwelling or commercial property must approve written requests from a lessee to install EVSE at a parking space allotted for the lessee on qualified properties. Certain exclusions apply to residential dwellings and commercial properties.

EVSE Policies for Multi-Unit Dwellings: A common interest development, including a community apartment, condominium, and cooperative development, may not prohibit or restrict the installation or use of EVSE or a PEV-dedicated TOU meter in a homeowner's designated parking space or unit. These entities may put reasonable restrictions on EVSE, but the policies may not significantly increase the cost of the EVSE or significantly decrease its efficiency or performance.

Mandatory EVSE Building Standards

EVSE Open Access Requirements: EVSE service providers may not charge a subscription fee or require membership for use of their public charging stations.

PEV Charging Access: Municipalities may not restrict the types of PEVs that may access a public PEV charging station that is intended for passenger vehicle use, and funded, at least in part, by the state or money from utility ratepayers.

EVSE Location Assessment: The State Energy Resources Conservation and Development Commission, in partnership with CARB, must assess whether EVSE in California is located disproportionately by population density, geographical area, or population income level. If EVSE has been disproportionately installed unreasonably, the agencies must proportionately install new EVSE, unless it is determined that the current locations of EVSE further California's policy goals.

EVSE Assessment: The California State Energy Resources Conservation and Development Commission, in partnership with CARB and the CPUC, must publish a statewide assessment of the EVSE infrastructure needed to support the levels of PEV adoption required for at least five million zero emission vehicles to operate in California by 2030. The assessment must consider the EVSE infrastructure needs for all vehicle categories, and must analyze the existing and future infrastructure needs across California, including in low-income communities. The assessment must be updated at least once every two years.

Public Utility Definition: A corporation or individual that owns, controls, operates, or manages public EVSE is not defined as a public utility.

State Agency EVSE Installation: California state agencies must actively identify and pursue opportunities to install EVSE, and accommodate future EVSE demand, at state employee parking facilities in new and existing agency buildings.

EVSE Local Permitting Policies: Cities and counties must adopt an ordinance that creates an expedited, streamlined permitting process for EVSE.

Colorado

EV Policies and Incentives

PEV Tax Credit: $5,000 - 20,000 in 2017-2019; $4,000 - 16,000 in 2020; $2,500 - 10,000 in 2021.

Alternative Fuel Vehicles and Infrastructure Grant Program: CEO, RAQC, and CDOT, have partnered to provide grants through the ALT Fuels Colorado program for new fleet purchases of EVs.

PEV and EVSE Grants: available to individual drivers and fleet owners.

High Occupancy Vehicle (HOV) Lane Exemption

EV Supply Equipment (EVSE) Policies and Incentives

Alternative Fuel Vehicles and Infrastructure Grant Program: Provides grants through the ALT Fuels Colorado program for new, publicly accessible co-located electric vehicle charging and propane station equipment at funded CNG stations, and EVs.

EVSE Multi-Unit Dwelling Installations and Access: A residential tenant may install Level 1 or Level 2 EVSE at their own expense on or in leased premises. The landlord may seek a fee or reimbursement for the actual cost of electricity as well as the cost of installation or upgrades to existing equipment. In addition, the tenant may request that the EVSE be accessible by other tenants, in which case the EVSE must be in compliance with all applicable requirements, and the landlord may seek a fee to reserve a specific parking space.

Alternative Fuel Resale and Generation Regulations: A corporation or individual that resells alternative fuel supplied by a public utility for use in an AFV is not subject to regulation as a public utility. Additionally, a corporation or individual that owns, controls, operates, or manages a facility that generates electricity exclusively for use in AFV charging or fueling facilities is not subject to regulation as a public utility provided that the electricity is generated on the property where the charging or fueling facilities are located and the electricity is generated from a renewable resource.

Connecticut

EV Policies and Incentives

Heavy-Duty Vehicle Emissions Reduction Grants: DEEP allocates a portion of its designated funds from the Volkswagen Environmental Mitigation Trust for the replacement or repower of eligible heavy-duty on-road vehicles through its Diesel Emissions Mitigation Program.

Hydrogen and PEV Rebate

Loans for PEVs and Residential Charging Infrastructure: The Connecticut Green Bank offers Smart-E low-interest loans of up to $30,000 for Connecticut residents to purchase a new or used PEV. The vehicle must be registered with the Connecticut Department of Motor Vehicles. Loans are also available for Connecticut PEV drivers to purchase EVSE. To qualify, applicants must own or lease a model year 2012 or later PEV and occupy the residence at which the EVSE will be installed.

Reduced Registration Fee for Electric Vehicles

AFV Procurement Preference: In determining the lowest responsible qualified bidder for the award of state contracts, the Connecticut Department of Administrative Services may give a price preference of up to 10% for the purchase of AFVs or for the purchase of conventional vehicles plus the conversion equipment to convert the vehicles to dual or dedicated alternative fuel use.

EV Supply Equipment (EVSE) Policies and Incentives

EVSE Grants: available to municipalities, state agencies, and private businesses.

Public EVSE Requirements: Owners and operators of public EVSE that require payment must allow multiple payment options that allow access by the public. In addition, payment should not require users to pay a subscription fee or obtain a membership of any kind, however payment required may be based on price schedules for such memberships. Owners and operators can impose restrictions on the amount of time a vehicle can use the EVSE. In addition, owners and operators of a public EVSE must disclose the location and characteristics of each EVSE to the U.S. Department of Energy's Alternative Fuels Data Center.

Public Utility Definition: An owner of an EV charging station is not defined as a public utility.

Utility Company PEV Rates: By July 1, 2018, utility companies must evaluate if it is appropriate to implement PEV time of day rates for residential and commercial customers.

Hawaii

EV Policies and Incentives

PEV HOV Lane and Parking Fee Exemptions.

State and county agencies must purchase light-duty vehicles that reduce petroleum consumption and meet the needs of the agency. Exemptions may apply.

EV Supply Equipment (EVSE) Policies and Incentives

Public Utility Definition: An entity that owns, controls, operates, or manages a plant or facility primarily used to charge or discharge a vehicle battery that provides power for vehicle propulsion is not defined as a public utility.

All parking facilities that are available for use by the general public and include at least 100 parking spaces must designate at least one parking space specifically for PEVs, provided that no parking spaces required by the Americans with Disabilities Act Accessibility Guidelines are reduced or displaced.

A multi-family residential dwelling or townhouse owner may install EVSE on or near a parking stall at the dwelling as long as the EVSE is in compliance with applicable rules and specifications, the EVSE is registered with the private entity within 30 days of installation, and the homeowner receives consent from the private entity if the EVSE is placed in a common area. Private entities may adopt rules that restrict the placement and use of EVSE but may not charge a fee for the placement. The EVSE owner is responsible for any damages resulting from the installation, maintenance, repair, removal, or replacement of the EVSE.

Maine

EV Policies and Incentives

An insurer may credit or refund any portion of the premium charged for an insurance policy on a clean fuel vehicle in order to encourage its policyholders to use clean fuel vehicles, as long as insurance premiums on other vehicles are not increased to fund these credits or refunds.

EV Supply Equipment (EVSE) Policies and Incentives

EVSE Funding: Efficiency Maine Trust is accepting applications through July 10, 2019, for funding of public, workplace, and multi-unit dwelling Level 2 EVSE in strategic locations within Maine. EVSE along specific roads and at locations that will likely experience a high frequency of use will be prioritized.

PEV Charging Regulation Exemption: An entity that sells electricity for the sole purpose of charging the battery of a PEV is not defined or regulated as an electricity provider. An EVSE provider may charge a submetered user only for kilowatt-hours used.

Maryland

EV Policies and Incentives

PEV and Fuel Cell Electric Vehicle (FCEV) Tax Credit: up to $3,000.

PEV HOV Lane Exemption

AFV Voucher Program: for the purchase of new and converted AFVs registered in Maryland. Vehicles must be used by commercial, non-profit, or public entities.

Zero Emission School Bus Grant Program and Study: The Maryland Department of the Environment will administer a Zero Emission School Bus Transition Grant Program to purchase zero emission school buses, install charging infrastructure, and transition to zero emission school bus fleets.

ZEV State Fleet Goal: state agencies must increase the number of ZEV acquisitions in light-duty fleets to at least 25% of annual fleet purchases by 2025.

EV Supply Equipment (EVSE) Policies and Incentives

EVSE Rebate Program

Alternative Fuel Infrastructure Grants: The Maryland Energy Administration administers the Maryland Alternative Fuel Infrastructure Program (AFIP), which provides grants to plan, install, and operate public access alternative fueling and charging infrastructure.

EVSE Regulation Exemption: Owners and operators of EVSE are not subject to state regulation as electricity suppliers or public service companies. For the purpose of this regulation, owners and operators of EVSE are considered retail electric customers.

PEV Information Disclosure: The Maryland Motor Vehicle Administration is allowed to provide the address of a registered PEV owner and information about the vehicle to electric companies for their use. Electric companies may only use this information in planning for the electric power supply and may not use it for marketing or solicitation.

PEV Infrastructure Promotion: The Maryland EV Infrastructure Council promotes the use of PEVs in the state. Specific responsibilities of the Council include the following:

- developing an action plan to facilitate successful integration of PEVs into the Maryland transportation network;
- assisting in developing and coordinating statewide standards for streamlined permitting and installation of EVSE;
- recommending a statewide charging infrastructure plan and incentives to support investment in PEVs;
- developing targeted policies to support fleet purchases of PEVs; encouraging local and regional efforts to promote the use of PEVs; and
- developing model procurement practices.

Effective July 1, 2019, the Council will be renamed the Zero Emission Electric Vehicle Council and will incorporate fuel cell electric vehicles in all of the Council responsibilities.

Massachusetts

EV Policies and Incentives

Vehicle Emissions Reduction Grants: The (MassDEP) Volkswagen Open Solicitation Grant Program provides up to 80% of the cost of new diesel or alternative fuel replacements and repowers for eligible government entities.

PEV and EVSE Grants for Public Fleets: available to local governments, public universities and colleges, and state agencies.

Plug-In and ZEV Rebates
AFV and Infrastructure Grants: The Massachusetts Department of Energy Resources' Clean Vehicle Project offers grants for public and private fleets to purchase AFVs and infrastructure.

When purchasing new motor vehicles, the Commonwealth of Massachusetts must purchase hybrids or AFVs to the maximum extent feasible and consistent with the ability of such vehicles to perform their intended functions.

EV Supply Equipment (EVSE) Policies and Incentives

Public Access EVSE Grants: Qualified EVSE must be available to the public at least 12 hours per day.

Multi-Unit Dwelling (MUD) EVSE Grants: available to private, public, or non-profit MUDs with ten or more residential units.

Workplace EVSE Grants: available to private, public, or non-profit workplaces with 15 or more employees on site.

Public EVSE Requirements: Owners and operators of public EVSE that require payment must provide payment options that allow access by the public. In addition, payment should not require users to pay a subscription fee or obtain a membership of any kind; however, required fees may be conditional on such memberships. Owners and operators can impose reasonable restrictions on EVSE use, such as limiting access to visitors of the business. In addition,

owners and operators of public EVSE must provide the location, hours of operation, payment, and characteristics of each EVSE to the U.S. Department of Energy's Alternative Fuels Data Center.

EVSE Building Standards: The Massachusetts State Board of Building Regulations and Standards and the Massachusetts Department of Energy Resources will develop building and electric code requirements for residential and appropriate commercial buildings for EVSE.

Public Utility Definition: An entity that owns, operates, leases, or controls EVSE is not defined as a public utility.

Nevada

EV Policies and Incentives

AFV and Infrastructure Grants Authorization: The Nevada Office of Energy will establish the Nevada Clean Energy Fund to fund qualified clean energy projects, including any program, technology, product, or service that supports the deployment of AFVs and related infrastructure.

Authorization for HOV Lane Exemption: The NDOT, in consultation with the Federal Highway Administration and U.S. EPA, may establish a program allowing federally certified low emission, energy-efficient, and alternative fuel vehicles to operate in HOV lanes regardless of the number of passengers.

AFV Acquisition Requirement: Fleets containing 50 or more vehicles that are owned, leased, or operated by the state, a state agency, or a political subdivision of the state in a county with a population of 100,000 or more must acquire AFVs or U.S. EPA certified Ultra Low Emission Vehicles (ULEVs). Covered fleets are required to purchase either AFVs or certified ULEVs for 20% of new vehicles obtained. A fleet may meet the acquisition requirements by converting existing or newly acquired vehicles to operate on alternative fuels. An AFV acquired in compliance with this mandate must operate solely on the alternative fuel except when operating in an area where the appropriate alternative fuel is unavailable. Fleets with buses or heavy-duty vehicles are included.

SB 19-299: allows utilities to provide an incentive of 75% of the cost for school districts to develop charging infrastructure or purchase electric school buses.

EV Supply Equipment (EVSE) Policies and Incentives

EVSE Demonstration Program Requirements: The Electric Vehicle Infrastructure Demonstration Program requires Nevada utilities to promote and incentivize the deployment of EVSE. Utilities must submit an annual plan for implementing the Program in their service areas to the PUCN. Plans may include, but are not limited to, the following measures:

- payment of incentives to customers that install EVSE;
- time-of-use rates for electricity used to charge plug-in electric vehicles;
- EVSE education and awareness programs for customers; and
- technical assistance programs for government fleets and private organizations.

Utilities may request to recover the costs associated with carrying out the program, including customer incentives, by filing an application with the PUCN.

The Nevada Electric Highway initiative, a partnership created between the state and NV Energy in 2015, seeks to build a complete electric highway system along the I-95 corridor by 2020. 15% of the Nevada's $25 million allocation from the VW settlement agreement will be used to support electric highway projects.

New Jersey

EV Policies and Incentives

ZEV Tax Exemption: does not apply to partial ZEVs, including hybrid electric vehicles.

High Occupancy Vehicle (HOV) Lane Exemption

PEV Toll Discount Program

Low Emission or Alternative Fuel Bus Acquisition Requirement: All buses purchased by the New Jersey Transit Corporation must be: 1) equipped with improved pollution controls that reduce particulate emissions; or 2) powered by a fuel other than conventional diesel.

EV Supply Equipment (EVSE) Policies and Incentives

EVSE Grants: offered on a first-come, first-served basis for the cost of installation of eligible EVSE at workplaces, government and educational facilities, non-profits, parking facilities, and multi-unit dwellings.

State Interagency EV Partnership: Announced June 3, 2019, will be co-led by the BPU, DEP, and the EDA to develop and implement a statewide charging deployment initiative.

New Mexico

EV Policies and Incentives

Alternative Fuel and Advanced Vehicle System Manufacturing Incentive: The Alternative Energy Product Manufacturers Tax Credit provides credit against combined reporting taxes (gross receipts, compensating, and withholding) for qualified manufacturers of alternative energy products, including hydrogen and fuel cell vehicle systems, and electric and hybrid electric vehicles.

AFV Loans: available to state agencies, political subdivisions, and educational institutions for AFV acquisitions. Funds must be used for the purchase of vehicles that operate on natural gas, propane, electricity, or hydrogen.

Government fleets may finance alternative fuel vehicles or related infrastructure through guaranteed utility savings contracts where vehicle operational and fuel cost savings pay for the capital investment.

AFV and HEV Acquisition Requirements: A minimum of 75% of state government and educational institution fleet light-duty vehicles purchased must be HEVs, bi-fuel, or dedicated AFVs.

The New Mexico General Services Department (GSD) launched plans to electrify state vehicles, devoting $2.5 million to public fleet electrification, $1.2 million of which will be used for solar-powered charging stations in Santa Fe. In a statement, Governor Grisham noted she would like to see 20% of the state fleet electrified.

EV Supply Equipment (EVSE) Policies and Incentives

Public Utility Definition: An entity that is not a regulated utility that resells natural gas or electricity as motor fuel is not defined as a public utility.

New York

EV Policies and Incentives

PEV Rebate Program

Heavy-Duty Alternative Fuel and Advanced Vehicle Purchase Vouchers

ZEV and Fueling Infrastructure Rebates for Municipalities: available to cities, towns, villages, counties, and New York City boroughs.

Workplace EVSE and PEV Incentives: NYSERDA is offering employers in the greater New York City region an $8,000 rebate per dual-connector EVSE installed. Employees of organizations that receive the rebate are eligible for a $500 rebate toward the purchase or lease of a qualified PEV.

HOV Lane Exemption

PEV Toll Discount Program

HEV Taxicabs: By February 3, 2019, the New York City Taxi and Limousine Commission must approve one or more HEV models for immediate use as a taxicab by medallion owners.

EV Supply Equipment (EVSE) Policies and Incentives

EVSE Rebate: available to public and private entities for installations at public parking facilities, workplaces, and multi-unit dwellings.

Alternative Fueling Infrastructure Tax Credit:
PEV and Charging Infrastructure Support: The New York Power Authority's EVolve NY program has allocated up to $250 million to support PEVs and address charging infrastructure gaps throughout the state.

PEV Charging Tariff: Each investor-owned utility selling electricity was required to file a tariff with the NYPSC by April 1, 2018, to allow a customer to purchase electricity solely for the purpose of charging a PEV. The utility must make the tariff available to customers within 60 days of PSC approval.

Electric Corporation Definition: PEV charging stations are not defined as electric plants and owners and operators of charging stations are not defined as electric corporations. The PSC does not have jurisdiction over publicly available PEV charging stations, the owners and operators of the stations, or the transactions between the owners and operators of the stations, as long as the owners and operators do not fall within the definition of an electric corporation.

Governor Andrew M. Cuomo announced in February 2019 that New York is making up to $31.6 million available to ramp-up the expansion of electric vehicle fast charging stations. The plan was approved by the NYPSC and will leverage existing NYSERDA and NYPA funds.

Oregon

EV Policies and Incentives

Support for PEV Adoption: In order to support the state goal of at least 50,000 PEVs registered and operating in Oregon by 2020, the ZEV Working Group will develop goals and progress metrics for PEV adoption. The Working Group will aim to remove barriers to PEVs and PEV charging stations, and establish a website to share information about their efforts with the public.

PEV Rebate: available to residents, businesses, non-profit organizations, and government agencies.

Establishment of Recognition Programs for PEV Adoption: The ODOE must design and establish Governor's Awards for automobile dealerships to encourage sales of PEVs. ODOE must also design and establish Governor's Awards for businesses and organizations that support PEV adoption through installing charging infrastructure and using PEVs in their fleets.

Support for Zero-Emission Buses: ODOE, with ODOT, the PUC, the DEQ, and the Department of Education, must develop tools and provide assistance to school districts and transit agencies about using zero-emission bus options.

AFV Acquisition, Fuel Use, and Emissions Reductions Requirements: All state agencies and transit districts must purchase AFVs and use alternative fuels to operate those vehicles to the maximum extent possible, except in regions where it is not economically or logistically possible to fuel an AFV. DAS and ODO) must improve the PEV bulk procurement process to reduce costs for state agency PEV purchases. DAS must develop a “LEV First" policy to encourage state employees to use PEVs or other LEVs in the state fleet. DAS and ODOE must also develop a tool to calculate the long-term return on investment and life-cycle costs of PEVs to inform agencies of potential cost savings. In addition, DAS must inform and support legislative changes that enable increased charging infrastructure and state agency PEV purchases.

EV Supply Equipment (EVSE) Policies and Incentives

Mandatory EVSE Building Standards: The Oregon Department of Business and Consumer Services, Building Code Division, must amend the state building code to require that all newly constructed residential and commercial building parking structures can support the installation of at least one level 2 EVSE by October 1, 2022.

State Agency EVSE Installation: State agencies may install publicly-accessible EVSE on their premises or contract with a vendor to do so. The Oregon Department of Administrative Services (DAS) will establish criteria to determine the appropriate number of locations for EVSE at each agency. DAS must add PEV charging capacity for employee and public visitor parking lots, develop contracts to procure and install charging infrastructure, and incorporate PEV charging as a tenant improvement for state-leased buildings.

Electricity Provider and PEV Charging Rate Regulations: Regulated electric utility tariffs must explicitly permit customers to resell electricity for use as a motor fuel, as long as the entity is not considered a public utility as defined in Oregon Revised Statutes 757.005 and does not provide any utility service. Additionally, each regulated electric utility must provide customers with a choice of flat rate or time of use electricity rates specific to PEV owners. Finally, an investor-owned utility can own and operate PEV charging equipment using its own funds or petition the OPUC for rate recovery.

Rented Commercial Property EVSE Installations: The tenant of a commercial space may submit an application to install EVSE for the use of the tenant, employees of the tenant, and customers of the tenant. Unless the premises does not have at least one parking space per rental unit, the landlord must approve a completed application no more than 60 days after the tenant submits the application. In the absence of a different tenant-landlord agreement, the EVSE will be personal property of the tenant.

Planned Community and Condominium EVSE Installations: The owner of a lot in a planned community or unit in a condominium may submit an application to install EVSE for their personal use in a parking space subject to the exclusive use of the owner. The HOA must approve a complete application within 60 days. The owner is responsible for all costs associated with the EVSE installation and use, must disclose the existence of the EVSE and related responsibilities to a prospective buyer, and must ensure that the infrastructure meets insurance and safety requirements. EVSE installed under these regulations on or before June 4, 2015, is considered to be the personal property of the lot or unit owner with which the EVSE is associated, unless the owner and HOA have negotiated a different outcome.

Rhode Island

EV Policies and Incentives

AFV and ZEV Acquisition Requirements: at least 75% of state motor vehicle acquisitions must be AFVs, and the remaining 25% must be HEVs to the greatest extent possible. By 2025, 25% of state motor vehicle acquisitions must be ZEVs.

EV Supply Equipment (EVSE) Policies and Incentives

EVSE and PEV Rebates: The Charge Up! program provides rebates to state and municipal agencies for the purchase and installation of publicly accessible Level 2 or DC fast chargers. Agencies that install EVSE also qualify for up to $15,000 to support the purchase or lease of a new PEV acquired on or after July 1, 2016, as part of their public sector fleet.

Vermont

EV Policies and Incentives

PEV Incentive: provides financial incentives to low- and moderate-income residents for the purchase or lease of a new PEV.

Heavy-Duty Vehicle Emissions Reduction Grants: Through the Vermont Diesel Emissions Reduction Grants Program, the Vermont Department of Environmental Conservation provides funding to local, state and regional agencies or departments, businesses, institutions, and nonprofit organizations for projects focused on reducing emissions from diesel engines and vehicles. Qualifying heavy-duty vehicles include buses and Class 5-8 trucks. Projects eligible for funding include alternative fuel conversions and certified vehicle or equipment replacements.

HEV and PEV Acquisition Requirements: Effective July 1, 2019, the Vermont Department of Buildings and General Services must, to the extent possible, purchase or lease HEVs or PEVs for state use. At least 50% of the vehicles purchased or leased annually must be HEVs or PEVs. Beginning July 1, 2021, at least 75% of the vehicles purchased or leased annually must be HEVs or PEVs.

PEV Analysis: The PUC must evaluate PEVs and PEV charging in the state. The Commission must provide public notice, opportunity for submission of written comments, and one or more workshops on PEVs during the course of its evaluation.

EV Supply Equipment (EVSE) Policies and Incentives

EVSE Grants: available to governments, businesses, non-profit organizations, homeowner associations, electric utilities, and EVSE providers.

Alternative Fueling Infrastructure Incentive: The Vermont State Infrastructure Bank (SIB) offers loan assistance to municipalities, regional development corporations, political subdivisions of the state, and private companies working for the state to finance public electric vehicle charging and natural gas fueling stations.

Public Utility Definition: An entity that supplies electricity to the public exclusively to charge plug-in electric vehicles is not defined as a public utility and may charge for this electricity by the kilowatt-hour.

EVSE Fee Authorization: Effective July 1, 2019, any Vermont agency or department that owns or controls EVSE may establish and set user fees.

EVSE Code Reporting: On or before December 1, 2019, the Vermont Agency of Agriculture, Food and Markets (Agency) must submit a report to the legislature that provides an update on the National Institute of Standards and Technology's (NIST) progress toward adopting a code on EVSE and makes a recommendation for an annual licensing fee for EVSE available to the public. If NIST has not adopted a code on EVSE by December 1, 2020, the Agency must submit an additional report on or before that date which provides an update on NIST's progress toward adopting a code.

Washington

EV Policies and Incentives

Alternative Fuel Commercial Vehicle and Fueling Infrastructure Tax Credit: Businesses are eligible to receive tax credits for purchasing new alternative fuel commercial vehicles and installing alternative fueling infrastructure.

PEV and Fuel Cell Electric Vehicle (FCEV) Infrastructure and Battery Tax: Public lands used for installing, maintaining, and operating PEV infrastructure are exempt from leasehold excise taxes until January 1, 2020. Additionally, the state sales and use taxes do not apply through July 1, 2025 to PEV and FCEV batteries or fuel cells; labor and services for installing, repairing, altering, or improving PEV and FCEV batteries or fuel cells and PEV and hydrogen fueling infrastructure; the sale of property used for PEV and hydrogen fueling infrastructure, and the sale of zero emission buses.

AFV and EV Retail Sales Tax Exemption

PEV Promotion and Infrastructure Development: Any regional transportation planning organization containing a county with a population greater than one million must collaborate with state and local governments to promote PEV use, invest in PEV charging infrastructure, and seek federal or private funding for these efforts.

AFV Car Share Pilot Program: WSDOT will develop a pilot program to provide AFV use opportunities to underserved and low-income communities and to those without easy access to transportation corridors.

AFV Technical Assistance and Education Program: The Washington State University Energy Program will establish and administer a technical assistance and education program on the use of AFVs for public agencies, including state and local governments.

EV and FCEV Low Income Opportunity Study: The Washington State Department of Commerce must conduct a study to identify opportunities to reduce barriers to EV and FCEV adoption by lower income residents through the use of vehicle and infrastructure financing assistance.

Alternative Fuel Use Requirement: All state agencies must, to the extent practicable, use 100% biofuels or electricity to operate all publicly owned vehicles. Agencies must prioritize EVs when leasing or purchasing new vehicles, and all trips that may feasibly use EVs must employ them.

EV Supply Equipment (EVSE) Policies and Incentives

Alternative Fueling Infrastructure Funding Program: WSDOT has developed a pilot funding program to strengthen and expand the West Coast Electric Highway network by deploying DC fast charging infrastructure along highway corridors in Washington.

Utility EVSE ROI Incentive: Utilities may petition the UTC for a rate of return on EVSE installed for the benefit of ratepayers through 2030.

Green Transportation Grant Program: WSDOT will establish a grant program to fund projects including fleet electrification, modification or replacement of facilities to facilitate fleet electrification and hydrogen fueling, upgrades to electrical transmission and distribution systems, and construction of charging and fueling infrastructure. In order to receive funding for a project, a transit authority must provide matching funding that is at least equal to 20% of the total cost of the project.

PEV Charging Regulation Exemption: The UTC may not regulate the rates, services, or facilities of an entity that offers charging facilities to the public for hire. The exemption does not apply if the entity is otherwise subject to UTC jurisdiction as an electrical company, or if an entity's battery charging facilities and services are subsidized by any regulated service. A utility may offer charging facilities as a regulated service, subject to UTC approval.

PEV Charging Infrastructure Availability: Publicly and privately owned PEVs may charge at state office locations if the vehicles are used for state business, conducting business with the state, or as commuter vehicles. Additionally, contingent upon funding, the state must install electrical outlets suitable for charging PEVs in each of the state's fleet parking and maintenance facilities as well as every state-operated highway rest stop.

Local Government PEV Infrastructure Requirements: Jurisdictions must develop regulations to allow the use of PEV infrastructure in all areas except critical areas or areas zoned for residential or resource use.

EVSE and Battery Exchange Station Regulations: State and local governments may lease land for installing, maintaining, and operating EVSE or electric vehicle battery exchange stations for up to 50 years for at least $1 per year. Additionally, the installation of battery charging and exchange stations is categorically exempt from the Washington Environmental Policy Act.

HB 19-1512: Allows municipal utilities to adopt transportation electrification plans. Regulated utilities may adopt plans that provide EV charging equipment incentives and support for other transportation electrification programs. Utility Electric Transportation Plan Authorization: The governing authority of a utility or a regulated electric utility, with the approval of the UTC, may adopt an electric transportation plan that proves that utility outreach

and investment in the electrification of transportation infrastructure does not increase net costs to ratepayers in excess of 0.25%. The governing authority or the UTC may consider items such as the impact of electrification on the utility's load, demand response and load management opportunities, system reliability and distribution system efficiencies, and interoperability concerns. Upon making this determination, electric utilities may offer incentive programs for customers.

From: Cummins,Patrick on behalf of Cummins,Patrick >
Sent: Sunday, June 30, 2019 5:38 PM EDT
To: Michael Northrop <
Subject: Re: Your notes on the P'co memo: time to talk Monday?

That's great. Yes, I am available between 1 and 3 PM Eastern. You can Just call me when you're ready

Sent from my iPhone

> On Jun 30, 2019, at 3:19 PM, Michael Northrop < wrote:
>
> Patrick,
> I'd like to take a crack at revising the memo before our call with Jacob on Tuesday. Do you have time Monday to go through the memo with me?
> I'm free Monday at 9am ET or at/after 1:00pm.
> Thanks,
> Michael
>
> Sent from my iPhone

From: Cummins,Patrick on behalf of Cummins,Patrick < >
Sent: Monday, July 08, 2019 2:19 PM EDT
To: Michael Northrop < ; Pingree, Hannah <
CC: Regina Creegan ; Deborah Burke >
Subject: RE: Your trip confirmation-UJQMLE 17JUL

Hannah – We are telling everyone that the easiest thing is to grab an Uber/Lyft from LaGuardia to Pocantico. You can submit your receipt for reimbursement as necessary after the meeting. PC

Patrick Cummins
Senior Policy Advisor
Colorado State University
Center for the New Energy Economy

From: Michael Northrop >
Sent: Monday, July 8, 2019 12:16 PM
To: Pingree, Hannah < >
Cc: Regina Creegan < >; Deborah Burke >; Cummins,Patrick >
Subject: Re: Your trip confirmation-UJQMLE 17JUL

Thanks Hannah.
Should we save a plate of dinner for you?
By the time you arrive, we'll most likely be upstairs in what's called the Hayloft. We'll make sure someone meets you and shows you where we'll be.. we'll make sure you're staying in the same building to make it's simple as possible.
See you soon.
Thanks,
Michael

Sent from my iPhone

On Jul 8, 2019, at 2:07 PM, Pingree, Hannah > wrote:

> Michael & Regina,
>
> Got a trip booked a bit later than I hoped – arriving at 7:30pm Wed night. If you could help with transportation to the center from Laguardia, that would be a big help. I return later Thursday night on a flight at 9ish, so happy to car pool back to the airport later, if anyone else is heading that direction. Would love to take the tour, if possible!
>
> Hannah

From: American Airlines <no-reply@notify.email.aa.com>
Sent: Monday, July 8, 2019 2:00 PM
To: Pingree, Hannah < >
Subject: Your trip confirmation-UJQMLE 17JUL

<image003.jpg><image003.jpg>

<~WRD364.jpg> <image004.jpg>

Hello Hannah Pingree! Issued: Jul 8, 2019

<~WRD364.jpg>

Your trip confirmation and receipt

Record locator: **UJQMLE**

Manage Your Trip

Wednesday, July 17, 2019

PWM
6:04 PM
Portland

<~WRD364.jpg>

LGA
7:29 PM
New York La Guardia

Seats: --
Class: Economy (S)
Meals:

American Airlines 4373
OPERATED BY REPUBLIC AIRWAYS AS AMERICAN EAGLE.

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For travel on or after April 1, 2019, the policy for traveling with Emotional Support and Service animals has changed Visit Traveling with Service Animals for more information.

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Some everyday products, like e-cigarettes and aerosol spray starch, can be dangerous when transported on the aircraft in carry-on and/or checked baggage. Changes in temperature or pressure can cause some items to leak, generate toxic fumes or start a fire. Carriage of prohibited items may result in fines or in certain cases imprisonment. Please ensure there are no forbidden hazardous materials in your baggage like:

Some Lithium batteries (e.g. spares in checked baggage, batteries over a certain size), Explosives / Fireworks, Strike anywhere matches/ Lighter fluid, Compressed gases / Aerosols Oxygen bottles/ Liquid oxygen, Flammable liquids, Pesticides/ Poison, Corrosive material.

There are special exceptions for small quantities (up to 70 ounces total) of medicinal and toilet articles carried in your luggage, spare lithium batteries for most consumer electronic devices in carry-on baggage, and certain smoking materials carried on your person.

Certain items are required to be carried with you onboard the aircraft. For example, spare lithium batteries for portable electronic devices, cigarette lighters and e-cigarettes must be removed from checked or gate-checked baggage and carried onboard the aircraft. However, e-cigarettes may not be used on-board the aircraft.

Traveling with medical oxygen, liquid oxygen, mobility aids and other assistive devices may require airline pre-approval or be restricted from carriage entirely. Passengers requiring these items should contact the airline operator for information on use of such devices.

To change your reservation, please call 1-800-433-7300 and refer to your record locator.

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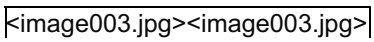


From: Michael Northrop >
Sent: Friday, June 28, 2019 5:10 PM EDT
To: Cummins,Patrick < >; Deborah Burke < >
Subject: Brief Bio - Leo R Asuncion Jr.docx
Attachment(s): "Brief Bio - Leo R Asuncion Jr.docx","ATT00001.txt"

Here's our HI participant. I'm going to try to talk to him on Monday..

BRIEF BIO

LEODOLOFF (LEO) R. ASUNCION, JR.
COMMISSIONER, HAWAII PUBLIC UTILITIES COMMISSION

Leodoloff (Leo) R. Asuncion, Jr. was appointed to the Public Utilities Commission by Governor David Y. Ige in February 2019 for a term to expire June 30, 2020.

Prior to his appointment to the PUC, Commissioner Asuncion was a Planning Program Administrator II at the Office of Planning, Department of Business, Economic Development and Tourism, and from 2013 to 2018 served as Director of the Office. As Director, he was responsible for the overall management, development, and implementation of state policy, and coordination and planning support to state and county agencies. He also served as Planning Program Manager of the Hawaii Coastal Zone Management Program from 2011 to 2013.

Commissioner Asuncion has over 28 years of extensive experience in planning, policy analysis, and management throughout Hawaii and the Pacific Region, in both the public and private sectors, through previous position with Hawaiian Electric Company, Inc., SSFM International, Inc. the Hawaii State Judiciary, and the State Land Use Commission. He has also chaired or been a member of a number of governmental boards, commissions, task forces and councils during his professional career, and currently serves as a member of the American Planning Association Board of Directors, and Immediate Past Chair of the Coastal States Organization.

Commissioner Asuncion holds a Master in Business Administration degree from Hawaii Pacific University, and a Master in Urban and Regional Planning and Bachelor of Arts in Political Science degrees from the University of Hawaii-Manoa.

From: Cummins,Patrick on behalf of Cummins,Patrick < >
Sent: Friday, June 28, 2019 9:11 AM EDT
To: Michael Northrop >
Subject: cover email for updated agenda
Attachment(s): "MEMORANDUM.docx"

Michael –

Here is some material that may be helpful for the email that goes with the updated agenda. You can use what you like and leave the rest. So far, it only describes the morning session -- some words to describe the afternoon session are still needed.

I am in meetings all day here in Santa Fe and then driving home. I can do more on this, and on the agenda itself, over the weekend, so don't hesitate to send me anything you want me to review. I'm also working next week.

Patrick Cummins
Senior Policy Advisor
Colorado State University
Center for the New Energy Economy

TO: Pocantico Participants
FROM: Michael Northrop, Rockefeller Brothers Fund
SUBJECT: Accelerating State Action on Climate Change, July 17-18, 2019

The 2018 elections brought forward a new group of state leaders – governors, legislators, policy makers, and agency officials – committed to reducing greenhouse gas emissions in their states. This new group of state leaders joins those of you who have been leading the charge for a decade or more. We are thrilled that so many of you are able to join us for this event where we will discuss ways to accelerate state action and ensure that the progress being made by U.S. states is recognized and understood by the international community.

While our time together at Pocantico is short, we hope to address each of the following topics:

- What are the leading edge clean energy policies and GHG reduction programs being implemented by US states? What opportunities exist in the near term to increase the number of states adopting these programs?

- How can this group of state leaders support each other, and also work together to bring other states into the fold?

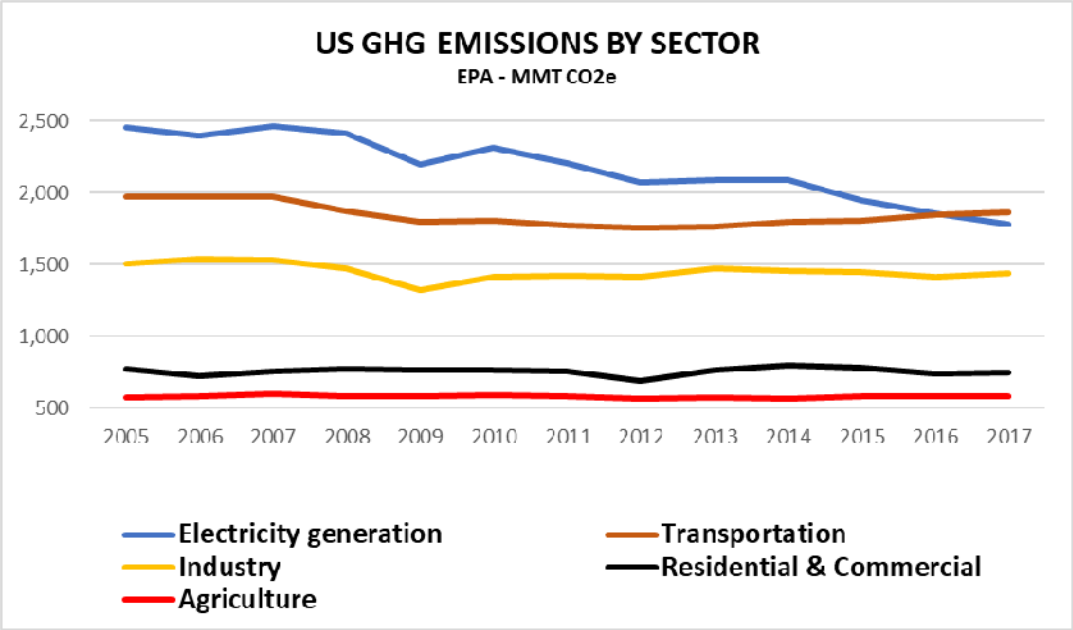
- Can these leading edge state policies and programs become a de facto national standard?

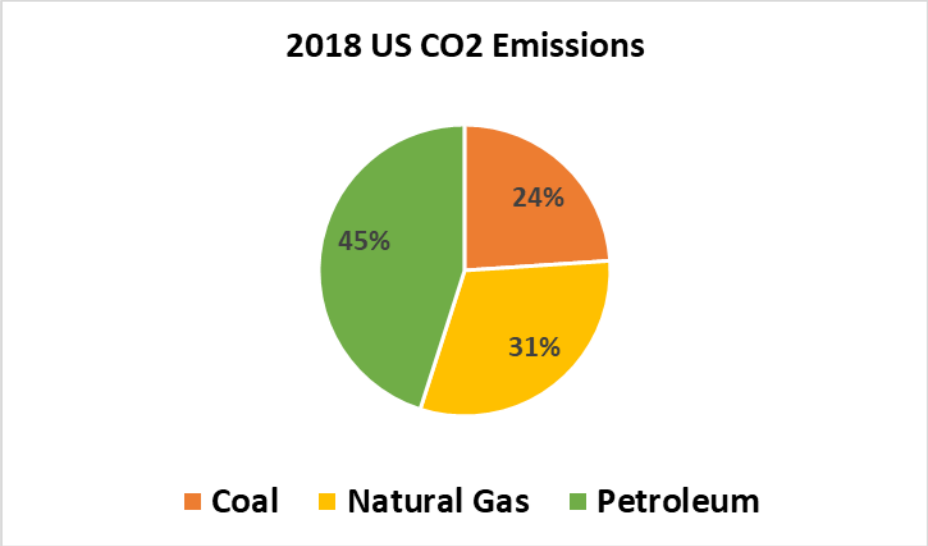
- What steps should states be taking over the next 18 months in anticipation of a federal administration that supports clean energy and climate action?

- How can we ensure that your voices are heard, and your actions recognized, as part of the international climate dialogue?

With these questions in mind, we will kick things off on Wednesday night with a discussion of the international climate negotiations. Dr. Andrew Steer, President and CEO of the World Resources Institute will join us for that conversation. Also, Kathleen Frangione, Chief Policy Advisor to New Jersey Governor Phil Murphy, will discuss the turn-around in her state since Governor Murphy took office last year, setting the stage for others of you to share the exciting developments in your states.

Thursday morning we will start with a robust conversation on how to meet the challenge posed by emissions from the transportation sector. As we all know by now, the transportation sector has surpassed the electricity sector as the largest source of GHG emissions in the US. In 2018, emissions from the combustion of petroleum products were almost twice that of coal. Moreover, while emissions from coal continue to decline, emissions from the transportation sector have increased each year since 2012.





Front and center in the discussion of how to reduce emissions from the transportation sector is the pending rollback of federal standards and the potential revocation of California's waiver, which would impact many of your states. We are fortunate that Mary Nichols will be with us to lead this discussion and help all the states in attendance figure out how you can work together to protect the progress you've made in this area.

While each state in the room has some policies and programs in place to incentivize electric vehicle purchases and charging infrastructure, some states are going farther. A group of Northeast states is evaluating a market-based approach to reducing emissions from the transportation sector (Transportation Climate Initiative), while California and Oregon both have a low-carbon fuel standard. We will ask each state to share their ideas for additional policies and programs to drive down emissions from transportation sector emissions.

To date, states have had the greatest success in reducing emissions from the electric power sector. This is an area where states have a number of effective policy options, like renewable portfolio standards, and you have used these policies to achieve substantial CO2 emission reductions from the electric power sector over the last 10 years (-30% nationwide). Building on this success, you are moving to achieve even more progress with many states and utilities setting aggressive near term targets for renewable energy, along with the long-term goal of 100% clean energy.

One of the primary challenges to deep de-carbonization of the electric power sector is the increasing reliance on natural gas as the replacement for coal. On the Eastern grid, coal generation has fallen by almost half over the last ten years, but 75% of that has been replaced by natural gas generation. So, we will review the current landscape of state policies for clean and renewable electricity, share ideas for next steps, and then discuss how you can work together – and with other states/regions – to make continued progress on the transition to a clean electric power sector.

Residential and commercial buildings and industry are source categories where it has also, so far, proven difficult to get emission reductions. We will discuss what states are currently doing to transition buildings to clean energy, and then identify what options exist for states to expand their policies and programs in areas like building codes, retrofits, and electrification.

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We will close out our morning session with a discussion of carbon pricing programs and what's needed to expand these programs to other states and other sectors, knowing that they are probably essential for achieving your ambitious economy-wide greenhouse gas reduction goals.

From: Cummins,Patrick on behalf of Cummins,Patrick < >
Sent: Tuesday, June 18, 2019 5:23 PM EDT
To: Ritter Jr,Bill < >
Subject: EF at Pocantico

Bill –

I have not heard from Amy Fuerstenau who was to sub for Curtis Seymour at Pocantico, but it looks like she passed the invite on to one of her junior staffers who has now registered. So, we've strayed considerably from the original intent of inviting EF. Thoughts?

As far as I know, Katie still plans to attend but she hasn't registered yet.

https://www.ef.org/person/elizabeth-thomas/

Patrick Cummins
Senior Policy Advisor
Colorado State University
Center for the New Energy Economy

From: donotreply_eventspot@constantcontact.com <donotreply_eventspot@constantcontact.com>
Sent: Tuesday, June 18, 2019 1:26 PM
To: Cummins,Patrick >
Subject: Elizabeth Thomas has registered for your event

This is an informational email to inform you that a registrant has registered for your event. Please do not reply to this message. Replies to this message are routed to an unmonitored mailbox.

Accelerating State Action on Climate Change

Personal Information:	
First Name:	Elizabeth
Last Name:	Thomas
Email Address:	
Organization Information:	
Organization:	Energy Foundation
Job Title:	Program Manager, States and Regions
Phone:	
Other Logistics:	
Mode of travel:	Flight
Name of arriving airport and arrival time:	TBD
Name of departing airport and departure time:	TBD
Please note any dietary restrictions:	Gluten/Dairy

From: Cummins,Patrick on behalf of Cummins,Patrick < >
Sent: Friday, June 28, 2019 9:49 AM EDT
To: Joseph Kruger < >
Subject: FW: cover email for updated agenda
Attachment(s): "MEMORANDUM.docx"

From: Cummins,Patrick
Sent: Friday, June 28, 2019 7:11 AM
To: Michael Northrop
Subject: cover email for updated agenda

Michael –

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Colorado State University
Center for the New Energy Economy

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FROM: Michael Northrop, Rockefeller Brothers Fund
SUBJECT: Accelerating State Action on Climate Change, July 17-18, 2019

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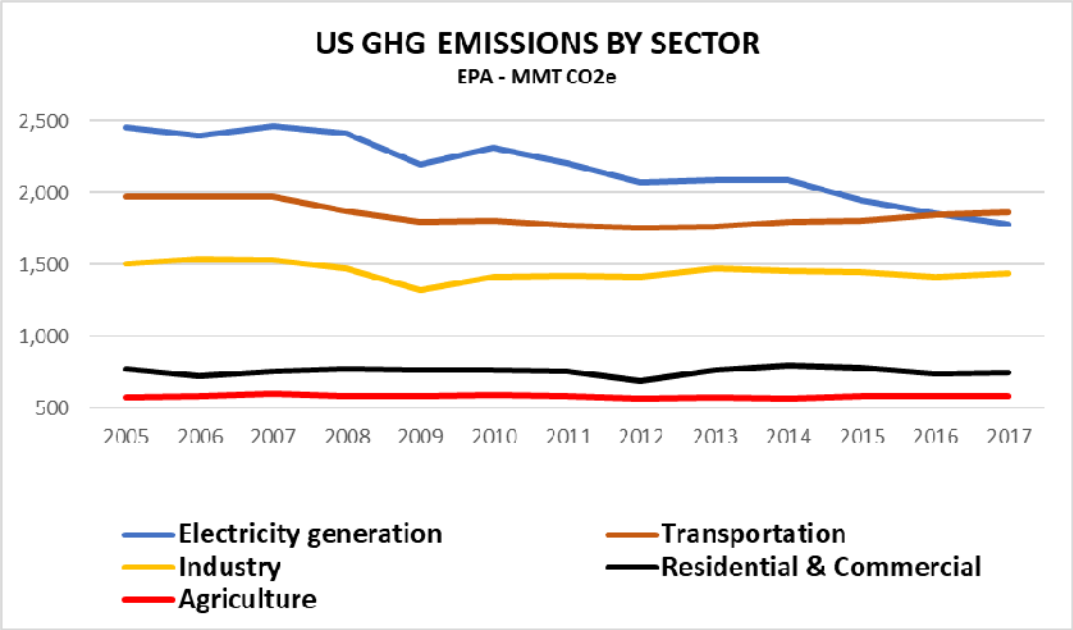

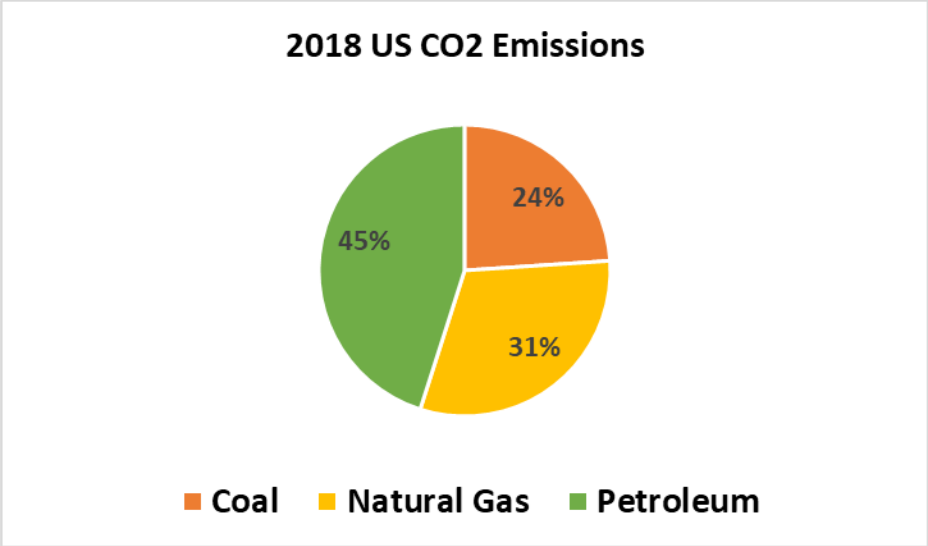

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From: Feliciano, Shanell <s >
Sent: Friday, June 28, 2019 4:27 PM EDT
To: Cummins,Patrick < >
CC: Asuncion, Leo R <l
Subject: FW: July 17-18 Invitation: State Strategies for Meeting Ambitious Climate Goals

Hello:

I am RSVP'ing on behalf of Commissioner Leodoloff (Leo) Asuncion to attend "State Strategies for Meeting Ambitious Climate Goals."

Please let me know if you need additional information.

Thank you.
Shanell Feliciano
Public Utilities Commission
465 South King Street, Room 103
Honolulu, Hawaii 96813
/ Main (808) 586-2020

From: Hiraoka, Lisa M
Sent: Friday, June 28, 2019 9:09 AM
To: Michael Northrop <
Cc: Asuncion, Leo R >
Subject: RE: July 17-18 Invitation: State Strategies for Meeting Ambitious Climate Goals

Hi Michael,

Thank you for speaking with me this morning, and pulling off to the side of the road! I have asked Public Utilities Commissioner Leo Asuncion to attend this conference on Hawaii's behalf. Commissioner Asuncion was the former Director for the State Office of Planning and has broad policy experience in climate, energy and infrastructure. Commissioner Asuncion is copied on this email. His office number is . Please let me know if you need anything further.

Hi Commissioner Asuncion,

Please email your bio to Michael as soon as possible. Michael indicated he wants to chat with you shortly about the conference so I provided your office number. Please let me know if you need anything.

Many thanks,
Lisa

From: Michael Northrop >
Sent: Tuesday, May 28, 2019 10:27 AM
To: Hiraoka, Lisa M
Cc: Ritter Jr,Bill < ; Vicki Arroyo < >; Cummins,Patrick <Patrick.Cummins >; Joseph.Kruger Deborah Burke ; Michael Northrop <mnorthrop >
Subject: July 17-18 Invitation: State Strategies for Meeting Ambitious Climate Goals

May 28, 2019

Dear Lisa,

On behalf of the Center for the New Energy Economy at Colorado State University, the Georgetown Climate Center, and the Rockefeller Brothers Fund, we are writing to invite you to an off-the-record discussion on meeting the increasingly ambitious climate goals being established by governors and state legislatures across the country.

We are asking lead energy policy advisors to attend from a dozen states with supportive, and in many cases, new governors and legislatures interested in accelerating the transition to a clean, low-carbon economy. You are invited because you are the, or one of the, lead policy advisors to your governor on energy and climate policy.

We will meet at the Pocantico Center of the Rockefeller Brothers Fund beginning on Wednesday, July 17 for dinner, and conclude at 4:00 p.m. on Thursday, July 18. We will use the dinner and time after dinner the first night for active discussion, so please plan to arrive by 5:00pm on July 17th.

The Pocantico Center, on the former Rockefeller family estate outside Tarrytown, New York, is 40 minutes from midtown Manhattan by train from Grand Central Station, or is easily accessible by car from any of the metro area's three airports. We'll stay at Pocantico on the evening of July 17 and eat our meals there. The RBF will cover all inside the gate costs and travel to and from airports or midtown Manhattan. If your state cannot cover travel, we can help you cover your travel costs as well.

Given the arrival of a substantial number of new governors, who have committed to moving aggressively on climate and energy, and the ongoing commitment of many other governors, we think this is an opportunity to support this subset of states to move forward aggressively with sensible, economically beneficial policies. We believe your state can help lead this effort. CSU, Georgetown, and the RBF have long prioritized state clean energy policymaking and look forward to supporting your work in the coming months and years.

To tell you some more about the rationale for this discussion, and to get your input on what would be most helpful, we would like to have a brief discussion with you by phone in the coming weeks. In the meantime, please save the dates, and please do not hesitate to reach out to either one of us to discuss this event. You may RSVP to Patrick Cummins at CSU (We will follow up with additional travel planning information after we hear from you.

We sincerely hope you are able to participate and look forward to speaking with you soon. Many thanks.

Sincerely,

Bill Ritter, Jr.
Director, Center for the New Energy Economy
41st Governor of Colorado

Vicky Arroyo
Georgetown Climate Center
Georgetown Law School

Michael Northrop
Program Director
Rockefeller Brothers Fund

From: Cummins,Patrick on behalf of Cummins,Patrick < >
Sent: Thursday, June 20, 2019 11:10 AM EDT
To: Amy Fuerstenau
CC: Katie McCormack
Subject: FW: Pocantico, July 17-18: Accelerating State Action on Climate Change
Attachment(s): "Draft Agenda - Pocantico July 17-18.docx","PC Information Directions E-Mail Updated 0416.doc"

Amy – Are you planning to attend this meeting? If so, will you please take a moment to use the link below to confirm and register. If you don't have travel details yet, that's fine. You can provide those later. And, of course, don't hesitate to let me know if you have any questions or need more information.

Thank you, PC

Patrick Cummins
Senior Policy Advisor
Colorado State University
Center for the New Energy Economy

From: Cummins,Patrick
Sent: Wednesday, June 12, 2019 7:18 AM
Subject: Pocantico, July 17-18: Accelerating State Action on Climate Change

Dear Pocantico Participants:

So that we can confirm your attendance, and to provide our Pocantico hosts with some information for your stay, please click here to complete a short registration form.
http://events.constantcontact.com/register/event?llr=fji8qakab&oeidk=a07ege9eh81b217f8f4

We appreciate your participation in this timely gathering of state leaders for an action-oriented conversation on advancing clean energy and climate strategies across the country. Michael, Vicki, and I will touch base with each of you later this month to get further input on the agenda in order to ensure our time together is as productive as possible.

In the meantime, please do not hesitate to contact me with any questions about this event. All the best, PC

p.s. - State officials requiring travel support to attend this meeting can have Travel Leaders Corporate book and pay for their flight/train ticket. You may contact TLC at Georgetown@tlcorporate.com. When requesting travel from TLC, please copy Megan Burnett on the email.

Patrick Cummins
Senior Policy Advisor
Colorado State University
Center for the New Energy Economy
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Draft Agenda

Accelerating State Action on Climate Change

The Pocantico Center

200 Lake Road

Tarrytown, New York

July 17-18, 2019

This meeting will provide an opportunity for officials from leadership states taking action on climate change to share information on recent developments in their states and to strategize together on the most promising ways to accelerate the pace of action in response to the increasingly ambitious climate goals being established by these states' governors and state legislatures. The group will also discuss how state action can influence federal action and how U.S. federal action needs to be positioned within the global climate negotiations.

Wednesday, July 17

6:00 pm Reception in Loggia area of the Coach Barn

7:00 Dinner

8:30 Hayloft conversation on the international climate negotiation, and on how states are setting science-based targets. Opening remarks:
Dr. Andrew Steer, President and CEO, World Resources Institute
Kathleen Frangione, Chief Policy Advisor to Governor Phil Murphy

Thursday, July 18

7:00 am Breakfast buffet available in Coach Barn

8:00 Agenda Review and Meeting Objectives, Governor Bill Ritter, CNEE

8:15 **100% Renewable and Clean Energy Standards**

- Overview of state policies and recent legislation
- Working together on implementation
  - Next steps for RGGI
  - Coordination on the Western grid
- What's needed now to hit long-term goal of 100% clean electricity?

9:15 **Meeting the Challenges Posed by the Transportation Sector**

- Update on federal vehicle standards and states' response
  - How can states work together to establish ambitious federal and state emission standards for new cars and trucks?
- Status of Transportation and Climate Initiative
  - What can other states learn from this effort?
- Discussion of other strategies to address CO2 emissions from transportation (e.g., Low-Carbon Fuel Standards; incentives for vehicle purchases and charging infrastructure, etc.)

10:30 Break

10:45 **Net Zero Buildings**

- Standard Setting and Retrofits
- Reducing the Use of Natural Gas in Buildings
- Electrification

12:00 pm Lunch

1:00 **Industrial Sources, Oil & Gas, Methane, and HFCs**

Moving industrial sources away from fossil fuels and onto clean energy sources poses a set of challenges similar to those associated with buildings in terms of efficiency, retrofits and electrification. In addition, some states face the issue of a rapidly expanding oil & gas sector and associated methane emissions.

- What are tools, policies and incentives states can use to make progress in these sectors?
- Examples of state action on HFCs and methane – model rule/legislation?

2:15 Break

2:30 **Carbon pricing strategies**

- Update on WCI and Oregon
- Opportunities to expand existing programs (RGGI, TCI, WCI) and enhance collaboration between programs
- Carbon tax

3:30 **Action items and follow up**

- Group actions by leadership states
- Outreach / support for opportunity states
- Opportunity to impact the national conversation
- Participation in upcoming COPs in Santiago and London
- Should we meet again?

4:00 Adjourn

THE POCANTICO CENTER OF THE ROCKEFELLER BROTHERS FUND

TRAVEL DIRECTIONS & CONFERENCE CENTER INFORMATION

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From: Cummins,Patrick on behalf of Cummins,Patrick < >
Sent: Thursday, June 20, 2019 11:07 AM EDT
To: peter.walke < >
Subject: FW: Pocantico, July 17-18: Accelerating State Action on Climate Change
Attachment(s): "Draft Agenda - Pocantico July 17-18.docx","PC Information Directions E-Mail Updated 0416.doc"

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Sent: Thursday, June 20, 2019 11:06 AM EDT
To: Burgess, Dan <
Subject: FW: Pocantico, July 17-18: Accelerating State Action on Climate Change
Attachment(s): "Draft Agenda - Pocantico July 17-18.docx","PC Information Directions E-Mail Updated 0416.doc"

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Draft Agenda

Accelerating State Action on Climate Change

The Pocantico Center

200 Lake Road

Tarrytown, New York

July 17-18, 2019

This meeting will provide an opportunity for officials from leadership states taking action on climate change to share information on recent developments in their states and to strategize together on the most promising ways to accelerate the pace of action in response to the increasingly ambitious climate goals being established by these states' governors and state legislatures. The group will also discuss how state action can influence federal action and how U.S. federal action needs to be positioned within the global climate negotiations.

Wednesday, July 17

6:00 pm Reception in Loggia area of the Coach Barn

7:00 Dinner

8:30 Hayloft conversation on the international climate negotiation, and on how states are setting science-based targets. Opening remarks:
Dr. Andrew Steer, President and CEO, World Resources Institute
Kathleen Frangione, Chief Policy Advisor to Governor Phil Murphy

Thursday, July 18

7:00 am Breakfast buffet available in Coach Barn

8:00 Agenda Review and Meeting Objectives, Governor Bill Ritter, CNEE

8:15 **100% Renewable and Clean Energy Standards**

- Overview of state policies and recent legislation
- Working together on implementation
  - Next steps for RGGI
  - Coordination on the Western grid
- What's needed now to hit long-term goal of 100% clean electricity?

9:15 **Meeting the Challenges Posed by the Transportation Sector**

- Update on federal vehicle standards and states' response
  - How can states work together to establish ambitious federal and state emission standards for new cars and trucks?
- Status of Transportation and Climate Initiative
  - What can other states learn from this effort?
- Discussion of other strategies to address CO2 emissions from transportation (e.g., Low-Carbon Fuel Standards; incentives for vehicle purchases and charging infrastructure, etc.)

10:30 Break

10:45 **Net Zero Buildings**

- Standard Setting and Retrofits
- Reducing the Use of Natural Gas in Buildings
- Electrification

12:00 pm Lunch

1:00 **Industrial Sources, Oil & Gas, Methane, and HFCs**

Moving industrial sources away from fossil fuels and onto clean energy sources poses a set of challenges similar to those associated with buildings in terms of efficiency, retrofits and electrification. In addition, some states face the issue of a rapidly expanding oil & gas sector and associated methane emissions.

- What are tools, policies and incentives states can use to make progress in these sectors?
- Examples of state action on HFCs and methane – model rule/legislation?

2:15 Break

2:30 **Carbon pricing strategies**

- Update on WCI and Oregon
- Opportunities to expand existing programs (RGGI, TCI, WCI) and enhance collaboration between programs
- Carbon tax

3:30 **Action items and follow up**

- Group actions by leadership states
- Outreach / support for opportunity states
- Opportunity to impact the national conversation
- Participation in upcoming COPs in Santiago and London
- Should we meet again?

4:00 Adjourn

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THE POCANTICO CENTER OF
THE ROCKEFELLER BROTHERS FUND
200 Lake Road
Tarrytown, New York 10591
Tel: (914) 524-6500 Fax: (914) 524-6550

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From: Cummins,Patrick on behalf of Cummins,Patrick < >
Sent: Thursday, June 20, 2019 11:05 AM EDT
To: Carmen.Colon@ct.gov <
Subject: FW: Pocantico, July 17-18: Accelerating State Action on Climate Change
Attachment(s): "Draft Agenda - Pocantico July 17-18.docx","PC Information Directions E-Mail Updated 0416.doc"

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Thank you, PC

Patrick Cummins
Senior Policy Advisor
Colorado State University
Center for the New Energy Economy

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Sent: Wednesday, June 12, 2019 7:18 AM
Subject: Pocantico, July 17-18: Accelerating State Action on Climate Change

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Draft Agenda

Accelerating State Action on Climate Change

The Pocantico Center

200 Lake Road

Tarrytown, New York

July 17-18, 2019

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7:00 Dinner

8:30 Hayloft conversation on the international climate negotiation, and on how states are setting science-based targets. Opening remarks:
Dr. Andrew Steer, President and CEO, World Resources Institute
Kathleen Frangione, Chief Policy Advisor to Governor Phil Murphy

Thursday, July 18

7:00 am Breakfast buffet available in Coach Barn

8:00 Agenda Review and Meeting Objectives, Governor Bill Ritter, CNEE

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- Overview of state policies and recent legislation
- Working together on implementation
  - Next steps for RGGI
  - Coordination on the Western grid
- What's needed now to hit long-term goal of 100% clean electricity?

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From: Cummins,Patrick on behalf of Cummins,Patrick >
Sent: Thursday, June 20, 2019 11:03 AM EDT
To: Kathy Bishop -MDE- >
Subject: FW: Pocantico, July 17-18: Accelerating State Action on Climate Change
Attachment(s): "Draft Agenda - Pocantico July 17-18.docx","PC Information Directions E-Mail Updated 0416.doc"

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From: Cummins,Patrick on behalf of Cummins,Patrick < >
Sent: Thursday, June 20, 2019 10:59 AM EDT
To: ANDREW Jennifer J * GOV < >
Subject: FW: Pocantico, July 17-18: Accelerating State Action on Climate Change
Attachment(s): "Draft Agenda - Pocantico July 17-18.docx","PC Information Directions E-Mail Updated 0416.doc"

Jen –

Will you please take a moment to use the link below to confirm and register Nik for this meeting. If you don't have flight details yet, that's fine. You can provide those later. And, of course, don't hesitate to let me know if you have any questions or need more information.

Thank you, PC

Patrick Cummins
Senior Policy Advisor
Colorado State University
Center for the New Energy Economy

From: Cummins,Patrick
Sent: Wednesday, June 12, 2019 7:18 AM
Subject: Pocantico, July 17-18: Accelerating State Action on Climate Change

Dear Pocantico Participants:

So that we can confirm your attendance, and to provide our Pocantico hosts with some information for your stay, please click here to complete a short registration form.
http://events.constantcontact.com/register/event?llr=fji8qakab&oeidk=a07ege9eh81b217f8f4

We appreciate your participation in this timely gathering of state leaders for an action-oriented conversation on advancing clean energy and climate strategies across the country. Michael, Vicki, and I will touch base with each of you later this month to get further input on the agenda in order to ensure our time together is as productive as possible.

In the meantime, please do not hesitate to contact me with any questions about this event. All the best, PC

p.s. - State officials requiring travel support to attend this meeting can have Travel Leaders Corporate book and pay for their flight/train ticket. You may contact TLC at Georgetown@tlcorporate.com. When requesting travel from TLC, please copy Megan Burnett on the email.

Patrick Cummins
Senior Policy Advisor
Colorado State University
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Draft Agenda

Accelerating State Action on Climate Change

The Pocantico Center

200 Lake Road

Tarrytown, New York

July 17-18, 2019

This meeting will provide an opportunity for officials from leadership states taking action on climate change to share information on recent developments in their states and to strategize together on the most promising ways to accelerate the pace of action in response to the increasingly ambitious climate goals being established by these states' governors and state legislatures. The group will also discuss how state action can influence federal action and how U.S. federal action needs to be positioned within the global climate negotiations.

Wednesday, July 17

6:00 pm Reception in Loggia area of the Coach Barn

7:00 Dinner

8:30 Hayloft conversation on the international climate negotiation, and on how states are setting science-based targets. Opening remarks:
Dr. Andrew Steer, President and CEO, World Resources Institute
Kathleen Frangione, Chief Policy Advisor to Governor Phil Murphy

Thursday, July 18

7:00 am Breakfast buffet available in Coach Barn

8:00 Agenda Review and Meeting Objectives, Governor Bill Ritter, CNEE

8:15 **100% Renewable and Clean Energy Standards**

- Overview of state policies and recent legislation
- Working together on implementation
  - Next steps for RGGI
  - Coordination on the Western grid
- What's needed now to hit long-term goal of 100% clean electricity?

9:15 **Meeting the Challenges Posed by the Transportation Sector**

- Update on federal vehicle standards and states' response
  - How can states work together to establish ambitious federal and state emission standards for new cars and trucks?
- Status of Transportation and Climate Initiative
  - What can other states learn from this effort?
- Discussion of other strategies to address CO2 emissions from transportation (e.g., Low-Carbon Fuel Standards; incentives for vehicle purchases and charging infrastructure, etc.)

10:30 Break

10:45 **Net Zero Buildings**

- Standard Setting and Retrofits
- Reducing the Use of Natural Gas in Buildings
- Electrification

12:00 pm Lunch

1:00 **Industrial Sources, Oil & Gas, Methane, and HFCs**

Moving industrial sources away from fossil fuels and onto clean energy sources poses a set of challenges similar to those associated with buildings in terms of efficiency, retrofits and electrification. In addition, some states face the issue of a rapidly expanding oil & gas sector and associated methane emissions.

- What are tools, policies and incentives states can use to make progress in these sectors?
- Examples of state action on HFCs and methane – model rule/legislation?

2:15 Break

2:30 **Carbon pricing strategies**

- Update on WCI and Oregon
- Opportunities to expand existing programs (RGGI, TCI, WCI) and enhance collaboration between programs
- Carbon tax

3:30 **Action items and follow up**

- Group actions by leadership states
- Outreach / support for opportunity states
- Opportunity to impact the national conversation
- Participation in upcoming COPs in Santiago and London
- Should we meet again?

4:00 Adjourn

THE POCANTICO CENTER OF THE ROCKEFELLER BROTHERS FUND

TRAVEL DIRECTIONS & CONFERENCE CENTER INFORMATION

THE POCANTICO CENTER of the Rockefeller Brothers Fund is located approximately one hour north of Manhattan in the Pocantico Historic Area, the heart of the Rockefeller family estate in Westchester County, New York. The Historic Area has been a property of the National Trust for Historic Preservation (www.nthp.org) since 1979, when it was willed to the National Trust by Governor Nelson A. Rockefeller. The Pocantico Center includes John D. Rockefeller's home, Kykuit; the surrounding gardens and sculpture collections; and the Coach Barn (Conference Center), which houses guests on the second floor and the family's carriages and vintage automobiles on the first floor. The lower floor has been transformed into a modern meeting facility. The Pocantico Center is maintained and administered by the Rockefeller Brothers Fund (www.rbf.org), a private foundation, which operates the site as an extension of its grantmaking activities under an agreement with the National Trust. The Conference Center provides a unique setting where the RBF brings together people of diverse backgrounds and perspectives from nonprofit organizations and public institutions to engage important issues related to the Fund's philanthropic programs. In addition to conferences, the RBF's Pocantico Programs include stewardship of the historic portion of the estate and oversight of a visitation program at Kykuit, operated on behalf of the Fund by Historic Hudson Valley (www.hudsonvalley.org).

The directions are provided to help direct you to the Conference Center. Please advise the conference organizer of your travel plans, so arrangements can be made to pick you up if needed. All travel plans, including the time of your arrival at Pocantico, must be confirmed. When you arrive at the Main Gate, announce yourself to the security personnel, who will provide you with further directions.

ACCOMMODATIONS

Guests are lodged on the second floor of the Coach Barn (Conference Center) and on the third and fourth floors of Kykuit. All accommodations have a private bath. Hair dryers are also provided in each bedroom and adapters for electric razors are available upon request. Electrical service is 115 volts/60 cycles.

DRESS

In keeping with the Fund's programmatic emphasis on global warming and the desire to mitigate RBF's carbon footprint, guests at Pocantico should dress comfortably according to the season.

SMOKING POLICY

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TELEPHONE, FACSIMILE & BUSINESS CENTER

Each bedroom at the Coach Barn (Conference Center) and Kykuit has a private telephone number with voice mail, and phone calls may be received 24 hours a day. During conference sessions messages will be taken by the center's staff at 914.524.6500. Facsimile messages may be sent during normal business hours from the Conference Center. Faxes are received 24 hours a day at 914.524.6550 and distributed as promptly as possible. Computers are available for the use of conferees in the business center of the Conference Center with IBM-compatible machines, as well as commonly used word-processing, presentation, spreadsheet programs and high speed Internet access. Please note, however, that computer assistance is not available. Wireless Internet access is available in the entire Coach Barn (Conference Center) building as well as on the bedroom floors at Kykuit.

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It is a goal to incorporate sustainable building practices in ongoing maintenance and capital improvement projects and we endeavor to serve sustainable seafood and locally grown food.

In addition, a portion of the conference fees are utilized to acquire Green Tags [Renewable Energy Certificates (RECs)] from *Native*Energy (www.nativeenergy.com) to offset greenhouse gas emissions associated with conference attendees' travel to/from the Pocantico Center. This purchase will be dedicated to help finance new wind farm projects in the United States.

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Temperatures at the Pocantico Center vary considerably with the four seasons. Winter can be quite cold, with either rain or snowfall, while summers are often hot and humid. You may find the following chart of average temperatures in New York City useful. The weather at the Conference Center is usually a few degrees cooler.

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From: Cummins,Patrick on behalf of Cummins,Patrick >
Sent: Tuesday, June 25, 2019 11:08 AM EDT
To: Schuler, Reed (GOV) Davis, Chris (GOV) >
Subject: FW: Pocantico, July 17-18: Accelerating State Action on Climate Change
Attachment(s): "Draft Agenda - Pocantico July 17-18.docx","PC Information Directions E-Mail Updated 0416.doc"

Reed – Finally closed the loop with Mr. Northrop, and very happy to invite both you and Chris to this event. See below and attached for more info – including options for booking flights and the link to register. More soon. Please don't hesitate to contact me in the meantime with any questions or if you need more info. All the best, PC

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TRAVEL BY CAR

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FROM MANHATTAN, East Side: Take the F.D.R. Drive north to the Triborough Bridge (follow lanes marked "Bronx" and "Thruway") and onto the Major Deegan Expressway (Interstate 87). The Major Deegan will turn into the N.Y. Thruway. Get off the Thruway at Exit 7A (Saw Mill River Parkway - Taconic Parkway). Continue on the Saw Mill River Parkway to the Saw Mill River Road - Eastview Exit 23. At the foot of the exit ramp, turn left onto an unmarked road and drive about 0.6 miles beside a reservoir to the first right turn (Lake Road). Drive uphill for 0.6 miles to the main entrance on the left.

FROM NEW JERSEY AND UPPER NEW YORK STATE: Follow the N.Y. Thruway (Interstate 87-287) across the Tappan Zee Bridge to Exit 9, about 0.2 miles past the tollbooths. Follow U.S. 9 north 1.6 miles to Route 448 (Bedford Road) at North Tarrytown. Turn right and drive 1.5 miles on Bedford Road to a stop sign. Turn right to main entrance.

FROM UPPER WESTCHESTER AND NEW ENGLAND: Drive south on the Saw Mill River Parkway to the Saw Mill River Road - Eastview Exit 23. At the foot of the exit ramp, turn right onto an unmarked road and drive about 0.6 miles beside a reservoir to the first right turn (Lake Road). Drive uphill for 0.6 miles to the main entrance on the left.

FROM CONNECTICUT: From the Merritt Parkway or Connecticut Turnpike, turn right onto Interstate 287 (Cross Westchester Expressway) westbound to Exit 3- Sprain Brook Parkway. Drive north 1.5 miles to Route 100C-Eastview Exit and turn left at the top of the ramp onto Route 100 C. After 1 mile this road bears to the right and becomes Old Saw Mill River Road. Proceed straight 1.2 miles under the Union Carbide building, under the Saw Mill River Parkway and beside a reservoir. Turn right at Lake Road and drive uphill for 0.6 miles to the main entrance on the left.

FROM LONG ISLAND: From either the Bronx-Whitestone Bridge or the Throgs Neck Bridge, follow signs to the Hutchinson River Parkway. Continue on the Parkway to Interstate 287 West (White Plains Exit). Drive west on 287 (Cross Westchester Expressway) to Exit 3 - Sprain Brook Parkway. Drive north 1.5 miles to Route 100C-Eastview Exit and turn left at the top of the ramp onto Route 100 C. After 1 mile this road bears to the right and becomes Old Saw Mill River Road. Proceed straight 1.2 miles under the Union Carbide building, under the Saw Mill River Parkway and beside a reservoir. Turn right at Lake Road and drive uphill for 0.6 miles to the main entrance on the left.

From: Cummins,Patrick on behalf of Cummins,Patrick < >
Sent: Friday, June 28, 2019 9:24 AM EDT
To: Michael Northrop >
Subject: FW: Pocantico-States Leading Decarbonization - 2019-6-25.docx
Attachment(s): "Pocantico-States Leading Decarbonization - 2019-6-25.docx"

Michael -

Maybe we can get on the phone with RMI sometime soon to discuss this memo. We have a very sophisticated group of people coming from states that are already out front on these policies. I think we (include Georgetown) can help RMI make sure their memo resonates with this group and that the policy content is in line with our agenda.

Pocantico Pre-read
States Leading Decarbonization

July 2019
--DRAFT Outline--

THE CONTEXT

The Paris agreement

In 2015, the world came together in Paris to forge the first truly global climate agreement: a robust, long-term framework designed to reduce greenhouse gas pollution in order to hold global temperature increases to well below 2 degrees Celsius and prevent "dangerous anthropogenic interference with the climate system."

Every nation in the world has pledged its support to the Paris Agreement. When President Donald Trump announced his intention to withdraw the United States from the Paris Agreement in June 2017, the response from across the country was swift and significant. An unprecedented coalition of U.S. states, cities, businesses, universities, and other organizations spoke out in continued support for America's climate pledge to the world.

Across the country, real economy actors have established policies and commitments which, as they are implemented, will drive continued substantial progress towards the Paris pledge. Current federal and real economy commitments, combined with market forces, will drive U.S. emissions to 17 percent below 2005 levels by 2025, roughly two-thirds of the way to the original U.S. target under the Paris Agreement of 26-28 percent below 2005 levels by 2025.

The U.S. role moving forward

The insights gained regarding bottom-up climate action potential in the United States may also hold important lessons for the broader international community as policymakers and leaders across society consider how to accelerate and deepen implementation of the Paris Agreement. While national governments and policies were in the spotlight during the run-up to the Paris Agreement in 2015, the focus of international negotiations has now shifted to a more detailed examination of what it will take to formulate and implement increasingly ambitious national climate goals. The case of the United States demonstrates that real economy actors can lead ambitious and sustained commitments to climate action from all levels of government and across the economy. The results of this analysis are therefore a call to action for the global community as a whole.

Now we must face the risk of whether we will fulfill those commitments. The challenge is to implement the actions needed in the next few years to build momentum toward decarbonization.

Over 3,700 real economy actors have pledged their support for the Paris Agreement and commitment to continued action on climate change by joining the "We

Are Still In" declaration and participating in other networks such as the U.S. Climate Alliance and the Climate Mayors.

The economic activity of this "coalition of the willing" is significant, equivalent to that of the third-largest country in the world. Specifically, the U.S. states, cities, businesses, and other leaders of the real economy that remain committed to the Paris Agreement represent over half of the U.S. population (173 million people), over half of the American economy ($11.4 trillion), and over 35 percent of nationwide GHG emissions.

Organizing this effort

- **USCA (US Climate Alliance)-** A bipartisan coalition of 24 governors committed to upholding the Paris Agreement. Represent 55% of US population, 60% of the US economy, and 40% of US emissions.
- **WASI (We are Still In)-** A coordinated campaign of 3,788 cities, states, businesses, universities, and other non-federal organizations that have declared commitments to meeting the US Paris Agreement goals. A coalition of coalitions. Represent 155 million people and $9.5 trillion across 50 states.
- **AP (America's Pledge)-** An initiative to aggregate, quantify, and report on the collective action of WASI signatories and other coalitions of non-federal actors, like USCA, who are cutting carbon emissions to meet America's 2020 targets under the Paris Agreement.

STATE ACTION

States are in the lead, and first mover states set the tone and example for other states. Once a critical mass of leader states has made policy progress, action becomes more of the expected norm and other states follow.

For example, if enough states enforce regulations to phase out HFCs, this critical mass would act as a *de facto* federal standard.

States are key messengers to society, including through sending market signals to private actors. Top line decarbonization goals and sector level goals can inspire and set the tone for cities, counties, businesses, universities, and others within a state.

Collective impacts

The 12 states attending (*Will update when we have the final list)* represent X% of total U.S. emissions, X% of electricity emissions, X% of transportation emissions, X% of building emissions, and X% of industry emissions. If this group implement ambitious climate policy commitments a substantial portion of the U.S.'s GHGs can be addressed (*maybe compare this state grouping relative to other large countries emissions*)

Driving federal action

State policies can also be designed to support future federal replication. Typically, national policy progress in the U.S. follows shifts in public opinion and builds on existing policy designs. State policy design must fit the particular state's needs and

situation, but consideration can be given to a design that could later be replicated in other states or at the federal level. Likewise, once several states have similar policies, it can be easier for federal regulators or legislatures to replicate that policy nationally.

States can coordinate to proactively request federal action through communication with elected representatives and federal agencies.

State impact on global action

U.S. state action sets the stage for international action. Many other countries are not poised to deliver their national commitments, but the states, provinces, regions, and cities within those countries can. Both national and regional governments across the world are looking to U.S. states for inspiration.

IMMEDIATE ACTION PRIORITIES

> *"The work we pursue today must be focused on impact. Commitments? Yes. Planning? Yes. But commitments and plans won't solve the problem. We must take action now. "Action now" has to be our mantra. Actions vault us from a hope for tomorrow to making that vision reality. Our time and resources are always limited, so let's put them to use where they will drive the greatest changes. As my colleagues at RMI say, if you have to choose between making plans or making progress, then make progress."*
>
> - *Jules Kortenhorst, in the forward letter to The Carbon-Free Regions Handbook*

Climate change's unique complexity can complicate decision-making for real economy actors. However, numerous governmental, nongovernmental, industrial, and scientific analyses have coalesced around a few primary strategies to achieving significant emissions reductions.

Our decarbonization efforts should prioritize the following four strategies to create a thriving carbon-free state:

- Decarbonize the power sector
- Electrify buildings and eliminate methane leakage
- Electrify transportation
- Land Use

The first three strategies combine to create a wholistic decarbonization strategy, while the fourth lays a foundation for carbon sinks and reduced energy consumption. Below is additional information on each strategy

1. Decarbonize the power sector

Energy generation from low or zero carbon sources is the backbone of beneficial electrification. Fortunately, a pathway to a clean electricity sector has already been established as commercially and technically viable. The private, public, and philanthropic sectors have propelled significant progress in decreasing the power sector's carbon intensity through policy and investment, and while there are nuances

around storage and grid stability to iron out, this progress will continue. The electric grid is already clean enough that building and transportation end-uses that shift from fossil fuels to electricity will see immediate emission reductions in most places. It's already clean enough in most places in the U.S. and projections show will be everywhere soon.

As the electric grid gets cleaner, everything else connected to it gets cleaner. Every incremental decrease in the grid's carbon intensity lowers the carbon footprint of each electric device, from computers to cars. With a progressively cleaner electric grid as the central leverage point, the emissions impacts of millions of end-uses in all other economic sectors will be continuously improved over time. This contrasts with the current complications of managing fossil fuel-based technologies, which requires setting and updating individual efficiency standards across many diverse end-uses and running up against limits to efficiency that are unlikely to achieve zero carbon emissions.

Top steps for ambitious action on decarbonizing the power sector:

- Renewable Portfolio Standard - Set 100% clean energy goals through a Renewable Portfolio Standard or Integrated Resource Planning requirements.
- Coal Plant Retirement - Retire coal plants and reject plans for new coal plants
- Natural Gas Plant Retirement - Retire natural gas plants and reject plans for new natural gas plants
- Responsive Grid Planning – support grid planning that puts distributed energy resources on an equal footing with other generation sources
- Support Utilities for Clean Energy – Support utility and rural coops as they work on clean electricity deployment

2. Electrify buildings and eliminate methane leakage

Solutions to electrify nearly all buildings already exist and can be deployed starting now. For example, electric heat pumps can replace gas-fired boilers and water heaters in addition to providing cooling, induction cookstoves are highly efficient substitutes for gas stovetops. These efforts also create important equity and health impacts by reducing the health and safety risks that are becoming more alarming.

Top steps for ambitious action on electrifying buildings and eliminating methane leakage

- Engage with key stakeholders to build a strong, inclusive and durable vision and plan for decarbonizing the state's buildings, including setting clear timelines that aligns with state's climate goals
- Ensure new buildings are all-electric through building codes or other authorities
- Begin orderly retrofit of existing buildings, starting with aligning incentives and programs with climate goals and focusing on existing replacement schedules
- Stop expanding gas distribution system and start planning for staged transition, while stopping methane leaks throughout the supply chain, primarily through enhanced leak detection and monitoring technologies.

- Assess the medical and other costs associated with burning of gas and other fossil fuels in our buildings, including the indoor and outdoor air quality impacts, and implement programs to eliminate such burdens

3. Electrify transportation

The electric vehicle revolution is already underway, providing greater performance and reducing air and noise pollution while supporting decarbonization. For regional governments the focus should be on enabling cities to invest in better options and building the interconnections that integrate these services across municipal boundaries as well as supporting rural communities. Ideally this will be combined with other mobility efforts such as public transit and mobility alternatives such as non-motorized transportation.

Top steps for ambitious action on electrifying transportation

- Establish a top-level transportation goal and work with key stakeholders to develop an inclusive, sustainable transportation roadmap that aligns with the state's climate action goals and includes best practices, implementation strategies, and a clear path forward
- Enable smart mobility by integrating transportation policy with land-use policy
- Establish statewide electric vehicle adoption requirements with near-term benchmarks and implement market enablers that drive adoption
- Build on and update existing low carbon fuels standards where they exist. For new policies, work towards the next generation of clean fuel standards that prioritize clean electricity as a fuel source while aggressively decreasing the carbon intensity of difficult-to-electrify, heavy-duty transport, shipping, and aviation
- Remove barriers to building out charging infrastructure and work with public utility commissions (PUCs) to reassess regulatory approaches to pricing and vehicle-grid integration

4. Land Use

Land use issues present both a great threat and a great opportunity to climate goals. Cities miss most of the rural impacts associated with land use and so state governments are best postioned to deliver impact. Management of our forest, crop, and grazing lands, which either absorb and store carbon or contribute to further carbon emissions is critically important in many state. Forests, grasslands, and wetlands play a vital role in sequestering 10-15% of US carbon emissions, while methane emitted from livestock operations represents a significant portion of the agricultural sector's climate impact.

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- Open Space Conservation – Preserve and conserve forests and other open spaces to support carbon sequestration and pursue smart-growth development policies aimed at addressing development pressure
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Also of note:
Phasing down super-polluting HFCs in electric appliances is another important action ready for implementation:

- Adopt state HFCs standards and partner with businesses and manufacturers that are already transitioning away from super-polluting HFCs
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While not easy, these strategies create a digestible four-pronged plan for statewide decarbonization. Furthermore, they are not simply generalized strategies, but each has specific actions with existing precedents to build upon. With alignment among multiple states, these actions can happen faster and cheaper. They can also spur even broader impacts beyond your immediate jurisdictions.

From: Cummins,Patrick on behalf of Cummins,Patrick < >
Sent: Thursday, June 27, 2019 7:40 PM EDT
To: Ritter Jr,Bill
Subject: FW: Pocantico-States Leading Decarbonization - 2019-6-25.docx
Attachment(s): "Pocantico-States Leading Decarbonization - 2019-6-25.docx","ATT00001.txt"

Michael has been talking to this guy at RMI and this is what he's put together. I don't think it's very good right now but it sounds like we have some time to improve it.

Patrick Cummins
Senior Policy Advisor
Colorado State University
Center for the New Energy Economy

-----Original Message-----
From: Michael Northrop
Sent: Tuesday, June 25, 2019 7:10 PM
To: Cummins,Patrick
Subject: Pocantico-States Leading Decarbonization - 2019-6-25.docx

Take a look..

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From: Cummins,Patrick on behalf of Cummins,Patrick
Sent: Thursday, June 27, 2019 7:41 PM EDT
To: Ritter Jr,Bill >
Subject: FW: Policy Table
Attachment(s): "Pocantico States Policy Table.docx","Pocantico States Policy Table.pdf"

This is what our team has put together as background for Pocantico. Still refining, but I think it will be very helpful.

Patrick Cummins
Senior Policy Advisor
Colorado State University
Center for the New Energy Economy

From: Hoffer,Katherine <
Sent: Thursday, June 27, 2019 4:30 PM
To: Cummins,Patrick
Subject: Policy Table

Here you are.

Katherine Heriot Hoffer, PhD
Research Manager | Center for the New Energy Economy
| Cell: 303.330.8443
Advanced Energy Legislation Tracker | State Policy Opportunity Tracker

State Climate / Carbon Policies

State	Emissions / GHG Goals	Other Carbon / Climate Activities and Policies
California	Adopted in 2006 (AB 05-32): 1990 levels by 2020; amended in 2016 (SB 15-32): 40% below 1990 levels by 2030. E.O. S-03 in 2005: 80% below 1990 levels by 2050.	Cap & Trade Program EO B-55-2018: achieve carbon-neutrality by 2045 and net-negative emissions thereafter. AB 17-398: extends cap-and-trade through 2030. SB 15-350: directs CARB to adopt rules removing disincentives for utilities' emissions reductions programs.
Colorado	Adopted 2019 (HB 19-1261): more than 26% from 2005 levels by 2025, 50% below 2005 levels by 2030, and 90% below 2005 levels by 2050.	HB 19-1261: in addition to expanding GHG reduction goals, provides for possibility of joining other jurisdictions in regional abatement schemes. SB 19-096: directs the Air Quality Control Commission to track long-term emissions data and publish an inventory. SB 19-236: utilities must include emissions reductions plans in their IRPs, and PUC must consider social cost of carbon.
Connecticut	Originally adopted 2004 (SB 04-595), last amended 2018 (SB 18-7): 10% below 1990 levels by 2020, 45% below 2001 levels by 2030, and 80% below 2001 levels by 2050.	The 2018 amendment to the GHG targets (SB 7) also requires publication of seal level rise scenarios. In 2018, the Governor's Council on Climate Change put forward several policy recommendations for reducing emissions.
Maine	Adopted 2019 (LD 19-1679): 45% below 1990 levels by 2030, 80% below 1990 levels by 2050.	LD 19-1679: establishes the Maine Climate Council, tasked with developing a climate action plan and clean energy economy transition plan.
Maryland	Adopted 2009, reauthorized and amended in 2016 (SB 16-323): 25% below 2006 levels by 2020, and 40% below 2006 levels by 2030.	HB 19-277: Authorizes Governor to include the state as full participant in regional initiatives (TCI) to reduce emissions from transportation. SB 19-516: Among other provisions, increases the state's RPS to 50% by 2030. Requires study of a 100% renewable energy goal.
Massachusetts	Adopted 2008 (the Global Warming Solutions Act): 25% below 1990 levels by 2020, and 80% below 1990 levels by 2050.	E.O. 2016-569: requires the Secretary of Energy and Environmental Affairs to consult the GWSA Implementation Advisory Committee to establish statewide limits for 2030 and 2040, achieve further reductions from government operations, work to develop regional transportation policies, and lead reform on capacity and wholesale markets to achieve state mandates.

		DEP must also consider limits on sources such as natural gas pipelines and the transportation sector. The state's 2015 update to its Clean Energy and Climate Plan provides a comprehensive suite of policies to reduce statewide emissions.
State	**Emissions / GHG Goals**	**Other Carbon / Climate Activities and Policies**
Nevada	Adopted 2019 (SB 19-254): 28% below 2005 levels by 2025, 45% below 2005 levels by 2030, and "zero or near-zero" by 2050.	SB 19-254: requires DCNR to submit a report on whether existing/pending state policies can ensure that the state achieves zero carbon emissions by 2050.
New Jersey	Adopted 2007 (AB 07-3301): 1990 levels by 2020, and 80% below 2006 levels by 2050.	The Draft 2019 New Jersey Energy Master Plan outlines multiple strategies for emissions reductions in the energy, transportation, and building sectors.
New Mexico	Adopted 2019 (E.O 003): 45% below 2005 levels by 2030.	Governor Grisham's executive order on climate also created the interagency Climate Change Task Force to evaluate and report on mitigation and adaptation policies, including a market-based program to reduce carbon emissions. SB 19-489 requires that the Environmental Improvement Board (EIB) promulgate a rule limiting CO_2 emissions from coal fired generating plants to an emissions standard of 1,100 lbs-CO_2/MWh on or after January 1, 2023.
New York	Adopted by Executive Order 24 in 2009, reaffirmed as a goal of the Reforming the Energy Vision initiative: 40% below 1990 levels by 2030, and 80% below 1990 levels by 2050. Senate Bill 19-6599 will create GHG emissions targets of 40% below 1990 levels by 2030 and 85% below 1990 levels by 2050, with the remaining 15% offset. The bill also requires the PSC to create a clean energy standard of 70% renewable energy by 2030 and 100% zero emissions by 2040.	The state Soil & Water Conservation Committee administers a Climate Resilient Farming Program to reduce agricultural emissions. Governor Cuomo's REV initiative is a series of smaller initiatives to achieve carbon emissions reductions from multiple sectors, including transportation and buildings.
Oregon	Adopted 2007 (HB 07-3543): 10% below 1990 levels by 2020 and 75% below 1990 levels by 2050.	HB 19-2020 (second reading in Senate on 6/19) would create a GHG emissions standard of 45% below 1990 levels by 2035 and 80% below 1990 levels by 2050 and achieve those reductions through a cap and trade program.
Rhode Island	Adopted 2014 (the Resilient Rhode Island Act): 10% below 1990 levels by 2020, 45% below 1990 levels by 2035, and 80% below 1990 levels by 2050.	Governor Rainmondo's executive order 2017-10 required the development of a statewide Climate Resilience Action Strategy by June 2018.

State	Emissions / GHG Goals	Other Carbon / Climate Activities and Policies
Vermont	Adopted 2006 (S 06-259): 50% below 1990 levels by 2028, and if feasible, 75% below 1990 levels by 2050.	Executive Order 2017-12 created the Vermont Climate Action Committee. The Committee's 2018 report recommends using market-based mechanisms, sequestration measures, and carbon offset projects to address emissions.
Washington	Adopted 2008 (HB 08-2815): 1990 levels by 2020, 25% below 1990 levels by 2035, and 50% below 1990 levels by 2050 or 70% below the state's expected emissions in 2050.	SB 19-5116: Requires utilities to use emissions-free resources by 2045. Social cost of carbon must factor into IRP process.

State Energy Policies and Utility Goals

State	Renewable / Clean Energy Targets	EERS	Utility Commitments / Goals
California	Adopted 2002, last amended 2018: 33% by 2020, 60% by 2030, with a target of 100% carbon-free by 2045.	Electric: Long-term goals average about 1.15% of retail sales through 2024. Average incremental savings targets average about 1.3% of retail sales electricity from 2020-2025. Natural Gas: Incremental savings target of 0.56% through 2024. SB 15-350 requires state agencies and utilities to double cumulative efficiency savings achieved by 2030. Work to develop specific utility targets is ongoing.	Pacific Gas & Electric: Member of the WeAreStill in coalition. Goal to avoid one million tons of cumulative greenhouse gas emissions from 2018 through 2022, compared to a 2016 baseline. SMUD: 33% renewable energy by 2020, 60% by 2030, and reduce retail load GHG emissions to net zero by 2040. Sempra Energy: 35% below 2010 emissions by 2021, SDG&E is on track to meet CA's 50% by RE target.
Colorado	Adopted 2004: 30% by 2020 (IOUs), 10% or 20% by 2020 for municipalities and electric cooperatives depending on size. Polis Administration's Roadmap to 100% Renewable Energy by 2040.	Electric: Flat target of 500 GWh or roughly 1.7% of sales per year. Black Hills follows Xcel's targets. HB 17-1227 extended electric efficiency programs to 2028 and required the commission to set goals of at least 5% peak demand reduction and 5% energy savings (as compared to 2018) by 2028 for demand-side management programs implemented during 2019 through 2028. Natural Gas: Savings targets commensurate with spending targets (at least 0.5% of prior year's revenue).	Xcel Energy: 55% RE by 2026, 80% GHG reduction by 2030, carbon-free by 2050. Platte River Power Authority: Zero carbon emissions by 2030. Holy Cross Energy: 70% emissions reduction by 2030. Poudre Valley Rural Electric Association: increase carbon-free energy from 33% to 80% by 2030. Colorado Springs Utilities: 20% renewable energy by 2020.

State	Renewable / Clean Energy Targets	EERS	Utility Commitments / Goals
Connecticut	Adopted 1998, last amended 2018: Class 1: 21% by 2020, 30% by 2025, 40% by 2030 (plus 4% class 1 or 2 by 2018, 4% class 3 by 2010).	Electric: Average incremental savings of 1.11% of sales from 2019 through 2021.The state's renewable portfolio standard (RPS), established in 1998 and revised thereafter, requires that electricity providers and wholesale suppliers obtain 27% of their retail load from renewable energy and energy efficiency by 2020. Natural Gas: Average incremental savings of 0.59% per year from 2019 through 2021.	AVANGRID (the United Illuminating Company is a subsidiary): increase installed renewable capacity by 2GW, reduce emissions intensity 25% below 2015 levels by 2020, 100% carbon neutral by 2035.
Maine	Adopted 2019 (LD 19-1494): 80% by 2030, 100% by 2050.	Electric: Savings of 20% by 2020, with incremental savings targets of ~ 1.6% per year for 2014-2016 and ~2.4% per year for 2017-2019. While Efficiency Maine operates under an all cost-effective mandate, the agency has fallen short of targets in recent years due to budget cuts. Natural Gas: Incremental savings of ~0.2% per year for 2017-2019.	AVANGRID (Central Maine Power is a subsidiary): increase installed renewable capacity by 2GW, reduce emissions intensity 25% below 2015 levels by 2020, 100% carbon neutral by 2035.
Maryland	Adopted 2004, last amended 2019 (SB 19-516): 28% by 2020, 40% by 2025, 50% by 2030.	Electric: 2% incremental energy savings goal through 2023. Utilities must also file an energy efficiency program plan every 3 years to be approved by the PSC. Natural Gas: goals and limited income goals are being developed.	FirstEnergy (Potomac Edison Company is subsidiary in MD): 90% below 2005 emission levels by 2045.
Massachusetts	Adopted 1997, last amended 2018 (Clean Energy Standard): 20% by 2020, 40% by 2030, 60% by 2040, 80% by 2050. RPS: 13% by 2018, 55% by 2050.	Electric: Net annual savings of 3.45 million MWh (not including fuel switching) for 2019-2021, equivalent to savings of ~2.7% of retail sales per year. Natural Gas: 1.25% of retail sales. Net savings of 95.89 MMTherms for 2019-2021. Additional goal of 261.9 million net lifetime MMBtu for 2019-2021.	NationalGrid: 45% below 1990 emission levels by 2020, 70% below 1990 levels by 2030, and 80% below 1990 levels by 2050.

State	Renewable / Clean Energy Targets	EERS	Utility Commitments / Goals
Nevada	Adopted 1997, last amended 2019: 24% by 2021, 50% by 2030, with 100% by 2050 goal (up to 10% of the standard can be met using energy efficiency from 2020-2024.	SB 17-150 set baseline targets for electricity suppliers: 1% in 2018, 1.5% for 2021-2025.	NV Energy: seeks to double renewable generation by 2023. The utility included $2 billion in renewable projects in its 2018 IRP, and expects to retire or divest 100% of its coal generation by the end of 2025.
New Jersey	Adopted 1999, last amended 2018: 35% by 2025, 50% by 2030.	Electric: 2% electric savings (as a percent of average annual usage from the prior three years) within five years of the initial implementation of a utility's plan. In April, consultants presented the New Jersey Board of Public Utilities with the draft strategic plan for 2019-2022 for the statewide Clean Energy Program, including an energy efficiency portfolio achieving a 56% increase in savings by 2022. Natural Gas: 0.75% savings (as a percent of average annual usage from the prior three years) within five years of the initial implementation of a utility's plan.	FirstEnergy (Jersey Central Power & Light is a subsidiary): 90% below 2005 emission levels by 2045. Public Service Electric and Gas: eliminate 13 million metric tons of CO2 equivalent by 2030 (from 2005 levels).
New Mexico	Adopted 2004, last amended 2019 (Carbon-free Resource Standard): Distribution cooperatives: 10% by 2020, 40% by 2025, 50% by 2030, and zero-carbon (at least 80% RE) by 2050. IOUs: 20% by 2020, 40% by 2025, 50% by 2030, 80% by 2040, and carbon-free by 2045.	Electric: The state's three public utilities must achieve 5% savings of 2020 retail sales by 2025. HB 19-291 directs the Public Regulation Commission to set additional targets through 2030.	Xcel Energy: 55% RE by 2026, 80% GHG reduction by 2030, and carbon-free by 2050. PNM: carbon-free by 2040 (5 years ahead of the deadline established by SB 19-489). PNM plans to retire San Juan by 2022.

State	Renewable / Clean Energy Targets	EERS	Utility Commitments / Goals
New York	Adopted 2016 (Clean Energy Standard): 50% by 2030.	Statewide all-fuels target of 185 TBtu cumulative annual savings for 2015-2025, or approximately 3% of incremental electric sales. Electric: detailed proposals are to be submitted by the utilities to the PSC. The PSC assumes that these plans will account for 2% of the statewide goal, with the remainder accounted for by NYSERDA, codes and standards, and other state activities. Natural Gas: no specific targets, but savings will count toward statewide goal.	Long Island Power Authority: add 800 MW of clean energy by 2030. AVANGRID (New York State Electric & Gas Corporation and Rochester Gas & Electric Corporation are subsidiaries): increase installed renewable capacity by 2GW, reduce emissions intensity 25% below 2015 levels by 2020, and 100% carbon neutral by 2035. NationalGrid: 45% below 1990 emission levels by 2020, 70% below 1990 levels by 2030, and 80% below 1990 levels by 2050.
Oregon	Adopted 2007, last amended 2016: Large IOUs (3% or more of state's load): 50% by 2040 Large COUs: 25% by 2025 Small Utilities (1.5 to <3% of state's load): 10% by 2025 Smallest Utilities (<1.5% of state's load): 5% by 2025 Total coal phase out by 2035.[1]	Electric: Incremental targets average ~1.3% of sales annually for the period 2015-2019. Natural Gas: Incremental savings of 0.3% of sales annually for the period 2015-2019.	Portland General Electric and Pacific Power will be nearly coal free by 2030, entirely coal free by 2035. Avista: carbon-neutral electricity supply by 2027; 100% clean by 2045.
Rhode Island	Adopted 2004, last amended 2016: 16% by 2020, 31% by 2030, 38.5% by 2036.	Electric: Average incremental savings of 2.5% for 2018-2020. Natural Gas: Average incremental savings of 0.97% for 2018-2020.	NationalGrid: 45% below 1990 emission levels by 2020, 70% below 1990 levels by 2030, 80% below 1990 levels by 2050.

[1] Utilities that buy into a new coal plant or sign a new contract specifically for new coal power and publicly-owned utilities that annex investor-owned utility territory without consent (aside from municipal utilities under certain conditions) are subject to the “large utility” standards.

State	Renewable / Clean Energy Targets	EERS	Utility Commitments / Goals
Vermont	Adopted 2015: 55% by 2017, 75% by 2032, and 12% energy transformation projects (EE, EVs, storage) by 2032.	Vermont law requires Energy Efficiency Utility budgets to be set at a level that would realize "all reasonably available, cost-effective energy efficiency" and set specific energy and peak demand savings targets. Average incremental electricity savings totaling 357,400 MWh over 2018-2020, or approximately 2.4% of annual sales. Natural Gas: Three-year annual incremental savings of 192,599 Mcf spanning 2018-2020 or 0.5% of sales.	Green Mountain Power, 2018 Goal: partner with customers to drive down costs and eliminate more than 8,000 metric tons of carbon emissions per year using clean energy for the next two decades.
Washington	Adopted 2006, amended 2019: 15% by 2020, coal phased out by 2025, carbon neutral by 2030, 100% carbon-free by 2045.	Electric: average around 1.4% incremental savings per year. Natural Gas: in 2014, all four IOUs committed to a voluntary pilot program with the potential to save over 280 million therms annually.	Avista: carbon-neutral electricity supply by 2027, 100% clean by 2045. Seattle City Light: carbon neutral since 2005. Puget Sound Energy: reduce carbon emissions 50% by 2040, 100% coal-free generation by the early 2030s.

State Transportation Policies

State	Regional Transportation Collaborative	LEV Standards? [2]	ZEV Standards? [3]	Low Carbon Fuel Standard?	EV / ZEV Goals
California	Pacific Coast Collaborative	Yes	Yes	Goal: reduce carbon intensity of transportation fuel pool by at least 20% by 2030.	Goal (E.O. B.48-2018): 5 million ZEVs by 2030 and 250,000 ZEV chargers by 2025. Deploy over 100,000 zero emission freight vehicles and associated equipment by 2030. Transit agency requirements: all new bus purchases must be zero emission buses by 2029 (50% by 2026 for large agencies, 25% by 2026 for small agencies)
Colorado	REV West	Yes	Rulemaking in Progress		Goal (E.O. B2019-002): 940,000 EVs by 2030.
Connecticut	Transportation and Climate Initiative[4]	Yes	Yes	*	Goal: 500,000 ZEVs by 2030 (ZEV MOU)
Maine	Transportation and Climate Initiative	Yes	Yes	*	
Maryland	Transportation and Climate Initiative	Yes	Yes	*	Goal: ~300,000 ZEVs by 2025 (ZEV MOU)
Massachusetts	Transportation and Climate Initiative	Yes	Yes	*	Goal: ~300,000 ZEVs by 2025 (ZEV MOU)
Nevada	REV West				

[2] States that have adopted LEV Standards not represented below: Delaware and Pennsylvania.
[3] All states that have adopted ZEV Standards are represented below.
[4] Other TCI members not captured here: Delaware, New Hampshire, Pennsylvania, and Virginia.

New Jersey	Transportation and Climate Initiative	Yes	Yes	*	Goal: 330,000 EVs by 2025.

State	Regional Transportation Collaborative	LEV Standards?	ZEV Standards?	Low Carbon Fuel Standard?	EV / ZEV Goals
New Mexico	REV West	Climate Change Task Force to evaluate adopting.	Climate Change Task Force to evaluate adopting.		Governor Grisham stated that she would like to see 20% of the state fleet electrified.
New York	Transportation and Climate Initiative	Yes	Yes	*	Goal: 800,000 ZEVs by 2025.
Oregon	Pacific Coast Collaborative	Yes	Yes	Requires fuel suppliers to reduce the carbon content of transportation fuels by 10% by 2025.	Goal (E.O. 2017-21): 50,000 EVs by 2020.
Rhode Island	Transportation and Climate Initiative	Yes	Yes	*	Goal: 43,000 ZEVs by 2025 (ZEV MOU)
Vermont	Transportation and Climate Initiative	Yes	Yes	*	Goal: ~50,000 EVs by 2025
Washington	Pacific Coast Collaborative	Yes			Goal: 50,000 EVs by 2020.

* Signatory: Low Carbon Fuel Standard MOU (2009) in which the states agreed to analyze low-carbon fuel supply options, determine the feasibility of achieving a range of carbon reduction goals – including a 10 percent reduction in carbon intensity of fuels – and develop a framework for a regional Low Carbon Fuel Standard (LCFS).

State Appliance and Building Efficiency Policies

State	Appliance Standards Opposing Federal Rollback[5]	Building Efficiency Codes
California	In December 2008, California adopted a 45 lumen per watt standard for general service lamps (GSLs) as defined in the 2007 Energy Independence and Security Act (EISA). California's Title 20 Appliance Efficiency Regulations have existing provisions that backstop all other federal appliance standards in case of repeal or rollback.	Commercial: meets or exceeds ASHRAE 90.1-2013 Residential: meets or exceeds IECC 2015 Solar: The California Energy Commission adopted revisions to the Energy code in May 2018. The most noteworthy new provision is a requirement for all new low-rise homes to install PV equipment with an annual output greater than or equal to the home's annual electric consumption. The proposed amended standards, which still need to be approved by the California Building Standards Commission would go into effect on January 1, 2020.
Colorado	HB 19-1231 updates and adopts standards for water efficiency and energy efficiency that apply to a list of 15 consumer and commercial appliances and other products. The bill also includes a provision to adopt current federal standards to backstop all other federal appliance standards in case of repeal or rollback.	No mandatory statewide code, but any county or municipality that had a building code in place was required to adopt 2003 IECC or 2006 IECC as the minimum energy code standard by July 1, 2008. Solar: Builders of single-family homes are required to offer solar energy as a standard feature to all prospective homebuyers. Builders are required to give the buyer the option to have either a PV system or a solar water heating system installed on their new home or to have all the necessary wiring and plumbing installed so that they can easily add a solar system later.
Connecticut	N/A	Residential and commercial building codes are based on the 2012 IECC, with weakening amendments.
Maine	N/A	Commercial: based on the 2009 IECC and ASHRAE 90.1-2007 Residential: based on the 2009 IECC
Maryland	N/A	Residential and commercial building codes are based on the 2015 IECC.
Massachusetts	N/A	Commercial: based on the 2015 IECC and ASHRAE 90.1-2013 Residential: based on the 2015 IECC
State	**Appliance Standards Opposing Federal**	**Building Efficiency Codes**

[5] In May 2019, 36 utility companies [illegible] DOE proposal to roll back lightbulb efficiency stating that "The 2020 standard for lightbulbs should remain applicable to all common household lightbulbs, and efficiency standards for other products should not be delayed."

	Rollback	
Nevada	AB 19-54 adopted the federal light bulb standards.	Commercial: 2012 IECC, with amendments or ASHRAE 90.1-2010 Residential: 2012 IECC, with amendments
New Jersey	N/A	Commercial: based on ASHRAE 90.1-2013 Residential: based on 2015 IECC Solar: Developers of residential developments with 25 or more dwelling units must "offer to install, or to provide for installation of, a solar energy system" when technically feasible. The law took effect immediately upon enactment; however, the Department of Community Affairs (DCA), in cooperation with the New Jersey Board of Public Utilities (BPU), must develop rules and standards for its implementation. The law does not provide a time frame for the adoption of regulations and it does not appear that such rules have been established.
New Mexico	N/A	Commercial and residential are based on the 2009 IECC, with amendments
New York	N/A	Commercial: based on the 2015 IECC and ASHRAE 90.1-2013, as modified by the 2016 supplement Residential: based on the 2015 IECC, as modified by the 2016 supplement
Oregon	N/A	Commercial: based on ASHRAE 90.1-2010 Residential: more stringent than the 2009 IECC
Rhode Island	SB 19-552, which has been "held for further study", would establish minimum appliance energy efficiency standards.	Commercial: based on the 2012 IECC and ASHRAE 90.1-2010 Residential: based on the 2012 IECC, with amendments
Vermont	H 17-411 provides that the state will enforce federal standards if they are “withdrawn, repealed or otherwise voided” at the federal level. Efficiency measures protected by the new Vermont law include all standards on the federal books as of January 17, 2017, including ones that have yet to take effect, including the light bulb standards slated for implementation in 2020.	Commercial: based on the 2015 IECC and ASHRAE 90.1-2013, with amendments Residential: based on the 2015 IECC
Washington	HB 19-1444 adopts federal light bulb standards, providing a backstop to a potential federal rollback.	Commercial and Residential: based on the 2015 IECC, with amendments HB 19-1257: Department of Commerce is to create a State Energy

		Performance Standard by November 1, 2020 to reduce energy use and GHG emissions associated with large commercial buildings.

State Methane and HFC Emissions Policies

State	Methane Emissions Policy	HFC Emissions Policy
California	CARB adopted stringent methane regulations for monitoring and repairing pipeline leaks in 2017 (required by SB 16-1383). The CPUC ordered utilities to file methane abatement compliance plans by March 2019 (pursuant to SB 14-1371).	SB 18-1013 creates the Fluorinated Gases Emission Reduction Incentive Program to promote the adoption of low-global warming potential refrigerants. The schedule to ban products made with HFCs begins 2022.
Colorado	SB 19-181 directs the Air Quality Control Commission to bolster methane regulations by promulgating rules for all points in the natural gas supply chain (processing, gathering & boosting, storage, and transmission). The legislation also affirms local authority over oil and gas siting and sets objectives to protect public health.	SB19-096 requires the development of a GHG inventory, which will include HFCs.
Connecticut	N/A. Connecticut's omnibus energy bill, HB 19-5002, did not include regulations for methane emissions. Studies of CT pipelines reveal the need to modernize gas infrastructure.	Governor Malloy directed DEEP to develop HFC controls modelled after CARB's that would fit within the state's air quality regulatory framework. New regulations are expected in 2020.
Maine	Maine's policy establishes a classification system for pipeline leaks, and sets detection and repair requirements for pipeline operators. Governor Mills joined 15 other attorneys general in suing the Trump administration for halting enforcement of federal methane rules.	N/A
Maryland	The Greenhouse Gas Emissions Reductions Act requires the maintenance of GHG emissions inventories. The Maryland Department of Environment (MDE) publishes data on methane from wastewater, landfills, and oil and gas operations. MDE is in the process of developing proposed methane regulations - Methane Emissions Minimization Plans (MEMPs) - for curbing leaks across the natural gas supply chain.	MDE is in the process of developing HFC regulations for foam and refrigerant products pursuant to SB 16-323 (the Greenhouse Gas Emissions Reduction Act).
Massachusetts	To meet state emissions reductions goals, the DEP adopted rules in 2017 to require natural gas operators to reduce methane emissions annually (specified by utility), keep inventories, and repair pipeline leaks. The DPU adopted rules in March 2019 that establish methods for identifying high-priority leaks. The rules also require that gas operators accelerate repairs when leaks are located in 'environmentally sensitive areas'.	Massachusetts published its Comprehensive Energy Plan in late 2018. HFC regulations have not been announced, but the state's Attorney General joined 10 other states to sue the EPA for its HFC rule rollback in 2018.

State	Methane Emissions Policy	HFC Emissions Policy
Nevada	N/A	N/A
New Jersey	S 19-3207, if enacted, would bolster the state's GHG emissions reporting requirements and require the development of a comprehensive statewide strategy for mitigating 'short-lived' GHGs, including methane. As of May 2019, the bill had been passed by both chambers of the legislature.	S 19-3207 includes a provision requiring the development of a comprehensive strategy to reduce emissions of short-lived climate pollutants in the State. This requirement is based on legislation adopted and implemented in California.
New Mexico	Governor Grisham's EO 2019-003 directs EMNRD and NMED to develop a regulatory framework to reduce oil and gas sector methane emissions. The NMED maintains an interactive map of oil and gas site emissions.	N/A
New York	Governor Cuomo's Methane Reduction Plan (2017) outlines multiple policies to achieve emissions reductions targets, including monitoring and repair of natural gas pipelines.	The New York State Department of Environmental Conservation is developing regulations to phase out HFCs between 2020 and 2024, a draft proposal was released in September of 2018.
Oregon	HB 19-2020 would have directed the Environmental Quality Commission to develop rules regulating methane emissions from landfills, agriculture, and forestry. No legislation or regulations are in place for pipeline leaks.	N/A
Rhode Island	The Rhode Island Energy 2035 Plan (2015) recommended reviewing the state's natural gas replacement and repair policy, suggesting an update to National Grid's Gas Infrastructure, Safety, and Reliability Plan for detecting and repairing pipeline leaks.	N/A
Vermont	Gas utilities must 'routinely' inspect for leaks. No comprehensive program for pipeline emissions reductions is in place.	S 19-0030 establishes a schedule between 2020 and 2024 for when certain products must be manufactured without HFCs.
Washington	State law establishes a classification system for pipeline leaks and requires utilities to maintain permanent leak records and conduct a self-audit every five years.	HB 19-1112 establishes a regulatory framework for phasing out HFCs in the state, banning specific products beginning in 2020.

State	Bill Number	Summary
California	SB 18-1013	Codifies the prohibitions on certain ozone depleting substances and HFC) adopted by the U.S. EPA as part of the Significant New Alternatives Policy (SNAP) Program.
Colorado	HB 19-1261	Sets statewide GHG emissions reduction goals to more than 26% from 2005 levels by 2025, 50% below 2005 levels by 2030, and 90% below 2005 levels by 2050.
	SB 19-096	Requires the AQCC to collect greenhouse gas emissions data from greenhouse gas-emitting entities, report on the data, develop a forecast of future emissions, and propose a draft rule to address the emissions by July 1, 2020.
	SB 19-181	Modifies the composition of the COGCC, requires that the COGCC review and, if necessary, amend existing rules related to methane emissions and oil and gas operations, removes the state preemption of oil and gas regulation, and expands the authority of local governments to regulate oil and gas development.
	SB 19-236	Among other provisions, the bill supplements existing state renewable energy standard laws by establishing targets for the reduction of CO_2 emissions by Xcel Energy (80% below 2005 levels by 2030, 100% by 2050 and thereafter, if practicable). Other utilities may opt in to submitting clean energy plans. The bill also allows utilities to apply to the PUC for approval of a financing order to issue securitized utility ratepayer-backed bonds when retiring an electric generating facility. Bonds are to be used by the utility to purchase, build, or invest in electric generating resources or electricity storage, and repaid through a distinct charge on ratepayers. The bill requires the PUC to promulgate rules that require each wholesale electric cooperative to submit an application for approval of an integrated or electric resource plan. The PUC must evaluate the plans using rules adopted that are applicable to these cooperatives. The bill also requires the PUC to promulgate rules establishing requirements for IOUs to file electric distribution plans; requires IOUs to include a workforce transition plan when proposing the retirement of an electric generating facility; directs the PUC to require electric public utilities to consider the cost of carbon dioxide emissions in certain proceedings; requires the PUC to conduct an investigation of financial performance-based incentives and performance-based metric tracking; and directs the PUC to open an investigatory proceeding to evaluate the costs and benefits associated with regional transmission organizations, energy imbalance markets, joint tariffs, and power pools.
Connecticut		
Maine	LD 19-1679	Updates the state's GHG emissions reduction targets to 45% below 1990 levels by 2030, and 80% below 1990 levels by 2050. Establishes the Maine Climate Council, comprised of state agencies and stakeholders tasked with developing a climate action plan and a clean energy economy transition plan.

State	Bill Number	Summary
Maryland	HB 19-277	Authorizes the Governor to include the state in any regional governmental initiative, agreement, or compact that limits or reduces greenhouse gas emissions from the transportation sector; requires the Department of

		the Environment and the Department of Transportation to submit a report on the status of any regional initiative before November 1, 2019.
	SB 19-516	Among other provisions, increases the state's RPS to 50% by 2030. Requires study of a 100% renewable energy goal.
Massachusetts	H 18-4857	Establishes an energy storage target of 1,000 MWh by 2025. Requires electric suppliers to provide a minimum percentage, as determined by the Department of Energy Resources (DER), of kWh sales from clean peak resources. Also provides for EDCs to submit distribution system resiliency reports to the DER. Allows EDCs to hold competitive solicitations for procurement of non-wires alternatives from third party developers. Establishes reporting requirements for lost and unaccounted for gas for gas companies for the purpose of reducing GHG emissions. Requires the DER to study the costs and benefits of requiring EDCs to issue competitive bids for up to 1,600 MW of additional offshore wind.
Nevada	SB 19-254	Sets GHG emissions reduction targets: 28% below 2005 levels by 2025, 45% below 2005 levels by 2030, and "zero or near-zero" by 2050. Also requires DCNR to submit an emissions report, and provide analysis of whether existing/pending state policies can ensure that the state achieves zero carbon emissions by 2050.
	SB 19-358	Increases the state's clean energy standard to 50% by 2030. Includes a zero carbon by 2050 goal.
New Jersey	AB 18-3723	Requires the BPU to conduct an energy storage analysis, make changes to the solar renewable energy certificate program, adopt energy efficiency and peak demand reduction programs, adopt a "Community Solar Energy Pilot Program," and provide tax credits for certain offshore wind energy projects. The bill also requires the Department of Labor and Workforce Development to establish job training programs for those who work in manufacturing and servicing of offshore wind energy equipment.
	SB 19-3207	If enacted, the bill will establish new timeframes for the implementation of certain requirements in the "Global Warming Response Act" (GWRA), and require the Department of Environmental Protection (DEP) to adopt a strategy to reduce short-lived climate pollutants.
New Mexico	SB 19-489	Increases the state's RPS as follows: Distribution cooperatives: 10% by 2020, 40% by 2025, 50% by 2030, zero-carbon (at least 80% RE) by 2050. IOUs: 20% by 2020, 40% by 2025, 50% by 2030, 80% by 2040, and resources must be carbon-free by 2045. Also authorizes an alternative mechanism ("energy transition bonds" or "securitization") for financing the retirement of coal-fired power plants. The mechanism has been designed to accommodate the retirement in 2022 of units 1 and 4 of the San Juan Generation Station (SJGS) and to anticipate the closure of the Four Corners Power Plant in 2031. The bill also requires that the Environmental Improvement Board (EIB) promulgate a rule limiting carbon dioxide emissions from coal fired generating plants to an emissions standard of 1,100 lbs-CO2/MWh on or after January 1, 2023.

State	**Bill Number**	**Summary**
New York	SB 19-6599	If enacted, will create GHG emissions targets of 40% below 1990 levels by 2030 and 85% below 1990 levels by 2050, with the remaining 15% offset. The bill also requires that the PSC creates a clean energy standard of 70% renewable energy by 2030 and 100% zero emissions by 2040.

Oregon		
Rhode Island		
Vermont	HB 19-529	Excludes from the definition of a net metering system a plant for generation of electricity that primarily supplies electricity to electric vehicle supply equipment for the resale of electricity. Requires the Public Utility Commission to report on steps necessary to implement fees on plug-in electric vehicle charging and how to address net metering and net metering credits by December 15, 2019. Establishes the vehicle incentive and emissions repair programs, which, among other things, provide point-of-sale vouchers for the purchase or lease of new plug-in electric vehicles. Permits State agencies that own or control electric vehicle supply equipment (EVSE) to establish, set, and adjust fees for the use of EVSE available to the public for three years starting on July 1, 2019. Specifies that the PUC does not have jurisdiction over persons otherwise not regulated by the PUC that engage in the siting, construction, ownership, operation, or control of a facility that sells or supplies electricity to the public exclusively for charging a plug-in electric vehicle. Requires the Commissioner of Buildings and General Services, to the maximum extent practicable, to purchase and lease hybrid or plug-in electric vehicles for the State fleet with a minimum of 50%, bumped to 75% on July 1, 2021, of newly purchased and leased vehicles being hybrid or plug-in electric vehicles.
	S 19-30	Establishes a schedule between 2020 and 2024 for when certain products must be manufactured without HFCs.
Washington	HB 19-1112	Establishes a schedule between 2020 and 2024 for when certain products must be manufactured without HFCs.
	HB 19-1257	Requires the State Building Code Council to develop rules that require and regulate electric vehicle charging capability at all new buildings that provide on-site parking. Requires the Department of Commerce to create a State Energy Performance Standard by November 1, 2020 to reduce energy use and GHG emissions associated with large commercial buildings. Requires gas companies to identify and acquire all conservation measures that are available and cost-effective. The cost-effectiveness analysis must include the societal costs of GHG emissions. The targets must be based on a conservation potential assessment prepared by an independent third party and approved by the UTC. A gas company may propose a renewable natural gas program under which the company would supply renewable natural gas for a portion of the natural gas sold or delivered to its retail customers. Each gas company must offer by tariff a voluntary renewable natural gas service available to all customers to replace any portion of the natural gas that would otherwise be provided by the gas company. The UTC must monitor the GHG emissions resulting from natural gas and renewable natural gas delivered by each gas company to its customers, relative to the proportionate share of the state's GHG emissions goal.
Washington (cont)…	HB 19-1512	Allows municipal utilities to adopt transportation electrification plans. Regulated utilities may adopt plans that provide EV charging equipment incentives and support for other transportation electrification programs. Utility Electric Transportation Plan Authorization: The governing authority of a utility or a regulated electric utility, with the approval of the UTC, may adopt an electric transportation plan that proves that utility outreach and investment in the electrification of transportation infrastructure does not increase net costs to ratepayers in excess of 0.25%. The governing authority or the UTC may consider items such as the impact of electrification

		on the utility's load, demand response and load management opportunities, system reliability and distribution system efficiencies, and interoperability concerns. Upon making this determination, electric utilities may offer incentive programs for customers.
	HB 19-2042	Extends and establishes tax credits for electric vehicles and electric vehicle supply equipment (EVSE). Establishes a grant program to assist transit authorities in fleet electrification and alternative fuel use; a car sharing pilot grant program to support car sharing for underserved communities; and extends an existing EV charging infrastructure grant program. Amends provisions authorizing investor-owned utilities' incentive rate of return on investments in EV supply equipment. Extends a technical assistance and education program on alternative fuel vehicles for public agencies within Washington State University's Extension Energy Program. Authorizes the Department of Commerce to conduct a study on reducing barriers to battery and hydrogen fuel cell electric vehicle adoption by lower income residents.
	SB 19-5116	Requires that by December 31, 2025, all electric utilities eliminate coal-fired resources from their allocation of electricity. For IOUs, the UTC is required to accelerate depreciation for any coal-fired resource owned by an IOU and is allowed to accelerate depreciation for any qualified transmission line to no later than December 31, 2025. The UTC must allow in rates prudently incurred undepreciated investments in a fossil-fuel generating resource that has been retired from service under specific conditions. By January 1, 2030, each electric utility must make all retail sales of electricity to Washington customers GHG neutral. An electric utility must achieve compliance with the GHG neutral standard for multiyear compliance periods beginning January 1, 2030, through December 31, 2044. By January 1, 2045, each electric utility must meet 100 percent of its retail electric load to Washington customers using non-emitting electric generation and electricity from renewable resources.

State EV and EVSE Policies and Incentives

California

EV Policies and Incentives

Low Emission Truck and Bus Purchase Vouchers: fleet owners.

Light-duty PHEV and ZEV Rebates

HOV and High Occupancy Toll (HOT) Lane Exemption

The California Clean Truck, Bus, and Off-Road Vehicle and Equipment Technology Program: funding for development, demonstration, pre-commercial pilot, and early commercial implementation projects for zero and near-zero emission trucks, buses, and off-road vehicles and equipment.

Through the California Clean Miles Standard and Incentive Program, the California Air Resources Board (ARB) will establish annual emissions reduction targets for transportation network companies, including goals for increasing the number of miles traveled using zero emission vehicles.

Zero and Near-Zero Emission Vehicle Component Rebates

Vehicle Acquisition and Petroleum Reduction Requirements: beginning in fiscal year 2024, at least 50% of the light-duty vehicles purchased by the state must be ZEVs. At least 30% of the Department of General Service's fleet of new vehicles with a gross vehicle weight of 19,000 pounds or more must be ZEVs by 2030.

Freight Efficiency Action Plan: establishes targets to improve freight efficiency and transition to zero emission technologies.

EV Supply Equipment (EVSE) Policies and Incentives

EVSE Incentive Program Support: provides guidance and funding for local governments and organizations to develop and implement EVSE incentive programs.

EVSE Loan and Rebate Program: available to small businesses.

Emissions Reductions Grants

Residential PACE EVSE Financing Program

EVSE Policies for Residential and Commercial Renters: The lessor of a dwelling or commercial property must approve written requests from a

lessee to install EVSE at a parking space allotted for the lessee on qualified properties. Certain exclusions apply to residential dwellings and commercial properties.

EVSE Policies for Multi-Unit Dwellings: A common interest development, including a community apartment, condominium, and cooperative development, may not prohibit or restrict the installation or use of EVSE or a PEV-dedicated TOU meter in a homeowner's designated parking space or unit. These entities may put reasonable restrictions on EVSE, but the policies may not significantly increase the cost of the EVSE or significantly decrease its efficiency or performance.

Mandatory EVSE Building Standards

EVSE Open Access Requirements: EVSE service providers may not charge a subscription fee or require membership for use of their public charging stations.

PEV Charging Access: Municipalities may not restrict the types of PEVs that may access a public PEV charging station that is intended for passenger vehicle use, and funded, at least in part, by the state or money from utility ratepayers.

EVSE Location Assessment: The State Energy Resources Conservation and Development Commission, in partnership with CARB, must assess whether EVSE in California is located disproportionately by population density, geographical area, or population income level. If EVSE has been disproportionately installed unreasonably, the agencies must proportionately install new EVSE, unless it is determined that the current locations of EVSE further California's policy goals.

EVSE Assessment: The California State Energy Resources Conservation and Development Commission, in partnership with CARB and the CPUC, must publish a statewide assessment of the EVSE infrastructure needed to support the levels of PEV adoption required for at least five million zero emission vehicles to operate in California by 2030. The assessment must consider the EVSE infrastructure needs for all vehicle categories, and must analyze the existing and future infrastructure needs across California, including in low-income communities. The assessment must be updated at least once every two years.

Public Utility Definition: A corporation or individual that owns, controls, operates, or manages public EVSE is not defined as a public utility.

State Agency EVSE Installation: California state agencies must actively identify and pursue opportunities to install EVSE, and accommodate future EVSE demand, at state employee parking facilities in new and existing agency buildings.

EVSE Local Permitting Policies: Cities and counties must adopt an ordinance that creates an expedited, streamlined permitting process for EVSE.

Colorado

EV Policies and Incentives

PEV Tax Credit: $5,000 - 20,000 in 2017-2019; $4,000 - 16,000 in 2020; $2,500 - 10,000 in 2021.

Alternative Fuel Vehicles and Infrastructure Grant Program: CEO, RAQC, and CDOT, have partnered to provide grants through the ALT Fuels Colorado program for new fleet purchases of EVs.

PEV and EVSE Grants: available to individual drivers and fleet owners.

High Occupancy Vehicle (HOV) Lane Exemption

EV Supply Equipment (EVSE) Policies and Incentives

Alternative Fuel Vehicles and Infrastructure Grant Program: Provides grants through the ALT Fuels Colorado program for new, publicly accessible co-located electric vehicle charging and propane station equipment at funded CNG stations, and EVs.

EVSE Multi-Unit Dwelling Installations and Access: A residential tenant may install Level 1 or Level 2 EVSE at their own expense on or in leased premises. The landlord may seek a fee or reimbursement for the actual cost of electricity as well as the cost of installation or upgrades to existing equipment. In addition, the tenant may request that the EVSE be accessible by other tenants, in which case the EVSE must be in compliance with all applicable requirements, and the landlord may seek a fee to reserve a specific parking space.

Alternative Fuel Resale and Generation Regulations: A corporation or individual that resells alternative fuel supplied by a public utility for use in an AFV is not subject to regulation as a public utility. Additionally, a corporation or individual that owns, controls, operates, or manages a facility that generates electricity exclusively for use in AFV charging or fueling facilities is not subject to regulation as a public utility provided that the electricity is generated on the property where the charging or fueling facilities are located and the electricity is generated from a renewable resource.

Connecticut

EV Policies and Incentives

Heavy-Duty Vehicle Emissions Reduction Grants: DEEP allocates a portion of its designated funds from the Volkswagen Environmental Mitigation Trust for the replacement or repower of eligible heavy-duty on-road vehicles through its Diesel Emissions Mitigation Program.

Hydrogen and PEV Rebate

Loans for PEVs and Residential Charging Infrastructure: The Connecticut Green Bank offers Smart-E low-interest loans of up to $30,000 for Connecticut residents to purchase a new or used PEV. The vehicle must be registered with the Connecticut Department of Motor Vehicles. Loans are also available for Connecticut PEV drivers to purchase EVSE. To qualify, applicants must own or lease a model year 2012 or later PEV and occupy the residence at which the EVSE will be installed.

Reduced Registration Fee for Electric Vehicles

AFV Procurement Preference: In determining the lowest responsible qualified bidder for the award of state contracts, the Connecticut Department of Administrative Services may give a price preference of up to 10% for the purchase of AFVs or for the purchase of conventional vehicles plus the conversion equipment to convert the vehicles to dual or dedicated alternative fuel use.

EV Supply Equipment (EVSE) Policies and Incentives

EVSE Grants: available to municipalities, state agencies, and private businesses.

Public EVSE Requirements: Owners and operators of public EVSE that require payment must allow multiple payment options that allow access by the public. In addition, payment should not require users to pay a subscription fee or obtain a membership of any kind, however payment required may be based on price schedules for such memberships. Owners and operators can impose restrictions on the amount of time a vehicle can use the EVSE. In addition, owners and operators of a public EVSE must disclose the location and characteristics of each EVSE to the U.S. Department of Energy's Alternative Fuels Data Center.

Public Utility Definition: An owner of an EV charging station is not defined as a public utility.

Utility Company PEV Rates: By July 1, 2018, utility companies must evaluate if it is appropriate to implement PEV time of day rates for residential and commercial customers.

Maine

EV Policies and Incentives

An insurer may credit or refund any portion of the premium charged for an insurance policy on a clean fuel vehicle in order to encourage its policyholders to use clean fuel vehicles, as long as insurance premiums on other vehicles are not increased to fund these credits or refunds.

EV Supply Equipment (EVSE) Policies and Incentives

EVSE Funding: Efficiency Maine Trust is accepting applications through July 10, 2019, for funding of public, workplace, and multi-unit dwelling Level 2 EVSE in strategic locations within Maine. EVSE along specific roads and at locations that will likely experience a high frequency of use will be prioritized.

PEV Charging Regulation Exemption: An entity that sells electricity for the sole purpose of charging the battery of a PEV is not defined or regulated as an electricity provider. An EVSE provider may charge a submetered user only for kilowatt-hours used.

Maryland

EV Policies and Incentives

PEV and Fuel Cell Electric Vehicle (FCEV) Tax Credit: up to $3,000.

PEV HOV Lane Exemption

AFV Voucher Program: for the purchase of new and converted AFVs registered in Maryland. Vehicles must be used by commercial, non-profit, or public entities.

Zero Emission School Bus Grant Program and Study: The Maryland Department of the Environment will administer a Zero Emission School Bus Transition Grant Program to purchase zero emission school buses, install charging infrastructure, and transition to zero emission school bus fleets.

ZEV State Fleet Goal: state agencies must increase the number of ZEV acquisitions in light-duty fleets to at least 25% of annual fleet purchases by 2025.

EV Supply Equipment (EVSE) Policies and Incentives

EVSE Rebate Program

Alternative Fuel Infrastructure Grants: The Maryland Energy Administration administers the Maryland Alternative Fuel Infrastructure Program (AFIP), which provides grants to plan, install, and operate public access alternative fueling and charging infrastructure.

EVSE Regulation Exemption: Owners and operators of EVSE are not subject to state regulation as electricity suppliers or public service companies. For the purpose of this regulation, owners and operators of EVSE are considered retail electric customers.

PEV Information Disclosure: The Maryland Motor Vehicle Administration is allowed to provide the address of a registered PEV owner and information about the vehicle to electric companies for their use. Electric companies may only use this information in planning for the electric power supply and may not use it for marketing or solicitation.

PEV Infrastructure Promotion: The Maryland EV Infrastructure Council promotes the use of PEVs in the state. Specific responsibilities of the Council include the following:

- developing an action plan to facilitate successful integration of PEVs into the Maryland transportation network;
- assisting in developing and coordinating statewide standards for streamlined permitting and installation of EVSE;
- recommending a statewide charging infrastructure plan and incentives to support investment in PEVs;
- developing targeted policies to support fleet purchases of PEVs; encouraging local and regional efforts to promote the use of PEVs; and
- developing model procurement practices.

Effective July 1, 2019, the Council will be renamed the Zero Emission Electric Vehicle Council and will incorporate fuel cell electric vehicles in all of the Council responsibilities.

Massachusetts

EV Policies and Incentives

Vehicle Emissions Reduction Grants: The (MassDEP) Volkswagen Open Solicitation Grant Program provides up to 80% of the cost of new diesel or alternative fuel replacements and repowers for eligible government entities.

PEV and EVSE Grants for Public Fleets: available to local governments, public universities and colleges, and state agencies.

Plug-In and ZEV Rebates
AFV and Infrastructure Grants: The Massachusetts Department of Energy Resources' Clean Vehicle Project offers grants for public and private fleets to purchase AFVs and infrastructure.

When purchasing new motor vehicles, the Commonwealth of Massachusetts must purchase hybrids or AFVs to the maximum extent feasible and consistent with the ability of such vehicles to perform their intended functions.

EV Supply Equipment (EVSE) Policies and Incentives

Public Access EVSE Grants: Qualified EVSE must be available to the public at least 12 hours per day.

Multi-Unit Dwelling (MUD) EVSE Grants: available to private, public, or non-profit MUDs with ten or more residential units.

Workplace EVSE Grants: available to private, public, or non-profit workplaces with 15 or more employees on site.

Public EVSE Requirements: Owners and operators of public EVSE that require payment must provide payment options that allow access by the public. In addition, payment should not require users to pay a subscription fee or obtain a membership of any kind; however, required fees may be conditional on such memberships. Owners and operators can impose reasonable restrictions on EVSE use, such as limiting access to visitors of the business. In addition, owners and operators of public EVSE must provide the location, hours of operation, payment, and characteristics of each EVSE to the U.S. Department of Energy's Alternative Fuels Data Center.

EVSE Building Standards: The Massachusetts State Board of Building Regulations and Standards and the Massachusetts Department of Energy Resources will develop building and electric code requirements for residential and appropriate commercial buildings for EVSE.

Public Utility Definition: An entity that owns, operates, leases, or controls EVSE is not defined as a public utility.

Nevada

EV Policies and Incentives

AFV and Infrastructure Grants Authorization: The Nevada Office of Energy will establish the Nevada Clean Energy Fund to fund qualified clean energy projects, including any program, technology, product, or service that supports the deployment of AFVs and related infrastructure.

Authorization for HOV Lane Exemption: The NDOT, in consultation with the Federal Highway Administration and U.S. EPA, may establish a program allowing federally certified low emission, energy-efficient, and alternative fuel vehicles to operate in HOV lanes regardless of the number of passengers.

AFV Acquisition Requirement: Fleets containing 50 or more vehicles that are owned, leased, or operated by the state, a state agency, or a political subdivision of the state in a county with a population of 100,000 or more must acquire AFVs or U.S. EPA certified Ultra Low Emission Vehicles (ULEVs). Covered fleets are required to purchase either AFVs or certified ULEVs for 20% of new vehicles obtained. A fleet may meet the acquisition requirements by converting existing or newly acquired vehicles to operate on alternative fuels. An AFV acquired in compliance with this mandate must operate solely on the alternative fuel except when operating in an area where the appropriate alternative fuel is unavailable. Fleets with buses or heavy-duty vehicles are included.

SB 19-299: allows utilities to provide an incentive of 75% of the cost for school districts to develop charging infrastructure or purchase electric school buses.

EV Supply Equipment (EVSE) Policies and Incentives

EVSE Demonstration Program Requirements: The Electric Vehicle Infrastructure Demonstration Program requires Nevada utilities to promote and incentivize the deployment of EVSE. Utilities must submit an annual plan for implementing the Program in their service areas to the PUCN. Plans may include, but are not limited to, the following measures:

- payment of incentives to customers that install EVSE;
- time-of-use rates for electricity used to charge plug-in electric vehicles;
- EVSE education and awareness programs for customers; and
- technical assistance programs for government fleets and private organizations.

Utilities may request to recover the costs associated with carrying out the program, including customer incentives, by filing an application with the PUCN.

The Nevada Electric Highway initiative, a partnership created between the state and NV Energy in 2015, seeks to build a complete electric highway system along the I-95 corridor by 2020. 15% of the Nevada's $25 million allocation from the VW settlement agreement will be used to support electric highway projects.

New Jersey

EV Policies and Incentives

ZEV Tax Exemption: does not apply to partial ZEVs, including hybrid electric vehicles.

High Occupancy Vehicle (HOV) Lane Exemption

PEV Toll Discount Program

Low Emission or Alternative Fuel Bus Acquisition Requirement: All buses purchased by the New Jersey Transit Corporation must be: 1) equipped with improved pollution controls that reduce particulate emissions; or 2) powered by a fuel other than conventional diesel.

EV Supply Equipment (EVSE) Policies and Incentives

EVSE Grants: offered on a first-come, first-served basis for the cost of installation of eligible EVSE at workplaces, government and educational facilities, non-profits, parking facilities, and multi-unit dwellings.

State Interagency EV Partnership: Announced June 3, 2019, will be co-led by the BPU, DEP, and the EDA to develop and implement a statewide charging deployment initiative.

New Mexico

EV Policies and Incentives

Alternative Fuel and Advanced Vehicle System Manufacturing Incentive: The Alternative Energy Product Manufacturers Tax Credit provides credit against combined reporting taxes (gross receipts, compensating, and withholding) for qualified manufacturers of alternative energy products, including hydrogen and fuel cell vehicle systems, and electric and hybrid electric vehicles.

AFV Loans: available to state agencies, political subdivisions, and educational institutions for AFV acquisitions. Funds must be used for the purchase of vehicles that operate on natural gas, propane, electricity, or hydrogen.

Government fleets may finance alternative fuel vehicles or related infrastructure through guaranteed utility savings contracts where vehicle operational and fuel cost savings pay for the capital investment.

AFV and HEV Acquisition Requirements: A minimum of 75% of state government and educational institution fleet light-duty vehicles purchased must be HEVs, bi-fuel, or dedicated AFVs.

The New Mexico General Services Department (GSD) launched plans to electrify state vehicles, devoting $2.5 million to public fleet electrification, $1.2 million of which will be used for solar-powered charging stations in Santa Fe. In a statement, Governor Grisham noted she would like to see 20% of the state fleet electrified.

EV Supply Equipment (EVSE) Policies and Incentives

Public Utility Definition: An entity that is not a regulated utility that resells natural gas or electricity as motor fuel is not defined as a public utility.

New York

EV Policies and Incentives

PEV Rebate Program

Heavy-Duty Alternative Fuel and Advanced Vehicle Purchase Vouchers

ZEV and Fueling Infrastructure Rebates for Municipalities: available to cities, towns, villages, counties, and New York City boroughs.

Workplace EVSE and PEV Incentives: NYSERDA is offering employers in the greater New York City region an $8,000 rebate per dual-connector EVSE installed. Employees of organizations that receive the rebate are eligible for a $500 rebate toward the purchase or lease of a qualified PEV.

HOV Lane Exemption

PEV Toll Discount Program

HEV Taxicabs: By February 3, 2019, the New York City Taxi and Limousine Commission must approve one or more HEV models for immediate use as a taxicab by medallion owners.

EV Supply Equipment (EVSE) Policies and Incentives

EVSE Rebate: available to public and private entities for installations at public parking facilities, workplaces, and multi-unit dwellings.

Alternative Fueling Infrastructure Tax Credit:

PEV and Charging Infrastructure Support: The New York Power Authority's EVolve NY program has allocated up to $250 million to support PEVs and address charging infrastructure gaps throughout the state.

PEV Charging Tariff: Each investor-owned utility selling electricity was required to file a tariff with the NYPSC by April 1, 2018, to allow a customer to purchase electricity solely for the purpose of charging a PEV. The utility must make the tariff available to customers within 60 days of PSC approval.

Electric Corporation Definition: PEV charging stations are not defined as electric plants and owners and operators of charging stations are not defined as electric corporations. The PSC does not have jurisdiction over publicly available PEV charging stations, the owners and operators of the stations, or the transactions between the owners and operators of the stations, as long as the owners and operators do not fall within the definition of an electric corporation.

Governor Andrew M. Cuomo announced in February 2019 that New York is making up to $31.6 million available to ramp-up the expansion of electric vehicle fast charging stations. The plan was approved by the NYPSC and will leverage existing NYSERDA and NYPA funds.

Oregon

EV Policies and Incentives

Support for PEV Adoption: In order to support the state goal of at least 50,000 PEVs registered and operating in Oregon by 2020, the ZEV Working Group will develop goals and progress metrics for PEV adoption. The Working Group will aim to remove barriers to PEVs and PEV charging stations, and establish a website to share information about their efforts with the public.

PEV Rebate: available to residents, businesses, non-profit organizations, and government agencies.

Establishment of Recognition Programs for PEV Adoption: The ODOE must design and establish Governor's Awards for automobile dealerships to encourage sales of PEVs. ODOE must also design and establish Governor's Awards for businesses and organizations that support PEV adoption through installing charging infrastructure and using PEVs in their fleets.

Support for Zero-Emission Buses: ODOE, with ODOT, the PUC, the DEQ, and the Department of Education, must develop tools and provide assistance to school districts and transit agencies about using zero-emission bus options.

AFV Acquisition, Fuel Use, and Emissions Reductions Requirements: All state agencies and transit districts must purchase AFVs and use alternative fuels to operate those vehicles to the maximum extent possible, except in regions where it is not economically or logistically possible to fuel an AFV. DAS and ODO) must improve the PEV bulk procurement process to reduce costs for state agency PEV purchases. DAS must develop a “LEV First" policy to encourage state employees to use PEVs or other LEVs in the state fleet. DAS and ODOE must also develop a tool to calculate the long-term return on investment and life-cycle costs of PEVs to inform agencies of potential cost savings. In addition, DAS must inform and support legislative changes that enable increased charging infrastructure and state agency PEV purchases.

EV Supply Equipment (EVSE) Policies and Incentives

Mandatory EVSE Building Standards: The Oregon Department of Business and Consumer Services, Building Code Division, must amend the state building code to require that all newly constructed residential and commercial building parking structures can support the installation of at least one level 2 EVSE by October 1, 2022.

State Agency EVSE Installation: State agencies may install publicly-accessible EVSE on their premises or contract with a vendor to do so. The Oregon Department of Administrative Services (DAS) will establish criteria to determine the appropriate number of locations for EVSE at each agency. DAS must add PEV charging capacity for employee and public visitor parking lots, develop contracts to procure and install charging infrastructure, and incorporate PEV charging as a tenant improvement for state-leased buildings.

Electricity Provider and PEV Charging Rate Regulations: Regulated electric utility tariffs must explicitly permit customers to resell electricity for use as a motor fuel, as long as the entity is not considered a public utility as defined in Oregon Revised Statutes 757.005 and does not provide any utility service. Additionally, each regulated electric utility must provide customers with a choice of flat rate or time of use electricity rates specific to PEV owners. Finally, an investor-owned utility can own and operate PEV charging equipment using its own funds or petition the OPUC for rate recovery.

Rented Commercial Property EVSE Installations: The tenant of a commercial space may submit an application to install EVSE for the use of the tenant, employees of the tenant, and customers of the tenant. Unless the premises does not have at least one parking space per rental unit, the landlord must approve a completed application no more than 60 days after the tenant submits the application. In the absence of a different tenant-landlord agreement, the EVSE will be personal property of the tenant.

Planned Community and Condominium EVSE Installations: The owner of a lot in a planned community or unit in a condominium may submit an application to install EVSE for their personal use in a parking space subject to the exclusive use of the owner. The HOA must approve a complete application within 60 days. The owner is responsible for all costs associated with the EVSE installation and use, must disclose the existence of the EVSE and related responsibilities to a prospective buyer, and must ensure that the infrastructure meets insurance and safety requirements. EVSE installed under these regulations on or before June 4, 2015, is considered to be the personal property of the lot or unit owner with which the EVSE is associated, unless the owner and HOA have negotiated a different outcome.

Rhode Island

EV Policies and Incentives

AFV and ZEV Acquisition Requirements: at least 75% of state motor vehicle acquisitions must be AFVs, and the remaining 25% must be HEVs to the greatest extent possible. By 2025, 25% of state motor vehicle acquisitions must be ZEVs.

EV Supply Equipment (EVSE) Policies and Incentives

EVSE and PEV Rebates: The Charge Up! program provides rebates to state and municipal agencies for the purchase and installation of publicly accessible Level 2 or DC fast chargers. Agencies that install EVSE also qualify for up to $15,000 to support the purchase or lease of a new PEV acquired on or after July 1, 2016, as part of their public sector fleet.

Vermont

EV Policies and Incentives

PEV Incentive: provides financial incentives to low- and moderate-income residents for the purchase or lease of a new PEV.

Heavy-Duty Vehicle Emissions Reduction Grants: Through the Vermont Diesel Emissions Reduction Grants Program, the Vermont Department of Environmental Conservation provides funding to local, state and regional agencies or departments, businesses, institutions, and nonprofit organizations for projects focused on reducing emissions from diesel engines and vehicles. Qualifying heavy-duty vehicles include buses and Class 5-8 trucks. Projects eligible for funding include alternative fuel conversions and certified vehicle or equipment replacements.

HEV and PEV Acquisition Requirements: Effective July 1, 2019, the Vermont Department of Buildings and General Services must, to the extent possible, purchase or lease HEVs or PEVs for state use. At least 50% of the vehicles purchased or leased annually must be HEVs or PEVs. Beginning July 1, 2021, at least 75% of the vehicles purchased or leased annually must be HEVs or PEVs.

PEV Analysis: The PUC must evaluate PEVs and PEV charging in the state. The Commission must provide public notice, opportunity for submission of written comments, and one or more workshops on PEVs during the course of its evaluation.

EV Supply Equipment (EVSE) Policies and Incentives

EVSE Grants: available to governments, businesses, non-profit organizations, homeowner associations, electric utilities, and EVSE providers.

Alternative Fueling Infrastructure Incentive: The Vermont State Infrastructure Bank (SIB) offers loan assistance to municipalities, regional development corporations, political subdivisions of the state, and private companies working for the state to finance public electric vehicle charging and natural gas fueling stations.

Public Utility Definition: An entity that supplies electricity to the public exclusively to charge plug-in electric vehicles is not defined as a public utility and may charge for this electricity by the kilowatt-hour.

EVSE Fee Authorization: Effective July 1, 2019, any Vermont agency or department that owns or controls EVSE may establish and set user fees.

EVSE Code Reporting: On or before December 1, 2019, the Vermont Agency of Agriculture, Food and Markets (Agency) must submit a report to the legislature that provides an update on the National Institute of Standards and Technology's (NIST) progress toward adopting a code on EVSE and makes a recommendation for an annual licensing fee for EVSE available to the public. If NIST has not adopted a code on EVSE by December 1, 2020, the Agency must submit an additional report on or before that date which provides an update on NIST's progress toward adopting a code.

Washington

EV Policies and Incentives

Alternative Fuel Commercial Vehicle and Fueling Infrastructure Tax Credit: Businesses are eligible to receive tax credits for purchasing new alternative fuel commercial vehicles and installing alternative fueling infrastructure.

PEV and Fuel Cell Electric Vehicle (FCEV) Infrastructure and Battery Tax: Public lands used for installing, maintaining, and operating PEV infrastructure are exempt from leasehold excise taxes until January 1, 2020. Additionally, the state sales and use taxes do not apply through July 1, 2025 to PEV and FCEV batteries or fuel cells; labor and services for installing, repairing, altering, or improving PEV and FCEV

batteries or fuel cells and PEV and hydrogen fueling infrastructure; the sale of property used for PEV and hydrogen fueling infrastructure, and the sale of zero emission buses.

AFV and EV Retail Sales Tax Exemption

PEV Promotion and Infrastructure Development: Any regional transportation planning organization containing a county with a population greater than one million must collaborate with state and local governments to promote PEV use, invest in PEV charging infrastructure, and seek federal or private funding for these efforts.

AFV Car Share Pilot Program: WSDOT will develop a pilot program to provide AFV use opportunities to underserved and low-income communities and to those without easy access to transportation corridors.

AFV Technical Assistance and Education Program: The Washington State University Energy Program will establish and administer a technical assistance and education program on the use of AFVs for public agencies, including state and local governments.

EV and FCEV Low Income Opportunity Study: The Washington State Department of Commerce must conduct a study to identify opportunities to reduce barriers to EV and FCEV adoption by lower income residents through the use of vehicle and infrastructure financing assistance.

Alternative Fuel Use Requirement: All state agencies must, to the extent practicable, use 100% biofuels or electricity to operate all publicly owned vehicles. Agencies must prioritize EVs when leasing or purchasing new vehicles, and all trips that may feasibly use EVs must employ them.

EV Supply Equipment (EVSE) Policies and Incentives

Alternative Fueling Infrastructure Funding Program: WSDOT has developed a pilot funding program to strengthen and expand the West Coast Electric Highway network by deploying DC fast charging infrastructure along highway corridors in Washington.

Utility EVSE ROI Incentive: Utilities may petition the UTC for a rate of return on EVSE installed for the benefit of ratepayers through 2030.

Green Transportation Grant Program: WSDOT will establish a grant program to fund projects including fleet electrification, modification or replacement of facilities to facilitate fleet electrification and hydrogen fueling, upgrades to electrical transmission and distribution systems, and construction of charging and fueling infrastructure. In order to receive funding for a project, a transit authority must provide matching funding that is at least equal to 20% of the total cost of the project.

PEV Charging Regulation Exemption: The UTC may not regulate the rates, services, or facilities of an entity that offers charging facilities to the public for hire. The exemption does not apply if the entity is otherwise subject to UTC jurisdiction as an electrical company, or if an entity's battery charging facilities and services are subsidized by any regulated service. A utility may offer charging facilities as a regulated service, subject to UTC approval.

PEV Charging Infrastructure Availability: Publicly and privately owned PEVs may charge at state office locations if the vehicles are used for state business, conducting business with the state, or as commuter vehicles. Additionally, contingent upon funding, the state must install electrical outlets suitable for charging PEVs in each of the state's fleet parking and maintenance facilities as well as every state-operated highway rest stop.

Local Government PEV Infrastructure Requirements: Jurisdictions must develop regulations to allow the use of PEV infrastructure in all areas except critical areas or areas zoned for residential or resource use.

EVSE and Battery Exchange Station Regulations: State and local governments may lease land for installing, maintaining, and operating EVSE or electric vehicle battery exchange stations for up to 50 years for at least $1 per year. Additionally, the installation of battery charging and exchange stations is categorically exempt from the Washington Environmental Policy Act.

HB 19-1512: Allows municipal utilities to adopt transportation electrification plans. Regulated utilities may adopt plans that provide EV charging equipment incentives and support for other transportation electrification programs. Utility Electric Transportation Plan Authorization: The governing authority of a utility or a regulated electric utility, with the approval of the UTC, may adopt an electric transportation plan that proves that utility outreach and investment in the electrification of transportation infrastructure does not increase net costs to ratepayers in excess of 0.25%. The governing authority or the UTC may consider items such as the impact of electrification on the utility's load, demand response and load management opportunities, system reliability and distribution system efficiencies, and interoperability concerns. Upon making this determination, electric utilities may offer incentive programs for customers.

State Climate / Carbon Policies

State	Emissions / GHG Goals	Other Carbon / Climate Activities and Policies
California	Adopted in 2006 (AB 05-32): 1990 levels by 2020; amended in 2016 (SB 15-32): 40% below 1990 levels by 2030. E.O. S-03 in 2005: 80% below 1990 levels by 2050.	Cap & Trade Program EO B-55-2018: achieve carbon-neutrality by 2045 and net-negative emissions thereafter. AB 17-398: extends cap-and-trade through 2030. SB 15-350: directs CARB to adopt rules removing disincentives for utilities' emissions reductions programs.
Colorado	Adopted 2019 (HB 19-1261): more than 26% from 2005 levels by 2025, 50% below 2005 levels by 2030, and 90% below 2005 levels by 2050.	HB 19-1261: in addition to expanding GHG reduction goals, provides for possibility of joining other jurisdictions in regional abatement schemes. SB 19-096: directs the Air Quality Control Commission to track long-term emissions data and publish an inventory. SB 19-236: utilities must include emissions reductions plans in their IRPs, and PUC must consider social cost of carbon.
Connecticut	Originally adopted 2004 (SB 04-595), last amended 2018 (SB 18-7): 10% below 1990 levels by 2020, 45% below 2001 levels by 2030, and 80% below 2001 levels by 2050.	The 2018 amendment to the GHG targets (SB 7) also requires publication of seal level rise scenarios. In 2018, the Governor's Council on Climate Change put forward several policy recommendations for reducing emissions.
Maine	Adopted 2019 (LD 19-1679): 45% below 1990 levels by 2030, 80% below 1990 levels by 2050.	LD 19-1679: establishes the Maine Climate Council, tasked with developing a climate action plan and clean energy economy transition plan.
Maryland	Adopted 2009, reauthorized and amended in 2016 (SB 16-323): 25% below 2006 levels by 2020, and 40% below 2006 levels by 2030.	HB 19-277: Authorizes Governor to include the state as full participant in regional initiatives (TCI) to reduce emissions from transportation. SB 19-516: Among other provisions, increases the state's RPS to 50% by 2030. Requires study of a 100% renewable energy goal.
Massachusetts	Adopted 2008 (the Global Warming Solutions Act): 25% below 1990 levels by 2020, and 80% below 1990 levels by 2050.	E.O. 2016-569: requires the Secretary of Energy and Environmental Affairs to consult the GWSA Implementation Advisory Committee to establish statewide limits for 2030 and 2040, achieve further reductions from government operations, work to develop regional transportation policies, and lead reform on capacity and wholesale markets to achieve state mandates. DEP must also consider limits on sources such as natural gas pipelines and the transportation sector. The state's 2015 update to its Clean Energy and Climate Plan provides a comprehensive suite of policies to reduce statewide emissions.

State	Emissions / GHG Goals	Other Carbon / Climate Activities and Policies
Nevada	Adopted 2019 (SB 19-254): 28% below 2005 levels by 2025, 45% below 2005 levels by 2030, and "zero or near-zero" by 2050.	SB 19-254: requires DCNR to submit a report on whether existing/pending state policies can ensure that the state achieves zero carbon emissions by 2050.
New Jersey	Adopted 2007 (AB 07-3301): 1990 levels by 2020, and 80% below 2006 levels by 2050.	The Draft 2019 New Jersey Energy Master Plan outlines multiple strategies for emissions reductions in the energy, transportation, and building sectors.
New Mexico	Adopted 2019 (E.O 003): 45% below 2005 levels by 2030.	Governor Grisham's executive order on climate also created the interagency Climate Change Task Force to evaluate and report on mitigation and adaptation policies, including a market-based program to reduce carbon emissions. SB 19-489 requires that the Environmental Improvement Board (EIB) promulgate a rule limiting CO_2 emissions from coal fired generating plants to an emissions standard of 1,100 lbs-CO_2/MWh on or after January 1, 2023.
New York	Adopted by Executive Order 24 in 2009, reaffirmed as a goal of the Reforming the Energy Vision initiative: 40% below 1990 levels by 2030, and 80% below 1990 levels by 2050. Senate Bill 19-6599 will create GHG emissions targets of 40% below 1990 levels by 2030 and 85% below 1990 levels by 2050, with the remaining 15% offset. The bill also requires the PSC to create a clean energy standard of 70% renewable energy by 2030 and 100% zero emissions by 2040.	The state Soil & Water Conservation Committee administers a Climate Resilient Farming Program to reduce agricultural emissions. Governor Cuomo's REV initiative is a series of smaller initiatives to achieve carbon emissions reductions from multiple sectors, including transportation and buildings.
Oregon	Adopted 2007 (HB 07-3543): 10% below 1990 levels by 2020 and 75% below 1990 levels by 2050.	HB 19-2020 (second reading in Senate on 6/19) would create a GHG emissions standard of 45% below 1990 levels by 2035 and 80% below 1990 levels by 2050 and achieve those reductions through a cap and trade program.
Rhode Island	Adopted 2014 (the Resilient Rhode Island Act): 10% below 1990 levels by 2020, 45% below 1990 levels by 2035, and 80% below 1990 levels by 2050.	Governor Rainmondo's executive order 2017-10 required the development of a statewide Climate Resilience Action Strategy by June 2018.

State	Emissions / GHG Goals	Other Carbon / Climate Activities and Policies
Vermont	Adopted 2006 (S 06-259): 50% below 1990 levels by 2028, and if feasible, 75% below 1990 levels by 2050.	Executive Order 2017-12 created the Vermont Climate Action Committee. The Committee's 2018 report recommends using market-based mechanisms, sequestration measures, and carbon offset projects to address emissions.
Washington	Adopted 2008 (HB 08-2815): 1990 levels by 2020, 25% below 1990 levels by 2035, and 50% below 1990 levels by 2050 or 70% below the state's expected emissions in 2050.	SB 19-5116: Requires utilities to use emissions-free resources by 2045. Social cost of carbon must factor into IRP process.

State Energy Policies and Utility Goals

State	Renewable / Clean Energy Targets	EERS	Utility Commitments / Goals
California	Adopted 2002, last amended 2018: 33% by 2020, 60% by 2030, with a target of 100% carbon-free by 2045.	Electric: Long-term goals average about 1.15% of retail sales through 2024. Average incremental savings targets average about 1.3% of retail sales electricity from 2020-2025. Natural Gas: Incremental savings target of 0.56% through 2024. SB 15-350 requires state agencies and utilities to double cumulative efficiency savings achieved by 2030. Work to develop specific utility targets is ongoing.	Pacific Gas & Electric: Member of the WeAreStill in coalition. Goal to avoid one million tons of cumulative greenhouse gas emissions from 2018 through 2022, compared to a 2016 baseline. SMUD: 33% renewable energy by 2020, 60% by 2030, and reduce retail load GHG emissions to net zero by 2040. Sempra Energy: 35% below 2010 emissions by 2021, SDG&E is on track to meet CA's 50% by RE target.
Colorado	Adopted 2004: 30% by 2020 (IOUs), 10% or 20% by 2020 for municipalities and electric cooperatives depending on size. Polis Administration's Roadmap to 100% Renewable Energy by 2040.	Electric: Flat target of 500 GWh or roughly 1.7% of sales per year. Black Hills follows Xcel's targets. HB 17-1227 extended electric efficiency programs to 2028 and required the commission to set goals of at least 5% peak demand reduction and 5% energy savings (as compared to 2018) by 2028 for demand-side management programs implemented during 2019 through 2028. Natural Gas: Savings targets commensurate with spending targets (at least 0.5% of prior year's revenue).	Xcel Energy: 55% RE by 2026, 80% GHG reduction by 2030, carbon-free by 2050. Platte River Power Authority: Zero carbon emissions by 2030. Holy Cross Energy: 70% emissions reduction by 2030. Poudre Valley Rural Electric Association: increase carbon-free energy from 33% to 80% by 2030. Colorado Springs Utilities: 20% renewable energy by 2020.

State	Renewable / Clean Energy Targets	EERS	Utility Commitments / Goals
Connecticut	Adopted 1998, last amended 2018: Class 1: 21% by 2020, 30% by 2025, 40% by 2030 (plus 4% class 1 or 2 by 2018, 4% class 3 by 2010).	Electric: Average incremental savings of 1.11% of sales from 2019 through 2021.The state's renewable portfolio standard (RPS), established in 1998 and revised thereafter, requires that electricity providers and wholesale suppliers obtain 27% of their retail load from renewable energy and energy efficiency by 2020. Natural Gas: Average incremental savings of 0.59% per year from 2019 through 2021.	AVANGRID (the United Illuminating Company is a subsidiary): increase installed renewable capacity by 2GW, reduce emissions intensity 25% below 2015 levels by 2020, 100% carbon neutral by 2035.
Maine	Adopted 2019 (LD 19-1494): 80% by 2030, 100% by 2050.	Electric: Savings of 20% by 2020, with incremental savings targets of ~ 1.6% per year for 2014-2016 and ~2.4% per year for 2017-2019. While Efficiency Maine operates under an all cost-effective mandate, the agency has fallen short of targets in recent years due to budget cuts. Natural Gas: Incremental savings of ~0.2% per year for 2017-2019.	AVANGRID (Central Maine Power is a subsidiary): increase installed renewable capacity by 2GW, reduce emissions intensity 25% below 2015 levels by 2020, 100% carbon neutral by 2035.
Maryland	Adopted 2004, last amended 2019 (SB 19-516): 28% by 2020, 40% by 2025, 50% by 2030.	Electric: 2% incremental energy savings goal through 2023. Utilities must also file an energy efficiency program plan every 3 years to be approved by the PSC. Natural Gas: goals and limited income goals are being developed.	FirstEnergy (Potomac Edison Company is subsidiary in MD): 90% below 2005 emission levels by 2045.
Massachusetts	Adopted 1997, last amended 2018 (Clean Energy Standard): 20% by 2020, 40% by 2030, 60% by 2040, 80% by 2050. RPS: 13% by 2018, 55% by 2050.	Electric: Net annual savings of 3.45 million MWh (not including fuel switching) for 2019-2021, equivalent to savings of ~2.7% of retail sales per year. Natural Gas: 1.25% of retail sales. Net savings of 95.89 MMTherms for 2019-2021. Additional goal of 261.9 million net lifetime MMBtu for 2019-2021.	NationalGrid: 45% below 1990 emission levels by 2020, 70% below 1990 levels by 2030, and 80% below 1990 levels by 2050.

State	Renewable / Clean Energy Targets	EERS	Utility Commitments / Goals
Nevada	Adopted 1997, last amended 2019: 24% by 2021, 50% by 2030, with 100% by 2050 goal (up to 10% of the standard can be met using energy efficiency from 2020-2024.	SB 17-150 set baseline targets for electricity suppliers: 1% in 2018, 1.5% for 2021-2025.	NV Energy: seeks to double renewable generation by 2023. The utility included $2 billion in renewable projects in its 2018 IRP, and expects to retire or divest 100% of its coal generation by the end of 2025.
New Jersey	Adopted 1999, last amended 2018: 35% by 2025, 50% by 2030.	Electric: 2% electric savings (as a percent of average annual usage from the prior three years) within five years of the initial implementation of a utility's plan. In April, consultants presented the New Jersey Board of Public Utilities with the draft strategic plan for 2019-2022 for the statewide Clean Energy Program, including an energy efficiency portfolio achieving a 56% increase in savings by 2022. Natural Gas: 0.75% savings (as a percent of average annual usage from the prior three years) within five years of the initial implementation of a utility's plan.	FirstEnergy (Jersey Central Power & Light is a subsidiary): 90% below 2005 emission levels by 2045. Public Service Electric and Gas: eliminate 13 million metric tons of CO2 equivalent by 2030 (from 2005 levels).
New Mexico	Adopted 2004, last amended 2019 (Carbon-free Resource Standard): Distribution cooperatives: 10% by 2020, 40% by 2025, 50% by 2030, and zero-carbon (at least 80% RE) by 2050. IOUs: 20% by 2020, 40% by 2025, 50% by 2030, 80% by 2040, and carbon-free by 2045.	Electric: The state's three public utilities must achieve 5% savings of 2020 retail sales by 2025. HB 19-291 directs the Public Regulation Commission to set additional targets through 2030.	Xcel Energy: 55% RE by 2026, 80% GHG reduction by 2030, and carbon-free by 2050. PNM: carbon-free by 2040 (5 years ahead of the deadline established by SB 19-489). PNM plans to retire San Juan by 2022.

State	Renewable / Clean Energy Targets	EERS	Utility Commitments / Goals
New York	Adopted 2016 (Clean Energy Standard): 50% by 2030.	Statewide all-fuels target of 185 TBtu cumulative annual savings for 2015-2025, or approximately 3% of incremental electric sales. Electric: detailed proposals are to be submitted by the utilities to the PSC. The PSC assumes that these plans will account for 2% of the statewide goal, with the remainder accounted for by NYSERDA, codes and standards, and other state activities. Natural Gas: no specific targets, but savings will count toward statewide goal.	Long Island Power Authority: add 800 MW of clean energy by 2030. AVANGRID (New York State Electric & Gas Corporation and Rochester Gas & Electric Corporation are subsidiaries): increase installed renewable capacity by 2GW, reduce emissions intensity 25% below 2015 levels by 2020, and 100% carbon neutral by 2035. NationalGrid: 45% below 1990 emission levels by 2020, 70% below 1990 levels by 2030, and 80% below 1990 levels by 2050.
Oregon	Adopted 2007, last amended 2016: Large IOUs (3% or more of state's load): 50% by 2040 Large COUs: 25% by 2025 Small Utilities (1.5 to <3% of state's load): 10% by 2025 Smallest Utilities (<1.5% of state's load): 5% by 2025 Total coal phase out by 2035.[1]	Electric: Incremental targets average ~1.3% of sales annually for the period 2015-2019. Natural Gas: Incremental savings of 0.3% of sales annually for the period 2015-2019.	Portland General Electric and Pacific Power will be nearly coal free by 2030, entirely coal free by 2035. Avista: carbon-neutral electricity supply by 2027; 100% clean by 2045.
Rhode Island	Adopted 2004, last amended 2016: 16% by 2020, 31% by 2030, 38.5% by 2036.	Electric: Average incremental savings of 2.5% for 2018-2020. Natural Gas: Average incremental savings of 0.97% for 2018-2020.	NationalGrid: 45% below 1990 emission levels by 2020, 70% below 1990 levels by 2030, 80% below 1990 levels by 2050.

[1] Utilities that buy into a new coal plant or sign a new contract specifically for new coal power and publicly-owned utilities that annex investor-owned utility territory without consent (aside from municipal utilities under certain conditions) are subject to the "large utility" standards.

State	Renewable / Clean Energy Targets	EERS	Utility Commitments / Goals
Vermont	Adopted 2015: 55% by 2017, 75% by 2032, and 12% energy transformation projects (EE, EVs, storage) by 2032.	Vermont law requires Energy Efficiency Utility budgets to be set at a level that would realize "all reasonably available, cost-effective energy efficiency" and set specific energy and peak demand savings targets. Average incremental electricity savings totaling 357,400 MWh over 2018-2020, or approximately 2.4% of annual sales. Natural Gas: Three-year annual incremental savings of 192,599 Mcf spanning 2018-2020 or 0.5% of sales.	Green Mountain Power, 2018 Goal: partner with customers to drive down costs and eliminate more than 8,000 metric tons of carbon emissions per year using clean energy for the next two decades.
Washington	Adopted 2006, amended 2019: 15% by 2020, coal phased out by 2025, carbon neutral by 2030, 100% carbon-free by 2045.	Electric: average around 1.4% incremental savings per year. Natural Gas: in 2014, all four IOUs committed to a voluntary pilot program with the potential to save over 280 million therms annually.	Avista: carbon-neutral electricity supply by 2027, 100% clean by 2045. Seattle City Light: carbon neutral since 2005. Puget Sound Energy: reduce carbon emissions 50% by 2040, 100% coal-free generation by the early 2030s.

State Transportation Policies

State	Regional Transportation Collaborative	LEV Standards?[2]	ZEV Standards?[3]	Low Carbon Fuel Standard?	EV / ZEV Goals
California	Pacific Coast Collaborative	Yes	Yes	Goal: reduce carbon intensity of transportation fuel pool by at least 20% by 2030.	Goal (E.O. B.48-2018): 5 million ZEVs by 2030 and 250,000 ZEV chargers by 2025. Deploy over 100,000 zero emission freight vehicles and associated equipment by 2030. Transit agency requirements: all new bus purchases must be zero emission buses by 2029 (50% by 2026 for large agencies, 25% by 2026 for small agencies)
Colorado	REV West	Yes	Rulemaking in Progress		Goal (E.O. B2019-002): 940,000 EVs by 2030.
Connecticut	Transportation and Climate Initiative[4]	Yes	Yes	*	Goal: 500,000 ZEVs by 2030 (ZEV MOU)
Maine	Transportation and Climate Initiative	Yes	Yes	*	
Maryland	Transportation and Climate Initiative	Yes	Yes	*	Goal: ~300,000 ZEVs by 2025 (ZEV MOU)
Massachusetts	Transportation and Climate Initiative	Yes	Yes	*	Goal: ~300,000 ZEVs by 2025 (ZEV MOU)
Nevada	REV West				
New Jersey	Transportation and Climate Initiative	Yes	Yes	*	Goal: 330,000 EVs by 2025.

[2] States that have adopted LEV Standards not represented below: Delaware and Pennsylvania.
[3] All states that have adopted ZEV Standards are represented below.
[4] Other TCI members not captured here: Delaware, New Hampshire, Pennsylvania, and Virginia.

State	Regional Transportation Collaborative	LEV Standards?	ZEV Standards?	Low Carbon Fuel Standard?	EV / ZEV Goals
New Mexico	REV West	Climate Change Task Force to evaluate adopting.	Climate Change Task Force to evaluate adopting.		Governor Grisham stated that she would like to see 20% of the state fleet electrified.
New York	Transportation and Climate Initiative	Yes	Yes	*	Goal: 800,000 ZEVs by 2025.
Oregon	Pacific Coast Collaborative	Yes	Yes	Requires fuel suppliers to reduce the carbon content of transportation fuels by 10% by 2025.	Goal (E.O. 2017-21): 50,000 EVs by 2020.
Rhode Island	Transportation and Climate Initiative	Yes	Yes	*	Goal: 43,000 ZEVs by 2025 (ZEV MOU)
Vermont	Transportation and Climate Initiative	Yes	Yes	*	Goal: ~50,000 EVs by 2025
Washington	Pacific Coast Collaborative	Yes			Goal: 50,000 EVs by 2020.

* Signatory: Low Carbon Fuel Standard MOU (2009) in which the states agreed to analyze low-carbon fuel supply options, determine the feasibility of achieving a range of carbon reduction goals – including a 10 percent reduction in carbon intensity of fuels – and develop a framework for a regional Low Carbon Fuel Standard (LCFS).

State Appliance and Building Efficiency Policies

State	Appliance Standards Opposing Federal Rollback[5]	Building Efficiency Codes
California	In December 2008, California adopted a 45 lumen per watt standard for general service lamps (GSLs) as defined in the 2007 Energy Independence and Security Act (EISA). California's Title 20 Appliance Efficiency Regulations have existing provisions that backstop all other federal appliance standards in case of repeal or rollback.	Commercial: meets or exceeds ASHRAE 90.1-2013 Residential: meets or exceeds IECC 2015 Solar: The California Energy Commission adopted revisions to the Energy code in May 2018. The most noteworthy new provision is a requirement for all new low-rise homes to install PV equipment with an annual output greater than or equal to the home's annual electric consumption. The proposed amended standards, which still need to be approved by the California Building Standards Commission would go into effect on January 1, 2020.
Colorado	HB 19-1231 updates and adopts standards for water efficiency and energy efficiency that apply to a list of 15 consumer and commercial appliances and other products. The bill also includes a provision to adopt current federal standards to backstop all other federal appliance standards in case of repeal or rollback.	No mandatory statewide code, but any county or municipality that had a building code in place was required to adopt 2003 IECC or 2006 IECC as the minimum energy code standard by July 1, 2008. Solar: Builders of single-family homes are required to offer solar energy as a standard feature to all prospective homebuyers. Builders are required to give the buyer the option to have either a PV system or a solar water heating system installed on their new home or to have all the necessary wiring and plumbing installed so that they can easily add a solar system later.
Connecticut	N/A	Residential and commercial building codes are based on the 2012 IECC, with weakening amendments.
Maine	N/A	Commercial: based on the 2009 IECC and ASHRAE 90.1-2007 Residential: based on the 2009 IECC
Maryland	N/A	Residential and commercial building codes are based on the 2015 IECC.
Massachusetts	N/A	Commercial: based on the 2015 IECC and ASHRAE 90.1-2013 Residential: based on the 2015 IECC

[5] In May 2019, 36 utility companies opposed the DOE proposal to roll back lightbulb efficiency stating that "The 2020 standard for lightbulbs should remain applicable to all common household lightbulbs, and efficiency standards for other products should not be delayed."

State	Appliance Standards Opposing Federal Rollback	Building Efficiency Codes
Nevada	AB 19-54 adopted the federal light bulb standards.	Commercial: 2012 IECC, with amendments or ASHRAE 90.1-2010 Residential: 2012 IECC, with amendments
New Jersey	N/A	Commercial: based on ASHRAE 90.1-2013 Residential: based on 2015 IECC Solar: Developers of residential developments with 25 or more dwelling units must "offer to install, or to provide for installation of, a solar energy system" when technically feasible. The law took effect immediately upon enactment; however, the Department of Community Affairs (DCA), in cooperation with the New Jersey Board of Public Utilities (BPU), must develop rules and standards for its implementation. The law does not provide a time frame for the adoption of regulations and it does not appear that such rules have been established.
New Mexico	N/A	Commercial and residential are based on the 2009 IECC, with amendments
New York	N/A	Commercial: based on the 2015 IECC and ASHRAE 90.1-2013, as modified by the 2016 supplement Residential: based on the 2015 IECC, as modified by the 2016 supplement
Oregon	N/A	Commercial: based on ASHRAE 90.1-2010 Residential: more stringent than the 2009 IECC
Rhode Island	SB 19-552, which has been "held for further study", would establish minimum appliance energy efficiency standards.	Commercial: based on the 2012 IECC and ASHRAE 90.1-2010 Residential: based on the 2012 IECC, with amendments
Vermont	H 17-411 provides that the state will enforce federal standards if they are "withdrawn, repealed or otherwise voided" at the federal level. Efficiency measures protected by the new Vermont law include all standards on the federal books as of January 17, 2017, including ones that have yet to take effect, including the light bulb standards slated for implementation in 2020.	Commercial: based on the 2015 IECC and ASHRAE 90.1-2013, with amendments Residential: based on the 2015 IECC
Washington	HB 19-1444 adopts federal light bulb standards, providing a backstop to a potential federal rollback.	Commercial and Residential: based on the 2015 IECC, with amendments HB 19-1257: Department of Commerce is to create a State Energy Performance Standard by November 1, 2020 to reduce energy use and GHG emissions associated with large commercial buildings.

State Methane and HFC Emissions Policies

State	Methane Emissions Policy	HFC Emissions Policy
California	CARB adopted stringent methane regulations for monitoring and repairing pipeline leaks in 2017 (required by SB 16-1383). The CPUC ordered utilities to file methane abatement compliance plans by March 2019 (pursuant to SB 14-1371).	SB 18-1013 creates the Fluorinated Gases Emission Reduction Incentive Program to promote the adoption of low-global warming potential refrigerants. The schedule to ban products made with HFCs begins 2022.
Colorado	SB 19-181 directs the Air Quality Control Commission to bolster methane regulations by promulgating rules for all points in the natural gas supply chain (processing, gathering & boosting, storage, and transmission). The legislation also affirms local authority over oil and gas siting and sets objectives to protect public health.	SB19-096 requires the development of a GHG inventory, which will include HFCs.
Connecticut	N/A. Connecticut's omnibus energy bill, HB 19-5002, did not include regulations for methane emissions. Studies of CT pipelines reveal the need to modernize gas infrastructure.	Governor Malloy directed DEEP to develop HFC controls modelled after CARB's that would fit within the state's air quality regulatory framework. New regulations are expected in 2020.
Maine	Maine's policy establishes a classification system for pipeline leaks, and sets detection and repair requirements for pipeline operators. Governor Mills joined 15 other attorneys general in suing the Trump administration for halting enforcement of federal methane rules.	N/A
Maryland	The Greenhouse Gas Emissions Reductions Act requires the maintenance of GHG emissions inventories. The Maryland Department of Environment (MDE) publishes data on methane from wastewater, landfills, and oil and gas operations. MDE is in the process of developing proposed methane regulations - Methane Emissions Minimization Plans (MEMPs) - for curbing leaks across the natural gas supply chain.	MDE is in the process of developing HFC regulations for foam and refrigerant products pursuant to SB 16-323 (the Greenhouse Gas Emissions Reduction Act).
Massachusetts	To meet state emissions reductions goals, the DEP adopted rules in 2017 to require natural gas operators to reduce methane emissions annually (specified by utility), keep inventories, and repair pipeline leaks. The DPU adopted rules in March 2019 that establish methods for identifying high-priority leaks. The rules also require that gas operators accelerate repairs when leaks are located in 'environmentally sensitive areas'.	Massachusetts published its Comprehensive Energy Plan in late 2018. HFC regulations have not been announced, but the state's Attorney General joined 10 other states to sue the EPA for its HFC rule rollback in 2018.

State	Methane Emissions Policy	HFC Emissions Policy
Nevada	N/A	N/A
New Jersey	S 19-3207, if enacted, would bolster the state's GHG emissions reporting requirements and require the development of a comprehensive statewide strategy for mitigating 'short-lived' GHGs, including methane. As of May 2019, the bill had been passed by both chambers of the legislature.	S 19-3207 includes a provision requiring the development of a comprehensive strategy to reduce emissions of short-lived climate pollutants in the State. This requirement is based on legislation adopted and implemented in California.
New Mexico	Governor Grisham's EO 2019-003 directs EMNRD and NMED to develop a regulatory framework to reduce oil and gas sector methane emissions. The NMED maintains an interactive map of oil and gas site emissions.	N/A
New York	Governor Cuomo's Methane Reduction Plan (2017) outlines multiple policies to achieve emissions reductions targets, including monitoring and repair of natural gas pipelines.	The New York State Department of Environmental Conservation is developing regulations to phase out HFCs between 2020 and 2024, a draft proposal was released in September of 2018.
Oregon	HB 19-2020 would have directed the Environmental Quality Commission to develop rules regulating methane emissions from landfills, agriculture, and forestry. No legislation or regulations are in place for pipeline leaks.	N/A
Rhode Island	The Rhode Island Energy 2035 Plan (2015) recommended reviewing the state's natural gas replacement and repair policy, suggesting an update to National Grid's Gas Infrastructure, Safety, and Reliability Plan for detecting and repairing pipeline leaks.	N/A
Vermont	Gas utilities must 'routinely' inspect for leaks. No comprehensive program for pipeline emissions reductions is in place.	S 19-0030 establishes a schedule between 2020 and 2024 for when certain products must be manufactured without HFCs.
Washington	State law establishes a classification system for pipeline leaks and requires utilities to maintain permanent leak records and conduct a self-audit every five years.	HB 19-1112 establishes a regulatory framework for phasing out HFCs in the state, banning specific products beginning in 2020.

New and Noteworthy Legislation

State	Bill Number	Summary
California	SB 18-1013	Codifies the prohibitions on certain ozone depleting substances and HFC) adopted by the U.S. EPA as part of the Significant New Alternatives Policy (SNAP) Program.
Colorado	HB 19-1261	Sets statewide GHG emissions reduction goals to more than 26% from 2005 levels by 2025, 50% below 2005 levels by 2030, and 90% below 2005 levels by 2050.
	SB 19-096	Requires the AQCC to collect greenhouse gas emissions data from greenhouse gas-emitting entities, report on the data, develop a forecast of future emissions, and propose a draft rule to address the emissions by July 1, 2020.
	SB 19-181	Modifies the composition of the COGCC, requires that the COGCC review and, if necessary, amend existing rules related to methane emissions and oil and gas operations, removes the state preemption of oil and gas regulation, and expands the authority of local governments to regulate oil and gas development.
	SB 19-236	Among other provisions, the bill supplements existing state renewable energy standard laws by establishing targets for the reduction of CO_2 emissions by Xcel Energy (80% below 2005 levels by 2030, 100% by 2050 and thereafter, if practicable). Other utilities may opt in to submitting clean energy plans. The bill also allows utilities to apply to the PUC for approval of a financing order to issue securitized utility ratepayer-backed bonds when retiring an electric generating facility. Bonds are to be used by the utility to purchase, build, or invest in electric generating resources or electricity storage, and repaid through a distinct charge on ratepayers. The bill requires the PUC to promulgate rules that require each wholesale electric cooperative to submit an application for approval of an integrated or electric resource plan. The PUC must evaluate the plans using rules adopted that are applicable to these cooperatives. The bill also requires the PUC to promulgate rules establishing requirements for IOUs to file electric distribution plans; requires IOUs to include a workforce transition plan when proposing the retirement of an electric generating facility; directs the PUC to require electric public utilities to consider the cost of carbon dioxide emissions in certain proceedings; requires the PUC to conduct an investigation of financial performance-based incentives and performance-based metric tracking; and directs the PUC to open an investigatory proceeding to evaluate the costs and benefits associated with regional transmission organizations, energy imbalance markets, joint tariffs, and power pools.
Connecticut		
Maine	LD 19-1679	Updates the state's GHG emissions reduction targets to 45% below 1990 levels by 2030, and 80% below 1990 levels by 2050. Establishes the Maine Climate Council, comprised of state agencies and stakeholders tasked with developing a climate action plan and a clean energy economy transition plan.

State	Bill Number	Summary
Maryland	HB 19-277	Authorizes the Governor to include the state in any regional governmental initiative, agreement, or compact that limits or reduces greenhouse gas emissions from the transportation sector; requires the Department of the Environment and the Department of Transportation to submit a report on the status of any regional initiative before November 1, 2019.
	SB 19-516	Among other provisions, increases the state's RPS to 50% by 2030. Requires study of a 100% renewable energy goal.
Massachusetts	H 18-4857	Establishes an energy storage target of 1,000 MWh by 2025. Requires electric suppliers to provide a minimum percentage, as determined by the Department of Energy Resources (DER), of kWh sales from clean peak resources. Also provides for EDCs to submit distribution system resiliency reports to the DER. Allows EDCs to hold competitive solicitations for procurement of non-wires alternatives from third party developers. Establishes reporting requirements for lost and unaccounted for gas for gas companies for the purpose of reducing GHG emissions. Requires the DER to study the costs and benefits of requiring EDCs to issue competitive bids for up to 1,600 MW of additional offshore wind.
Nevada	SB 19-254	Sets GHG emissions reduction targets: 28% below 2005 levels by 2025, 45% below 2005 levels by 2030, and "zero or near-zero" by 2050. Also requires DCNR to submit an emissions report, and provide analysis of whether existing/pending state policies can ensure that the state achieves zero carbon emissions by 2050.
	SB 19-358	Increases the state's clean energy standard to 50% by 2030. Includes a zero carbon by 2050 goal.
New Jersey	AB 18-3723	Requires the BPU to conduct an energy storage analysis, make changes to the solar renewable energy certificate program, adopt energy efficiency and peak demand reduction programs, adopt a "Community Solar Energy Pilot Program," and provide tax credits for certain offshore wind energy projects. The bill also requires the Department of Labor and Workforce Development to establish job training programs for those who work in manufacturing and servicing of offshore wind energy equipment.
	SB 19-3207	If enacted, the bill will establish new timeframes for the implementation of certain requirements in the "Global Warming Response Act" (GWRA), and require the Department of Environmental Protection (DEP) to adopt a strategy to reduce short-lived climate pollutants.
New Mexico	SB 19-489	Increases the state's RPS as follows: Distribution cooperatives: 10% by 2020, 40% by 2025, 50% by 2030, zero-carbon (at least 80% RE) by 2050. IOUs: 20% by 2020, 40% by 2025, 50% by 2030, 80% by 2040, and resources must be carbon-free by 2045. Also authorizes an alternative mechanism ("energy transition bonds" or "securitization") for financing the retirement of coal-fired power plants. The mechanism has been designed to accommodate the retirement in 2022 of units 1 and 4 of the San Juan Generation Station (SJGS) and to anticipate the closure of the Four Corners Power Plant in 2031. The bill also requires that the Environmental Improvement Board (EIB) promulgate a rule limiting carbon dioxide emissions from coal fired generating plants to an emissions standard of 1,100 lbs-CO2/MWh on or after January 1, 2023.

State	Bill Number	Summary
New York	SB 19-6599	If enacted, will create GHG emissions targets of 40% below 1990 levels by 2030 and 85% below 1990 levels by 2050, with the remaining 15% offset. The bill also requires that the PSC creates a clean energy standard of 70% renewable energy by 2030 and 100% zero emissions by 2040.
Oregon		
Rhode Island		
Vermont	HB 19-529	Excludes from the definition of a net metering system a plant for generation of electricity that primarily supplies electricity to electric vehicle supply equipment for the resale of electricity. Requires the Public Utility Commission to report on steps necessary to implement fees on plug-in electric vehicle charging and how to address net metering and net metering credits by December 15, 2019. Establishes the vehicle incentive and emissions repair programs, which, among other things, provide point-of-sale vouchers for the purchase or lease of new plug-in electric vehicles. Permits State agencies that own or control electric vehicle supply equipment (EVSE) to establish, set, and adjust fees for the use of EVSE available to the public for three years starting on July 1, 2019. Specifies that the PUC does not have jurisdiction over persons otherwise not regulated by the PUC that engage in the siting, construction, ownership, operation, or control of a facility that sells or supplies electricity to the public exclusively for charging a plug-in electric vehicle. Requires the Commissioner of Buildings and General Services, to the maximum extent practicable, to purchase and lease hybrid or plug-in electric vehicles for the State fleet with a minimum of 50%, bumped to 75% on July 1, 2021, of newly purchased and leased vehicles being hybrid or plug-in electric vehicles.
	S 19-30	Establishes a schedule between 2020 and 2024 for when certain products must be manufactured without HFCs.
Washington	HB 19-1112	Establishes a schedule between 2020 and 2024 for when certain products must be manufactured without HFCs.
	HB 19-1257	Requires the State Building Code Council to develop rules that require and regulate electric vehicle charging capability at all new buildings that provide on-site parking. Requires the Department of Commerce to create a State Energy Performance Standard by November 1, 2020 to reduce energy use and GHG emissions associated with large commercial buildings. Requires gas companies to identify and acquire all conservation measures that are available and cost-effective. The cost-effectiveness analysis must include the societal costs of GHG emissions. The targets must be based on a conservation potential assessment prepared by an independent third party and approved by the UTC. A gas company may propose a renewable natural gas program under which the company would supply renewable natural gas for a portion of the natural gas sold or delivered to its retail customers. Each gas company must offer by tariff a voluntary renewable natural gas service available to all customers to replace any portion of the natural gas that would otherwise be provided by the gas company. The UTC must monitor the GHG emissions resulting from natural gas and renewable natural gas delivered by each gas company to its customers, relative to the proportionate share of the state's GHG emissions goal.

Washington (cont)…	HB 19-1512	Allows municipal utilities to adopt transportation electrification plans. Regulated utilities may adopt plans that provide EV charging equipment incentives and support for other transportation electrification programs. Utility Electric Transportation Plan Authorization: The governing authority of a utility or a regulated electric utility, with the approval of the UTC, may adopt an electric transportation plan that proves that utility outreach and investment in the electrification of transportation infrastructure does not increase net costs to ratepayers in excess of 0.25%. The governing authority or the UTC may consider items such as the impact of electrification on the utility's load, demand response and load management opportunities, system reliability and distribution system efficiencies, and interoperability concerns. Upon making this determination, electric utilities may offer incentive programs for customers.
	HB 19-2042	Extends and establishes tax credits for electric vehicles and electric vehicle supply equipment (EVSE). Establishes a grant program to assist transit authorities in fleet electrification and alternative fuel use; a car sharing pilot grant program to support car sharing for underserved communities; and extends an existing EV charging infrastructure grant program. Amends provisions authorizing investor-owned utilities' incentive rate of return on investments in EV supply equipment. Extends a technical assistance and education program on alternative fuel vehicles for public agencies within Washington State University's Extension Energy Program. Authorizes the Department of Commerce to conduct a study on reducing barriers to battery and hydrogen fuel cell electric vehicle adoption by lower income residents.
	SB 19-5116	Requires that by December 31, 2025, all electric utilities eliminate coal-fired resources from their allocation of electricity. For IOUs, the UTC is required to accelerate depreciation for any coal-fired resource owned by an IOU and is allowed to accelerate depreciation for any qualified transmission line to no later than December 31, 2025. The UTC must allow in rates prudently incurred undepreciated investments in a fossil-fuel generating resource that has been retired from service under specific conditions. By January 1, 2030, each electric utility must make all retail sales of electricity to Washington customers GHG neutral. An electric utility must achieve compliance with the GHG neutral standard for multiyear compliance periods beginning January 1, 2030, through December 31, 2044. By January 1, 2045, each electric utility must meet 100 percent of its retail electric load to Washington customers using non-emitting electric generation and electricity from renewable resources.

State EV and EVSE Policies and Incentives

California

[EV Policies and Incentives]

Low Emission Truck and Bus Purchase Vouchers: fleet owners.

Light-duty PHEV and ZEV Rebates

HOV and High Occupancy Toll (HOT) Lane Exemption

The California Clean Truck, Bus, and Off-Road Vehicle and Equipment Technology Program: funding for development, demonstration, pre-commercial pilot, and early commercial implementation projects for zero and near-zero emission trucks, buses, and off-road vehicles and equipment.

Through the California Clean Miles Standard and Incentive Program, the California Air Resources Board (ARB) will establish annual emissions reduction targets for transportation network companies, including goals for increasing the number of miles traveled using zero emission vehicles.

Zero and Near-Zero Emission Vehicle Component Rebates

Vehicle Acquisition and Petroleum Reduction Requirements: beginning in fiscal year 2024, at least 50% of the light-duty vehicles purchased by the state must be ZEVs. At least 30% of the Department of General Service's fleet of new vehicles with a gross vehicle weight of 19,000 pounds or more must be ZEVs by 2030.

Freight Efficiency Action Plan: establishes targets to improve freight efficiency and transition to zero emission technologies.

[EV Supply Equipment (EVSE) Policies and Incentives]

EVSE Incentive Program Support: provides guidance and funding for local governments and organizations to develop and implement EVSE incentive programs.

EVSE Loan and Rebate Program: available to small businesses.

Emissions Reductions Grants

Residential PACE EVSE Financing Program

EVSE Policies for Residential and Commercial Renters: The lessor of a dwelling or commercial property must approve written requests from a lessee to install EVSE at a parking space allotted for the lessee on qualified properties. Certain exclusions apply to residential dwellings and commercial properties.

EVSE Policies for Multi-Unit Dwellings: A common interest development, including a community apartment, condominium, and cooperative development, may not prohibit or restrict the installation or use of EVSE or a PEV-dedicated TOU meter in a homeowner's designated parking space or unit. These entities may put reasonable restrictions on EVSE, but the policies may not significantly increase the cost of the EVSE or significantly decrease its efficiency or performance.

Mandatory EVSE Building Standards

EVSE Open Access Requirements: EVSE service providers may not charge a subscription fee or require membership for use of their public charging stations.

PEV Charging Access: Municipalities may not restrict the types of PEVs that may access a public PEV charging station that is intended for passenger vehicle use, and funded, at least in part, by the state or money from utility ratepayers.

EVSE Location Assessment: The State Energy Resources Conservation and Development Commission, in partnership with CARB, must assess whether EVSE in California is located disproportionately by population density, geographical area, or population income level. If EVSE has been disproportionately installed unreasonably, the agencies must proportionately install new EVSE, unless it is determined that the current locations of EVSE further California's policy goals.

EVSE Assessment: The California State Energy Resources Conservation and Development Commission, in partnership with CARB and the CPUC, must publish a statewide assessment of the EVSE infrastructure needed to support the levels of PEV adoption required for at least five million zero emission vehicles to operate in California by 2030. The assessment must consider the EVSE infrastructure needs for all vehicle categories, and must analyze the existing and future infrastructure needs across California, including in low-income communities. The assessment must be updated at least once every two years.

Public Utility Definition: A corporation or individual that owns, controls, operates, or manages public EVSE is not defined as a public utility.

State Agency EVSE Installation: California state agencies must actively identify and pursue opportunities to install EVSE, and accommodate future EVSE demand, at state employee parking facilities in new and existing agency buildings.

EVSE Local Permitting Policies: Cities and counties must adopt an ordinance that creates an expedited, streamlined permitting process for EVSE.

Colorado

EV Policies and Incentives

PEV Tax Credit: $5,000 - 20,000 in 2017-2019; $4,000 - 16,000 in 2020; $2,500 - 10,000 in 2021.

Alternative Fuel Vehicles and Infrastructure Grant Program: CEO, RAQC, and CDOT, have partnered to provide grants through the ALT Fuels Colorado program for new fleet purchases of EVs.

PEV and EVSE Grants: available to individual drivers and fleet owners.

High Occupancy Vehicle (HOV) Lane Exemption

EV Supply Equipment (EVSE) Policies and Incentives

Alternative Fuel Vehicles and Infrastructure Grant Program: Provides grants through the ALT Fuels Colorado program for new, publicly accessible co-located electric vehicle charging and propane station equipment at funded CNG stations, and EVs.

EVSE Multi-Unit Dwelling Installations and Access: A residential tenant may install Level 1 or Level 2 EVSE at their own expense on or in leased premises. The landlord may seek a fee or reimbursement for the actual cost of electricity as well as the cost of installation or upgrades to existing equipment. In addition, the tenant may request that the EVSE be accessible by other tenants, in which case the EVSE must be in compliance with all applicable requirements, and the landlord may seek a fee to reserve a specific parking space.

Alternative Fuel Resale and Generation Regulations: A corporation or individual that resells alternative fuel supplied by a public utility for use in an AFV is not subject to regulation as a public utility. Additionally, a corporation or individual that owns, controls, operates, or manages a facility that generates electricity exclusively for use in AFV charging or fueling facilities is not subject to regulation as a public utility provided that the electricity is generated on the property where the charging or fueling facilities are located and the electricity is generated from a renewable resource.

Connecticut

EV Policies and Incentives

Heavy-Duty Vehicle Emissions Reduction Grants: DEEP allocates a portion of its designated funds from the Volkswagen Environmental Mitigation Trust for the replacement or repower of eligible heavy-duty on-road vehicles through its Diesel Emissions Mitigation Program.

Hydrogen and PEV Rebate

Loans for PEVs and Residential Charging Infrastructure: The Connecticut Green Bank offers Smart-E low-interest loans of up to $30,000 for Connecticut residents to purchase a new or used PEV. The vehicle must be registered with the Connecticut Department of Motor Vehicles. Loans are also available for Connecticut PEV drivers to purchase EVSE. To qualify, applicants must own or lease a model year 2012 or later PEV and occupy the residence at which the EVSE will be installed.

Reduced Registration Fee for Electric Vehicles

AFV Procurement Preference: In determining the lowest responsible qualified bidder for the award of state contracts, the Connecticut Department of Administrative Services may give a price preference of up to 10% for the purchase of AFVs or for the purchase of conventional vehicles plus the conversion equipment to convert the vehicles to dual or dedicated alternative fuel use.

EV Supply Equipment (EVSE) Policies and Incentives

EVSE Grants: available to municipalities, state agencies, and private businesses.

Public EVSE Requirements: Owners and operators of public EVSE that require payment must allow multiple payment options that allow access by the public. In addition, payment should not require users to pay a subscription fee or obtain a membership of any kind, however payment required may be based on price schedules for such memberships. Owners and operators can impose restrictions on the amount of time a vehicle can use the EVSE. In addition, owners and operators of a public EVSE must disclose the location and characteristics of each EVSE to the U.S. Department of Energy's Alternative Fuels Data Center.

Public Utility Definition: An owner of an EV charging station is not defined as a public utility.

Utility Company PEV Rates: By July 1, 2018, utility companies must evaluate if it is appropriate to implement PEV time of day rates for residential and commercial customers.

Maine

EV Policies and Incentives

An insurer may credit or refund any portion of the premium charged for an insurance policy on a clean fuel vehicle in order to encourage its policyholders to use clean fuel vehicles, as long as insurance premiums on other vehicles are not increased to fund these credits or refunds.

EV Supply Equipment (EVSE) Policies and Incentives

EVSE Funding: Efficiency Maine Trust is accepting applications through July 10, 2019, for funding of public, workplace, and multi-unit dwelling Level 2 EVSE in strategic locations within Maine. EVSE along specific roads and at locations that will likely experience a high frequency of use will be prioritized.

PEV Charging Regulation Exemption: An entity that sells electricity for the sole purpose of charging the battery of a PEV is not defined or regulated as an electricity provider. An EVSE provider may charge a submetered user only for kilowatt-hours used.

Maryland

EV Policies and Incentives

PEV and Fuel Cell Electric Vehicle (FCEV) Tax Credit: up to $3,000.

PEV HOV Lane Exemption

AFV Voucher Program: for the purchase of new and converted AFVs registered in Maryland. Vehicles must be used by commercial, non-profit, or public entities.

Zero Emission School Bus Grant Program and Study: The Maryland Department of the Environment will administer a Zero Emission School Bus Transition Grant Program to purchase zero emission school buses, install charging infrastructure, and transition to zero emission school bus fleets.

ZEV State Fleet Goal: state agencies must increase the number of ZEV acquisitions in light-duty fleets to at least 25% of annual fleet purchases by 2025.

EV Supply Equipment (EVSE) Policies and Incentives

EVSE Rebate Program

Alternative Fuel Infrastructure Grants: The Maryland Energy Administration administers the Maryland Alternative Fuel Infrastructure Program (AFIP), which provides grants to plan, install, and operate public access alternative fueling and charging infrastructure.

EVSE Regulation Exemption: Owners and operators of EVSE are not subject to state regulation as electricity suppliers or public service companies. For the purpose of this regulation, owners and operators of EVSE are considered retail electric customers.

PEV Information Disclosure: The Maryland Motor Vehicle Administration is allowed to provide the address of a registered PEV owner and information about the vehicle to electric companies for their use. Electric companies may only use this information in planning for the electric power supply and may not use it for marketing or solicitation.

PEV Infrastructure Promotion: The Maryland EV Infrastructure Council promotes the use of PEVs in the state. Specific responsibilities of the Council include the following:

- developing an action plan to facilitate successful integration of PEVs into the Maryland transportation network;
- assisting in developing and coordinating statewide standards for streamlined permitting and installation of EVSE;
- recommending a statewide charging infrastructure plan and incentives to support investment in PEVs;
- developing targeted policies to support fleet purchases of PEVs; encouraging local and regional efforts to promote the use of PEVs; and
- developing model procurement practices.

Effective July 1, 2019, the Council will be renamed the Zero Emission Electric Vehicle Council and will incorporate fuel cell electric vehicles in all of the Council responsibilities.

Massachusetts

EV Policies and Incentives

Vehicle Emissions Reduction Grants: The (MassDEP) Volkswagen Open Solicitation Grant Program provides up to 80% of the cost of new diesel or alternative fuel replacements and repowers for eligible government entities.

PEV and EVSE Grants for Public Fleets: available to local governments, public universities and colleges, and state agencies.

Plug-In and ZEV Rebates

AFV and Infrastructure Grants: The Massachusetts Department of Energy Resources' Clean Vehicle Project offers grants for public and private fleets to purchase AFVs and infrastructure.

When purchasing new motor vehicles, the Commonwealth of Massachusetts must purchase hybrids or AFVs to the maximum extent feasible and consistent with the ability of such vehicles to perform their intended functions.

EV Supply Equipment (EVSE) Policies and Incentives

Public Access EVSE Grants: Qualified EVSE must be available to the public at least 12 hours per day.

Multi-Unit Dwelling (MUD) EVSE Grants: available to private, public, or non-profit MUDs with ten or more residential units.

Workplace EVSE Grants: available to private, public, or non-profit workplaces with 15 or more employees on site.

Public EVSE Requirements: Owners and operators of public EVSE that require payment must provide payment options that allow access by the public. In addition, payment should not require users to pay a subscription fee or obtain a membership of any kind; however, required fees may be conditional on such memberships. Owners and operators can impose reasonable restrictions on EVSE use, such as limiting access to visitors of the business. In addition, owners and operators of public EVSE must provide the location, hours of operation, payment, and characteristics of each EVSE to the U.S. Department of Energy's Alternative Fuels Data Center.

EVSE Building Standards: The Massachusetts State Board of Building Regulations and Standards and the Massachusetts Department of Energy Resources will develop building and electric code requirements for residential and appropriate commercial buildings for EVSE.

Public Utility Definition: An entity that owns, operates, leases, or controls EVSE is not defined as a public utility.

Nevada

EV Policies and Incentives

AFV and Infrastructure Grants Authorization: The Nevada Office of Energy will establish the Nevada Clean Energy Fund to fund qualified clean energy projects, including any program, technology, product, or service that supports the deployment of AFVs and related infrastructure.

Authorization for HOV Lane Exemption: The NDOT, in consultation with the Federal Highway Administration and U.S. EPA, may establish a program allowing federally certified low emission, energy-efficient, and alternative fuel vehicles to operate in HOV lanes regardless of the number of passengers.

AFV Acquisition Requirement: Fleets containing 50 or more vehicles that are owned, leased, or operated by the state, a state agency, or a political subdivision of the state in a county with a population of 100,000 or more must acquire AFVs or U.S. EPA certified Ultra Low Emission Vehicles (ULEVs). Covered fleets are required to purchase either AFVs or certified ULEVs for 20% of new vehicles obtained. A fleet may meet the acquisition requirements by converting existing or newly acquired vehicles to operate on alternative fuels. An AFV acquired in compliance with this mandate must operate solely on the alternative fuel except when operating in an area where the appropriate alternative fuel is unavailable. Fleets with buses or heavy-duty vehicles are included.

SB 19-299: allows utilities to provide an incentive of 75% of the cost for school districts to develop charging infrastructure or purchase electric school buses.

EV Supply Equipment (EVSE) Policies and Incentives

EVSE Demonstration Program Requirements: The Electric Vehicle Infrastructure Demonstration Program requires Nevada utilities to promote and incentivize the deployment of EVSE. Utilities must submit an annual plan for implementing the Program in their service areas to the PUCN. Plans may include, but are not limited to, the following measures:

- payment of incentives to customers that install EVSE;
- time-of-use rates for electricity used to charge plug-in electric vehicles;
- EVSE education and awareness programs for customers; and
- technical assistance programs for government fleets and private organizations.

Utilities may request to recover the costs associated with carrying out the program, including customer incentives, by filing an application with the PUCN.

The Nevada Electric Highway initiative, a partnership created between the state and NV Energy in 2015, seeks to build a complete electric highway system along the I-95 corridor by 2020. 15% of the Nevada's $25 million allocation from the VW settlement agreement will be used to support electric highway projects.

New Jersey

EV Policies and Incentives

ZEV Tax Exemption: does not apply to partial ZEVs, including hybrid electric vehicles.

High Occupancy Vehicle (HOV) Lane Exemption

PEV Toll Discount Program

Low Emission or Alternative Fuel Bus Acquisition Requirement: All buses purchased by the New Jersey Transit Corporation must be: 1) equipped with improved pollution controls that reduce particulate emissions; or 2) powered by a fuel other than conventional diesel.

EV Supply Equipment (EVSE) Policies and Incentives

EVSE Grants: offered on a first-come, first-served basis for the cost of installation of eligible EVSE at workplaces, government and educational facilities, non-profits, parking facilities, and multi-unit dwellings.

State Interagency EV Partnership: Announced June 3, 2019, will be co-led by the BPU, DEP, and the EDA to develop and implement a statewide charging deployment initiative.

New Mexico

EV Policies and Incentives

Alternative Fuel and Advanced Vehicle System Manufacturing Incentive: The Alternative Energy Product Manufacturers Tax Credit provides credit against combined reporting taxes (gross receipts, compensating, and withholding) for qualified manufacturers of alternative energy products, including hydrogen and fuel cell vehicle systems, and electric and hybrid electric vehicles.

AFV Loans: available to state agencies, political subdivisions, and educational institutions for AFV acquisitions. Funds must be used for the purchase of vehicles that operate on natural gas, propane, electricity, or hydrogen.

Government fleets may finance alternative fuel vehicles or related infrastructure through guaranteed utility savings contracts where vehicle operational and fuel cost savings pay for the capital investment.

AFV and HEV Acquisition Requirements: A minimum of 75% of state government and educational institution fleet light-duty vehicles purchased must be HEVs, bi-fuel, or dedicated AFVs.

The New Mexico General Services Department (GSD) launched plans to electrify state vehicles, devoting $2.5 million to public fleet electrification, $1.2 million of which will be used for solar-powered charging stations in Santa Fe. In a statement, Governor Grisham noted she would like to see 20% of the state fleet electrified.

EV Supply Equipment (EVSE) Policies and Incentives

Public Utility Definition: An entity that is not a regulated utility that resells natural gas or electricity as motor fuel is not defined as a public utility.

New York

EV Policies and Incentives

PEV Rebate Program

Heavy-Duty Alternative Fuel and Advanced Vehicle Purchase Vouchers

ZEV and Fueling Infrastructure Rebates for Municipalities: available to cities, towns, villages, counties, and New York City boroughs.

Workplace EVSE and PEV Incentives: NYSERDA is offering employers in the greater New York City region an $8,000 rebate per dual-connector EVSE installed. Employees of organizations that receive the rebate are eligible for a $500 rebate toward the purchase or lease of a qualified PEV.

HOV Lane Exemption

PEV Toll Discount Program

HEV Taxicabs: By February 3, 2019, the New York City Taxi and Limousine Commission must approve one or more HEV models for immediate use as a taxicab by medallion owners.

EV Supply Equipment (EVSE) Policies and Incentives

EVSE Rebate: available to public and private entities for installations at public parking facilities, workplaces, and multi-unit dwellings.

Alternative Fueling Infrastructure Tax Credit:
PEV and Charging Infrastructure Support: The New York Power Authority's EVolve NY program has allocated up to $250 million to support PEVs and address charging infrastructure gaps throughout the state.

PEV Charging Tariff: Each investor-owned utility selling electricity was required to file a tariff with the NYPSC by April 1, 2018, to allow a customer to purchase electricity solely for the purpose of charging a PEV. The utility must make the tariff available to customers within 60 days of PSC approval.

Electric Corporation Definition: PEV charging stations are not defined as electric plants and owners and operators of charging stations are not defined as electric corporations. The PSC does not have jurisdiction over publicly available PEV charging stations, the owners and operators of the stations, or the transactions between the owners and operators of the stations, as long as the owners and operators do not fall within the definition of an electric corporation.

Governor Andrew M. Cuomo announced in February 2019 that New York is making up to $31.6 million available to ramp-up the expansion of electric vehicle fast charging stations. The plan was approved by the NYPSC and will leverage existing NYSERDA and NYPA funds.

Oregon

EV Policies and Incentives

Support for PEV Adoption: In order to support the state goal of at least 50,000 PEVs registered and operating in Oregon by 2020, the ZEV Working Group will develop goals and progress metrics for PEV adoption. The Working Group will aim to remove barriers to PEVs and PEV charging stations, and establish a website to share information about their efforts with the public.

PEV Rebate: available to residents, businesses, non-profit organizations, and government agencies.

Establishment of Recognition Programs for PEV Adoption: The ODOE must design and establish Governor's Awards for automobile dealerships to encourage sales of PEVs. ODOE must also design and establish Governor's Awards for businesses and organizations that support PEV adoption through installing charging infrastructure and using PEVs in their fleets.

Support for Zero-Emission Buses: ODOE, with ODOT, the PUC, the DEQ, and the Department of Education, must develop tools and provide assistance to school districts and transit agencies about using zero-emission bus options.

AFV Acquisition, Fuel Use, and Emissions Reductions Requirements: All state agencies and transit districts must purchase AFVs and use alternative fuels to operate those vehicles to the maximum extent possible, except in regions where it is not economically or logistically possible to fuel an AFV. DAS and

ODO) must improve the PEV bulk procurement process to reduce costs for state agency PEV purchases. DAS must develop a “LEV First" policy to encourage state employees to use PEVs or other LEVs in the state fleet. DAS and ODOE must also develop a tool to calculate the long-term return on investment and life-cycle costs of PEVs to inform agencies of potential cost savings. In addition, DAS must inform and support legislative changes that enable increased charging infrastructure and state agency PEV purchases.

EV Supply Equipment (EVSE) Policies and Incentives

Mandatory EVSE Building Standards: The Oregon Department of Business and Consumer Services, Building Code Division, must amend the state building code to require that all newly constructed residential and commercial building parking structures can support the installation of at least one level 2 EVSE by October 1, 2022.

State Agency EVSE Installation: State agencies may install publicly-accessible EVSE on their premises or contract with a vendor to do so. The Oregon Department of Administrative Services (DAS) will establish criteria to determine the appropriate number of locations for EVSE at each agency. DAS must add PEV charging capacity for employee and public visitor parking lots, develop contracts to procure and install charging infrastructure, and incorporate PEV charging as a tenant improvement for state-leased buildings.

Electricity Provider and PEV Charging Rate Regulations: Regulated electric utility tariffs must explicitly permit customers to resell electricity for use as a motor fuel, as long as the entity is not considered a public utility as defined in Oregon Revised Statutes 757.005 and does not provide any utility service. Additionally, each regulated electric utility must provide customers with a choice of flat rate or time of use electricity rates specific to PEV owners. Finally, an investor-owned utility can own and operate PEV charging equipment using its own funds or petition the OPUC for rate recovery.

Rented Commercial Property EVSE Installations: The tenant of a commercial space may submit an application to install EVSE for the use of the tenant, employees of the tenant, and customers of the tenant. Unless the premises does not have at least one parking space per rental unit, the landlord must approve a completed application no more than 60 days after the tenant submits the application. In the absence of a different tenant-landlord agreement, the EVSE will be personal property of the tenant.

Planned Community and Condominium EVSE Installations: The owner of a lot in a planned community or unit in a condominium may submit an application to install EVSE for their personal use in a parking space subject to the exclusive use of the owner. The HOA must approve a complete application within 60 days. The owner is responsible for all costs associated with the EVSE installation and use, must disclose the existence of the EVSE and related responsibilities to a prospective buyer, and must ensure that the infrastructure meets insurance and safety requirements. EVSE installed under these regulations on or before June 4, 2015, is considered to be the personal property of the lot or unit owner with which the EVSE is associated, unless the owner and HOA have negotiated a different outcome.

Rhode Island

EV Policies and Incentives

AFV and ZEV Acquisition Requirements: at least 75% of state motor vehicle acquisitions must be AFVs, and the remaining 25% must be HEVs to the greatest extent possible. By 2025, 25% of state motor vehicle acquisitions must be ZEVs.

EV Supply Equipment (EVSE) Policies and Incentives

EVSE and PEV Rebates: The Charge Up! program provides rebates to state and municipal agencies for the purchase and installation of publicly accessible Level 2 or DC fast chargers. Agencies that install EVSE also qualify for up to $15,000 to support the purchase or lease of a new PEV acquired on or after July 1, 2016, as part of their public sector fleet.

Vermont

EV Policies and Incentives

PEV Incentive: provides financial incentives to low- and moderate-income residents for the purchase or lease of a new PEV.

Heavy-Duty Vehicle Emissions Reduction Grants: Through the Vermont Diesel Emissions Reduction Grants Program, the Vermont Department of Environmental Conservation provides funding to local, state and regional agencies or departments, businesses, institutions, and nonprofit organizations for projects focused on reducing emissions from diesel engines and vehicles. Qualifying heavy-duty vehicles include buses and Class 5-8 trucks. Projects eligible for funding include alternative fuel conversions and certified vehicle or equipment replacements.

HEV and PEV Acquisition Requirements: Effective July 1, 2019, the Vermont Department of Buildings and General Services must, to the extent possible, purchase or lease HEVs or PEVs for state use. At least 50% of the vehicles purchased or leased annually must be HEVs or PEVs. Beginning July 1, 2021, at least 75% of the vehicles purchased or leased annually must be HEVs or PEVs.

PEV Analysis: The PUC must evaluate PEVs and PEV charging in the state. The Commission must provide public notice, opportunity for submission of written comments, and one or more workshops on PEVs during the course of its evaluation.

EV Supply Equipment (EVSE) Policies and Incentives

EVSE Grants: available to governments, businesses, non-profit organizations, homeowner associations, electric utilities, and EVSE providers.

Alternative Fueling Infrastructure Incentive: The Vermont State Infrastructure Bank (SIB) offers loan assistance to municipalities, regional development corporations, political subdivisions of the state, and private companies working for the state to finance public electric vehicle charging and natural gas fueling stations.

Public Utility Definition: An entity that supplies electricity to the public exclusively to charge plug-in electric vehicles is not defined as a public utility and may charge for this electricity by the kilowatt-hour.

EVSE Fee Authorization: Effective July 1, 2019, any Vermont agency or department that owns or controls EVSE may establish and set user fees.

EVSE Code Reporting: On or before December 1, 2019, the Vermont Agency of Agriculture, Food and Markets (Agency) must submit a report to the legislature that provides an update on the National Institute of Standards and Technology's (NIST) progress toward adopting a code on EVSE and makes a

recommendation for an annual licensing fee for EVSE available to the public. If NIST has not adopted a code on EVSE by December 1, 2020, the Agency must submit an additional report on or before that date which provides an update on NIST's progress toward adopting a code.

Washington

EV Policies and Incentives

Alternative Fuel Commercial Vehicle and Fueling Infrastructure Tax Credit: Businesses are eligible to receive tax credits for purchasing new alternative fuel commercial vehicles and installing alternative fueling infrastructure.

PEV and Fuel Cell Electric Vehicle (FCEV) Infrastructure and Battery Tax: Public lands used for installing, maintaining, and operating PEV infrastructure are exempt from leasehold excise taxes until January 1, 2020. Additionally, the state sales and use taxes do not apply through July 1, 2025 to PEV and FCEV batteries or fuel cells; labor and services for installing, repairing, altering, or improving PEV and FCEV batteries or fuel cells and PEV and hydrogen fueling infrastructure; the sale of property used for PEV and hydrogen fueling infrastructure, and the sale of zero emission buses.

AFV and EV Retail Sales Tax Exemption

PEV Promotion and Infrastructure Development: Any regional transportation planning organization containing a county with a population greater than one million must collaborate with state and local governments to promote PEV use, invest in PEV charging infrastructure, and seek federal or private funding for these efforts.

AFV Car Share Pilot Program: WSDOT will develop a pilot program to provide AFV use opportunities to underserved and low-income communities and to those without easy access to transportation corridors.

AFV Technical Assistance and Education Program: The Washington State University Energy Program will establish and administer a technical assistance and education program on the use of AFVs for public agencies, including state and local governments.

EV and FCEV Low Income Opportunity Study: The Washington State Department of Commerce must conduct a study to identify opportunities to reduce barriers to EV and FCEV adoption by lower income residents through the use of vehicle and infrastructure financing assistance.

Alternative Fuel Use Requirement: All state agencies must, to the extent practicable, use 100% biofuels or electricity to operate all publicly owned vehicles. Agencies must prioritize EVs when leasing or purchasing new vehicles, and all trips that may feasibly use EVs must employ them.

EV Supply Equipment (EVSE) Policies and Incentives

Alternative Fueling Infrastructure Funding Program: WSDOT has developed a pilot funding program to strengthen and expand the West Coast Electric Highway network by deploying DC fast charging infrastructure along highway corridors in Washington.

Utility EVSE ROI Incentive: Utilities may petition the UTC for a rate of return on EVSE installed for the benefit of ratepayers through 2030.

Green Transportation Grant Program: WSDOT will establish a grant program to fund projects including fleet electrification, modification or replacement of facilities to facilitate fleet electrification and hydrogen fueling, upgrades to electrical transmission and distribution systems, and construction of charging and fueling infrastructure. In order to receive funding for a project, a transit authority must provide matching funding that is at least equal to 20% of the total cost of the project.

PEV Charging Regulation Exemption: The UTC may not regulate the rates, services, or facilities of an entity that offers charging facilities to the public for hire. The exemption does not apply if the entity is otherwise subject to UTC jurisdiction as an electrical company, or if an entity's battery charging facilities and services are subsidized by any regulated service. A utility may offer charging facilities as a regulated service, subject to UTC approval.

PEV Charging Infrastructure Availability: Publicly and privately owned PEVs may charge at state office locations if the vehicles are used for state business, conducting business with the state, or as commuter vehicles. Additionally, contingent upon funding, the state must install electrical outlets suitable for charging PEVs in each of the state's fleet parking and maintenance facilities as well as every state-operated highway rest stop.

Local Government PEV Infrastructure Requirements: Jurisdictions must develop regulations to allow the use of PEV infrastructure in all areas except critical areas or areas zoned for residential or resource use.

EVSE and Battery Exchange Station Regulations: State and local governments may lease land for installing, maintaining, and operating EVSE or electric vehicle battery exchange stations for up to 50 years for at least $1 per year. Additionally, the installation of battery charging and exchange stations is categorically exempt from the Washington Environmental Policy Act.

HB 19-1512: Allows municipal utilities to adopt transportation electrification plans. Regulated utilities may adopt plans that provide EV charging equipment incentives and support for other transportation electrification programs. Utility Electric Transportation Plan Authorization: The governing authority of a utility or a regulated electric utility, with the approval of the UTC, may adopt an electric transportation plan that proves that utility outreach and investment in the electrification of transportation infrastructure does not increase net costs to ratepayers in excess of 0.25%. The governing authority or the UTC may consider items such as the impact of electrification on the utility's load, demand response and load management opportunities, system reliability and distribution system efficiencies, and interoperability concerns. Upon making this determination, electric utilities may offer incentive programs for customers.

From: Cummins,Patrick on behalf of Cummins,Patrick
Sent: Friday, June 28, 2019 10:56 AM EDT
To: mnorthrop
Subject: Fwd: Maine Participation

I assume we will say yes to an alternate, but please let me know or reply to him directly and copy me. Thank you

Sent from my iPhone

Begin forwarded message:

> **From:** "Burgess, Dan"
> **Date:** June 28, 2019 at 8:33:33 AM MDT
> **To:** "Cummins,Patrick"
> **Subject: Maine Participation**
>
> Patrick,
>
> I won't be able to attend on the 17th and 18th but I wanted to see if Hannah Pingree, our Director of the Policy, Innovation and the Future or possibly Jerry Reid, our DEP Commissioner (or someone from his team) would be able to attend for Maine?
>
> Dan
>
> Dan Burgess
> Director, Governor's Energy Office
>
> www.maine.gov/governor

From: Cummins,Patrick on behalf of Cummins,Patrick
Sent: Tuesday, June 25, 2019 8:37 AM EDT
To: mnorthrop
Subject: Fwd: Policy Table
Attachment(s): "Pocantico States Policy Table.xlsx","ATT00001.htm"

Michael,

Here it is. Our team finished this up last night. Yes, I can talk anytime this afternoon. Just let me know what's best for you.

Sent from my iPhone

Begin forwarded message:

> **From:** "Hoffer,Katherine" <
> **Date:** June 24, 2019 at 8:10:05 PM MDT
> **To:** "Cummins,Patrick"
> **Subject: Policy Table**

	A	B	C	D	E	F
1	**State**	**US Climate Alliance Member?**	**RGGI Member?**	**TCI Member?**	**Emissions/GHG goals**	**Additional Information**
2	California	Yes			Adopted in 2006 (AB 05-32): 1990 levels by 2020; amended in 2016 (SB 15-32): 40% below 1990 levels by 2030. E.O. in 2005: 80% below 1990 levels by 2050.	The California Global Warming Solutions Act (AB32): http://www.leginfo.ca.gov/pub/05-06/bill/asm/ab_0001-0050/ab_32_bill_20060927_chaptered.pdf E.O. S-03-2005: http://static1.squarespace.com/static/549885d4e4b0ba0bff5dc695/t/54d7f1e0e4b0f0798cee3010/1423438304744/California+Executive+Order+S-3-05+(June+2005).pdf
3	Colorado	Yes			Adopted 2019 (HB 19-1261): more than 26% from 2005 levels by 2025, 50% below 2005 levels by 2030, 90% below 2005 levels by 2050.	
4	Connecticut	Yes	Yes	Yes	Originally adopted 2004 (SB 04-595), last amended 2018 (SB 18-7): 10% below 1990 levels by 2020; 45% below 2001 levels by 2030, 80% below 2001 levels by 2050.	SB 04-595: https://www.cga.ct.gov/2004/act/Pa/2004PA-00252-R00SB-00595-PA.htm

	G	H
1	**Additional Carbon/Climate Activities and Policies**	**Additional Information 2**
2	CA Cap & Trade Program: https://www.arb.ca.gov/cc/capandtrade/capandtrade.htm. **EO B-55-18**: achieve carbon-neutrality by 2045 and net-negative emissions thereafter. **AB 17-398**: extends cap-and-trade through 2030. **SB 15-350:** directs CARB to adopt rules removing disincentives for utilities' emissions reductions programs.	**EO B-55-18:** https://www.gov.ca.gov/wp-content/uploads/2018/09/9.10.18-Executive-Order.pdf, **AB 398:** https://www.aeltracker.org/bill-details/13459/california-2017-ab398, **SB 350:** https://www.aeltracker.org/bill-details/9038/california-2015-sb350
3	**HB 19-1261**: in addition to expanding GHG reduction goals, provides for possibility of joining other jurisdictions in regional abatement schemes. **SB19-096**: directs Air Quality Control Commission to long-term emissions data and publish an inventory. **SB19-236**: utilities must include emissions reductions plans in their IRPs, and PUC must consider social cost of carbon.	**SB19-096:** https://www.aeltracker.org/bill-details/19525/colorado-2019-sb096, **SB19-236:** https://www.aeltracker.org/bill-details/22344/colorado-2019-sb236
4	The 2018 amendment to emissions reductions (**SB00007**) also requires publication of seal level rise scenarios. The Governor's Council on Climate Change from December 2018 put forward several policy recommendations, including measures to replace inefficient space and water heaters, peak demand reduction, reduce carbon intensity of RPS by deploying class I resources, competitive procurement for zero-carbon resources, etc.	Recommendations from the Governor's Council on Climate Change (2018)

	I	J
1	**Energy Goals**	**Additional Information 3**
2	Adopted: 2002, last amended 2018 33% by 2020, 60% by 2030, with target of 100% carbon-free by 2045 Utility-types: IOUs, POUs, ESPs, and CCAs	
3	Adopted: 2004. Requirement: 30% by 2020 (IOUs); 10% or 20% for municipalities and electric cooperatives depending on size. Applicable Sectors: Investor owned utility, municipal utilities, cooperative utilities.(first state by ballot initiative)	Polis Administration's Roadmap to 100% Renewable Energy by 2040 and Bold Climate Action
4	Adopted: 1998, last amended 2018 Class 1: 21% by 2020, 30% by 2025, 40% by 2030 (plus 4% class 1 or 2 by 2018, 4% class 3 by 2010) Applicable sectors: Investor-Owned Utility, Local Government, Retail Supplier	

	K	L	M
1	**EERS**	**Utility commitments/goals**	**Recently enacted "big deal" legislation**
2	Electric: Long-term goals average about 1.15% of retail sales through 2024. Average incremental savings targets average about 1.3% of retail sales electricity from 2020-2025 Natural Gas: Incremental savings target of 0.56% through 2024. While SB 350, signed in 2015, called on state agencies and utilities to double cumulative efficiency savings achieved by 2030, work to develop specific utility targets is ongoing. This bill requires the State Energy Resources Conservation and Development Commission to establish annual targets for statewide energy efficiency savings and demand reduction that will achieve a cumulative doubling of statewide energy efficiency savings in electricity and natural gas final end uses of retail customers by January 1, 2030. The bill would require the PUC to establish efficiency targets for electrical and gas corporations consistent with this goal. It would also require local publicly-owned electric utilities to establish annual targets for energy efficiency savings and demand reduction consistent with this goal.	PG&E: Member of the WeAreStill in coalition. Goal to avoid one million tons of cumulative greenhouse gas emissions from our operations from 2018 through 2022, compared to a 2016 baseline. SMUD: 33% RE by 2020, 60% by 2030; reduce retail load GHG emissions to net zero by 2040. Sempra Energy: 35% below 2010 emissions by 2021, SDG&E on track to meet CA's 50% by RE target.	
3	Electric: In 2015 there was a flat goal of 400 GWh per year; and starting in 2019, this was increased to 500 GWh or roughly 1.7% of sales. Black Hills follows PSCo targets. HB 1227, signed in June 2017, extends electric efficiency programs to 2028 and requires the commission to set goals of at least 5% peak demand reduction and 5% energy savings by 2028 for demand-side management programs implemented during 2019 through 2028 when compared to 2018 numbers. Natural Gas: Savings targets commensurate with spending targets (at least 0.5% of prior year's revenue).	Xcel Energy: 55% RE by 2026 and 80% GHG reduction by 2030; Carbon-free by 2050 Platte River Power Authority: 0 carbon emissions by 2030 Holy Cross Energy: 70% emissions reduction by 2030 Poudre Valley Rural Electric Association: increase carbon-free energy from 33% to 80% by 2030. Colorado Springs Utilities: 20% RE by 2020	
4	Electric: Average incremental savings of 1.11% of sales from 2019 through 2021.The state's renewable portfolio standard (RPS), established in 1998 and revised thereafter, requires that electricity providers and wholesale suppliers obtain 27% of their retail load from renewable energy and energy efficiency by 2020. Natural Gas: Average incremental savings of 0.59% per year from 2019 through 2021.	AVANGRID (the United Illuminating Company is a subsidiary): increase installed renewable capacity by 2GW, reduce emissions intensity 25% below 2015 levels by 2020, 100% carbon neutral by 2035.	

	A	B	C	D	E	F
5	Maine	Yes	Yes	Yes	Adopted 2003 (LD 03-845) 1990 levels by 2010; 10% below 1990 levels by 2020; and 'In the long term, reduction sufficient to eliminate any dangerous threat to the climate. To accomplish this goal, reduction to 75% to 80% below 2003 levels may be required.'	
6	Maryland	Yes	Yes	Yes	Adopted 2009, reauthorized and amended in 2016 (SB 16-323): 25% below 2006 levels by 2020; 40% below 2006 levels by 2030.	
7	Massachusetts	Yes	Yes	Yes	Adopted 2008 (the Global Warming Solutions Act): 25% below 1990 levels by 2020, 80% below 1990 levels by 2050	

	G	H
5	LD 19-1679: If enacted (has passed both chambers), establishes the Maine Climate Council, comprised of state agencies and stakeholders tasked with developing a climate action plan and clean energy economy transition plan. Updates GHG Targets: 45% by 2030	
6	**HB 19-277**: Regional Transportation and Climate Protection Act. Authorizes Governor to include that state as full participant in regional initiatives (TCI) to reduce emissions from transportation. **SB 19-516**: Clean Energy Jobs Act. Calls for expanded renewable energy market to achieve emissions reductions. Directs Power Plant Research Program to conduct study on emissions reductions in countries and other states that are nuclear-dependent.	**HB 277:** https://www.aeltracker.org/bill-details/23058/maryland-2019-hb277 **SB 516:** https://www.aeltracker.org/bill-details/20541/maryland-2019-sb516
7	**E.O. 16-569:** requires the GWSA to establish statewide limits for 2030 and 2040, seeks further reductions from goverment operations, work with TCI to develop interim limits, and lead reform on capacity and wholesale markets to efficiently achieve state mandates. DEP must consider limits on sources such as natural gas pipelines and the transportation sector. Secretary of Energy and Environmental Affairs and Secretary of Public Helath must publish Climate Adaptation Plan to provide guidance to state, local, and regional planning agencies.The state's update to its Clean Energy and Climate Plan provides a comprehensive suite of policies to reduce statewide emissions, such as a 'clean energy policy' that involves new transmission to deliver hydro and wind from northern New England.	MA Clean Energy and Climate Plan for 2020

	I	J
5	Adopted: 1997 Class 1: 10% for 2017 - 2022 Applicable sectors: Investor-Owned Utility, Retail Supplier	
6	Adopted: 2004, last amended 2019 28% by 2020, 40% by 2025, 50% by 2030 Applicable Sectors: Investor-Owned Utility, Local Government, Retail Supplier	
7	Adopted: 1997, last amended 2018 (Clean Energy Standard) 20% by 2020, 40% by 2030, 60% by 2040, 80% by 2050 RPS: 13% in 2018, 55% in 2050 Applicable Sectors: IOUs and retail suppliers	

	K	L	M
5	Electric: Savings of 20% by 2020, with incremental savings targets of ~ 1.6% per year for 2014-2016 and ~2.4% per year for 2017-2019. Efficiency Maine operates under an all cost-effective mandate, however has fallen short of targets in recent years due to budget cuts. Natural Gas: Incremental savings of ~0.2% per year for 2017-2019.	AVANGRID (Central Maine Power is a subsidiary): increase installed renewable capacity by 2GW, reduce emissions intensity 25% below 2015 levels by 2020, 100% carbon neutral by 2035.	
6	Electric: 2% incremental energy savings goal through 2023 (SB17-184). Utilities also must file an energy efficiency program plan every 3 years to be approved by the PSC. The EmPower Maryland Energy Efficiency Act of 2008 directed the Maryland Public Service Commission (PSC) to require electric utilities in the state to provide energy efficiency services to its customers to achieve 10% of the 15% per-capita electricity use reduction goal by 2015 (Order 82344). Utilities were also required to decrease peak demand by 15% by 2015. These goals were essentially achieved. Beginning in 2016, electric utilities must ramp up programs to increase incremental savings by 0.2 percent, leveling out when savings reach 2% per year. Natural Gas: goals and limited income goals are currently being planned.15% reduction in per capita peak demand by 2015, compared to 2007. After 2015, targets vary by utility, ramping up by 0.2% per year to reach 2% incremental savings.	FirstEnergy (Potomac Edison Company is subsidiary in MD): 90% below 2005 levels by 2045	
7	Electric: Net annual savings of 3.45 million MWh (not including fuel switching) for 2019-2021, equivalent to savings of about 2.7% of retail sales per year. Additional goal of 261.9 million net lifetime MMBtu for 2019-2021. Natural Gas: Savings goals of 1.25% of retail sales. Net annual savings of 95.89 MMTherms for 2019-2021. Additional goal of 261.9 million net lifetime MMBtu for 2019-2021.	NationalGrid: 45% below 1990 levels by 2020, 70% below 1990 levels by 2030, 80% below 1990 levels by 2050.	

	A	B	C	D	E	F
8	Nevada	Yes			Adopted 2019 (SB 19-254) – 28% below 2005 levels by 2025, 45% below 2005 levels by 2030, “zero or near-zero” by 2050.	
9	New Jersey	Yes	Pending*	Yes	Adopted 2007 (AB 07-3301): 1990 levels by 2020; 80% below 2006 levels by 2050.	
10	New Mexico	Yes			2019 Executive Order 003: 45% below 2005 levels by 2030.	

	G	H
8	SB 19-254: requires DCNR to submit emissions report, provide analysis of whether existing/pending state policies can ensure that the state achieves zero carbon emissions by 2050.	
9	The Draft 2019 New Jersey Energy Master Plan outlines multiple strategies for emissions reductions in the transportation and building sectors. Outlines a range of policies to reduce emissions from the power sector, including grid modernization. Nat gas ut	
10	Governor Grisham's Executive Order 2019-003 on climate created the interagency Climate Change Task Force to develop a New Mexico Climate Strategy document, which will contain state agency mitigation and adaptation practices. The Task Force is also directe	

	I	J
8	Adopted: 1997, last amended 2019 SB 358 (2019): 24% by 2021, 50% by 2030 with goal 100% by 2050; up to 10% of the standard can be met through EE from 2020-2024 Applicable Sectors: Investor-owned utility, retail supplier.	
9	Adopted: 1999, last amended 2018 35% by 2025, 50% by 2030 Applicable Sectors: IOUs, retail suppliers	
10	#N/A	

	K	L	M
8	Electric: 20% of retail electricity sales to be met by renewables and energy efficiency by 2015, and 25% by 2025. Energy efficiency may meet a quarter of the standard through 2014, but is phased out of the RPS by 2025. SB 150, signed June 2017, directed the Nevada Public Utilities Commission to set new savings goals for NV Energy. The utility's 2018 Joint IRP Demand Side Plan establishes statewide goals of 1.18% in 2019, 1.14% in 2020, and 1.14% in 2021.The goals for energy savings for each electric utility or provider of electric service must be: (a) For calendar year 2018, equal to 1.0 percent of retail electricity sales in the base year. (b) For calendar year 2019, equal to 1.2 percent of retail electricity sales in the base year. (c) For calendar year 2020, equal to 1.4 percent of retail electricity sales in the base year. (d) For calendar years 2021, 2022, 2023, 2024 and 2025, equal to 1.5 percent of retail electricity sales in the base year.	NV Energy: seeks to double renewable generation by 2023. The utility included $2 billion in renewable projects in its 2018 IRP. Expects to retire or divest 100% of its coal generation by the end of 2025.	Energy Efficient Light Bulbs (AB54): Increases standards for light bulbs to save energy and reduce consumers' power bills. Electric Semi Weight Exemption (AB377): Changes weight limits so heavy-duty electric trucks can compete with diesel semi trucks on Nevada's roads. Expanded Solar Access (AB465): Allows more Nevadans to take advantage of the clean energy economy, reducing rates for some low-income customers. Also expands job training and placement opportunities in the solar industry. Vehicle Mileage Data Collection (AB483): Gathers information on vehicle mileage to show how much our roadways are being used by electric and other passenger vehicles. Carbon Reduction Plan (SB254): Calls for state officials to inventory Nevada's carbon footprint and determine what steps we can take to significantly lower our greenhouse gas emissions. Electric School Bus Funding (SB299): Opens up funding for an electric school bus pilot program. Renewable Portfolio Standard (SB358): Increases the state's renewable portfolio standard (RPS) to require 50% clean energy by 2030 with a goal of 100% carbon free energy by 2050. Electric Vehicle & Infrastructure Study (SCR3): Directs a study on the benefits and usage of electric vehicles, and new ways to fund roads and other transportation infrastructure. --> check signed, others?
9	Electric: Under 2018 legislation A3723/S2314, utilities must achieve 2% of electric savings (as a percent of average annual usage from the prior three years) within five years. In April, consultants presented the New Jersey Board of Public Utilities with the draft strategic plan for 2019-2022 for the statewide Clean Energy Program, including an energy efficiency portfolio achieving a 56% increase in savings by 2022. Natural Gas:Under 2018 legislation A3723/S2314, utilities must achieve 0.75% of electric savings (as a percent of average annual usage from the prior three years) within five years	FirstEnergy (Jersey Central Power & Light is a subsidiary): 90% below 2005 levels by 2045. Public Service Electric and Gas: eliminate 13 million metric tons of CO2 equivalent by 2030 from 2005 levels.	
10	Electric: The state's three public utilities must achieve 5% savings of 2020 retail sales by 2025. HB 291 (2019) directs the Public Regulation Commission to set additional targets through 2030. Formerly an 8% reduction by 2020.	Xcel Energy: reduce carbon by 80% by 2030 relative to 2005 levels and provide 100% carbon-free electricity by 2050. PNM: carbon-free by 2040 (5 years ahead of the deadline established by SB 489). PNM plans to retire San Juan by 2022.	SB 489

	A	B	C	D	E	F
11	New York	Yes	Yes	Yes	Adopted by Executive Order 24 in 2009, reaffirmed as a goal of the Reforming the Energy Vision initiative: 40% below 1990 levels by 2030; 80% below 1990 levels by 2050.	Senate Bill 19-6599 was passed by the Assembly on June 19. If enacted, the bill will create GHG emissions targets of 40% below 1990 levels by 2030 and 85% below 1990 levels by 2050, with the remaining 15% offset. The bill also requires that the PSC create
12	Oregon	Yes			Adopted 2007 (HB 07-3543: 10% below 1990 levels by 2020 and 75% below 1990 levels by 2050.	
13	Rhode Island	Yes	Yes	Yes	Adopted 2014 (the Resilient Rhode Island Act), 10% below 1990 levels by 2020; 45% below 1990 levels by 2035; 80% below 1990 levels by 2050	

	G	H
11	The Soil & Water Conservation committee maintains a Climate Resilient Farming Program to reduce agricultural emissions. Governor Cuomo's Reforming the Energy Vision (REV) initiative includes a series of initiatives to achieve carbon emissions reductions from multiple sectors, including transportation and buildings.	NYS Climate Resilient Farming Program: https://www.nys-soilandwater.org/programs/crf.html
12	HB 19-2020 (second reading in Senate on 6/19) would create a GHG emissions standard of 45% below 1990 levels by 2035, 80% below 1990 levels by 2050 and achieve those reductions through a cap and trade program.	
13	Governor Rainmondo's EO 17-10 required the the state to develop a statewide Climate Resilience Action Strategy by June 2018.	

	I	J
11	Clean energy standard adopted in 2016 50% by 2030 Applicable Sectors: Investor-Owned Utility, Municipal Utilities, Cooperative Utilities, Retail Supplier	
12	Adopted: 2007, last amended 2016 Large IOUs (3% or more of state's load): 50% by 2040 Large COUs: 25% by 2025 Small Utilities (1.5 to <3% of state's load): 10% by 2025 Smallest Utilities (<1.5% of state's load): 5% by 2025 Total coal phase out by 2035	
13	Adopted: 2004, last amended 2016 16% by 2020, 31% by 2030, 38.5% by 2036 Applicable sectors: Investor-Owned Utility, Retail Supplier	

	K	L	M
11	Electric: The 2025 State Energy Plan 2025 target 185 Tbtu savings (see New Efficiency, New York report), which will be approximately 3% of incremental electric sales. A December 2018 PSC Order adopting the 3% electric goal calls for detailed targets to be proposed by the utilities, which the PSC assumes will account for 2% of savings,with the remainder contributed through NYSERDA, codes and standards, and other state activities. Natural Gas: No specific natural gas goal has been established but savings will count toward the overall 185 TBtu goal.	Long Island Power Authority: add 800 MW of clean energy by 2030. AVANGRID (New York State Electric & Gas Corporation and Rochester Gas & Electric Corporation are subsidiaries): increase installed renewable capacity by 2GW, reduce emissions intensity 25% below 2015 levels by 2020, 100% carbon neutral by 2035. NationalGrid: 45% below 1990 levels by 2020, 70% below 1990 levels by 2030, 80% below 1990 levels by 2050.	
12	Electric: Incremental targets average ~1.3% of sales annually for the period 2015-2019. Natural Gas: Incremental savings of 0.3% of sales annually for the period 2015-2019.	PGE and Pacific Power will be coal-free by 2030, with the exception of Colstrip (retiring 2035). Avista: carbon-neutral electricity supply by 2027; 100% clean by 2045.	
13	Electric: Average incremental savings of 2.5% for 2018-2020. EERS includes demand response targets.: On June 23, 2006, the Rhode Island legislature passed The Comprehensive Energy Conservation, Efficiency, and Affordability Act of 2006. Among the key provisions, the act requires utilities to submit three-year energy efficiency procurement plans with savings targets. Additionally, utilities have to provide a status report on the implementation of least-cost procurement, including the achieved percentages for efficiency, distributed generation, demand response measures, combined heat and power, and renewable sources. The plans are reviewed and approved by the Rhode Island Public Utilities Commission. Targets for 2015-2017 range from 2.5 percent to 2.6 percent for electricity savings. Natural Gas: Average incremental savings of 0.97% for 2018-2020.	NationalGrid: 45% below 1990 levels by 2020, 70% below 1990 levels by 2030, 80% below 1990 levels by 2050.	

	A	B	C	D	E	F
14	Vermont	Yes	Yes	Yes	Adopted 2006 (S 06-259): 25% below 1990 levels by 2012, 50% below 1990 levels by 2028, and if practicable, 75% below 1990 levels by 2050.	
15	Washington	Yes			Adopted 2008 (HB 08-2815): 1990 levels by 2020, 25% below 1990 levels by 2035, and 50% below 1990 levels by 2050 or 70% below the state's expected emissions in 2050.	

	G	H
14	EO 12-17 created the Vermont Climate Action Committee. The Committee's 2018 report recommends utilizing market-based mechanisms for reducing emissions and creating jobs, but does not give detail. The report recommends sequestration measures for agricultur	
15	**SB 19-5116**: Requires utilities to use emissions-free resources by 2045. Allows utilities to use alternative compliance mechanisms in which utilities are credited for avoided emissions for development of 'energy transformation projects'. Social cost of carbon must factor into IRP process. Provides for tax exemptions for emissions-free technologies (solar, biomass, etc.). **HB 19-1257:** seeks to reduce GHG emissions from commercial buildings.	**WA 100% Clean Energy Policy Brief:** https://www.governor.wa.gov/sites/default/files/documents/clean-electricity-policy-brief-bill-signing.pdf **SB 5116:** https://www.aeltracker.org/bill-details/21005/washington-2019-sb5116 **HB 1257:** https://www.aeltracker.org/bill-details/20973/washington-2019-hb1257

	I	J
14	Adopted: 2015 55% by 2017, 75% by 2032 Energy Transformation projects (EE, EVs, storage) 12% by 2032 Applicable sectors: Investor-Owned Utility, Municipal Utilities, Cooperative Utilities, Retail Supplier	
15	Adopted: 2006, amended 2019 (SB 5116) 15% by 2020, coal phased out by 2025, carbon neutral by 2030, 100% carbon-free by 2045 Applicable sectors: Investor-owned utility, municipal utilities, cooperative utilities.	

	K	L	M
14	In 1999, Vermont's Public Service Board created a new statewide Energy Efficiency Utility (EEU) that would deliver energy efficiency services throughout the state. Vermont law requires EEU budgets to be set at a level that would realize "all reasonably available, cost-effective energy efficiency and set specific energy (kWh) and peak demand (kW) savings targets. Average incremental electricity savings are about 2.1 percent per year from 2015-2017. Annual incremental savings totaling 357,400 MWh over 2018-2020, or approximately 2.4% of annual sales. EERS includes demand response targets. Energy efficiency utilities must set budgets at a level that would realize all cost effective energy efficiency. Natural Gas: Three-year annual incremental savings of 192,599 Mcf spanning 2018-2020 or 0.5% of sales.	Green Mountain Power, 2018 Goal: partner with customers to drive down costs and eliminate more than 8,000 metric tons of carbon emissions per year using clean energy for the next two decades. Burlington Electric also has savings targets in place for this period, bringing statewide incremental electricity savings targets to about 2.1% per year.	
15	Electric: Utilities set biennial targets to achieve all cost-effective electricity conservation. Targets average ~1.4% incremental electricity savings per year and ~0.9% of sales. Law requires savings targets to be based on the Northwest Power Plan, which targets acquiring 1,400 average MW by 2021, 3,000 aMW by 2026, and 4,300 aMW by 2035. Natural Gas: Although Washington does not have a natural gas EERS, in 2014, all four investor-owned natural gas utilities committed to funding a 5-year, $18.3 million natural gas market transformation pilot through the Northwest Energy Efficiency Alliance. The three largest initiatives have the potential to produce over 280 million therms of savings per year with an average 20-year levelized cost of $0.28/therm.	Avista: carbon-neutral electricity supply by 2027; 100% clean by 2045. Seattle City Light: carbon neutral since 2005. Puget Sound Energy: reduce carbon emissions 50% by 2040, 100% coal-free generation by the early 2030s.	

	A	B	C	D	E
1	**State**	**Member of regional EV corridor / collaboration?**	**LEV Standards?**	**ZEV Standards?**	**Low Carbon Fuel Standard**
2	California	Pacific Coast Collaborative	Yes	Yes	Goal: reduce carbon intensity of transportation fuel pool by at least 20% by 2030.
3	Colorado	REV West	Yes	Rulemaking in Progress	

	F	G
1	**Additional Information**	**EVs - Incentives and Goals**
2		Goal (E.O B-48-18): 5 million ZEVs by 2030; 250,000 ZEV chargers by 2025. And Deploy over 100,000 zero emission freight vehicles and associated equipment, maximizing the number of vehicles powered by renewable energy, by 2030. Transit agency requirements: all new bus purchases must be zero emission buses by 2029 (50% by 2026 for large agencies, 25% by 2026 for small agencies, 25% by 2023 for large agencies. California offers several incentives: Low Emission Truck and Bus Purchase Vouchers: Available to fleet owners. Plug-In Hybrid and Zero Emission Light-Duty Vehicle Rebates Plug-In Hybrid and Zero Emission Light-Duty Public Fleet Vehicle Fleet Rebates: available to eligible state and local public entities. High Occupancy Vehicle (HOV) and High Occupancy Toll (HOT) Lane Exemption Establishment of a Zero Emission Medium- and Heavy-Duty Vehicle Program: The California Clean Truck, Bus, and Off-Road Vehicle and Equipment Technology Program (Program) will provide funding for development, demonstration, pre-commercial pilot, and early commercial implementation projects for zero and near-zero emission trucks, buses, and off-road vehicles and equipment. Emissions Reduction Requirements for Transportation Network Companies: Through the California Clean Miles Standard and Incentive Program (Program), the California Air Resources Board (ARB) will establish annual emissions reduction targets for transportation network companies, including goals for increasing the number of miles traveled using zero emission vehicles. Establishment of Zero and Near-Zero Emission Vehicle Component Rebates Vehicle Acquisition and Petroleum Reduction Requirements: Among other requirements, beginning in fiscal year 2024, DGS must also ensure that at least 50% of the light-duty vehicles purchased by the state are zero emission vehicles (ZEVs). Further, at least 15% of DGS' fleet of new vehicles with a gross vehicle weight rating of 19,000 pounds or more must be ZEVs by 2025, and at least 30% by 2030.
3		Goal (E.O B-2019-002): 940,000 EVs by 2030 PEV Tax Credit: $5,000 - 20,000 in 2017-2019; $4,000 - 16,000 in 2020; $2,500 - 10,000 in 2021 Alternative Fuel Vehicles and Infrastructure Grant Program: CEO, RAQC, CDOT, have partnered to provide grants through the ALT Fuels Colorado program for new fleet purchases of electric vehicles. Plug-In Electric Vehicle (PEV) and Electric Vehicle Supply Equipment (EVSE) Grants: The Colorado Energy Office (CEO) and Regional Air Quality Council (RAQC) provide grants through the Charge Ahead Colorado program to support PEV and EVSE adoption by individual drivers and fleets. High Occupancy Vehicle (HOV) Lane Exemption

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1	**Additional Information2**
2	**E.O B-48-18**: https://www.ca.gov/archive/gov39/2018/01/26/governor-brown-takes-action-to-increase-zero-emission-vehicles-fund-new-climate-investments/index.html **Transit Agency Requirements:** https://www.arb.ca.gov/regact/2018/ict2018/res18-60attacha.pdf?_ga=2.178678051.604699926.1561145694-1050906349.1559683089
3	**E.O. B-2019-002:** https://www.colorado.gov/governor/sites/default/files/inline-files/b_2019-002_supporting_a_transition_to_zero_emissions_vehicles.pdf

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1	**Charging Policies and Incentives**
2	Electric Vehicle Supply Equipment (EVSE) Incentive Program Support: provides guidance and funding for local governments and organizations to develop and implement EVSE incentive programs. Electric vehicle Supply Equipment (EVSE) Loan and Rebate Program: Provides loans for the design, development, purchase, and installation of EVSE at small businesses. Emissions Reductions Grants: Available for EVSE. Residential PACE Electric Vehicle Supply Equipment (EVSE) Financing Program Electric Vehicle Supply Equipment (EVSE) Policies for Residential and Commercial Renters: The lessor of a dwelling or commercial property must approve written requests from a lessee to install EVSE at a parking space allotted for the lessee on qualified properties. Certain exclusions apply to residential dwellings and commercial properties. Mandatory Electric Vehicle Supply Equipment (EVSE) Building Standards Electric Vehicle Supply Equipment (EVSE) Open Access Requirements: EVSE service providers may not charge a subscription fee or require membership for use of their public charging stations. Plug-In Electric Vehicle (PEV) Charging Access: Municipalities may not restrict the types of PEVs, such as plug-in hybrid electric vehicles, that may access a PEV charging station that is public, intended for passenger vehicle use, and funded, at least in part, by the state or money from utility ratepayers. Electric Vehicle Supply Equipment (EVSE) Location Assessment: The State Energy Resources Conservation and Development Commission (Commission), in partnership with the California Air Resources Board (ARB), must assess whether EVSE in California is located disproportionately by population density, geographical area, or population income level. If the Commission and ARB determine that EVSE has been disproportionately installed, the Commission must use funding from the Alternative and Renewable Fuel and Vehicle Technology Fund, as well as other funding sources, to proportionately install new EVSE, unless it is determined that the current locations of EVSE are reasonable and further California's energy or environmental policy goals. Electric Vehicle Supply Equipment (EVSE) Assessment: The California State Energy Resources Conservation and Development Commission (Commission), in partnership with the California Air Resources Board and the California Public Utility Commission (PUC), must publish a statewide assessment of the EVSE infrastructure needed to support the levels of plug-in electric vehicle (PEV) adoption required for at least five million zero emission vehicles to operate on California roads by 2030. The Commission must consider the EVSE infrastructure needs for all vehicle categories, including on-road, off-road, port, and airport vehicles. In addition, the assessment must analyze the existing and future infrastructure needs across California, including in low-income communities. The assessment must be updated at least once every two years. (https://afdc.energy.gov/laws/state_summary?state=CA) Public Utility Definition: A corporation or individual that owns, controls, operates, or manages a facility that supplies electricity to the public exclusively to charge light-duty battery electric and plug-in hybrid electric vehicles, compressed natural gas to fuel natural gas vehicles, or hydrogen as a motor vehicle fuel is not defined as a public utility.
3	Alternative Fuel Vehicles and Infrastructure Grant Program: Provides grants through the ALT Fuels Colorado program for new, publicly accessible compressed natural gas (CNG) fueling equipment; co-located electric vehicle charging and propane station equipment at funded CNG stations; and CNG, propane, and electric vehicles. Plug-In Electric Vehicle (PEV) and Electric Vehicle Supply Equipment (EVSE) Grants: The Colorado Energy Office (CEO) and Regional Air Quality Council (RAQC) provide grants through the Charge Ahead Colorado program to support PEV and EVSE adoption by individual drivers and fleets. Electric Vehicle Supply Equipment (EVSE) Multi-Unit Dwelling Installations and Access: A residential tenant may install Level 1 or Level 2 EVSE at their own expense on or in leased premises. The landlord may seek a fee or reimbursement for the actual cost of electricity as well as the cost of installation or upgrades to existing equipment. In addition, the tenant may request that the EVSE be accessible by other tenants, in which case the EVSE must be in compliance with all applicable requirements, and the landlord may seek a fee to reserve a specific parking space. Alternative Fuel Resale and Generation Regulations: A corporation or individual that resells alternative fuel supplied by a public utility for use in an alternative fuel vehicle (AFV) is not subject to regulation as a public utility. Additionally, a corporation or individual that owns, controls, operates, or manages a facility that generates electricity exclusively for use in AFV charging or fueling facilities is not subject to regulation as a public utility provided that the electricity is generated on the property where the charging or fueling facilities are located and the electricity is generated from a renewable resource. (https://afdc.energy.gov/laws/state_summary?state=co)

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1	**Additional Websites and Links 6**	**Recently enacted "big deal" legislation**							
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4	Connecticut	Transportation and Climate Initiative	Yes	Yes	
5	Maine	Transportation and Climate Initiative	Yes	Yes	
6	Maryland	Transportation and Climate Initiative	Yes	Yes	

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4	Signatory: Low Carbon Fuel Standard MOU (2009).	Heavy-Duty Vehicle Emissions Reduction Grants: The Connecticut Department of Energy and Environmental Protection (DEEP) allocates a portion of its designated funds from the Volkswagen Environmental Mitigation Trust for the replacement or repower of eligible heavy-duty on-road vehicles through its Diesel Emissions Mitigation Program (Program). Hydrogen and Plug-In Electric Vehicle (PEV) Rebate Loans for Plug-in Electric Vehicles (PEVs) and Residential Charging Infrastructure: The Connecticut Green Bank offers Smart-E low-interest loans of up to $30,000 for Connecticut residents to purchase a new or used PEV. The vehicle must be registered with the Connecticut Department of Motor Vehicles. Loans are also available for Connecticut PEV drivers to purchase Level 2 and DC fast electric vehicle supply equipment (EVSE). To qualify, applicants must own or lease a model year 2012 or later PEV and occupy the residence at which the EVSE will be installed. Reduced Registration Fee for Electric Vehicles Alternative Fuel Vehicle (AFV) Procurement Preference: In determining the lowest responsible qualified bidder for the award of state contracts, the Connecticut Department of Administrative Services may give a price preference of up to 10% for the purchase of AFVs or for the purchase of conventional vehicles plus the conversion equipment to convert the vehicles to dual or dedicated alternative fuel use.
5	Signatory: Low Carbon Fuel Standard MOU (2009).	Provision for Establishment of Clean Fuel Vehicle Insurance Incentives: An insurer may credit or refund any portion of the premium charged for an insurance policy on a clean fuel vehicle in order to encourage its policyholders to use clean fuel vehicles,
6	Signatory: Low Carbon Fuel Standard MOU (2009).	Goal ~300,000 ZEVs by 2025 Plug-In Electric Vehicle (PEV) and Fuel Cell Electric Vehicle (FCEV) Tax Credit: Qualified PEV and FCEV purchasers may apply for a tax credit against the imposed excise tax, up to $3,000. Plug-In Electric Vehicle (PEV) High Occupancy Vehicle (HOV) Lane Exemption Alternative Fuel Vehicle (AFV) Voucher Program: The Maryland Energy Administration (MEA) administers the Maryland Freedom Fleet Voucher (FFV) Program, which provides vouchers for the purchase of new and converted AFVs registered in Maryland. Vehicles must be used by commercial, non-profit, or public entities. Zero Emission School Bus Grant Program and Study: The Maryland Department of the Environment (MDE) will administer a Zero Emission School Bus Transition Grant Program to purchase zero emission school buses, install charging infrastructure, and transition to zero emission school bus fleets. Zero Emission Vehicle (ZEV) State Fleet Goal: State agencies must increase the number of ZEV acquisitions in light-duty fleets to at least 25% of annual fleet purchases by 2025.

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6	**EV Goal:** https://www.nrdc.org/experts/noah-garcia/maryland-edge-ev-leadership

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4	Electric Vehicle Supply Equipment (EVSE) Grants: The Connecticut Department of Energy and Environmental Protection (DEEP) provides funding to municipalities, state agencies, and private businesses for the cost and installation of eligible EVSE. Public Electric Vehicle Supply Equipment (EVSE) Requirements: Owners and operators of public EVSE that require payment must allow multiple payment options that allow access by the public. In addition, payment should not require users to pay a subscription fee or obtain a membership of any kind, however payment required may be based on price schedules for such memberships. Owners and operators can impose restrictions on the amount of time a vehicle can use the EVSE. In addition, owners and operators of a public EVSE must disclose the location and characteristics of each EVSE to the U.S. Department of Energy's Alternative Fuels Data Center. Information that must be disclosed includes, but is not limited to, address, voltage, and timing restrictions. Public Utility Definition: An owner of an electric vehicle charging station is not defined as a public utility. Utility Company Plug-In Electric Vehicle (PEV) Rates: By July 1, 2018, utility companies must evaluate if it is appropriate to implement PEV time of day rates for residential and commercial customers.
5	Electric Vehicle Supply Equipment (EVSE) Funding: Efficiency Maine Trust (Efficiency Maine) is accepting applications through July 10, 2019, for funding of public, workplace, and multi-unit dwelling Level 2 EVSE in strategic locations within Maine. EVSE along specific roads and at locations that will likely experience a high frequency of use will be prioritized. Plug-in Electric Vehicle (PEV) Charging Regulation Exemption: An entity that sells electricity for the sole purpose of charging the battery of a PEV is not defined or regulated as an electricity provider. An electric vehicle supply equipment provider may charge a submetered user only for kilowatt-hours used.
6	Electric Vehicle Supply Equipment (EVSE) Rebate Program: The Maryland Energy Administration (MEA) offers a rebate to an individual, business, or state or local government entity for the costs of acquiring and installing qualified EVSE. Alternative Fuel Infrastructure Grants: The Maryland Energy Administration administers the Maryland Alternative Fuel Infrastructure Program (AFIP), which provides grants to plan, install, and operate public access alternative fueling and charging infrastructure. Electric Vehicle Supply Equipment (EVSE) Regulation Exemption: Owners and operators of EVSE are not subject to state regulation as electricity suppliers or public service companies. For the purpose of this regulation, owners and operators of EVSE are considered retail electric customers. Plug-In Electric Vehicle (PEV) Information Disclosure: The Maryland Motor Vehicle Administration is allowed to provide the address of a registered PEV owner and information about the vehicle to electric companies for their use. Electric companies may only use this information in planning for the electric power supply and may not use it for marketing or solicitation. Plug-in Electric Vehicle (PEV) Infrastructure Promotion: The Maryland Electric Vehicle Infrastructure Council (Council) promotes the use of PEVs in the state. Specific responsibilities of the Council include the following: Develop an action plan to facilitate successful integration of PEVs into the Maryland transportation network; Assist in developing and coordinating statewide standards for streamlined permitting and installation of electric vehicle supply equipment; Recommend a statewide charging infrastructure plan and incentives to support investment in PEVs; Develop targeted policies to support fleet purchases of PEVs; Encourage local and regional efforts to promote the use of PEVs; and

	A	B	C	D	E
7	Massachusetts	Transportation and Climate Initiative	Yes	Yes	
8	Nevada	REV West			
9	New Jersey	Transportation and Climate Initiative	Yes	Yes	

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7	Signatory: Low Carbon Fuel Standard MOU (2009).	Goal: 300,000 ZEVs by 2025 Vehicle Emissions Reduction Grants: The Massachusetts Department of Environmental Protection's (MassDEP) Volkswagen Open Solicitation Grant Program (Program) provides up to 80% of the cost of new diesel or alternative fuel replacements and repowers for eligible government entities. Plug-In Electric Vehicle (PEV) and Electric Vehicle Supply Equipment (EVSE) Grants for Public Fleets: The Massachusetts Electric Vehicle Incentive Program (MassEVIP) provides grants for the purchase or lease of qualified PEVs, zero emission motorcycles, and Level 2 EVSE. Eligible applicants include local governments, public universities and colleges, and state agencies. Plug-In and Zero Emission Vehicle Rebates Alternative Fuel Vehicle and Infrastructure Grants: The Massachusetts Department of Energy Resources' Clean Vehicle Project offers grants for public and private fleets to purchase alternative fuel vehicles and infrastructure. State Hybrid Electric (HEV) Alternative Fuel Vehicle (AFV) Acquisition Requirements: When purchasing new motor vehicles, the Commonwealth of Massachusetts must purchase HEVs or AFVs to the maximum extent feasible and consistent with the ability of such vehicles to perform their intended functions.
8		Alternative Fuel Vehicle (AFV) and Infrastructure Grants Authorization: The Nevada Office of Energy will establish the Nevada Clean Energy Fund to fund qualified clean energy projects, including any program, technology, product, or service that supports the deployment of AFVs and related infrastructure. Authorization for High Occupancy Vehicle (HOV) Lane Exemption: The Nevada Department of Transportation, in consultation with the Federal Highway Administration and U.S. Environmental Protection Agency, may establish a program allowing federally certified low emission, energy-efficient, and alternative fuel vehicles to operate in HOV lanes regardless of the number of passengers. Alternative Fuel Vehicle (AFV) Acquisition Requirement: Fleets containing 50 or more vehicles that are owned, leased, or operated by the state, a state agency, or a political subdivision of the state in a county with a population of 100,000 or more must acquire AFVs or U.S. Environmental Protection Agency certified Ultra Low Emission Vehicles (ULEVs). Covered fleets are required to purchase either AFVs or certified ULEVs for 20% of new vehicles obtained. A fleet may meet the acquisition requirements by converting existing or newly acquired vehicles to operate on alternative fuels. An AFV acquired in compliance with this mandate must operate solely on the alternative fuel except when operating in an area where the appropriate alternative fuel is unavailable. Fleets with buses or heavy-duty vehicles are included.
9	Signatory: Low Carbon Fuel Standard MOU (2009).	Goal: 330,000 ZEVs by 2025. Zero Emissions Vehicle (ZEV) Tax Exemption: ZEVs sold, rented, or leased in New Jersey are exempt from state sales and use tax. This exemption does not apply to partial ZEVs, including hybrid electric vehicles. High Occupancy Vehicle (HOV) Lane Exemption Plug-In Electric Vehicle (PEV) Toll Discount Program Low Emission or Alternative Fuel Bus Acquisition Requirement: All buses purchased by the New Jersey Transit Corporation (NJTC) must be: 1) equipped with improved pollution controls that reduce particulate emissions; or 2) powered by a fuel other than conventional diesel.

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8	**SB 19-299**: provides an incentive of 75% of the cost for school districts to develop charging infrastructure or purchase school buses. It also establishes a program by which a utility can own the battery of a bus while a school district owns the rest of th
9	**Goal:** https://www.nj.gov/governor/news/news/562019/approved/20190603b.shtml

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7	Public Access Electric Vehicle Supply Equipment (EVSE) Grants: MassEVIP provides grants for 80% of the cost of Level 2 EVSE and installation, up to $50,000, for eligible non-residential entities. Qualified EVSE must be available to the public at least 12 hours per day. Multi-Unit Dwelling (MUD) Electric Vehicle Supply Equipment (EVSE) Grants: The Massachusetts Electric Vehicle Incentive Program (MassEVIP) provides grants for 60% of the cost of Level 1 or Level 2 EVSE installed at MUDs, up to $50,000. Eligible entities include private, public, or non-profit MUDs with ten or more residential units. Workplace Electric Vehicle Supply Equipment (EVSE) Grants: The Massachusetts Electric Vehicle Incentive Program (MassEVIP) provides grants for 60% of the cost of Level 1 or Level 2 workplace EVSE, up to $50,000. Eligible entities include private, public, or non-profit workplaces with 15 or more employees on site. Public Electric Vehicle Supply Equipment (EVSE) Requirements: Owners and operators of public EVSE that require payment must provide payment options that allow access by the public. In addition, payment should not require users to pay a subscription fee or obtain a membership of any kind; however, required fees may be conditional on such memberships. Owners and operators can impose reasonable restrictions on EVSE use, such as limiting access to visitors of the business. In addition, owners and operators of public EVSE must provide the location, hours of operation, payment, and characteristics of each EVSE to the U.S. Department of Energy's Alternative Fuels Data Center. Electric Vehicle Supply Equipment (EVSE) Building Standards: The Massachusetts State Board of Building Regulations and Standards and the Massachusetts Department of Energy Resources will develop building and electric code requirements for residential and appropriate commercial buildings for EVSE. Public Utility Definition: An entity that owns, operates, leases, or controls electric vehicle supply equipment is not defined as a public utility.
8	The Nevada Electric Highway initiative, a partnership created between the state and NV Energy in 2015, seeks to build a complete electric highway system along the I-95 corridor by 2020. 15% of the Nevada's $25 million allocation from the VW settlement agreement will be used to support electric highway projects. (http://energy.nv.gov/Programs/Nevada_Electric_Highway/) Electric Vehicle Supply Equipment (EVSE) Demonstration Program Requirements:The Electric Vehicle Infrastructure Demonstration Program (Program) requires Nevada utilities to promote and incentivize the deployment of EVSE. Utilities must submit an annual plan for implementing the Program in their service areas to the Public Utilities Commission of Nevada (PUCN). Plans may include, but are not limited to, the following measures: Payment of incentives to customers that install EVSE; Time-of-use rates for electricity used to charge plug-in electric vehicles; EVSE education and awareness programs for customers; and Technical assistance programs for government fleets and private organizations. Utilities may request to recover the costs associated with carrying out the Program, including customer incentives, by filing an application with the PUCN.
9	Electric Vehicle Supply Equipment (EVSE) Grants: The New Jersey Department of Environmental Protection (NJDEP) provides grants through the It Pay$ to Plug In: New Jersey's Electric Vehicle Workplace Charging Grant Program (Program) to support plug-in electric vehicle adoption and EVSE installation. Reimbursement grants are offered on a first-come, first-served basis for the cost and installation of eligible EVSE at workplaces, government and educational facilities, non-profits, parking facilities, and multi-unit dwellings. State Interagency EV Partnership: Announced June 3, 2019, will be co-led by the New Jersey Board of Public Utilities, New Jersey Department of Environmental Protection, and the New Jersey Economic Development Authority to develop and implement a statewide charging deployment initiative (https://www.nj.gov/governor/news/news/562019/approved/20190603b.shtml).

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8	Nevada's beneficiary mitigation plan								
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10	New Mexico	REV West	Climate Change Task Force to evaluate implementing.	Climate Change Task Force to evaluate implementing.	
11	New York	Transportation and Climate Initiative	Yes	Yes	

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10		The New Mexico General Services Department (GSD) launched plans to electrify state vehicles, devoting $2.5 million to public fleet electrification, $1.2 million of which will be used for solar-powered charging stations in Santa Fe. In a statement, Gov. Grisham noted she seeks 20% of the state fleet electrified. (https://www.krqe.com/news/electric-vehicles-to-roll-out-across-state-departments/) Alternative Fuel and Advanced Vehicle System Manufacturing Incentive: The Alternative Energy Product Manufacturers Tax Credit provides credit against combined reporting taxes (gross receipts, compensating, and withholding) for qualified manufacturers of alternative energy products, including hydrogen and fuel cell vehicle systems, and electric and hybrid electric vehicles. Alternative Fuel Vehicle (AFV) Loans: The New Mexico Energy, Minerals and Natural Resources Department's Alternative Fuel Acquisition Revolving Loan Program provides loans to state agencies, political subdivisions, and educational institutions for AFV acquisitions. Funds must be used for the purchase of vehicles that operate on natural gas, propane, electricity, or hydrogen. Energy and Fuel Cost Savings Contracts: Government fleets may finance alternative fuel vehicles or related infrastructure through guaranteed utility savings contracts where vehicle operational and fuel cost savings pay for the capital investment. Alternative Fuel Vehicle (AFV) and Hybrid Electric Vehicle (HEV) Acquisition Requirements: A minimum of 75% of state government and educational institution fleet light-duty vehicles purchased must be HEVs or bi-fuel or dedicated AFVs.
11	Signatory: Low Carbon Fuel Standard MOU (2009).	Goal: 800,000 ZEVs by 2025. Plug-In Electric Vehicle (PEV) Rebate Program: The New York State Energy Research and Development Authority (NYSERDA) provides rebates of up to $2,000 for the purchase or lease of a new eligible PEV. Heavy-Duty Alternative Fuel and Advanced Vehicle Purchase Vouchers Zero Emission Vehicle (ZEV) and Fueling Infrastructure Rebates for Municipalities: The New York State Department of Environmental Conservation's (DEC) Municipal ZEV Rebate Program offers rebates to cities, towns, villages, counties, and New York City boroughs for the purchase or lease of eligible ZEVs and the installation of eligible ZEV fueling infrastructure. Workplace Electric Vehicle Supply Equipment (EVSE) and Plug-In Electric Vehicle (PEV) Incentives: The New York State Energy Research and Development Authority is offering employers in the greater New York City region $8,000 rebate per dual-connector EVSE installed. Employees of organizations that receive the rebate are eligible for a $500 rebate toward the purchase or lease of a qualified PEV. High Occupancy Vehicle (HOV) Lane Exemption Plug-in Electric Vehicle (PEV) Toll Discount Program Hybrid Electric Vehicle (HEV) Taxicabs: By February 3, 2019, the New York City Taxi and Limousine Commission (Commission) must approve one or more HEV models for immediate use as a taxicab by taxicab medallion owners.

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11	**Goal:** https://www.governor.ny.gov/news/governor-cuomo-announces-316-million-funding-available-dramatically-expand-electric-vehicle

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10	Public Utility Definition: An entity that is not a regulated utility that resells natural gas or electricity as motor fuel is not defined as a public utility.
11	Electric Vehicle Supply Equipment (EVSE) Rebate: The New York State Energy Research and Development Authority's (NYSERDA) Charge Ready NY program offers rebates for public and private entities toward the purchase and installation of Level 2 EVSE at public parking facilities, workplaces, and multi-unit dwellings. Alternative Fueling Infrastructure Tax Credit: An income tax credit is available for 50% of the cost of alternative fueling infrastructure, up to $5,000. Plug-In Electric Vehicle (PEV) and Charging Infrastructure Support: The New York Power Authority's (NYPA) EVolve NY program has allocated up to $250 million to support PEVs and address charging infrastructure gaps throughout the state. Governor Andrew M. Cuomo announced in February 2019 that New York is making up to $31.6 million available to ramp-up the expansion of electric vehicle fast charging stations. The plan was approved by the New York State Public Service Commission and will leverage existing New York State Energy Research and Development Authority and New York Power Authority funds. (https://www.governor.ny.gov/news/governor-cuomo-announces-316-million-funding-available-dramatically-expand-electric-vehicle) Plug-In Electric Vehicle (PEV) Charging Tariff: Each investor-owned utility selling electricity was required to file a tariff with the New York Public Service Commission (PSC) by April 1, 2018, to allow a customer to purchase electricity solely for the purpose of charging a PEV. The utility must make the tariff available to customers within 60 days of PSC approval. Electric Corporation Definition: Plug-in electric vehicle (PEV) charging stations are not defined as electric plants and owners and operators of charging stations are not defined as electric corporations. The PSC does not have jurisdiction over publicly available PEV charging stations, the owners and operators of the stations, or the transactions between the owners and operators of the stations, as long as the owners and operators do not fall within the definition of an electric corporation.

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12	Oregon	Pacific Coast Collaborative	Yes	Yes	Requires fuel suppliers to reduce the carbon content of transportation fuels by 10% by 2025.
13	Rhode Island	Transportation and Climate Initiative	Yes	Yes	
14	Vermont	Transportation and Climate Initiative	Yes	Yes	

	F	G
12		50,000 EVs by 2020 (E.O. 17-21) Support for Plug-In Electric Vehicle (PEV) Adoption: In order to support the state goal of at least 50,000 PEVs registered and operating in Oregon by 2020, the Zero-Emission Vehicle Working Group (Working Group) will develop goals and progress metrics for PEV adoption. The Working Group will include representatives from the Departments of Administrative Services, Energy, Transportation, and Environmental Quality, and the Oregon Public Utility Commission. The Working Group will aim to remove barriers to PEVs and PEV charging stations, and establish a website to share information about their efforts with the public. Plug-In Electric Vehicle (PEV) Rebate: The Clean Vehicle Rebate Program provides rebates to Oregon residents, businesses, non-profit organizations, and government agencies for the purchase or lease of PEVs. Establishment of Recognition Programs for Plug-In Electric Vehicle (PEV) Adoption: The Oregon Department of Energy (ODOE) must design and establish Governor's Awards for automobile dealerships to encourage sales of PEVs. ODOE must also design and establish Governor's Awards for businesses and organizations that support PEV adoption through installing charging infrastructure and using PEVs in their fleets. Support for Zero-Emission Buses: The Oregon Department of Energy (ODOE), with the Oregon Department of Transportation (ODOT), Public Utility Commission (PUC), Department of Environmental Quality (DEQ), and the Department of Education, must develop tools and provide assistance to school districts and transit agencies about using zero-emission bus options. Alternative Fuel Vehicle (AFV) Acquisition, Fuel Use, and Emissions Reductions Requirements: All state agencies and transit districts must purchase AFVs and use alternative fuels to operate those vehicles to the maximum extent possible, except in regions where it is not economically or logistically possible to fuel an AFV. Each state agency must develop and report a greenhouse gas reduction baseline and determine annual reduction targets. DAS and the Oregon Department of Energy (ODOE) must improve the plug-in electric vehicle (PEV) bulk procurement process to reduce costs for state agency PEV purchases. DAS must develop a "Low-Emission Vehicle (LEV) First" policy to encourage state employees to use PEVs or other LEVs in the state fleet. DAS and ODOE must also develop a tool to calculate the long-term return on investment and life-cycle costs of PEVs to inform agencies of potential cost savings. In addition, DAS must inform and support legislative changes that enable increased charging infrastructure and state agency PEV purchases.
13	Signatory: Low Carbon Fuel Standard MOU (2009).	Goal: 43,000 ZEVs by 2025 Alternative Fuel Vehicle (AFV) and Zero Emission Vehicle (ZEV) Acquisition Requirements: To reduce fuel consumption and emissions, and purchase vehicles that provide the best value on a life cycle cost basis, at least 75% of state motor vehicle acquisitions must be AFVs, and the remaining 25% must be HEVs to the greatest extent possible. By 2025, 25% of state motor vehicle acquisitions must be ZEVs.
14	Signatory: Low Carbon Fuel Standard MOU (2009).	In his budget address at the start of the 2019 session, Governor Phil Scott said Vermont needs around 50,000 electric vehicles on the road by 2025. Plug-In Electric Vehicle (PEV) Incentive: The Vermont Agency of Transportation will administer the PEV Incentive Program, which provides financial incentives to low- and moderate-income residents for the purchase or lease of a new PEV. Heavy-Duty Vehicle Emissions Reduction Grants: Through the Vermont Diesel Emissions Reduction Grants Program, the Vermont Department of Environmental Conservation (DEC) provides funding to local, state and regional agencies or departments, businesses, institutions, and nonprofit organizations for projects focused on reducing emissions from diesel engines and vehicles. Qualifying heavy-duty vehicles include buses and Class 5-8 trucks. Projects eligible for funding are as follows: Verified emission control technologies; Verified idle reduction technologies; Verified aerodynamic technologies and low rolling resistance tires; Certified engine replacements; Alternative fuel conversions; and Certified vehicle or equipment replacements. Hybrid Electric Vehicle (HEV) and Plug-In Electric Vehicle (PEV) Acquisition Requirements: Effective July 1, 2019, the Vermont Department of Buildings and General Services (Department) must, to the extent possible, purchase or lease HEVs or PEVs for state use. At least 50% of the vehicles purchased or leased annually must be HEVs or PEVs. Beginning July 1, 2021, at least 75% of the vehicles purchased or leased annually must be HEVs or PEVs. Plug-In Electric Vehicle (PEV) Analysis: The Vermont Public Utility Commission (Commission) must evaluate PEVs and PEV charging in the state. The Commission must provide public notice, opportunity for submission of written comments, and one or more workshops on PEVs before the evaluation is conducted.

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12	**Goal**: https://goelectric.oregon.gov/2020-goal
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14	**Goal:** https://vtdigger.org/2019/03/01/state-needs-1575-boost-evs-six-years-meet-energy-goals/

12	Mandatory Electric Vehicle Supply Equipment (EVSE) Building Standards: The Oregon Department of Business and Consumer Services, Building Code Division, must amend the state building code to require that all newly constructed residential and commercial building parking structures can support the installation of at least one level 2 EVSE by October 1, 2022. State Agency Electric Vehicle Supply Equipment (EVSE) Installation: State agencies may install publicly-accessible EVSE on their premises or contract with a vendor to do so. The Oregon Department of Administrative Services (DAS) will establish criteria to determine the appropriate number of locations for EVSE at each agency. DAS must add PEV charging capacity for employee and public visitor parking lots, develop contracts to procure and install charging infrastructure, and incorporate PEV charging as a tenant improvement for state-leased buildings. Electricity Provider and Plug-In Electric Vehicle (PEV) Charging Rate Regulations: Regulated electric utility tariffs must explicitly permit customers to resell electricity for use as a motor fuel, as long as the entity is not considered a public utility as defined in Oregon Revised Statutes 757.005 and does not provide any utility service. Additionally, each regulated electric utility must provide customers with a choice of flat rate or time of use electricity rates specific to PEV owners. Finally, an investor-owned utility can own and operate PEV charging equipment using its own funds or petition the Oregon Public Utilities Commission for rate recovery. Rented Commercial Property Electric Vehicle Supply Equipment (EVSE) Installations: The tenant of a commercial space may submit an application to install EVSE for the use of the tenant, employees of the tenant, and customers of the tenant. Unless the premises does not have at least one parking space per rental unit, the landlord must approve a completed application no more than 60 days after the tenant submits the application. In the absence of a different tenant-landlord agreement, the EVSE will be personal property of the tenant. Planned Community and Condominium Electric Vehicle Supply Equipment (EVSE) Installations: The owner of a lot in a planned community or unit in a condominium may submit an application to install EVSE for their personal use in a parking space subject to the exclusive use of the owner. The homeowners association must approve a complete application within 60 days. The owner is responsible for all costs associated with the EVSE installation and use, must disclose the existence of the EVSE and related responsibilities to a prospective buyer, and must ensure that the infrastructure meets insurance and safety requirements. EVSE installed under these regulations on or before June 4, 2015, is considered to be the personal property of the lot or unit owner with which the EVSE is associated, unless the owner and homeowners association have negotiated a different outcome.
13	Electric Vehicle Supply Equipment (EVSE) and Plug-In Electric Vehicle (PEV) Rebates: The Charge Up! program provides rebates to state and municipal agencies for the purchase and installation of publicly accessible Level 2 or DC fast chargers. Agencies are eligible for up to $60,000 in incentives for EVSE that are installed and operational on or after July 1, 2016. Agencies that install EVSE also qualify for up to $15,000 to support the purchase or lease of a new PEV acquired on or after July 1, 2016, as part of their public sector fleet.
14	Electric Vehicle Supply Equipment (EVSE) Grants: The Vermont Department of Housing and Community Development (DHCD) provides funding to governments, businesses, non-profit organizations, homeowner associations, electric utilities, and EVSE providers for the cost and installation of eligible EVSE. Alternative Fueling Infrastructure Incentive: The Vermont State Infrastructure Bank (SIB) offers loan assistance to municipalities, regional development corporations, political subdivisions of the state, and private companies working for the state to finance public electric vehicle charging and natural gas fueling stations. Public Utility Definition: An entity that supplies electricity to the public exclusively to charge plug-in electric vehicles is not defined as a public utility and may charge for this electricity by the kilowatt-hour. Electric Vehicle Supply Equipment (EVSE) Fee Authorization: Effective July 1, 2019, any Vermont agency or department that owns or controls EVSE may establish and set user fees. Electric Vehicle Supply Equipment (EVSE) Code Reporting: On or before December 1, 2019, the Vermont Agency of Agriculture, Food and Markets (Agency) must submit a report to the legislature that provides an update on the National Institute of Standards and Technology's (NIST) progress toward adopting a code on EVSE and makes a recommendation for an annual licensing fee for EVSE available to the public. If NIST has not adopted a code on EVSE by December 1, 2020, the Agency must submit an additional report on or before that date which provides an update on NIST's progress toward adopting a code.

	J	K	L	M	N	O	P	Q	R
12									
13									
14		HB 19-529							

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15	Washington	Pacific Coast Collaborative	Yes		

	F	G
15		Washington has a goal of 50,000 electric vehicles by 2020. Alternative Fuel Commercial Vehicle and Fueling Infrastructure Tax Credit: Businesses are eligible to receive tax credits for purchasing new alternative fuel commercial vehicles and installing alternative fueling infrastructure. Plug-In Electric Vehicle (PEV) and Fuel Cell Electric Vehicle (FCEV) Infrastructure and Battery Tax: Public lands used for installing, maintaining, and operating PEV infrastructure are exempt from leasehold excise taxes until January 1, 2020. Additionally, the state sales and use taxes do not apply through July 1, 2025 to PEV and FCEV batteries or fuel cells; labor and services for installing, repairing, altering, or improving PEV and FCEV batteries or fuel cells and PEV and hydrogen fueling infrastructure; the sale of property used for PEV and hydrogen fueling infrastructure, and the sale of zero emission buses. Retail Sales Tax Exemption: Effective July 28, 2019, the retail sales tax of 6.5% does not apply to the sale or lease of new or used passenger vehicles, light-duty trucks, and medium-duty passenger vehicles that are exclusively powered by an alternative vehicle fuel or are capable of running solely on electricity for at least 30 miles. Plug-In Electric Vehicle (PEV) Promotion and Infrastructure Development: Any regional transportation planning organization containing a county with a population greater than one million must collaborate with state and local governments to promote PEV use, invest in PEV charging infrastructure, and seek federal or private funding for these efforts. Alternative Fuel Vehicle (AFV) Car Share Pilot Program: The Washington State Department of Transportation (WSDOT) will develop a pilot program to provide AFV use opportunities to underserved and low-income communities and to those without easy access to transportation corridors. Alternative Fuel Vehicle (AFV) Technical Assistance and Education Program: The Washington State University Energy Program will establish and administer a technical assistance and education program on the use of AFVs for public agencies, including state and local governments. Electric Vehicle (EV) and Fuel Cell Electric Vehicle (FCEV) Low Income Opportunity Study: The Washington State Department of Commerce (WSDOC) must conduct a study to identify opportunities to reduce barriers to EV and FCEV adoption by lower income residents through the use of vehicle and infrastructure financing assistance. Alternative Fuel Use Requirement: All state agencies must, to the extent practicable, use 100% biofuels or electricity to operate all publicly owned vehicles. Agencies must prioritize all-electric vehicles (EVs) when leasing or purchasing new vehicles, and all trips that may feasibly use EVs must employ them.

	H
15	**Goal:** https://www.commerce.wa.gov/growing-the-economy/energy/electric-vehicles/

15	Alternative Fueling Infrastructure Funding Program: The Washington State Department of Transportation (WSDOT) has developed a pilot funding program to strengthen and expand the West Coast Electric Highway network by deploying direct current (DC) fast charging infrastructure along highway corridors in Washington. Utility Electric Vehicle Supply Equipment (EVSE) Return on Investment Incentive: Utilities may petition the Washington Utilities and Transportation Commission (UTC) for a rate of return on EVSE installed for the benefit of ratepayers through December 31, 2030. Green Transportation Grant Program: The Washington State Department of Transportation (WSDOT) will establish a green transportation capital grant program to fund projects to reduce the carbon intensity of the Washington transportation system, including fleet electrification, modification or replacement of facilities to facilitate fleet electrification and hydrogen fueling, upgrades to electrical transmission and distribution systems, and construction of charging and fueling infrastructure. In order to receive funding for a project, a transit authority must provide matching funding for that project that is at least equal to 20% of the total cost of the project. Plug-in Electric Vehicle (PEV) Charging Regulation Exemption: The Washington Utilities and Transportation Commission (Commission) may not regulate the rates, services, facilities, or practices of an entity that offers battery charging facilities to the public for hire. The exemption does not apply if the entity is otherwise subject to Commission jurisdiction as an electrical company, or if an entity's battery charging facilities and services are subsidized by any regulated service. A utility may offer battery charging facilities as a regulated service, subject to Commission approval. Utility Electric Transportation Plan Authorization: The governing authority or commission of an electric utility may adopt an electric transportation plan that proves that utility outreach and investment in the electrification of transportation infrastructure does not increase net costs to ratepayers in excess of 0.025%. The governing authority or commission may consider items such as the impact of electrification on the utilities load, demand response and load management opportunities, system reliability and distribution system efficiencies, and interoperability concerns. Upon making this determination, electric utilities may offer incentive programs for customers. Plug-In Electric Vehicle (PEV) Charging Infrastructure Availability: Publicly and privately owned PEVs may charge at state office locations if the vehicles are used for state business, conducting business with the state, or as commuter vehicles. Additionally, contingent upon funding, the state must install electrical outlets suitable for charging PEVs in each of the state's fleet parking and maintenance facilities as well as every state-operated highway rest stop. Local Government Plug-in Electric Vehicle (PEV) Infrastructure Requirements: Jurisdictions must develop regulations to allow the use of PEV infrastructure and battery charging stations in all areas except critical areas or areas zoned for residential or resource use. Electric Vehicle Supply Equipment (EVSE) and Battery Exchange Station Regulations: State and local governments may lease land for installing, maintaining, and operating EVSE or electric vehicle battery exchange stations for up to 50 years for at least $1 per year. Additionally, the installation of battery charging and exchange stations is categorically exempt from the Washington Environmental Policy Act.

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15		HB 19-2042							

	A	B	C	D	E
1	**State**	**Oil & Gas Methane Emissions Policy**	**Additional Websites and Links**	**HFC emissions target / policy**	**Additional Websites and Links 2**
2	California	CARB adopted stringent methane regulations for monitoring and repairing pipeline leaks in 2017 (required by SB 16-1363). The CPUC ordered utilities to file methane abatement compliance plans by March 2019 (pursuant to SB 14-1371).	https://ww2.arb.ca.gov/our-work/programs/oil-and-natural-gas-production-processing-and-storage/about, https://www.aeltracker.org/bill-details/11969/california-2016-sb1383, https://www.cpuc.ca.gov/General.aspx?id=8829	SB18-1013: Creates the Fluorinated Gases Emission Reduction Incentive Program to promote the adoption of low-global warming potential refrigerants. The schedule to ban products made with HFCs begins 2022.	
3	Colorado	SB19-181: directs air quality control commission to bolster methane regulations from oil & gas sites by promulgating rules for all points in supply chain (processing, gathering & boosting, storage, and transmission). Affirms local authority over oil/gas s		SB19-096: requires publication of GHG inventory, data provided by emitting entities. HFCs are listed under the law.	
4	Connecticut	N/A. Connecticut's omnibus energy bill in 2019 did not include regulations for methane emissions. Studies of CT pipelines reveal the need to modernize gas infrastructure.	HB 5002 (Utility Dive): https://www.utilitydive.com/news/connecticut-house-saves-net-metering-for-now-but-green-groups-want-more/555771/, Danbury pipeline study (Sierra Club CT): https://ctsierraclub.wixsite.com/sierraclub-ct/fix-leaks-and-repeal-pipeline-tax	Governor Malloy directed the Department of Energy and Environmental Protection to develop HFC controls modelled after CARB's that would fit within the state's air quality regulatory framework. New regulations are expected 2020.	

	F	G	H	I
1	**Appliance Standards opposing federal rollback**	**Additional Websites and Links 3**	**Building EE Codes / Policies**	**Additional Websites and Links 4**
2	In December 2008, California adopted a 45 lumen per watt standard for general service lamps (GSLs) as defined in the 2007 Energy Independence and Security Act (EISA). California's Title 20 Appliance Efficiency Regulations have long had existing provisions that backstop all other federal appliance standards in case of repeal or rollback (Title 20 section 1605(a)).		Commercial: meets or exceeds ASHRAE 90.1-2013 Residential: meets or exceeds IECC 2015 Solar: The California Energy Commission adopted revisions to the Energy code in May 2018. The most noteworthy new provision is a requirement for all new low-rise homes to install photovoltaic (PV) equipment with an annual output greater than or equal to the homes annual electrical consumption. The code provides six exceptions to this rule, which are detailed in Subchapter 8 of the code. The proposed amended standards, which still need to be approved by the California Building Standards Commission would go into effect on January 1, 2020.	solar: https://programs.dsireusa.org/system/program/detail/1856; code: http://bcapcodes.org/code-status/state/
3	HB 19-1231 updates and adopts standards for water efficiency and energy efficiency that apply to a list of 15 consumer and commercial appliances and other products. The bill also includes a provision to adopt federal light bulb standards in case of repeal or rollback.		No mandatory statewide code, but any county or municipality that had a building code in place was required to adopt 2003 IECC or 2006 IECC as the minimum energy code standard by July 1, 2008 (C.R.S. § 30-28-201). Solar: Builders of single family homes are required to offer solar energy as a standard feature to all prospective homebuyers (C.R.S. § 38-35.7-106). Builders are required to give the buyer the option to either have a photovoltaic (PV) system or a solar water heating system installed on their new home or to have all the necessary wiring and plumbing installed so that they can easily add a solar system at a later date.	
4	N/A		Residential and Commercial are based on the 2012 IECC, with weakening amendments.	

	J	K	L	M	N	O
1	**Electrification and Utilities (what can utilities do to electrify transportation, heating and cooling?)**					
2	The California Public Utilities Commission (PUC) may provide funding for pilot utility programs to install EVSE at school facilities, other educational institutions, and state parks or beaches. Priority must be given to locations in disadvantaged communities, as defined by the California Environmental Protection Agency. (from AFDC: https://afdc.energy.gov/laws/state_summary?state=ca) Utility Electric Vehicle Supply Equipment (EVSE) Allowance: The California Public Utilities Commission allows investor-owned utilities to own and operate charging stations, with approval provided on a case-by-case basis. (https://afdc.energy.gov/laws/12032) Support for Plug-In Electric Vehicles (PEVs) The Public Utilities Commission must consider the following to support PEVs in California: Strategies to facilitate the development of technologies that promote grid integration, including technologies with submetering capabilities for residential PEV chargers, if implementing these technologies is in the interest of ratepayers; Policies that support the development of technologies and rate strategies that reduce the impact of demand charges of PEV drivers and fleets and to accelerate the adoption of PEVs; and A tariff specific to heavy-duty PEV fleets that encourages PEV charging when there is excess grid capacity. (from AFDC: https://afdc.energy.gov/laws/state_summary?state=ca)					
3						
4	Utility Company Electric Vehicle (EV) Charging Load Projection Requirement: The Public Utilities Regulatory Authority requires electric distribution companies to integrate EV charging load projections into distribution planning. (https://afdc.energy.gov/laws/11711) Integrated Resources Plan Report: The Commissioner of Energy and Environmental Protection (Commissioner), in consultation with the electric distribution companies, must deliver a plan to the Commissioner that analyzes, among other things, the potential for electric vehicles (EVs) to provide energy storage and other services to the electric grid, and identify strategies to ensure that the grid is prepared to support increased EV charging based on projections of sales of EVs. (https://afdc.energy.gov/laws/11713)					

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5	Maine	Maine's policy establishes a classification system for pipeline leaks, and sets detection and repair requirements for pipeline operators. Governor Mills joined 15 other AGs in suing the Trump administration for halting enforcement of federal methane regulations.	MPUC Rules (pipeline safety: Ch 420): https://www.maine.gov/sos/cec/rules/65/chaps65.htm, Maine press release: https://www.maine.gov/ag/news/article.shtml?id=793547	N/A	
6	Maryland	The Greenhouse Gas Emissions Reductions Act (passed 2009, amended 2015) requires the maintenance of GHG emissions inventories. The Maryland Dept of Environment (MDE) publishes data on methane from wastewater, landfills, and oil and gas operations. MDE is in the process of developing proposed methane regulations - Methane Emissions Minimization Plans (MEMPs) - for curbing natural gas supply chain leaks.	MDE GHG Inventory: https://mde.maryland.gov/programs/Air/ClimateChange/Pages/GreenhouseGasInventory.aspx, Proposed MDE regulations (stakeholder presentation): https://mde.maryland.gov/programs/Regulations/air/Documents/StakeholderPresentation03062019.pdf	MDE is in the process of developing HFC regulations for foam and refrigerant products pursuant to SB16-232 (Greenhouse Gas Emissions Reduction Act).	
7	Massachusetts	To meet state emissions reductions goals, the DEP passed rules in 2017 requiring gas operators to reduce methane emissions annually (specified by utility), keep inventories, and repair pipeline leaks. The DPU adopted rules in March 2019 that establish methods of identifying high-priority leaks and requires gas operators to accelerate the repair timeline when located in 'environmentally sensitive areas'.	Mass DEP Final Emissions Regulations (MJ Bradley & Associates): https://www.mjbradley.com/sites/default/files/MJBA_IssueBrief_MassDEP_Emissions_Regulations.pdf, DPU Uniform Natural Gas Leaks Classification: https://www.mass.gov/files/documents/2019/04/24/220%20CMR%20114.00%20Final%20%283-22-19%29.pdf	Massachusetts published its Comprehensive energy Plan in late 2018. No HFC regulations have yet been announced, but the state's AG joined with 10 other states to sue the EPA for its HFC rule rollback in 2018.	MA Comprehensive Energy Plan: https://www.mass.gov/service-details/Massachusetts-comprehensive-energy-plan-cep, States Sue EPA over HFC Regulation: http://www.r744.com/articles/8389/eleven_us_states_sue_epa_for_voiding_hfc_regulation
8	Nevada	N/A		N/A	

	F	G	H	I
5	N/A		Commercial: based on the 2009 IECC and ASHRAE 90.1-2007 Residential: based on the 2009 IECC	
6	N/A		Residential and Commercial are based on the 2015 IECC.	
7	N/A		Commercial: based on the 2015 IECC and ASHRAE 90.1-2013 Residential: based on the 2015 IECC	
8	AB 19-54 adopted the federal light bulb standards into law.		Commercial: 2012 IECC, with amendments or ASHRAE 90.1-2010 Residential: 2012 IECC, with amendments	

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8	NPUC's new regulations allow the state's only investor-owned utility, NV Energy, to own, operate and recover the cost of charging stations along the Nevada Electric Highway Corridor, and elsewhere subject to NPUC's prudence review of costs. NPUC will approve rates for systems that NV Energy owns and operates, but not those that it owns but doesn't operate. In addition, the Nevada legislature excluded non-utility third parties that own and operate charging stations (such as truck stops) from the definition of "public utility" to foster competition and promote the EV infrastructure build-out.					

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9	New Jersey	S 19-3207 would bolster the state's GHG emissions reporting requirements and requires state to develop comprehensive statewide strategy for mitigating 'short-lived' GHGs, including methane. The bill passed both chambers as of May 2019.		S 19-3207: If enacted (has passed both chambers), would amend the Global Warming Response Act. The bill includes a provision requiring the development of a comprehensive strategy to reduce emissions of short-lived climate pollutants in the State. This re	
10	New Mexico	Gov. Grisham's **EO 2019-003** directs EMNRD and NMED to regulatory framework to reduce oil & gas sector methane emissions. The NMED maintains an interactive map of oil and gas site emissions.	EO 2019-003: https://www.governor.state.nm.us/wp-content/uploads/2019/01/EO_2019-003.pdf, NMED Methane Map: https://gis.web.env.nm.gov/oem/?map=methane	N/A	
11	New York	Gov. Cuomo's Methane Reduction Plan (2017) establishes outlines multiple policies to achieve emissions reductions targets, including monitoring and repair of natural gas pipelines.		The New York State Department of Environmental Conservation is developing regulations to phase out HFCs from 2020-2024, and submitted a draft regulation proposal in Sept 2018.	
12	Oregon	HB 2020 (passed House 6/17) directs the Environmental Quality Commission to develop rules regulating methane emissions from landfills, agriculture, and forestry. No legislation or regulations are in place for pipeline leaks.		N/A	
13	Rhode Island	The Rhode Island Energy 2035 Plan (2015) recommended reviewing the state's natural gas replacement and repair policy, suggesting an update to National Grid's Gas Infrastructure, Safety, and Reliability Plan for detecting and repairing pipeline leaks.		N/A	

	F	G	H	I
9	N/A		Commercial: based on ASHRAE 90.1-2013 Residential: based on 2015 IECC Solar: Developers of residential developments with 25 or more dwelling units must "offer to install, or to provide for installation of, a solar energy system" when technically feasible. The law took effect immediately upon enactment; however, the Department of Community Affairs (DCA), in cooperation with the New Jersey Board of Public Utilities (BPU), must develop rules and standards for its implementation. The law notably does not provide a time frame for the adoption of regulations and it does not appear that such rules have been established.	codes: http://bcapcodes.org/code-status/state/ solar: https://programs.dsireusa.org/system/program/detail/4023
10	N/A		Commercial and residential: based on 2009 IECC, with amendments	
11	N/A		Commercial: based on the 2015 IECC and ASHRAE 90.1-2013 as modified by the 2016 supplement Residential: based on the 2015 IECC as modified by the 2016 supplement	
12	N/A		Commercial: based on ASHRAE 90.1-2010 Residential: more stringent than the 2009 IECC	
13	SB 19-552 "held for further study" would have opposed federal rollback.		Commercial: based on the 2012 IECC and ASHRAE 90.1-2010 Residential: based on the 2012 IECC, with amendments	

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10	Utility Support for Plug-In Electric Vehicles (PEVs): By January 1, 2021, and upon request by the New Mexico Public Regulation Commission (Commission) thereafter, public utilities must file an application to the Commission to expand transportation electrification. Applications may include, but are not limited to, incentives to facilitate the installation of PEV charging infrastructure, electrification of public fleet vehicles, PEV charging rates, and customer outreach and education programs. The Commission may approve applications based on whether the proposed projects can be reasonably expected to improve the electrical system efficiency of the public utility, to increase access to electricity as a transportation fuel, including in low income and underserved communities, to reduce air pollution and greenhouse gas emissions, and to encourage consumer adoption of PEVs.					
11						
12	Transportation Electrification Acceleration Programs: The Oregon Public Utility Commission must direct electric utilities to file applications for programs to accelerate transportation electrification. Eligible programs include investments in or customer rebates for electric vehicle supply equipment (EVSE). Among other criteria, programs must stimulate innovation, competition, and customer choice in EVSE and plug-in electric vehicle (PEV) charging. Additionally, the Oregon Department of Energy (ODOE) must engage with publicly and investor-owned utilities on how to improve transportation electrification plans and increase PEV adoption in their service territories. ODOE must also provide the utilities with technical assistance on how to accommodate increased electric system loads from PEVs.					
13						

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14	Vermont	Gas utilities must 'routinely' inspect for leaks. No comprehensive program for pipeline emissions reductions is in place.		S 19-30: establishes a schedule between 2020 and 2024 for when certain products must be manufactured without hydrofluorocarbons. It also requires the Agency of Natural Resources to conduct rulemaking and report back to the General Assembly on any delay in	
15	Washington	State law establishes a classification system for pipeline leaks and requires utilities to maintain permanent leak records and self-audit every 5 years.		HB 19-1112: establishes a regulatory framework for phasing out HFCs in the state, banning specified products beginning in 2020.	

	F	G	H	I
14	H 17-411 provides that the state will enforce federal standards if they are “withdrawn, repealed or otherwise voided” at the federal level. Efficiency measures protected by the new Vermont law include all standards on the federal books as of January 17, 2017, including ones that have yet to take effect, like the light bulb standards slated for 2020.		Commercial: based on 2015 IECC and ASHRAE 90.1-2013, with amendments Residential: based on the 2015 IECC	
15	HB19-1444 adopts federal light bulb standards into state law, preventing impact of federal rollback.		Commercial and Residential: based on the 2015 IECC, with amendments	

	J	K	L	M	N	O
14	Plug-In Electric Vehicle (PEV) Charging Fee Analysis: By December 15, 2019, the Vermont Public Utility Commission (Commission), in consultation with electric utilities, the Vermont Agency of Transportation, the Vermont Department of Public Service, and Efficiency Vermont, must submit a report to the legislature evaluating: The steps necessary for electric utilities to implement a PEV charging fee; A PEV charging tariff design for electric utilities with more than 17,000 customers; Whether the Commission should require electric utilities to submit regular reports on PEV charging-related activities; The amount of additional revenue electric utilities expect to be generated by PEVs over the next 10 years; and How to address the use of net metering and net metering energy credits for PEV charging.					
15						

From: Cummins,Patrick on behalf of Cummins,Patrick
Sent: Thursday, June 20, 2019 10:37 AM EDT
To: Michael Northrop
Subject: Montana

Michael – One additional state to discuss is MT. Not for dissemination at this time, but we expect an Exec Order soon that sets a goal of net zero GHG emissions from the power sector by 2035 and economy-wide reductions consistent with
the mid-century objectives of the Paris Agreement. There will be a fast track effort (draft in 6 mos, final in 11 mos) to get a report and recommendations done. This is an effort that CNEE will support. They are keen to engage with other states on this effort.

Patrick Cummins
Senior Policy Advisor
Colorado State University
Center for the New Energy Economy

From: Cummins,Patrick on behalf of Cummins,Patrick
Sent: Friday, June 28, 2019 5:17 PM EDT
To: Michael Northrop
Subject: RE: Any comments on the briefing memo?

I'm about to drive to Durango but I can talk now if you want. I thought we were going to work on the RMI memo and send it later? I have some concerns with the current draft.

-----Original Message-----
From: Michael Northrop
Sent: Friday, June 28, 2019 3:12 PM
To: Cummins,Patrick
Subject: Re: Any comments on the briefing memo?

Could I get your comments before I send it out on Sunday? Just in case we should change anything?? Thanks.
Tonight? Tomorrow?

Sent from my iPhone

> On Jun 28, 2019, at 2:46 PM, Cummins,Patrick > wrote:
>
> We should definitely schedule a time with Jacob early next week if possible. And we could include Joe from Georgetown on that too. I have comments but I think it would be easier to talk through them. Let me know if you want to discuss first
>
> Sent from my iPhone
>
>> On Jun 28, 2019, at 11:59 AM, Michael Northrop wrote:
>>
>> And,
>> Should we try to schedule a time with Jacob?
>>
>> Sent from my iPhone
>>

From: Cummins,Patrick on behalf of Cummins,Patrick
Sent: Thursday, June 20, 2019 10:00 AM EDT
To: Megan Burnett <
Subject: RE: Best airport to fly into for Pocantico meeting
Attachment(s): "PC Information Directions E-Mail Updated 0416.doc"

Megan – LaGuardia is best unless they can get a connection into Westchester at a reasonable rate. They all received the attached document that provides detailed info on travel, which should allow them to figure it out. The travel agency should feel free to direct any questions to me or copy me on emails. Thank you, PC

TRAVEL BY AIR
From Westchester/White Plains (20 mins.):
From LaGuardia (40 mins.):
From JFK (1 hour):

Patrick Cummins
Senior Policy Advisor
Colorado State University
Center for the New Energy Economy

From: Megan Burnett >
Sent: Thursday, June 20, 2019 7:30 AM
To: Cummins,Patrick
Subject: Best airport to fly into for Pocantico meeting

Hello Patrick,
Georgetown's travel agency would like to know what airport is best for guests to fly into for the Pocantico meeting. Guests have been emailing the travel agents assuming they know where the meeting is held. If you could let me know the best airport I will forward that information to the travel agents.
Thank you!
--
Megan Burnett
Georgetown University Law Center
Centers & Institutes Assistant

THE POCANTICO CENTER OF THE ROCKEFELLER BROTHERS FUND

TRAVEL DIRECTIONS & CONFERENCE CENTER INFORMATION

THE POCANTICO CENTER of the Rockefeller Brothers Fund is located approximately one hour north of Manhattan in the Pocantico Historic Area, the heart of the Rockefeller family estate in Westchester County, New York. The Historic Area has been a property of the National Trust for Historic Preservation (www.nthp.org) since 1979, when it was willed to the National Trust by Governor Nelson A. Rockefeller. The Pocantico Center includes John D. Rockefeller's home, Kykuit; the surrounding gardens and sculpture collections; and the Coach Barn (Conference Center), which houses guests on the second floor and the family's carriages and vintage automobiles on the first floor. The lower floor has been transformed into a modern meeting facility. The Pocantico Center is maintained and administered by the Rockefeller Brothers Fund (www.rbf.org), a private foundation, which operates the site as an extension of its grantmaking activities under an agreement with the National Trust. The Conference Center provides a unique setting where the RBF brings together people of diverse backgrounds and perspectives from nonprofit organizations and public institutions to engage important issues related to the Fund's philanthropic programs. In addition to conferences, the RBF's Pocantico Programs include stewardship of the historic portion of the estate and oversight of a visitation program at Kykuit, operated on behalf of the Fund by Historic Hudson Valley (www.hudsonvalley.org).

The directions are provided to help direct you to the Conference Center. Please advise the conference organizer of your travel plans, so arrangements can be made to pick you up if needed. All travel plans, including the time of your arrival at Pocantico, must be confirmed. When you arrive at the Main Gate, announce yourself to the security personnel, who will provide you with further directions.

ACCOMMODATIONS

Guests are lodged on the second floor of the Coach Barn (Conference Center) and on the third and fourth floors of Kykuit. All accommodations have a private bath. Hair dryers are also provided in each bedroom and adapters for electric razors are available upon request. Electrical service is 115 volts/60 cycles.

DRESS

In keeping with the Fund's programmatic emphasis on global warming and the desire to mitigate RBF's carbon footprint, guests at Pocantico should dress comfortably according to the season.

SMOKING POLICY

Guests may not smoke indoors, either at Kykuit or in the Coach Barn (Conference Center).

RECREATION

Guests are welcome to stroll the Coach Barn (Conference Center) and Kykuit grounds, including Kykuit's lovely gardens, or may go jogging on the roads and trails outside the estate.

TELEPHONE, FACSIMILE & BUSINESS CENTER

Each bedroom at the Coach Barn (Conference Center) and Kykuit has a private telephone number with voice mail, and phone calls may be received 24 hours a day. During conference sessions messages will be taken by the center's staff at 914.524.6500. Facsimile messages may be sent during normal business hours from the Conference Center. Faxes are received 24 hours a day at 914.524.6550 and distributed as promptly as possible. Computers are available for the use of conferees in the business center of the Conference Center with IBM-compatible machines, as well as commonly used word-processing, presentation, spreadsheet programs and high speed Internet access. Please note, however, that computer assistance is not available. Wireless Internet access is available in the entire Coach Barn (Conference Center) building as well as on the bedroom floors at Kykuit.

SUSTAINABLE PRACTICES AT POCANTICO

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In addition, a portion of the conference fees are utilized to acquire Green Tags [Renewable Energy Certificates (RECs)] from *Native*Energy (www.nativeenergy.com) to offset greenhouse gas emissions associated with conference attendees' travel to/from the Pocantico Center. This purchase will be dedicated to help finance new wind farm projects in the United States.

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THE ROCKEFELLER BROTHERS FUND
200 Lake Road
Tarrytown, New York 10591
Tel: (914) 524-6500 Fax: (914) 524-6550

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From: Cummins,Patrick on behalf of Cummins,Patrick
Sent: Tuesday, June 18, 2019 1:20 PM EDT
To: Grimes, Victoria S (ENV)
Subject: RE: Hotel for Secretary Theoharides

We are expecting senior energy and environmental officials from agencies and gov's offices from 14 states – 8 eastern and 6 western. They are:
MD, NY, NJ, MA, CT, RI, ME, and VT
WA, OR, CA, NV, NM, and CO

Patrick Cummins
Senior Policy Advisor
Colorado State University
Center for the New Energy Economy

From: Grimes, Victoria S (ENV) < >
Sent: Monday, June 17, 2019 8:49 AM
To: Cummins,Patrick < ; Megan Burnett
Subject: RE: Hotel for Secretary Theoharides

Great. Might you be able to share which other states are confirmed to participate?

From: Cummins,Patrick <
Sent: Monday, June 17, 2019 10:28 AM
To: Grimes, Victoria S (EEA) >; Megan Burnett
Subject: RE: Hotel for Secretary Theoharides

No worries. That's correct. No cost for registration. Also meals will be provided (dinner Wed night, breakfast and lunch Thurs)

Patrick Cummins
Senior Policy Advisor
Colorado State University
Center for the New Energy Economy

From: Grimes, Victoria S (ENV)
Sent: Monday, June 17, 2019 8:26 AM
To: Cummins,Patrick >; Megan Burnett
Subject: RE: Hotel for Secretary Theoharides

Apologies for all the questions – is there also no cost associated with registration?

From: Cummins,Patrick < >
Sent: Monday, June 17, 2019 10:22 AM
To: Grimes, Victoria S (EEA) < ; Megan Burnett < >
Subject: RE: Hotel for Secretary Theoharides

Victoria - That's correct. PC

Patrick Cummins
Senior Policy Advisor
Colorado State University
Center for the New Energy Economy

From: Grimes, Victoria S (ENV) >
Sent: Monday, June 17, 2019 8:19 AM
To: Cummins,Patrick >; Megan Burnett
Subject: RE: Hotel for Secretary Theoharides

Hi Patrick,

To confirm, there is no cost associated with lodging?

Thanks,

Victoria Grimes
Executive Assistant to Secretary Kathleen Theoharides
Executive Office of Energy & Environmental Affairs
100 Cambridge Street, Suite 900, Boston, MA 02114

From: Cummins,Patrick >
Sent: Monday, June 17, 2019 10:10 AM
To: Megan Burnett < Grimes, Victoria S (EEA) < >
Subject: RE: Hotel for Secretary Theoharides

Victoria – No need to do anything on lodging. Pocantico is a private conference center and they are providing lodging for all the meeting participants. Please let me know if you have any other questions. PC

Patrick Cummins
Senior Policy Advisor
Colorado State University
Center for the New Energy Economy

From: Megan Burnett
Sent: Monday, June 17, 2019 8:04 AM
To: Grimes, Victoria S (ENV) >; Cummins,Patrick
Subject: Re: Hotel for Secretary Theoharides

Hello Victoria,

I have looped in Patrick Cummins who can share information with you regarding lodging.

Best,
Megan

Megan Burnett
Georgetown University Law Center
Centers & Institutes Assistant

On Mon, Jun 17, 2019 at 9:41 AM Grimes, Victoria S (ENV) wrote:

> Hi Megan,
>
> Who should I work with to secure lodging for Katie Theoharides on July 17th in Pocantico, New York for the State Action on Climate Change meeting?
>
> **Victoria Grimes**
> Executive Assistant to Secretary Kathleen Theoharides
> Executive Office of Energy & Environmental Affairs
> 100 Cambridge Street, Suite 900, Boston, MA 02114

From: Cummins,Patrick on behalf of Cummins,Patrick
Sent: Thursday, June 20, 2019 11:29 AM EDT
To: Walke, Peter <
Subject: RE: Pocantico, July 17-18: Accelerating State Action on Climate Change

No worries. Thank you!

Patrick Cummins
Senior Policy Advisor
Colorado State University
Center for the New Energy Economy

From: Walke, Peter
Sent: Thursday, June 20, 2019 9:29 AM
To: Cummins,Patrick
Subject: RE: Pocantico, July 17-18: Accelerating State Action on Climate Change

Done, sorry for the delay.

From: Cummins,Patrick <
Sent: Thursday, June 20, 2019 11:08 AM
To: Walke, Peter <
Subject: FW: Pocantico, July 17-18: Accelerating State Action on Climate Change

Peter –

Will you please take a moment to use the link below to confirm and register for this meeting. If you don't have travel details yet, that's fine. You can provide those later. And, of course, don't hesitate to let me know if you have any questions or need more information.

Thank you, PC

Patrick Cummins
Senior Policy Advisor
Colorado State University
Center for the New Energy Economy

From: Cummins,Patrick
Sent: Wednesday, June 12, 2019 7:18 AM
Subject: Pocantico, July 17-18: Accelerating State Action on Climate Change

Dear Pocantico Participants:

So that we can confirm your attendance, and to provide our Pocantico hosts with some information for your stay, please click here to complete a short registration form.
http://events.constantcontact.com/register/event?llr=fji8qakab&oeidk=a07ege9eh81b217f8f4

We appreciate your participation in this timely gathering of state leaders for an action-oriented conversation on advancing clean energy and climate strategies across the country. Michael, Vicki, and I will touch base with each of you later this month to get further input on the agenda in order to ensure our time together is as productive as possible.

In the meantime, please do not hesitate to contact me with any questions about this event. All the best, PC

p.s. - State officials requiring travel support to attend this meeting can have Travel Leaders Corporate book and pay for their flight/train ticket. You may contact TLC at Georgetown@tlcorporate.com. When requesting travel from TLC, please copy Megan Burnett on the email.

Patrick Cummins
Senior Policy Advisor
Colorado State University
Center for the New Energy Economy

From: Cummins,Patrick on behalf of Cummins,Patrick
Sent: Tuesday, June 25, 2019 11:03 AM EDT
To: Michael Northrop
Subject: RE: Policy Table

Excellent. Yes, late tonight is fine. Just call when you are ready.

Patrick Cummins
Senior Policy Advisor
Colorado State University
Center for the New Energy Economy

From: Michael Northrop < >
Sent: Tuesday, June 25, 2019 8:59 AM
To: Cummins,Patrick <
Subject: Re: Policy Table

Let's say yes to Reed..
I'll try HI again..
I'll ping Dan Burgess.
I'll check out your doc.
Let's talk about agenda. I have some ideas for getting more discussion..
Could we talk late tonight my time? 10pm ish ET? I think we can be quick.
Thanks!

Sent from my iPhone

On Jun 25, 2019, at 10:21 AM, Cummins,Patrick > wrote:

> I've asked them to see if they can format this for printing.
>
> I'm on the road to Santa Fe this afternoon. If we can pick a time to talk I'll make sure I'm stopped somewhere that has cell service.
>
> As far as attendees/registrations:
> - Have not heard from Dan Burgess in Maine
> - I told Katie Mc only 1 from EF and that we prefer it be her
> - Bill does not have any good contacts with HI gov. Have not heard from Lisa.
> - Spoke with Doug Scott again about IL. Still no one in place there other than the state EPA guy.
> - Need you to make the call on Reed Schuler so we can let him know either way
>
> Assuming Reed is yes and that we get Maine, we are at 26 (not counting RMI, which would make 27)
> - 19 state officials
> - 2 RBF, 2 CNEE, and 1 Georgetown
> - 1 WRI, 1 EF
>
> And MT is an open question. I think btw MT and Reed, I'd go with Reed – but your call.
>
> *Patrick Cummins*
> *Senior Policy Advisor*
> *Colorado State University*
> *Center for the New Energy Economy*
>
> ---
>
> **From:** Cummins,Patrick
> **Sent:** Tuesday, June 25, 2019 6:38 AM
> **To:** mnorthrop
> **Subject:** Fwd: Policy Table
>
> Michael,
>
> Here it is. Our team finished this up last night. Yes, I can talk anytime this afternoon. Just let me know what's best for you.
>
> Sent from my iPhone
>
> Begin forwarded message:
>
> > **From:** "Hoffer,Katherine"
> > **Date:** June 24, 2019 at 8:10:05 PM MDT
> > **To:** "Cummins,Patrick"
> > **Subject: Policy Table**

From: Megan Burnett < >
Sent: Thursday, June 20, 2019 10:58 AM EDT
To: georgetown@tlcorporate.com
CC: Cummins,Patrick
Subject: Re: requesting travel support for 7/17-18 Pocantico meeting
Attachment(s): "PC Information Directions E-Mail Updated 0416.doc"

Approved. Please use the following worktags:

GR305676
CC3123
Fund 1802
PP1001
PG999999
Assignee 21512

I reached out to Patrick Cummins who is over logistics of this event (Georgetown is just providing payment for guest travel) and he said the following regarding airports. I copied him on this email so you can have his contact info if needed.

Megan – LaGuardia is best unless they can get a connection into Westchester at a reasonable rate. They all received the attached document that provides detailed info on travel, which should allow them to figure it out. The travel agency should feel free to direct any questions to me or copy me on emails. Thank you, PC

TRAVEL BY AIR

From Westchester/White Plains (20 mins.):

From LaGuardia (40 mins.):

From JFK (1 hour):

On Thu, Jun 20, 2019 at 10:06 AM <georgetown@tlcorporate.com> wrote:

> Hi Megan, he has selected his flights for $ 454.60:
>
> UA 303T 17JUL DENLGA HK1 902A 259P
> UA2416V 18JUL LGADEN HK1 629P 854P
>
> May i please have the work tag numbers.
>
> Best
> Evelyn
>
> **Evelyn Iler**
> Senior Travel Specialist
> 14401 Sweitzer Lane Ste. 650 | Laurel, MD 20707
> t 833-827-9619 | X 6017089 | www.tlcorporate.com
>
> On June 19, 2019, 9:22 AM EDT megan.burnett wrote:
>
> Thank you Evelyn, once he flight is selected I can provide you with the worktags.
>
> **Megan Burnett**
> Georgetown University Law Center
> Centers & Institutes Assistant
>
> On Wed, Jun 19, 2019 at 8:18 AM <georgetown@tlcorporate.com> wrote:
>
> > Good morning Zach & Megan, and thank you for your email. I will need your full legal name and date of birth. If you could provide me with the approx times you would like to leave or arrive, that would be great. I will then send some flight options for you to choose from.

Best regards

Evelyn Iler
Senior Travel Specialist
14401 Sweitzer Lane Ste. 650 | Laurel, MD 20707
t 833-827-9619 | X 6017089 | www.tlcorporate.com

On June 18, 2019, 8:51 PM EDTzach.pierce wrote:

Hello,
I'm joining the July meeting on Accelerating State Climate Action and was directed to reach out to arrange/book travel. I will be traveling from Denver, CO and am happy to hop on the phone this week to work out logistics.

Much appreciated,

Zach

--
Zach Pierce
Senior Policy Advisor, Energy & Natural Resources
Office of Governor Jared Polis

This email is for the use of the intended recipient(s) only and may contain information that may be confidential. If you have received this email in error, please notify the sender immediately and then delete it. If you are not the intended recipient, you must not keep, use, disclose, copy or distribute this email without the author's prior permission. If you are the intended recipient and you do not wish to receive similar electronic messages from us in the future then please respond to the sender to this effect.

--
Megan Burnett
Georgetown University Law Center
Centers & Institutes Assistant

THE POCANTICO CENTER OF THE ROCKEFELLER BROTHERS FUND

TRAVEL DIRECTIONS & CONFERENCE CENTER INFORMATION

THE POCANTICO CENTER of the Rockefeller Brothers Fund is located approximately one hour north of Manhattan in the Pocantico Historic Area, the heart of the Rockefeller family estate in Westchester County, New York. The Historic Area has been a property of the National Trust for Historic Preservation (www.nthp.org) since 1979, when it was willed to the National Trust by Governor Nelson A. Rockefeller. The Pocantico Center includes John D. Rockefeller's home, Kykuit; the surrounding gardens and sculpture collections; and the Coach Barn (Conference Center), which houses guests on the second floor and the family's carriages and vintage automobiles on the first floor. The lower floor has been transformed into a modern meeting facility. The Pocantico Center is maintained and administered by the Rockefeller Brothers Fund (www.rbf.org), a private foundation, which operates the site as an extension of its grantmaking activities under an agreement with the National Trust. The Conference Center provides a unique setting where the RBF brings together people of diverse backgrounds and perspectives from nonprofit organizations and public institutions to engage important issues related to the Fund's philanthropic programs. In addition to conferences, the RBF's Pocantico Programs include stewardship of the historic portion of the estate and oversight of a visitation program at Kykuit, operated on behalf of the Fund by Historic Hudson Valley (www.hudsonvalley.org).

The directions are provided to help direct you to the Conference Center. Please advise the conference organizer of your travel plans, so arrangements can be made to pick you up if needed. All travel plans, including the time of your arrival at Pocantico, must be confirmed. When you arrive at the Main Gate, announce yourself to the security personnel, who will provide you with further directions.

ACCOMMODATIONS

Guests are lodged on the second floor of the Coach Barn (Conference Center) and on the third and fourth floors of Kykuit. All accommodations have a private bath. Hair dryers are also provided in each bedroom and adapters for electric razors are available upon request. Electrical service is 115 volts/60 cycles.

DRESS

In keeping with the Fund's programmatic emphasis on global warming and the desire to mitigate RBF's carbon footprint, guests at Pocantico should dress comfortably according to the season.

SMOKING POLICY

Guests may not smoke indoors, either at Kykuit or in the Coach Barn (Conference Center).

RECREATION

Guests are welcome to stroll the Coach Barn (Conference Center) and Kykuit grounds, including Kykuit's lovely gardens, or may go jogging on the roads and trails outside the estate.

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From: Cummins,Patrick on behalf of Cummins,Patrick
Sent: Friday, June 21, 2019 2:21 PM EDT
To: Ritter Jr,Bill
Subject: RE: some Pocantico things

Will do on EF.

I don't think you need to work on HI then. RBF has a good staff contact but aren't getting a response. Thus the idea of maybe going to the gov if possible.

Overall response for this meeting is very good and, in fact, we're running out of seats. I'm still hoping we can open one up for MT.

Patrick Cummins
Senior Policy Advisor
Colorado State University
Center for the New Energy Economy

From: Ritter Jr,Bill
Sent: Friday, June 21, 2019 12:18 PM
To: Cummins,Patrick < >
Subject: Re: some Pocantico things

Patrick,

I would appreciate it if you would sort out the EF deal, and let them know that is Michael's choice. I don't have a relationship with HI's governor, but we can work on it if you want.

Thanks,

Bill

Sent from my iPad

On Jun 21, 2019, at 12:12 PM, Cummins,Patrick < > wrote:

> Bill –
>
> Michael is adamant that we have 1 person from EF and prefers that it be Katie, who is already registered. Amy, who was to sub for Curtis, is on sabbatical until July 8. Shall I call Katie and sort this out?
>
> Also, he was wondering if you have a relationship with HI Gov Ige. He's very keen to get HI to Pocantico and asked if there's any way you can call the gov?
>
> We also discussed you reaching out to IL, but I just talked to Doug Scott and there's still no one in place there that's a fit for this meeting.
>
> *Patrick Cummins*
> *Senior Policy Advisor*
> *Colorado State University*
> *Center for the New Energy Economy*

From: Ortiz, Melayna, NMENV <
Sent: Friday, June 28, 2019 4:11 PM EDT
To: Cummins,Patrick <
CC: Ely, Sandra, NMENV
Subject: RSVP: Pocantico, July 17-18: Accelerating State Action on Climate Change
Attachment(s): "image001.png"

Good Afternoon Mr. Cummins,

Please accept this email as the RSVP for the upcoming "Accelerating State Action on Climate Change" meeting attendance by New Mexico Environment Department, Environmental Protection Division Director Sandra Ely. We will need additional assistance with travel planning.

Kind regards,

Melayna Ortiz
Executive Secretary & Administrative Assistant
New Mexico Environment Department
1190 St. Francis Drive |Santa Fe, New Mexico 87505
| Fax: (505) 827-1628
Twitter: @NMEnvDep | #IamNMED
www.env.nm.gov

From: Cummins,Patrick on behalf of Cummins,Patrick <
Sent: Friday, June 21, 2019 2:12 PM EDT
To: Ritter Jr,Bill
Subject: some Pocantico things

Bill –

Michael is adamant that we have 1 person from EF and prefers that it be Katie, who is already registered. Amy, who was to sub for Curtis, is on sabbatical until July 8. Shall I call Katie and sort this out?

Also, he was wondering if you have a relationship with HI Gov Ige. He's very keen to get HI to Pocantico and asked if there's any way you can call the gov?

We also discussed you reaching out to IL, but I just talked to Doug Scott and there's still no one in place there that's a fit for this meeting.

Patrick Cummins
Senior Policy Advisor
Colorado State University
Center for the New Energy Economy

From: Cummins,Patrick on behalf of Cummins,Patrick
Sent: Tuesday, May 28, 2019 2:37 PM EDT
To: Ritter Jr,Bill
Subject: EF at Pocantico

Bill – Curtis can't make Pocantico and has suggested Amy Furstenau as an alternate for us to invite from EF. Just checking to confirm that's what I should do. See email string below, including the exchange about background materials. Thanks, PC

From: Michael Northrop
Sent: Tuesday, May 28, 2019 11:12 AM
To: Cummins,Patrick <
Subject: RE: Pocantico July 17-18 - Draft Agenda, Logistics, and Travel Reimbursement

I'm happy to follow Bill's lead on this. Delighted to invite her if it makes sense.

From: Cummins,Patrick
Sent: Tuesday, May 28, 2019 1:11 PM
To: Michael Northrop
Subject: RE: Pocantico July 17-18 - Draft Agenda, Logistics, and Travel Reimbursement

I will double check. He wanted Curtis to get an invite but Curtis can't make it. Amy is the alternate, but maybe it's not essential that we invite her. I will see what Bill thinks before sending.

From: Michael Northrop
Sent: Tuesday, May 28, 2019 10:58 AM
To: Cummins,Patrick
Subject: RE: Pocantico July 17-18 - Draft Agenda, Logistics, and Travel Reimbursement

Thanks.
I was going to ask you about Amy. Bill is supportive of her attending?

From: Cummins,Patrick < >
Sent: Tuesday, May 28, 2019 12:55 PM
To: Michael Northrop >
Cc: Vicki Arroyo >; Joseph.Kruger ; Deborah Burke
Subject: RE: Pocantico July 17-18 - Draft Agenda, Logistics, and Travel Reimbursement

Michael –

CNEE's research staff will get started on background materials related to existing state policies/programs and new legislation in each of the participating states.

I think Mary's idea of a "thought piece" for the different topics is a good one. That could include a description of best practices in terms of state policy/ rules/legislation. We can put our heads together on that when you return. Have a great trip!

All the best, PC

p.s. – I will forward the invite to Amy Furstenau at EF

From: Michael Northrop
Sent: Tuesday, May 28, 2019 8:56 AM
To: Nichols, Mary D. @ARB < >
Cc: Vicki Arroyo >; Cummins,Patrick < >
Subject: Re: Pocantico July 17-18 - Draft Agenda, Logistics, and Travel Reimbursement

Mary,
I'm headed to Africa (Uganda and Ethiopia) tomorrow for 3 weeks. I get back on June 20th.
The plan is to work on the materials when I get back..
All the best,
Michael

Sent from my iPhone

On May 28, 2019, at 10:33 AM, Nichols, Mary D. > wrote:

> Thanks, Michael. I guessed as much. I am looking forward to the meeting.
>
> Mary D Nichols, Chair
> California Air Resources Board

From: Michael Northrop <
Sent: Tuesday, May 28, 2019 3:18:28 PM
To: Nichols, Mary D.
Cc: Vicki Arroyo; Patrick Cummins
Subject: Re: Pocantico July 17-18 - Draft Agenda, Logistics, and Travel Reimbursement

Hi Mary,
We do plan materials but it won't be ready till late June..
Looking forward to seeing you,
Michael

Sent from my iPhone

On May 28, 2019, at 6:24 AM, Nichols, Mary D. wrote:

> This looks good. Will there be some materials to look at in advance? Can Georgetown prepare a thought piece, or even just a summary of what the participants are doing?
>
> Mary D Nichols, Chair
> California Air Resources Board

From: Cummins,Patrick on behalf of Cummins,Patrick
Sent: Thursday, May 30, 2019 9:52 AM EDT
To: Ritter Jr,Bill
Subject: EF Question on Pocantico

Bill –

See below from Curtis. Will you please make the call on his question about Katie. If it were up to me, I would say yes. Good for us to have her there and from what Michael told me about max # of attendees, we should be fine. (He said 28 and we would be at 26 with Katie.) I will reply to Curtis after I hear back from you.

And I can explain to him why other states weren't invited. Or, in some cases were invited but didn't have anyone to send (IL, MN).

Thank you, Patrick

From: Curtis Seymour <
Sent: Wednesday, May 29, 2019 3:34 PM
To: Cummins,Patrick < >; Amy Fuerstenau <
Cc: Katie McCormack
Subject: Re: Pocantico July 17-18 - Draft Agenda, Logistics, and Travel Reimbursement

Thanks Patrick. I know Amy is planning to attend this. I am wondering if it might also make sense for Katie to join, given the heavy focus on policy and western states. If only one EF person can attend, I understand, and we'll coordinate internally on that.

One thing I noticed is that there is no representation from Midwestern or Southeastern states. We would be happy to help make introductions via our teams in each of those regions if that is helpful. I expect there may be interest from at least MN, MI, IL, WI, NC and VA.

Best,
Curtis

Curtis Seymour

ef.org | **twitter** @EnergyFdn

From: "Cummins,Patrick"
Date: Tuesday, May 28, 2019 at 2:02 PM
To: Curtis Seymour Amy Fuerstenau
Cc: Katie McCormack
Subject: FW: Pocantico July 17-18 - Draft Agenda, Logistics, and Travel Reimbursement

Amy / Curtis – Following up on our previous emails and discussion, here is the info on the Pocantico meeting. Hoping you can attend, Amy. Happy to discuss and answer any questions about this meeting. More info to follow in late June. All the best, PC

Patrick Cummins
Senior Policy Advisor
Colorado State University
Center for the New Energy Economy

From: Michael Northrop
Sent: Monday, May 27, 2019 8:18 PM
To: dale.bryk ; 'Kathleen Frangione' >; Kathleen Theoharides (kathleen.theoharides) <kathleen.theoharides ; katie.dykes ; kristen.sheeran ; Nichols, Mary D. >; kate.gordon ; Davis, Chris (GOV) <c >; Toor - CEO, Will < Brad Crowell David Bobzien >; 'Janet Coit' <j >; Burgess, Dan ; sarah.propst ; james.kenney ; zach.pierce ; ben.grumbles peter.walker
Cc: Ritter Jr,Bill < ; Vicki Arroyo < >; Joseph Kruger >; Cummins,Patrick < >; Michael Northrop < >; Deborah Burke >
Subject: Pocantico July 17-18 - Draft Agenda, Logistics, and Travel Reimbursement

We are moving ahead with the July 17-18 Pocantico Center meeting on Accelerating State Climate Action. We've heard from most of you and are looking forward to seeing you at Pocantico on July 17th. Please arrive by 5:00pm at the latest. Time is in short supply so we are planning a dinner and after dinner program and an early start on July 18th. We plan to adjourn by 4:00pm on the 18th.

Please see attached a draft agenda, directions to Pocantico, and travel reimbursement forms from the Georgetown Climate Center.

Please be in touch with Patrick Cummins if you want to talk about the agenda and/or logistics.

We look forward to seeing you in July for this important meeting.

Sincerely,

Bill Ritter, Jr.
Director, Center for the New Energy Economy
41st Governor of Colorado

Vicky Arroyo
Georgetown Climate Center
Georgetown Law School

Michael Northrop
Program Director
Rockefeller Brothers Fund

From: Shelby McMichael < >
Sent: Monday, June 10, 2019 12:57 PM EDT
To: Cummins,Patrick
Subject: FW: "Accelerating State Action on Climate Change": Questions on behalf of Kate Gordon

Hi Patrick,

I was referred to you by Megan (see below) for event-related questions for the “Accelerating State Action on Climate Change” convening. I am currently planning Kate Gordon’s travel, including flights, and I was wondering if most attendees are planning to fly out Thursday (6/18) evening or the next morning? For those planning to fly out Friday morning, are they planning on staying at the Center on Thursday night or will they have to find other accommodations?

Let me know if this is all clear. Thank you!

Best,

Shelby McMichael | Executive Fellow
California Health in All Policies Task Force
California Strategic Growth Council
(

From: Megan Burnett < >
Sent: Friday, June 7, 2019 11:22 AM
To: Shelby McMichael < >
Subject: Re: "Accelerating State Action on Climate Change": Questions on behalf of Kate Gordon

Hello Shelby,

Yes the Climate Center can reimburse her for her airfare, ground transportation and any meals during her travel. Example: lunch at the airport. She will just need to hold onto copies of her receipts and add them to the reimbursement request you will send after her travel.

For lodging, registration and any other information related to the event please contact Patrick Cummins

Best,
Megan

Megan Burnett
Georgetown University Law Center
Centers & Institutes Assistant

On Fri, Jun 7, 2019 at 2:15 PM Shelby McMichael < > wrote:

> Hi Megan,
>
> My name is Shelby McMichael and I will be taking over for Taryn Akiyama as Kate Gordon’s speaking events liaison. I am in the process of submitting her out-of-state travel request and trying to get a sense of what her total expenses approximately will be for her trip to The Pocantico Center. From the information that you provided to Taryn, it is my understanding that Kate’s flights and ground transportation will be reimbursed, and her lodging will be on-site and already covered. Is this correct?
>
> With this in mind, I am also wondering what the protocol is for food-related reimbursement, beyond the meals provided at the Center?
>
> Let me know. Thank you!
>
> Best,
> Shelby
>
> Shelby McMichael | Executive Fellow
> California Health in All Policies Task Force
> California Strategic Growth Council
> (

From: Cummins,Patrick on behalf of Cummins,Patrick
Sent: Wednesday, June 05, 2019 12:00 PM EDT
To: Hartzell,Wendy >
Subject: FW: Accelerating U.S. State Action on Climate Change on Wednesday, July 17 – Thursday, July 18, 2019
Attachment(s): "PC Information Directions E-Mail Updated 0416.doc","TransportationOptionsOctober2018.docx","ParticipantInformationExcel-2019.xlsx"

For our discussion of a registration form….

Patrick Cummins
Senior Policy Advisor
Colorado State University
Center for the New Energy Economy

From: Regina Creegan < >
Sent: Thursday, May 9, 2019 8:00 PM
To: Cummins,Patrick
Cc: Deborah Burke Sonia Jagtiani
Subject: Accelerating U.S. State Action on Climate Change on Wednesday, July 17 – Thursday, July 18, 2019
Importance: High

Dear Patrick,

I'm looking forward to working with you or anyone else on the team on the logistics of the Accelerating U.S. State Action on Climate Change on Wednesday, July 17 – Thursday, July 18, 2019.

Attached is a "generic" list of logistical questions which will give you an idea of the information we will need to get from you a week to 10 days prior to your meeting. In addition, I am attaching a "Participant Information" Excel spreadsheet which you need to complete (using our form) and return to us at least one week before the conference, if not earlier. **When completing the form, please be advised that column "S" is optional and has been included to assist the RBF in its effort to help build a more just, sustainable and peaceful world. By collecting this data, you will be helping us to identify and measure the diversity of conference participants.** Transportation information can be entered on the additional sheets of this document to track travel details or other pertinent information, if you wish.

Additional Pocantico Facilities information can be found:http://www.rbf.org/sites/default/files/meeting_rooms_v4.pdf

I am also attaching an on-line brochure with information about staying at Pocantico and travel directions, which you can send to the confirmed participants and a Transportation Options document with information about ground transportation arrangements to the Center. Of the car services given, our preference is **Tri-State Limousine Service (877.510.5466)** and our contact there is Joe Soleiman. To transport guests between the local hotels, train stations, and Pocantico, it will be more economical to use a local taxi. Prices on document are subject to change.

Copies of our Lobbying Memo and RBF Disclaimer also attached for your information.

The menus are attached as well, you will need to select a reception item, 1st course and main course and dessert for Wednesday evening and a luncheon menu and dessert for Thursday. Let me know if you have any questions. I will need the selections 1 week ahead of the meeting. You can highlight them in different colors and add the date if you prefer and send the selections back to me. Please note the dietary restrictions on the participant excel sheet and the caterer will take care of selecting a menu for those with dietary requests.

Please also note that professional conduct of attendees is expected at all times.

As I said earlier I'm looking forward to working with you on the logistics of this meeting. In the meantime, should you have any additional questions or if I can be of assistance to you, please don't hesitate to contact me at or by e-mail at

Regards,
Regina

Regina Creegan, Director, Conferences and Administration
The Pocantico Center of the Rockefeller Brothers Fund
200 Lake Road, Pocantico Hills | Tarrytown, NY 10591

	A	B	C	D	E	F	G	H	I	J
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1	**Last Name**	**First Name**	**Approximate time of Arrival at PCC**	**Mode of Transportation to PCC i.e. PMV / Limo**	**Name of Arriving Airport and Flight Information**	**Method of Transportation from Arriving Airport to PCC**	**Travel by Train to PCC**	**Taxi from Train Station**	**Time of Departure from PCC**	**Name of Departure Airport and Flight Information**

	K	L
1	**Method of Transportation from PCC to Departure Airport**	**Taxi to Train Station**

THE POCANTICO CENTER OF THE ROCKEFELLER BROTHERS FUND

TRAVEL DIRECTIONS & CONFERENCE CENTER INFORMATION

THE POCANTICO CENTER of the Rockefeller Brothers Fund is located approximately one hour north of Manhattan in the Pocantico Historic Area, the heart of the Rockefeller family estate in Westchester County, New York. The Historic Area has been a property of the National Trust for Historic Preservation (www.nthp.org) since 1979, when it was willed to the National Trust by Governor Nelson A. Rockefeller. The Pocantico Center includes John D. Rockefeller's home, Kykuit; the surrounding gardens and sculpture collections; and the Coach Barn (Conference Center), which houses guests on the second floor and the family's carriages and vintage automobiles on the first floor. The lower floor has been transformed into a modern meeting facility. The Pocantico Center is maintained and administered by the Rockefeller Brothers Fund (www.rbf.org), a private foundation, which operates the site as an extension of its grantmaking activities under an agreement with the National Trust. The Conference Center provides a unique setting where the RBF brings together people of diverse backgrounds and perspectives from nonprofit organizations and public institutions to engage important issues related to the Fund's philanthropic programs. In addition to conferences, the RBF's Pocantico Programs include stewardship of the historic portion of the estate and oversight of a visitation program at Kykuit, operated on behalf of the Fund by Historic Hudson Valley (www.hudsonvalley.org).

The directions are provided to help direct you to the Conference Center. Please advise the conference organizer of your travel plans, so arrangements can be made to pick you up if needed. All travel plans, including the time of your arrival at Pocantico, must be confirmed. When you arrive at the Main Gate, announce yourself to the security personnel, who will provide you with further directions.

ACCOMMODATIONS

Guests are lodged on the second floor of the Coach Barn (Conference Center) and on the third and fourth floors of Kykuit. All accommodations have a private bath. Hair dryers are also provided in each bedroom and adapters for electric razors are available upon request. Electrical service is 115 volts/60 cycles.

DRESS

In keeping with the Fund's programmatic emphasis on global warming and the desire to mitigate RBF's carbon footprint, guests at Pocantico should dress comfortably according to the season.

SMOKING POLICY

Guests may not smoke indoors, either at Kykuit or in the Coach Barn (Conference Center).

RECREATION

Guests are welcome to stroll the Coach Barn (Conference Center) and Kykuit grounds, including Kykuit's lovely gardens, or may go jogging on the roads and trails outside the estate.

TELEPHONE, FACSIMILE & BUSINESS CENTER

Each bedroom at the Coach Barn (Conference Center) and Kykuit has a private telephone number with voice mail, and phone calls may be received 24 hours a day. During conference sessions messages will be taken by the center's staff at 914.524.6500. Facsimile messages may be sent during normal business hours from the Conference Center. Faxes are received 24 hours a day at 914.524.6550 and distributed as promptly as possible. Computers are available for the use of conferees in the business center of the Conference Center with IBM-compatible machines, as well as commonly used word-processing, presentation, spreadsheet programs and high speed Internet access. Please note, however, that computer assistance is not available. Wireless Internet access is available in the entire Coach Barn (Conference Center) building as well as on the bedroom floors at Kykuit.

SUSTAINABLE PRACTICES AT POCANTICO

The Pocantico staff is committed to incorporating responsible environmental practices in all aspects of its operation. Green initiatives at Pocantico to date include renewable energy, through the purchase of 100% wind-generated electricity; the use of green cleaning products; a recycling program; and the option for towel and linen reuse.

It is a goal to incorporate sustainable building practices in ongoing maintenance and capital improvement projects and we endeavor to serve sustainable seafood and locally grown food.

In addition, a portion of the conference fees are utilized to acquire Green Tags [Renewable Energy Certificates (RECs)] from *Native*Energy (www.nativeenergy.com) to offset greenhouse gas emissions associated with conference attendees' travel to/from the Pocantico Center. This purchase will be dedicated to help finance new wind farm projects in the United States.

WEATHER

Temperatures at the Pocantico Center vary considerably with the four seasons. Winter can be quite cold, with either rain or snowfall, while summers are often hot and humid. You may find the following chart of average temperatures in New York City useful. The weather at the Conference Center is usually a few degrees cooler.

January	32°	(0° C)
February	34°	(1° C)
March	41°	(5° C)
April	52°	(12° C)
May	62°	(17° C)
June	71°	(22° C)
July	76°	(25° C)
August	76°	(25° C)
September	69°	(21° C)
October	58°	(15° C)
November	47°	(8° C)
December	36°	(2° C)

THE POCANTICO CENTER OF
THE ROCKEFELLER BROTHERS FUND
200 Lake Road
Tarrytown, New York 10591
Tel: (914) 524-6500 Fax: (914) 524-6550

The Pocantico Center of the Rockefeller Brothers Fund is located in the village of Tarrytown, 25 miles north of New York City on the Hudson River. From New York City, it takes approximately one hour to reach Pocantico by car (up to two if traffic is heavy) or forty minutes by train.

TRAVEL BY AIR

From Westchester/White Plains (20 mins.): Travel south on I-684 to Route 287 West. From 287 West, take exit 3, Sprain Brook Parkway North. Exit at the first ramp (1.5 miles) to Eastview. Turn left at exit ramp traffic light onto Route 100C. Follow road approx. 2 miles, past reservoir on your left(becomes Old Saw Mill River Road). Make a right at the stop sign onto Lake Road. Drive uphill for 0.6 miles to the main entrance on the left.

From LaGuardia (40 mins. +): Travel west on Grand Central Pkwy to I-278 over Triborough Bridge. Follow signs to I-87 (Major Deegan). Stay on I-87 to exit 7-A (Saw Mill River Parkway – Taconic Parkway). Continue on the Saw Mill Parkway North to Exit 23 (Eastview). At the foot of the exit ramp, turn left onto an unmarked road and drive about 0.6 miles beside a reservoir to the first right turn (Lake Road). Drive uphill for 0.6 miles to the main entrance on the left.

From JFK (1 hour +): Take the Van Wyck Expressway to the Whitestone Bridge exit. From the Whitestone Bridge follow signs to the Hutchinson River Parkway. Continue on the Parkway to Interstate 287 West (White Plains Exit). Drive west on 287 (Cross Westchester Expressway) to Exit 3 - Sprain Brook Parkway. Drive north 1.5 miles to Route 100C-Eastview Exit and turn left at the top of the ramp onto Route 100 C. After 1 mile this road bears to the right and becomes Old Saw Mill River Road. Proceed straight 1.2 miles under the Union Carbide building, under the Saw Mill River Parkway and beside a reservoir. Turn right at Lake Road and drive uphill for 0.6 miles to the main entrance on the left.

TRAVEL BY TRAIN

From Grand Central Station in New York City (42nd Street at Madison Avenue), take the Metro-North train to Tarrytown, which is on the Hudson Line. Trains run quite frequently: on weekdays, approximately every half hour. Taxis are available at the train station.

TRAVEL BY CAR

FROM MANHATTAN, West Side: Take the West Side Highway north, which will turn into the Henry Hudson Parkway, and then into the Saw Mill River Parkway. Get off at the Saw Mill River Road - Eastview Exit 23. At the foot of the exit ramp, turn left onto an unmarked road and drive about 0.6 miles beside a reservoir to the first right turn (Lake Road). Drive uphill for 0.6 miles to the main entrance on the left.

FROM MANHATTAN, East Side: Take the F.D.R. Drive north to the Triborough Bridge (follow lanes marked "Bronx" and "Thruway") and onto the Major Deegan Expressway (Interstate 87). The Major Deegan will turn into the N.Y. Thruway. Get off the Thruway at Exit 7A (Saw Mill River Parkway - Taconic Parkway). Continue on the Saw Mill River Parkway to the Saw Mill River Road - Eastview Exit 23. At the foot of the exit ramp, turn left onto an unmarked road and drive about 0.6 miles beside a reservoir to the first right turn (Lake Road). Drive uphill for 0.6 miles to the main entrance on the left.

FROM NEW JERSEY AND UPPER NEW YORK STATE: Follow the N.Y. Thruway (Interstate 87-287) across the Tappan Zee Bridge to Exit 9, about 0.2 miles past the tollbooths. Follow U.S. 9 north 1.6 miles to Route 448 (Bedford Road) at North Tarrytown. Turn right and drive 1.5 miles on Bedford Road to a stop sign. Turn right to main entrance.

FROM UPPER WESTCHESTER AND NEW ENGLAND: Drive south on the Saw Mill River Parkway to the Saw Mill River Road - Eastview Exit 23. At the foot of the exit ramp, turn right onto an unmarked road and drive about 0.6 miles beside a reservoir to the first right turn (Lake Road). Drive uphill for 0.6 miles to the main entrance on the left.

FROM CONNECTICUT: From the Merritt Parkway or Connecticut Turnpike, turn right onto Interstate 287 (Cross Westchester Expressway) westbound to Exit 3- Sprain Brook Parkway. Drive north 1.5 miles to Route 100C-Eastview Exit and turn left at the top of the ramp onto Route 100 C. After 1 mile this road bears to the right and becomes Old Saw Mill River Road. Proceed straight 1.2 miles under the Union Carbide building, under the Saw Mill River Parkway and beside a reservoir. Turn right at Lake Road and drive uphill for 0.6 miles to the main entrance on the left.

FROM LONG ISLAND: From either the Bronx-Whitestone Bridge or the Throgs Neck Bridge, follow signs to the Hutchinson River Parkway. Continue on the Parkway to Interstate 287 West (White Plains Exit). Drive west on 287 (Cross Westchester Expressway) to Exit 3 - Sprain Brook Parkway. Drive north 1.5 miles to Route 100C-Eastview Exit and turn left at the top of the ramp onto Route 100 C. After 1 mile this road bears to the right and becomes Old Saw Mill River Road. Proceed straight 1.2 miles under the Union Carbide building, under the Saw Mill River Parkway and beside a reservoir. Turn right at Lake Road and drive uphill for 0.6 miles to the main entrance on the left.

●Nearest Airports:

The closest airports to the Pocantico Center are:

- **Westchester/White Plains Airport** (20 min. Driving distance to Pocantico)
- **La Guardia**, 8 miles (13km) east of Manhattan (about 40 min. driving distance to Pocantico)
- **John F Kennedy (JFK)**, 15 miles (24km) southeast of midtown Manhattan (1+ hour drive time to Pocantico)
- **Newark**, 10 miles (16km) west of Manhattan in New Jersey (1+ hour drive time to Pocantico)

●Trans Transportation Options from the Airports and New York City:

Comme **Commercial pick-up service** is available, with advance reservation. The car services below are familiar location of the P of the Pocantico Center. If you use any other car or taxi service, please note that the directions provid provided on the next page will likely be necessary for your driver, ocation of the Conference Center is not generally well-kno well-known outside the area. Each of the companies below redit cards.

Airport/NYC to Pocantico	Hired Town Car: **Tri-State Limousine** 914-592-5466 1-877-510-5466 gratuity +tolls included plus tax, if applicable	Hired Town Car: **Red Oak Transportation** 914-694-2222 gratuity, tax + tolls included	Local Taxi: **National Taxi/Limo Service** 914-366-0202 gratuity + tolls included plus tax, if applicable	Hired Town Car: **Green World Transport** 1-877-85 GREEN Green car not always available. gratuity, tax + tolls included
White Plains	**$66** / **$120 for Van** + parking	**$78 / $174 SUV** + parking	**$52** + parking	**$56 / $80 for SUV** + parking
LaGuardia	**$113 / $227 for Van** + parking	**$106 / $202 SUV** + parking	**$108** + parking	**$109 / $136 for SUV** + parking
JFK	**$131 / $227 for Van** + parking	**$120 / $216 SUV** + parking	**$128** + parking	**$123 / $151 for SUV** + parking
Newark	**$176.70 / $242.70 for Van** + parking	**$142 / $238 SUV** + parking	**$142** + parking	**$151 / $169 for SUV** + parking
NYC Midtown **NYC Downtown**	**$130 / $226 for Van** **$142.00 / $226 for Van**	**$126/222 SUV** **$144/240 SUV**	**$120** **$132**	**$93.22 / $119.26 for SUV** **$105.03 / 131.95 for SUV**

Bus service is available to both Tarrytown and Manhattan from the Airports. If you go to Manhattan, train service is available from there to Tarrytown (details below). It takes approximately 30 – 60 minutes to get to Grand Central Station from the airports by Express Bus or Taxi (longer at peak hours – cost and information below). Train service to Tarrytown is approximately 40 minutes, and the Pocantico Center is about 10 minutes from the train station by taxi. All totaled, plan on about 2 ½ - 3 hours from the airport to the Center by public transportation. Getting to the train departure point of Grand Central Station in Manhattan is possible by taxi or express bus. Express Bus information is below:

Airport	*Service*	*Cost*	*Approximate Frequency*	*Approximate Travel Time to Manhattan*
LaGuardia	**New York City Airport Service Express Bus** à Midtown Manhattan Grand Central Terminal (41st Street between Lexington and 3rd Avenues. In front of 140 E. 41st St. (718) 777-5111	**$15** **$28** **R/T**	Every 30 minutes 5:00 AM to 11:30 PM	30 - 60 minutes, longer at peak hours
JFK		**$18** **$34** **R/T**	Every 30 minutes 5:00 AM to 11:30 PM	50 - 70 minutes, longer at peak hours
Newark	**Newark Olympia Trails Bus Co.** à Midtown Manhattan/East Side Grand Central Terminal (Between Park & Lexington Ave) (877) 8NEWARK	**$17** **$29** **R/T**	Every 15 minutes during day 30 minutes before 6:45 AM & after 11:15 PM NYC to EWR 4:45 AM to 1:45 AM EWR to NYC 4:00 AM to 1:00 AM	30-60 minutes, longer at peak hours
LaGuardia/ JFK	**Red Dot Shuttle Service** à Tarrytown, NY Drop off at Westchester Marriott/Sheraton/Doubletree (800-673-3368) Then take a local taxi to the Conference Center, about a 15-minute ride	**$68** **$18**	Within 45 minutes of landing time	1 - 1.5 hours, Depending on traffic

- **Directions to the Pocantico Center by Train:**

From Grand Central Station in New York City (42nd Street at Madison Avenue), take the Metro-North train to Tarrytown, which is on the Hudson Line. Trains run quite frequently: on weekdays, approximately every half hour. The train from Grand Central to Tarrytown has a one-way peak fare $13.50; one-way off-peak fare is $10.25. There are taxis located at the Tarrytown station. Taxi fare is approximately $18.00.

DRIVING DIRECTIONS TO THE POCANTICO CENTER OF THE ROCKEFELLER BROTHERS FUND

200 Lake Road, Tarrytown, New York 10591 (25 miles north of New York City on the Hudson River)
(914) 524-6500

From Westchester/White Plains Airport (20 mins.): Travel south on I-684 to Route 287 West. From 287 West, take exit 3, Sprain Brook Parkway North. Exit at the first ramp (1.5 miles) to Eastview. Turn left at exit ramp traffic light onto Route 100C. Follow road approx. 2 miles, past reservoir on your left (becomes Old Saw Mill River Road). Make a right at the stop sign onto Lake Road. Drive uphill for 0.6 miles to the main entrance on the left.

From LaGuardia Airport (~40 mins.): Travel west on Grand Central Parkway to I-278 over Triborough Bridge. Follow signs to I-87 (Major Deegan). Stay on I-87 to exit 7-A (Saw Mill River Parkway – Taconic Parkway). Continue on the Saw Mill Parkway North to the Saw Mill River Road - Eastview Exit 23. At the foot of the exit ramp, turn left onto an unmarked road and drive about 0.6 miles beside a reservoir to the first right turn (Lake Road). Drive uphill for 0.6 miles to the main entrance on the left.

From JFK Airport (1+ hour): Take the Van Wyck Expressway to the Whitestone Bridge exit. From the Whitestone Bridge follow signs to the Hutchinson River Parkway. Continue on the Parkway to Interstate 287 West (White Plains Exit). Drive west on 287 (Cross Westchester Expressway) to Exit 3 - Sprain Brook Parkway. Drive north 1.5 miles to Route 100C-Eastview Exit and turn left at the top of the ramp onto Route 100 C. After 1 mile this road bears to the right and becomes Old Saw Mill River Road. Proceed straight 1.2 miles under the Union Carbide building, under the Saw Mill River Parkway and beside a reservoir. Turn right at Lake Road and drive uphill for 0.6 miles to the main entrance on the left.

FROM MANHATTAN, West Side: Take the West Side Highway north, which will turn into the Henry Hudson Parkway, and then into the Saw Mill River Parkway. Get off at the Saw Mill River Road - Eastview Exit 23. At the foot of the exit ramp, turn left onto an unmarked road and drive about 0.6 miles beside a reservoir to the first right turn (Lake Road). Drive uphill for 0.6 miles to the main entrance on the left.

FROM MANHATTAN, East Side: Take the F.D.R. Drive north to the Triborough Bridge (follow lanes marked “Bronx” and “Thruway”) and onto the Major Deegan Expressway (Interstate 87). The Major Deegan will turn into the N.Y. Thruway. Get off the Thruway at Exit 7A (Saw Mill River Parkway - Taconic Parkway). Continue on the Saw Mill River Parkway to the Saw Mill River Road - Eastview Exit 23. At the foot of the exit ramp, turn left onto an unmarked road and drive about 0.6 miles beside a reservoir to the first right turn (Lake Road). Drive uphill for 0.6 miles to the main entrance on the left.

FROM NEW JERSEY AND UPPER NEW YORK STATE: Follow the N.Y. Thruway (Interstate 87-287) across the Tappan Zee Bridge to Exit 9, about 0.2 miles past the tollbooths. Follow U.S. 9 north 1.6 miles to Route 448 (Bedford Road) at North Tarrytown. Turn right and drive 1.5 miles on Bedford Road to a stop sign. Turn right to main entrance.

FROM UPPER WESTCHESTER AND NEW ENGLAND: Drive south on the Saw Mill River Parkway to the Saw Mill River Road - Eastview Exit 23. At the foot of the exit ramp, turn right onto an unmarked road and drive about 0.6 miles beside a reservoir to the first right turn (Lake Road). Drive uphill for 0.6 miles to the main entrance on the left.

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Mill River Road. Proceed straight 1.2 miles under the Union Carbide building, under the Saw Mill River Parkway and beside a reservoir. Turn right at Lake Road and drive uphill for 0.6 miles to the main entrance on the left.

From: Cummins,Patrick on behalf of Cummins,Patrick
Sent: Monday, June 10, 2019 6:45 PM EDT
To: Hartzell,Wendy
Subject: FW: Bill Ritter has registered for your event

From: donotreply_eventspot@constantcontact.com <donotreply_eventspot@constantcontact.com>
Sent: Monday, June 10, 2019 4:45 PM
To: Cummins,Patrick
Subject: Bill Ritter has registered for your event

This is an informational email to inform you that a registrant has registered for your event. Please do not reply to this message. Replies to this message are routed to an unmonitored mailbox.

Accelerating State Action on Climate Change

Registration Information:

First Name:	Bill
Last Name:	Ritter
Email Address:	
Phone:	
Prefix:	Mr
Cell Phone:	

Organization Information:

Job Title:	Director
Department:	Center for the New Energy Economy
Company:	Center for the New Energy Economy
Address 1:	475 17th Street, Suite 450
City:	Denver
State:	Colorado
ZIP Code:	80202

Other Logistics:

Mode of Travel	Flight
Name of Arriving Airport and Arrival Time:	LGA, United, TBD
Name of Departing Airport and Departure Time:	LGA, United TBD
Please note any dietary restrictions:	N/A

Travel to the Pocantico Center:

From: Cummins,Patrick on behalf of Cummins,Patrick < >
Sent: Wednesday, June 05, 2019 9:48 AM EDT
To: pamalloy >
CC: Deborah Burke
Subject: FW: Pocantico July 17-18 - Draft Agenda, Logistics, and Travel Reimbursement
Attachment(s): "Draft Agenda - Pocantico July 17-18.docx-VA.docx","PC Information Directions E-Mail Updated 0416.doc","Georgetown University Travel Reimbursement Guidelines.docx","Reimbursement LetterTemplate.docx"

Pat – See below and attached for the information you requested. Please do not hesitate to contact me with any questions or if you need additional information. As this is a private retreat center, there is no need for you to book hotel accommodations.

Also please note that:
State officials requiring travel support to attend this meeting can have Travel Leaders Corporate book and pay for their flight/train ticket. You may contact TLC at Georgetown@tlcorporate.com. When requesting travel from TLC, please copy Megan Burnett on the email.

Patrick Cummins
Senior Policy Advisor
Colorado State University
Center for the New Energy Economy

From: Michael Northrop
Sent: Monday, May 27, 2019 8:18 PM
To: dale.bryk ; 'Kathleen Frangione' < >; Kathleen Theoharides (kathleen.theoharides) >; katie.dykes ; kristen.sheeran ; Nichols, Mary D. @ARB >; kate.gordon ; Davis, Chris (GOV) <chris.davis Toor - CEO, Will < >; Brad Crowell (>; David Bobzien < >; 'Janet Coit' v>; Burgess, Dan < >; sarah.propst ; james.kenney ; zach.pierce ; ben.grumbles ; peter.walker
Cc: Ritter Jr,Bill < >; Vicki Arroyo < >; Joseph Kruger >; Cummins,Patrick >; Michael Northrop < >; Deborah Burke
Subject: Pocantico July 17-18 - Draft Agenda, Logistics, and Travel Reimbursement

We are moving ahead with the July 17-18 Pocantico Center meeting on Accelerating State Climate Action. We've heard from most of you and are looking forward to seeing you at Pocantico on July 17th. Please arrive by 5:00pm at the latest. Time is in short supply so we are planning a dinner and after dinner program and an early start on July 18th. We plan to adjourn by 4:00pm on the 18th.

Please see attached a draft agenda, directions to Pocantico, and travel reimbursement forms from the Georgetown Climate Center.

Please be in touch with Patrick Cummins if you want to talk about the agenda and/or logistics.

We look forward to seeing you in July for this important meeting.

Sincerely,

Bill Ritter, Jr.
Director, Center for the New Energy Economy
41st Governor of Colorado

Vicky Arroyo
Georgetown Climate Center
Georgetown Law School

Michael Northrop
Program Director
Rockefeller Brothers Fund

Draft Agenda

Accelerating State Action on Climate Change

The Pocantico Center

200 Lake Road

Tarrytown, New York

July 17-18, 2019

This meeting will provide an opportunity for officials from leadership states taking action on climate change to share information on recent developments in their states and to strategize together on the most promising ways to accelerate the pace of action in response to the increasingly ambitious climate goals being established by these states' governors and state legislatures. The group will also discuss how state action can influence federal action and how U.S. federal action needs to be positioned within the global climate negotiations.

Wednesday, July 17

6:00 pm Reception in Loggia area of the Coach Barn

7:00 Dinner

8:30 Hayloft conversation on the international climate negotiation, and on how states are setting science-based targets. Opening remarks:
Dr. Andrew Steer, President and CEO, World Resources Institute
Kathleen Frangione, Chief Policy Advisor to Governor Phil Murphy

Thursday, July 18

7:00 am Breakfast buffet available in Coach Barn

8:00 Agenda Review and Meeting Objectives, Governor Bill Ritter, CNEE

8:15 **100% Renewable and Clean Energy Standards**

- Overview of state policies and recent legislation
- Working together on implementation
  - Next steps for RGGI
  - Coordination on the Western grid
- What's needed now to hit long-term goal of 100% clean electricity?

9:15 **Meeting the Challenges Posed by the Transportation Sector**

- Update on federal vehicle standards and states' response
  - How can states work together to establish ambitious federal and state emission standards for new cars and trucks?
- Status of Transportation and Climate Initiative
  - What can other states learn from this effort?
- Discussion of other strategies to address CO2 emissions from transportation (e.g., Low-Carbon Fuel Standards; incentives for vehicle purchases and charging infrastructure, etc.)

10:30 Break

10:45 **Net Zero Buildings**

- Standard Setting and Retrofits
- Reducing the Use of Natural Gas in Buildings
- Electrification

12:00 pm Lunch

1:00 **Industrial Sources, Oil & Gas, Methane, and HFCs**

Moving industrial sources away from fossil fuels and onto clean energy sources poses a set of challenges similar to those associated with buildings in terms of efficiency, retrofits and electrification. In addition, some states face the issue of a rapidly expanding oil & gas sector and associated methane emissions.

- What are tools, policies and incentives states can use to make progress in these sectors?
- Examples of state action on HFCs and methane – model rule/legislation?

2:15 Break

2:30 **Carbon pricing strategies**

- Update on WCI and Oregon
- Opportunities to expand existing programs (RGGI, TCI, WCI) and enhance collaboration between programs
- Carbon tax

3:30 **Action items and follow up**

- Group actions by leadership states
- Outreach / support for opportunity states
- Opportunity to impact the national conversation
- Participation in upcoming COPs in Santiago and London
- Should we meet again?

4:00 Adjourn

Dear Friends,

Please find below the details on the reimbursement process for travel expenses incurred for participation in a meeting facilitated by the Georgetown Climate Center.

REIMBURSEMENT OF TRAVEL COST: We will need the following materials to process a reimbursement:
1) The reimbursement request letter, 2) the originals of all supporting documents for all expenses to be reimbursed, and 3) registry of payee in the University online system.

1) At the end of your travel, please send a detailed letter outlining the expenses for which you seek reimbursement, along with supporting documents, signed by the traveler to Megan Burnett by email at the following address: megan.burnett@georgetown.edu

A template of the travel reimbursement letter is provided in Word format for your convenience. You may use this template to create the reimbursement request letter (see item 1 above).

2) In order to process the reimbursement we will need you to submit all original documents for your travel, including:
    I. The itinerary, showing the price of the ticket and confirmation of payment by you;
    II. The boarding passes for each leg of your flight/train travel; and
    III. All receipts for any other travel-related expense for which you are requesting reimbursement.

    Mileage will be reimbursed at the 2019 standard of $0.54 per mile. Your mileage reimbursement request will need to be accompanied by a MapQuest print-out indicating start and end point and total mileage for the specific trip. Please see the Georgetown University Guidelines on the next page for additional information.

3) In order for Georgetown to issue a check, we will need to have you or your agency registered in the University online payee system. The W9 form has recently been updated and all payees will need to complete a new form through the online system even if they have received a payment from the University in the past. Please complete the online registry at https://georgetown.secure.force.com/gusupplier

    If the reimbursement will be made to your departments/agencies, we will need the agency to be registered in the University System. If the reimbursement is in your name, please provide your personal information on the University web system. Once you have completed the online registry, please let me know the ID number you were issued so that I can follow up internally to process the reimbursement.

    If you already have registered as a supplier in the past you can search for your supplier number here: https://georgetown.app.box.com/s/7reegi1w15s6cx0src2n

Please do not hesitate to contact me at megan.burnett@georgetown.edu if you need any additional information. Thank you and we look forward to your participation.

Regards,
Megan

Expenses	Current Allowed Rate	Documentation Needed for Reimbursement and Procurement Card Transactions
Airfare	Actual cost of less-than-first class ticket; business class allowed for international travel.	Original airline ticket passenger receipt (it's the "passenger receipt" coupon, looks just like the ticket, but says "passenger receipt"), usually the last coupon in the ticket book **Electronic Ticketing:** documentation required for E- tickets (air or rail) would be the original boarding passes and a printout of the Internet order aka "Itinerary/Receipt" that includes credit card payment information. If the "Itinerary/ Receipt" does not show credit card payment information, the traveler needs to provide a copy of the credit card bill showing the purchase (all info on the copy other than the e-ticket transaction can be blocked out). If boarding passes are lost, the traveler needs to include with the reimbursement paperwork, a written request for exception to policy.
Train/Rail	Lowest available coach fare (unless first class train fare is more economical than discounted coach airfare)	Original train ticket receipt (See note above for documentation required for E-ticket and Internet purchases).
Hotel	Actual cost of single room, single occupancy (and business calls and meals on hotel bill).	Original hotel folio and payment receipt; if the folio does not show payment information, the traveler must provide a credit card receipt or copy of credit card bill showing the transaction.
Use of personal Automobile	Mileage rate: Of travel occurred For 2019: 54 cents per mile	A MapQuest printout that shows address of departure and address of destination, and total miles.
Local Transport	Actual Cost (cabs, parking, bus, etc.)	Original receipt.
Auto Rental	Economy/compact (larger if rented to group of three or more); gas reimbursed for rental cars; apply for education discounts wherever available	Rental agreement and original –payment receipt; original receipts for gas purchases.

Non-allowable costs include: purchase or rental of clothing to attend business functions; purchase of toiletries,
books, magazines, newspapers, health facility fees, movie or theater tickets, or other items of a personal nature. Spouses or other family members accompanying individuals on University business travel must travel at their own expense. Use of limousines (defined as all chauffeured vehicles with the exception of taxi cabs and airport travel vans or cars/buses secured to benefit from a group rate) at University expense is prohibited unless for use by visiting dignitaries (e.g. members of the diplomatic corps, elected officials, individuals receiving honorary degrees, etc.). The special airport sedan shuttle rates offered through West End Travel are permissible. The University will reimburse laundry expenses only

Meals, Personal	Actual cost	Original receipt showing what was purchased and proof of payment (e.g. restaurant tab and credit card receipt)
Meals, Business	Actual cost	Original receipt/proof of payment (see personal meals, above) and names of guests, their affiliation with the University, and business purpose of the meal.
Conference Registration Fees	Actual cost	Copy of completed registration form & proof of payment (credit card receipt or cancelled check).

Non-allowable costs include: purchase or rental of clothing to attend business functions; purchase of toiletries,
books, magazines, newspapers, health facility fees, movie or theater tickets, or other items of a personal nature. Spouses or other family members accompanying individuals on University business travel must travel at their own expense. Use of limousines (defined as all chauffeured vehicles with the exception of taxi cabs and airport travel vans or cars/buses secured to benefit from a group rate) at University expense is prohibited unless for use by visiting dignitaries (e.g. members of the diplomatic corps, elected officials, individuals receiving honorary degrees, etc.). The special airport sedan shuttle rates offered through West End Travel are permissible. The University will reimburse laundry expenses only

THE POCANTICO CENTER OF THE ROCKEFELLER BROTHERS FUND

TRAVEL DIRECTIONS & CONFERENCE CENTER INFORMATION

THE POCANTICO CENTER of the Rockefeller Brothers Fund is located approximately one hour north of Manhattan in the Pocantico Historic Area, the heart of the Rockefeller family estate in Westchester County, New York. The Historic Area has been a property of the National Trust for Historic Preservation (www.nthp.org) since 1979, when it was willed to the National Trust by Governor Nelson A. Rockefeller. The Pocantico Center includes John D. Rockefeller's home, Kykuit; the surrounding gardens and sculpture collections; and the Coach Barn (Conference Center), which houses guests on the second floor and the family's carriages and vintage automobiles on the first floor. The lower floor has been transformed into a modern meeting facility. The Pocantico Center is maintained and administered by the Rockefeller Brothers Fund (www.rbf.org), a private foundation, which operates the site as an extension of its grantmaking activities under an agreement with the National Trust. The Conference Center provides a unique setting where the RBF brings together people of diverse backgrounds and perspectives from nonprofit organizations and public institutions to engage important issues related to the Fund's philanthropic programs. In addition to conferences, the RBF's Pocantico Programs include stewardship of the historic portion of the estate and oversight of a visitation program at Kykuit, operated on behalf of the Fund by Historic Hudson Valley (www.hudsonvalley.org).

The directions are provided to help direct you to the Conference Center. Please advise the conference organizer of your travel plans, so arrangements can be made to pick you up if needed. All travel plans, including the time of your arrival at Pocantico, must be confirmed. When you arrive at the Main Gate, announce yourself to the security personnel, who will provide you with further directions.

ACCOMMODATIONS

Guests are lodged on the second floor of the Coach Barn (Conference Center) and on the third and fourth floors of Kykuit. All accommodations have a private bath. Hair dryers are also provided in each bedroom and adapters for electric razors are available upon request. Electrical service is 115 volts/60 cycles.

DRESS

In keeping with the Fund's programmatic emphasis on global warming and the desire to mitigate RBF's carbon footprint, guests at Pocantico should dress comfortably according to the season.

SMOKING POLICY

Guests may not smoke indoors, either at Kykuit or in the Coach Barn (Conference Center).

RECREATION

Guests are welcome to stroll the Coach Barn (Conference Center) and Kykuit grounds, including Kykuit's lovely gardens, or may go jogging on the roads and trails outside the estate.

TELEPHONE, FACSIMILE & BUSINESS CENTER

Each bedroom at the Coach Barn (Conference Center) and Kykuit has a private telephone number with voice mail, and phone calls may be received 24 hours a day. During conference sessions messages will be taken by the center's staff at 914.524.6500. Facsimile messages may be sent during normal business hours from the Conference Center. Faxes are received 24 hours a day at 914.524.6550 and distributed as promptly as possible. Computers are available for the use of conferees in the business center of the Conference Center with IBM-compatible machines, as well as commonly used word-processing, presentation, spreadsheet programs and high speed Internet access. Please note, however, that computer assistance is not available. Wireless Internet access is available in the entire Coach Barn (Conference Center) building as well as on the bedroom floors at Kykuit.

SUSTAINABLE PRACTICES AT POCANTICO

The Pocantico staff is committed to incorporating responsible environmental practices in all aspects of its operation. Green initiatives at Pocantico to date include renewable energy, through the purchase of 100% wind-generated electricity; the use of green cleaning products; a recycling program; and the option for towel and linen reuse.

It is a goal to incorporate sustainable building practices in ongoing maintenance and capital improvement projects and we endeavor to serve sustainable seafood and locally grown food.

In addition, a portion of the conference fees are utilized to acquire Green Tags [Renewable Energy Certificates (RECs)] from *Native*Energy (www.nativeenergy.com) to offset greenhouse gas emissions associated with conference attendees' travel to/from the Pocantico Center. This purchase will be dedicated to help finance new wind farm projects in the United States.

WEATHER

Temperatures at the Pocantico Center vary considerably with the four seasons. Winter can be quite cold, with either rain or snowfall, while summers are often hot and humid. You may find the following chart of average temperatures in New York City useful. The weather at the Conference Center is usually a few degrees cooler.

January	32°	(0° C)
February	34°	(1° C)
March	41°	(5° C)
April	52°	(12° C)
May	62°	(17° C)
June	71°	(22° C)
July	76°	(25° C)
August	76°	(25° C)
September	69°	(21° C)
October	58°	(15° C)
November	47°	(8° C)
December	36°	(2° C)

THE POCANTICO CENTER OF
THE ROCKEFELLER BROTHERS FUND
200 Lake Road
Tarrytown, New York 10591
Tel: (914) 524-6500 Fax: (914) 524-6550

The Pocantico Center of the Rockefeller Brothers Fund is located in the village of Tarrytown, 25 miles north of New York City on the Hudson River. From New York City, it takes approximately one hour to reach Pocantico by car (up to two if traffic is heavy) or forty minutes by train.

TRAVEL BY AIR

From Westchester/White Plains (20 mins.): Travel south on I-684 to Route 287 West. From 287 West, take exit 3, Sprain Brook Parkway North. Exit at the first ramp (1.5 miles) to Eastview. Turn left at exit ramp traffic light onto Route 100C. Follow road approx. 2 miles, past reservoir on your left(becomes Old Saw Mill River Road). Make a right at the stop sign onto Lake Road. Drive uphill for 0.6 miles to the main entrance on the left.

From LaGuardia (40 mins. +): Travel west on Grand Central Pkwy to I-278 over Triborough Bridge. Follow signs to I-87 (Major Deegan). Stay on I-87 to exit 7-A (Saw Mill River Parkway – Taconic Parkway). Continue on the Saw Mill Parkway North to Exit 23 (Eastview). At the foot of the exit ramp, turn left onto an unmarked road and drive about 0.6 miles beside a reservoir to the first right turn (Lake Road). Drive uphill for 0.6 miles to the main entrance on the left.

From JFK (1 hour +): Take the Van Wyck Expressway to the Whitestone Bridge exit. From the Whitestone Bridge follow signs to the Hutchinson River Parkway. Continue on the Parkway to Interstate 287 West (White Plains Exit). Drive west on 287 (Cross Westchester Expressway) to Exit 3 - Sprain Brook Parkway. Drive north 1.5 miles to Route 100C-Eastview Exit and turn left at the top of the ramp onto Route 100 C. After 1 mile this road bears to the right and becomes Old Saw Mill River Road. Proceed straight 1.2 miles under the Union Carbide building, under the Saw Mill River Parkway and beside a reservoir. Turn right at Lake Road and drive uphill for 0.6 miles to the main entrance on the left.

TRAVEL BY TRAIN

From Grand Central Station in New York City (42nd Street at Madison Avenue), take the Metro-North train to Tarrytown, which is on the Hudson Line. Trains run quite frequently: on weekdays, approximately every half hour. Taxis are available at the train station.

TRAVEL BY CAR

FROM MANHATTAN, West Side: Take the West Side Highway north, which will turn into the Henry Hudson Parkway, and then into the Saw Mill River Parkway. Get off at the Saw Mill River Road - Eastview Exit 23. At the foot of the exit ramp, turn left onto an unmarked road and drive about 0.6 miles beside a reservoir to the first right turn (Lake Road). Drive uphill for 0.6 miles to the main entrance on the left.

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[YOUR LETTERHEAD]

DATE:_____

TO: Megan Burnett, Georgetown Climate Center

FROM:_____

RE: Reimbursement Request for _____(Name of Event)_____, _____(Date of Event)_____.

I am writing to request reimbursement for the following travel expenses associated with _____(Participant's Name)_____ participation in the Georgetown Climate Center _____(Name of Event)_____, which took place on _____(Date of Event)_____.

Please find attached original receipts for the following expenses:

- AMTRAK [Train Ticket] - $ X.00
- AIRLINES USED [Air Ticket] - $ X.00
- CITY CAB [Taxi] - $X.00
- etc…

A reimbursement check in the amount of $_____should be made payable to [YOUR NAME]. Please find my home address below (Your home address will be required for any personal reimbursement.)

or

A reimbursement check in the amount of $_____should be made payable to the [X State Agency/Department or Organization].

I have entered the proper information on the Georgetown University website [https://georgetown.secure.force.com/gusupplier] and have been issued the following Number SUP-XXXXXXX at the end of the registration process. ***(NOTE: The reimbursement check will be sent to the address submitted to Georgetown during the agency registration.)***

If you have any follow-up question, please contact [provide contact information for you or your assistant].

PLEASE SIGN THIS MEMO AS IT IS YOUR OFFICIAL REQUEST FOR REIMBURSEMENT. THANK YOU!

From: Cummins,Patrick on behalf of Cummins,Patrick >
Sent: Monday, June 10, 2019 6:57 PM EDT
To: Hartzell,Wendy < >
Subject: FW: Wendy Hartzell has registered for your event

Mr. Wendy -
From: donotreply_eventspot@constantcontact.com <donotreply_eventspot@constantcontact.com>
Sent: Monday, June 10, 2019 4:54 PM
To: Cummins,Patrick >
Subject: Wendy Hartzell has registered for your event

This is an informational email to inform you that a registrant has registered for your event. Please do not reply to this message. Replies to this message are routed to an unmonitored mailbox.

Accelerating State Action on Climate Change

Registration Information:

First Name:	Wendy
Last Name:	Hartzell
Email Address:	
Phone:	
Prefix:	Mr
Cell Phone:	

Organization Information:

Job Title:	Exec. Assistant
Company:	Center for the New Energy Economy
Department:	Center for the New Energy Economy
Address 1:	430 N. College Avenue
City:	Fort Collins
State:	Colorado
ZIP Code:	80524

Other Logistics:

Mode of Travel	Flight
Name of Arriving Airport and Arrival Time:	TBD
Name of Departing Airport and Departure Time:	TBD
Please note any dietary restrictions:	N/A

Travel to the Pocantico Center:

From: Michael Northrop >
Sent: Monday, June 10, 2019 2:38 PM EDT
To: Cummins,Patrick < >; Deborah Burke <
Subject: Fwd: Special Update from the Natural Resources Council of Maine

Impressive..

Sent from my iPhone

Begin forwarded message:

> **From:** Gabrielle Grunkemeyer
> **Date:** June 10, 2019 at 8:52:29 PM GMT+3
> **To:** "'mnorthrup '" < >
> **Subject: Special Update from the Natural Resources Council of Maine**
>
> Dear Michael,
>
> I hope this email finds you well. We are in the final stretch of the legislative session here in Maine and, while the end is still a few weeks out, I am pleased to report that the session has been productive and the progress so far for Maine's environment has been impressive. Below are recent highlights of our work.

- **Climate Bill Moves Forward** The climate bill introduced by Governor Janet Mills passed out of the Environment and Natural Resources (ENR) Committee unanimously and, on Friday, the bill passed in the House by a 117–20 margin. The bill creates a Maine Climate Council that includes a variety of stakeholders from farmers and fishermen to renewable energy advocates and youth leaders. The bill requires Maine to reduce greenhouse gas pollution 80% by 2050 and asks the Maine Department of Environmental Protection (DEP) to adopt rules to achieve this goal (and interim goals for 2030 and 2040). It also requires the Maine Climate Council to create a new Climate Action Plan by December 2020, and every four years thereafter. NRCM testified in support of the bill. We also distributed our newest podcast with testimony from Governor Mills on the bill and others supporting climate action.

- **Eliminating Plastic Bags & Foam Food Packaging** Maine is on track to become the fourth state in the nation—after California, New York, and Hawaii (de facto)—to ban single-use plastic bags at retail stores through a bill that NRCM helped draft with the Maine Retail Association and Maine Grocers Association. The bill received overwhelming support at a public hearing and was passed with strong votes by both houses of the Legislature. It currently awaits the governor's signature. We are also pleased that Maine became the first state in the nation to ban foam food packaging – a big step to reduce litter and plastic pollution. NRCM's Sustainable Maine Director Sarah Lakeman appeared on Maine Calling and The Maine Event to talk about the global problem of plastic pollution and the ways Maine is taking action.

- **River Protections Moving Forward** The Legislature unanimously voted in favor of a bill that will increase protections for more than 400 miles of rivers and streams in Maine. Passage of this bill is a high priority for NRCM and will help protect existing water quality improvements in critical stretches of Maine rivers—including high-quality brook trout streams and stretches of the upper Penobscot River. NRCM provided key testimony is support of the bill and mobilized several people, community leaders, and businesses to do the same.

- **Progress for Tribal Waters and Sustenance Fishing Rights** The ENR Committee voted unanimously in support of a bill that will secure water quality protections for legal sustenance fishing rights provided to Maine tribes in the Maine Indian Claims Settlement Act of 1980. The bill establishes sustenance fishing as a "designated use" for tribal waters identified by the DEP and Maine's four tribes: the Penobscot Indian Nation, Passamaquoddy Tribe, Houlton Band of the Maliseets, and the Aroostook Band of Micmacs. Within these waters, sustenance fishing rights will be protected by calculating criteria for water contaminants based on a fish consumption rate of 200 grams (about seven ounces per day) and be the most protective standards in the nation. The bill will soon head to the House and Senate for final votes. NRCM Staff Scientist and Healthy Waters Program Director, Nick Bennett, supported the bill and recruited several other supporters to speak in favor of the bill.
-

- **Opposition to CMP Corridor continues to grow** Opposition to the Central Maine Power (CMP) transmission line project is growing statewide, but especially in towns that CMP's proposed corridor would cross. So far fifteen towns have voted to rescind support or to oppose the project, and more towns will consider whether to oppose the project in the weeks ahead. We are disappointed that an amended bill that would have required an independent study of the climate impacts of the controversial CMP transmission corridor failed to gain the necessary 2/3 support for immediate enactment. CMP spent an enormous amount of money fighting the bill by hiring dozens of lobbyists, sending political-style mailers, and running ads against it. NRCM is now supporting a bill (LD 1383) that would require CMP to honor local ordinances and land use requirements in towns where it

wants to build its transmission corridor. We believe CMP should be required to play by the same rules as other for-profit development projects (such as a Wal-Mart or solar farm), which are required to win local permits.

- **North Woods Rollback** We are incredibly disappointed that the Legislature failed to enact a bill that would have provided the governor with more control over appointments to the Land Use Planning Commission (LUPC), and would have suspended LUPC's rollback of an effective longstanding rule known as the "adjacency principle" that has helped prevent development sprawl in the North Woods. The bill would have required developers to do an alternatives analysis before receiving the right to rezone forested land for development. It also promoted regional planning to help protect town budgets and conserve habitat. Here is NRCM's testimony on the bill.

- **Renewable Energy Bills Pending** The Energy, Utilities, and Technology (EUT) Committee voted 10-2 in support of comprehensive legislation to promote solar energy. However, the Committee has not yet sent the bill to the full legislature and some of the bill's language may still change. Read NRCM's position memo for more details on why we support the bill. The EUT Committee also is working to finalize a bill to update and extend Maine's Renewable Portfolio Standard, which requires that electricity providers offer a steadily increasing amount of clean energy. Passage of this bill is crucial for Maine to meet the 100% clean energy by 2050 goal established this year by Governor Mills.

Thank you for your support and for all that you do to help protect Maine's environment. If you want to follow our work on a daily basis, we invite you to visit the NRCM website, or like NRCM on Facebook and follow us on LinkedIn, Twitter, and Instagram. You'll be among the first to learn how your support enables our staff to educate and engage Maine people from across the state to protect Maine's special places. We're working to build an online community of folks who care deeply about Maine's natural resources and hope that you'll become a part of it.

If you have any questions about our work, please let me know.

Best,
Gabby

Gabrielle Grunkemeyer
Grants Director
Natural Resources Council of Maine
3 Wade Street
Augusta, ME 04330

www.nrcm.org

NRCM - Protecting the nature of Maine - join today!

From: Michael Northrop >
Sent: Tuesday, May 28, 2019 4:27 PM EDT
To: Hiraoka, Lisa M >
CC: Ritter Jr,Bill < >; Vicki Arroyo < >; Cummins,Patrick >; Joseph.Kruger <Joseph.Kruger >; Deborah Burke < >; Michael Northrop < >
Subject: July 17-18 Invitation: State Strategies for Meeting Ambitious Climate Goals

May 28, 2019

Dear Lisa,

On behalf of the Center for the New Energy Economy at Colorado State University, the Georgetown Climate Center, and the Rockefeller Brothers Fund, we are writing to invite you to an off-the-record discussion on meeting the increasingly ambitious climate goals being established by governors and state legislatures across the country.

We are asking lead energy policy advisors to attend from a dozen states with supportive, and in many cases, new governors and legislatures interested in accelerating the transition to a clean, low-carbon economy. You are invited because you are the, or one of the, lead policy advisors to your governor on energy and climate policy.

We will meet at the Pocantico Center of the Rockefeller Brothers Fund beginning on Wednesday, July 17 for dinner, and conclude at 4:00 p.m. on Thursday, July 18. We will use the dinner and time after dinner the first night for active discussion, so please plan to arrive by 5:00pm on July 17th.

The Pocantico Center, on the former Rockefeller family estate outside Tarrytown, New York, is 40 minutes from midtown Manhattan by train from Grand Central Station, or is easily accessible by car from any of the metro area's three airports. We'll stay at Pocantico on the evening of July 17 and eat our meals there. The RBF will cover all inside the gate costs and travel to and from airports or midtown Manhattan. If your state cannot cover travel, we can help you cover your travel costs as well.

Given the arrival of a substantial number of new governors, who have committed to moving aggressively on climate and energy, and the ongoing commitment of many other governors, we think this is an opportunity to support this subset of states to move forward aggressively with sensible, economically beneficial policies. We believe your state can help lead this effort. CSU, Georgetown, and the RBF have long prioritized state clean energy policymaking and look forward to supporting your work in the coming months and years.

To tell you some more about the rationale for this discussion, and to get your input on what would be most helpful, we would like to have a brief discussion with you by phone in the coming weeks. In the meantime, please save the dates, and please do not hesitate to reach out to either one of us to discuss this event. You may RSVP to Patrick Cummins at CSU We will follow up with additional travel planning information after we hear from you.

We sincerely hope you are able to participate and look forward to speaking with you soon. Many thanks.

Sincerely,

Bill Ritter, Jr.
Director, Center for the New Energy Economy
41st Governor of Colorado

Vicky Arroyo
Georgetown Climate Center
Georgetown Law School

Michael Northrop
Program Director
Rockefeller Brothers Fund

From: Cummins,Patrick on behalf of Cummins,Patrick
Sent: Monday, June 10, 2019 1:42 PM EDT
To: Shelby McMichael >
Subject: RE: "Accelerating State Action on Climate Change": Questions on behalf of Kate Gordon

Shelby – Most participants will fly out Thurs evening. Unfortunately, for anyone staying over Thursday night, it will not be possible for them to stay at the Center so they will have to find other accomodations. I know it's a long trip from the West Coast for a short meeting. Please let me know if I can answer any other questions. Thanks, PC

Patrick Cummins
Senior Policy Advisor
Colorado State University
Center for the New Energy Economy

From: Shelby McMichael < >
Sent: Monday, June 10, 2019 10:57 AM
To: Cummins,Patrick <P
Subject: FW: "Accelerating State Action on Climate Change": Questions on behalf of Kate Gordon

Hi Patrick,

I was referred to you by Megan (see below) for event-related questions for the "Accelerating State Action on Climate Change" convening. I am currently planning Kate Gordon's travel, including flights, and I was wondering if most attendees are planning to fly out Thursday (6/18) evening or the next morning? For those planning to fly out Friday morning, are they planning on staying at the Center on Thursday night or will they have to find other accommodations?

Let me know if this is all clear. Thank you!

Best,

Shelby McMichael | Executive Fellow
California Health in All Policies Task Force
California Strategic Growth Council
(

From: Megan Burnett <
Sent: Friday, June 7, 2019 11:22 AM
To: Shelby McMichael
Subject: Re: "Accelerating State Action on Climate Change": Questions on behalf of Kate Gordon

Hello Shelby,

Yes the Climate Center can reimburse her for her airfare, ground transportation and any meals during her travel. Example: lunch at the airport. She will just need to hold onto copies of her receipts and add them to the reimbursement request you will send after her travel.

For lodging, registration and any other information related to the event please contact Patrick Cummins .

Best,
Megan

Megan Burnett
Georgetown University Law Center
Centers & Institutes Assistant

On Fri, Jun 7, 2019 at 2:15 PM Shelby McMichael wrote:

> Hi Megan,
>
> My name is Shelby McMichael and I will be taking over for Taryn Akiyama as Kate Gordon's speaking events liaison. I am in the process of submitting her out-of-state travel request and trying to get a sense of what her total expenses approximately will be for her trip to The Pocantico Center. From the information that you provided to Taryn, it is my understanding that Kate's flights and ground transportation will be reimbursed, and her lodging will be on-site and already covered. Is this correct?
>
> With this in mind, I am also wondering what the protocol is for food-related reimbursement, beyond the meals provided at the Center?
>
> Let me know. Thank you!

Best,
Shelby

Shelby McMichael | Executive Fellow
California Health in All Policies Task Force
California Strategic Growth Council

From: Michael Northrop <
Sent: Tuesday, June 04, 2019 1:12 AM EDT
To: Patricia Malloy < ; Cummins,Patrick < >; Deborah Burke

Subject: Re: draft agenda, logistics, reimbursement forms for July 17 meeting

Dear Pat,
I am connecting you to Patrick Cummins. He has this material. I am away until later in June.
Many thanks,
Michael

Sent from my iPhone

On Jun 4, 2019, at 12:44 AM, Patricia Malloy wrote:

> Hello Michael,
> I am preparing David Bobzien's travel to New York. Can you please provide the agenda, even if it is in draft form along with any other pertinent forms that we will need for logistics, directions, reimbursement forms, etc? Thank kyou.
>
> Pat Malloy
> Administrative Assistant IV
> Governor's Office of Energy
> 755 N. Roop Street, Ste. 202
> Carson City, NV 89701
> |F 775.687.1869
>
> http://energy.nv.gov
>
>

From: Cummins,Patrick on behalf of Cummins,Patrick >
Sent: Monday, June 17, 2019 10:21 AM EDT
To: Grimes, Victoria S (ENV) < >; Megan Burnett < >
Subject: RE: Hotel for Secretary Theoharides

Victoria - That's correct. PC

Patrick Cummins
Senior Policy Advisor
Colorado State University
Center for the New Energy Economy

From: Grimes, Victoria S (ENV)
Sent: Monday, June 17, 2019 8:19 AM
To: Cummins,Patrick >; Megan Burnett >
Subject: RE: Hotel for Secretary Theoharides

Hi Patrick,

To confirm, there is no cost associated with lodging?

Thanks,

Victoria Grimes
Executive Assistant to Secretary Kathleen Theoharides
Executive Office of Energy & Environmental Affairs
100 Cambridge Street, Suite 900, Boston, MA 02114

From: Cummins,Patrick >
Sent: Monday, June 17, 2019 10:10 AM
To: Megan Burnett ; Grimes, Victoria S (EEA) <
Subject: RE: Hotel for Secretary Theoharides

Victoria – No need to do anything on lodging. Pocantico is a private conference center and they are providing lodging for all the meeting participants. Please let me know if you have any other questions. PC

Patrick Cummins
Senior Policy Advisor
Colorado State University
Center for the New Energy Economy

From: Megan Burnett
Sent: Monday, June 17, 2019 8:04 AM
To: Grimes, Victoria S (ENV) ; Cummins,Patrick
Subject: Re: Hotel for Secretary Theoharides

Hello Victoria,

I have looped in Patrick Cummins who can share information with you regarding lodging.

Best,
Megan

Megan Burnett
Georgetown University Law Center
Centers & Institutes Assistant

On Mon, Jun 17, 2019 at 9:41 AM Grimes, Victoria S (ENV) < > wrote:

> Hi Megan,
>
> Who should I work with to secure lodging for Katie Theoharides on July 17th in Pocantico, New York for the State Action on Climate Change meeting?

Victoria Grimes
Executive Assistant to Secretary Kathleen Theoharides
Executive Office of Energy & Environmental Affairs
100 Cambridge Street, Suite 900, Boston, MA 02114

From: Walke, Peter
Sent: Thursday, May 30, 2019 9:37 AM EDT
To: Vicki Arroyo
CC: Joseph Kruger >; Michael Northrop ; Cummins,Patrick >; Percival, Penny
Subject: RE: July 17-18 Invitation: State Strategies for Meeting Ambitious Climate Goals

Good morning Vicki et al.,

My apologies for the delay in responding. I believe Michael's original email may have gone into my spam folder. I have dropped Kendal from this chain as she is busy wrapping up the session, and we agreed that I was the logical person to attend for Vermont.

I am intrigued by the topic and format of this discussion, and I'd be interested in learning more about prospective outcomes and who from other states may be attending.

I believe a phone call in the next couple of weeks would be very useful. I have included Penny Percival on my end who can be helpful in organizing that call.

Thanks,
Peter

From: Vicki Arroyo
Sent: Tuesday, May 21, 2019 10:38 AM
To: Walke, Peter < >
Cc: Joseph Kruger >; Smith, Kendal >; Michael Northrop >; Cummins,Patrick
Subject: FW: July 17-18 Invitation: State Strategies for Meeting Ambitious Climate Goals

Dear Peter – Hope this finds you well. Might you or Kendal be able to attend this event in July at Pocantico? There's a great group of state leaders from around the US who will attend, and Joe Kruger will be representing GCC (I'll be in Germany watching my son compete for the US men's Ultimate Frisbee team). I hate to miss what will be a great opportunity to help states share what they are doing and elevate ambition across important sectors, including transportation. Let us know if you have any questions or want to discuss, and we hope you or Kendal can make it!

All best,
Vicki

Vicki Arroyo
Executive Director, Georgetown Climate Center
Asst. Dean, Centers & Institutes and Professor from Practice, Georgetown Law

---

From: Michael Northrop [mailto:]
Sent: Sunday, April 28, 2019 5:23 PM
To: kendal.smith
Cc: Ritter Jr,Bill; Vicki Arroyo; Cummins,Patrick; Joseph Kruger; Hartzell,Wendy; Sonia Jagtiani; Michael Northrop
Subject: July 17-18 Invitation: State Strategies for Meeting Ambitious Climate Goals

April 28, 2019

Dear Kendal,

On behalf of the Center for the New Energy Economy at Colorado State University, the Georgetown Climate Center, and the Rockefeller Brothers Fund, we are writing to invite you to an off-the-record discussion on meeting the increasingly ambitious climate goals being established by governors and state legislatures across the country.

We are asking lead energy policy advisors to attend from a dozen states with supportive, and in many cases, new governors and legislatures interested in accelerating the transition to a clean, low-carbon economy. You are invited because you are the, or one of the, lead policy advisors to your governor on energy and climate policy.

We will meet at the Pocantico Center of the Rockefeller Brothers Fund beginning on Wednesday, July 17 for dinner, and conclude at 4:00 p.m. on Thursday, July 18. We will use the dinner and time after dinner the first night for active discussion, so please plan to arrive by 5:00pm on July 17th.

The Pocantico Center, on the former Rockefeller family estate outside Tarrytown, New York, is 40 minutes from midtown Manhattan by train from Grand Central Station, or is easily accessible by car from any of the metro area's three airports. We'll stay at Pocantico on the evening of July 17 and eat our meals there. The RBF will cover all inside the gate costs and travel to and from airports or midtown Manhattan. If your state cannot cover travel, we can help you cover your travel costs as well.

Given the arrival of a substantial number of new governors, who have committed to moving aggressively on climate and energy, and the ongoing commitment of many other governors, we think this is an opportunity to support this subset of states to move forward aggressively with sensible, economically beneficial policies. We believe your state can help lead this effort. CSU, Georgetown, and the RBF have long prioritized state clean energy policymaking and look forward to supporting your work in the coming months and years.

To tell you some more about the rationale for this discussion, and to get your input on what would be most helpful, we would like to have a brief discussion with you by phone in the coming weeks. In the meantime, please save the dates, and please do not hesitate to reach out to either one of us to discuss this event. You may RSVP to Patrick Cummins at CSU We will follow up with additional travel planning information after we hear from you.

We sincerely hope you are able to participate and look forward to speaking with you soon. Many thanks.

Sincerely,

Bill Ritter, Jr.
Director, Center for the New Energy Economy
41st Governor of Colorado

Vicky Arroyo
Georgetown Climate Center
Georgetown Law School

Michael Northrop
Program Director
Rockefeller Brothers Fund

From: Michael Northrop
Sent: Thursday, May 30, 2019 9:51 AM EDT
To: Walke, Peter <
CC: Vicki Arroyo >; Joseph Kruger >; Cummins,Patrick >; Percival, Penny <
Subject: Re: July 17-18 Invitation: State Strategies for Meeting Ambitious Climate Goals

Thanks Peter,
Patrick Cummins is around the next few weeks. I'm just leaving this morning for a trip to Uganda and Ethiopia. I'll be back June 19th and am happy to talk then.
We plan to get an issues brief out in early July to inform the discussion.
We have had a great response so far. It will be a great group and a timely robust conversation about science based targets and state leadership. We're eager for Vermont to be part of the discussion.
I look forward to connecting later in June. I'd be available to talk June 21st or 24th if that's helpful.
They are closing the door on the plane.. sorry to be rushing.
All the best,
Michael

Sent from my iPhone

On May 30, 2019, at 9:37 AM, Walke, Peter > wrote:

> Good morning Vicki et al.,
>
> My apologies for the delay in responding. I believe Michael's original email may have gone into my spam folder. I have dropped Kendal from this chain as she is busy wrapping up the session, and we agreed that I was the logical person to attend for Vermont.
>
> I am intrigued by the topic and format of this discussion, and I'd be interested in learning more about prospective outcomes and who from other states may be attending.
>
> I believe a phone call in the next couple of weeks would be very useful. I have included Penny Percival on my end who can be helpful in organizing that call.
>
> Thanks,
> Peter
>
> ---
>
> **From:** Vicki Arroyo >
> **Sent:** Tuesday, May 21, 2019 10:38 AM
> **To:** Walke, Peter <
> **Cc:** Joseph Kruger >; Smith, Kendal ; Michael Northrop >; Cummins,Patrick >
> **Subject:** FW: July 17-18 Invitation: State Strategies for Meeting Ambitious Climate Goals
>
> Dear Peter – Hope this finds you well. Might you or Kendal be able to attend this event in July at Pocantico? There's a great group of state leaders from around the US who will attend, and Joe Kruger will be representing GCC (I'll be in Germany watching my son compete for the US men's Ultimate Frisbee team). I hate to miss what will be a great opportunity to help states share what they are doing and elevate ambition across important sectors, including transportation. Let us know if you have any questions or want to discuss, and we hope you or Kendal can make it!
>
> All best,
> Vicki
>
> *Vicki Arroyo*
> *Executive Director, Georgetown Climate Center*
> *Asst. Dean, Centers & Institutes and Professor from Practice, Georgetown Law*
>
> ---
>
> **From:** Michael Northrop [mailto:
> **Sent:** Sunday, April 28, 2019 5:23 PM
> **To:** kendal.smith
> **Cc:** Ritter Jr,Bill; Vicki Arroyo; Cummins,Patrick; Joseph Kruger; Hartzell,Wendy; Sonia Jagtiani; Michael Northrop
> **Subject:** July 17-18 Invitation: State Strategies for Meeting Ambitious Climate Goals
>
> April 28, 2019

Dear Kendal,

On behalf of the Center for the New Energy Economy at Colorado State University, the Georgetown Climate Center, and the Rockefeller Brothers Fund, we are writing to invite you to an off-the-record discussion on meeting the increasingly ambitious climate goals being established by governors and state legislatures across the country.

We are asking lead energy policy advisors to attend from a dozen states with supportive, and in many cases, new governors and legislatures interested in accelerating the transition to a clean, low-carbon economy. You are invited because you are the, or one of the, lead policy advisors to your governor on energy and climate policy.

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We will follow up with additional travel planning information after we hear from you.

We sincerely hope you are able to participate and look forward to speaking with you soon. Many thanks.

Sincerely,

Bill Ritter, Jr.
Director, Center for the New Energy Economy
41st Governor of Colorado

Vicky Arroyo
Georgetown Climate Center
Georgetown Law School

Michael Northrop
Program Director
Rockefeller Brothers Fund

From: Cummins,Patrick on behalf of Cummins,Patrick >
Sent: Friday, June 07, 2019 3:37 PM EDT
To: ANDREW Jennifer J * GOV >
Subject: RE: Logistics
Attachment(s): "PC Information Directions E-Mail Updated 0416.doc"

Jen – I would say LaGuardia is best unless he can find a reasonable connection that gets him to Westchester, but that's a small regional airport. It's an easy cab ride or Uber from LGA to Pocantico. Hope this helps. We will be providing more info soon. Let me know if you need anything in the meantime. PC

Patrick Cummins
Senior Policy Advisor
Colorado State University
Center for the New Energy Economy

From: ANDREW Jennifer J * GOV < >
Sent: Friday, June 7, 2019 1:17 PM
To: Cummins,Patrick
Subject: Logistics

Hi Patrick-
I work for Nik Blosser, Chief of Staff, to Oregon's Governor, Kate Brown. He is interested in possibly attending this but is wondering what the best travel options are. Which airport should he fly in to, and do you happen to know what the travel options from the airport to the event might be?

Thank you for any information you may be able to provide.
Jen

Jen Andrew
Executive Assistant to Chief of Staff Nik Blosser
Executive Assistant for Tribal Affairs
Office of the Governor Kate Brown
900 Court Street NE, Ste. 254
Salem, Oregon 97301-4096

THE POCANTICO CENTER OF THE ROCKEFELLER BROTHERS FUND

TRAVEL DIRECTIONS & CONFERENCE CENTER INFORMATION

THE POCANTICO CENTER of the Rockefeller Brothers Fund is located approximately one hour north of Manhattan in the Pocantico Historic Area, the heart of the Rockefeller family estate in Westchester County, New York. The Historic Area has been a property of the National Trust for Historic Preservation (www.nthp.org) since 1979, when it was willed to the National Trust by Governor Nelson A. Rockefeller. The Pocantico Center includes John D. Rockefeller's home, Kykuit; the surrounding gardens and sculpture collections; and the Coach Barn (Conference Center), which houses guests on the second floor and the family's carriages and vintage automobiles on the first floor. The lower floor has been transformed into a modern meeting facility. The Pocantico Center is maintained and administered by the Rockefeller Brothers Fund (www.rbf.org), a private foundation, which operates the site as an extension of its grantmaking activities under an agreement with the National Trust. The Conference Center provides a unique setting where the RBF brings together people of diverse backgrounds and perspectives from nonprofit organizations and public institutions to engage important issues related to the Fund's philanthropic programs. In addition to conferences, the RBF's Pocantico Programs include stewardship of the historic portion of the estate and oversight of a visitation program at Kykuit, operated on behalf of the Fund by Historic Hudson Valley (www.hudsonvalley.org).

The directions are provided to help direct you to the Conference Center. Please advise the conference organizer of your travel plans, so arrangements can be made to pick you up if needed. All travel plans, including the time of your arrival at Pocantico, must be confirmed. When you arrive at the Main Gate, announce yourself to the security personnel, who will provide you with further directions.

ACCOMMODATIONS

Guests are lodged on the second floor of the Coach Barn (Conference Center) and on the third and fourth floors of Kykuit. All accommodations have a private bath. Hair dryers are also provided in each bedroom and adapters for electric razors are available upon request. Electrical service is 115 volts/60 cycles.

DRESS

In keeping with the Fund's programmatic emphasis on global warming and the desire to mitigate RBF's carbon footprint, guests at Pocantico should dress comfortably according to the season.

SMOKING POLICY

Guests may not smoke indoors, either at Kykuit or in the Coach Barn (Conference Center).

RECREATION

Guests are welcome to stroll the Coach Barn (Conference Center) and Kykuit grounds, including Kykuit's lovely gardens, or may go jogging on the roads and trails outside the estate.

TELEPHONE, FACSIMILE & BUSINESS CENTER

Each bedroom at the Coach Barn (Conference Center) and Kykuit has a private telephone number with voice mail, and phone calls may be received 24 hours a day. During conference sessions messages will be taken by the center's staff at 914.524.6500. Facsimile messages may be sent during normal business hours from the Conference Center. Faxes are received 24 hours a day at 914.524.6550 and distributed as promptly as possible. Computers are available for the use of conferees in the business center of the Conference Center with IBM-compatible machines, as well as commonly used word-processing, presentation, spreadsheet programs and high speed Internet access. Please note, however, that computer assistance is not available. Wireless Internet access is available in the entire Coach Barn (Conference Center) building as well as on the bedroom floors at Kykuit.

SUSTAINABLE PRACTICES AT POCANTICO

The Pocantico staff is committed to incorporating responsible environmental practices in all aspects of its operation. Green initiatives at Pocantico to date include renewable energy, through the purchase of 100% wind-generated electricity; the use of green cleaning products; a recycling program; and the option for towel and linen reuse.

It is a goal to incorporate sustainable building practices in ongoing maintenance and capital improvement projects and we endeavor to serve sustainable seafood and locally grown food.

In addition, a portion of the conference fees are utilized to acquire Green Tags [Renewable Energy Certificates (RECs)] from *Native*Energy (www.nativeenergy.com) to offset greenhouse gas emissions associated with conference attendees' travel to/from the Pocantico Center. This purchase will be dedicated to help finance new wind farm projects in the United States.

WEATHER

Temperatures at the Pocantico Center vary considerably with the four seasons. Winter can be quite cold, with either rain or snowfall, while summers are often hot and humid. You may find the following chart of average temperatures in New York City useful. The weather at the Conference Center is usually a few degrees cooler.

January	32°	(0° C)
February	34°	(1° C)
March	41°	(5° C)
April	52°	(12° C)
May	62°	(17° C)
June	71°	(22° C)
July	76°	(25° C)
August	76°	(25° C)
September	69°	(21° C)
October	58°	(15° C)
November	47°	(8° C)
December	36°	(2° C)

THE POCANTICO CENTER OF
THE ROCKEFELLER BROTHERS FUND
200 Lake Road
Tarrytown, New York 10591
Tel: (914) 524-6500 Fax: (914) 524-6550

The Pocantico Center of the Rockefeller Brothers Fund is located in the village of Tarrytown, 25 miles north of New York City on the Hudson River. From New York City, it takes approximately one hour to reach Pocantico by car (up to two if traffic is heavy) or forty minutes by train.

TRAVEL BY AIR

From Westchester/White Plains (20 mins.): Travel south on I-684 to Route 287 West. From 287 West, take exit 3, Sprain Brook Parkway North. Exit at the first ramp (1.5 miles) to Eastview. Turn left at exit ramp traffic light onto Route 100C. Follow road approx. 2 miles, past reservoir on your left(becomes Old Saw Mill River Road). Make a right at the stop sign onto Lake Road. Drive uphill for 0.6 miles to the main entrance on the left.

From LaGuardia (40 mins. +): Travel west on Grand Central Pkwy to I-278 over Triborough Bridge. Follow signs to I-87 (Major Deegan). Stay on I-87 to exit 7-A (Saw Mill River Parkway – Taconic Parkway). Continue on the Saw Mill Parkway North to Exit 23 (Eastview). At the foot of the exit ramp, turn left onto an unmarked road and drive about 0.6 miles beside a reservoir to the first right turn (Lake Road). Drive uphill for 0.6 miles to the main entrance on the left.

From JFK (1 hour +): Take the Van Wyck Expressway to the Whitestone Bridge exit. From the Whitestone Bridge follow signs to the Hutchinson River Parkway. Continue on the Parkway to Interstate 287 West (White Plains Exit). Drive west on 287 (Cross Westchester Expressway) to Exit 3 - Sprain Brook Parkway. Drive north 1.5 miles to Route 100C-Eastview Exit and turn left at the top of the ramp onto Route 100 C. After 1 mile this road bears to the right and becomes Old Saw Mill River Road. Proceed straight 1.2 miles under the Union Carbide building, under the Saw Mill River Parkway and beside a reservoir. Turn right at Lake Road and drive uphill for 0.6 miles to the main entrance on the left.

TRAVEL BY TRAIN

From Grand Central Station in New York City (42nd Street at Madison Avenue), take the Metro-North train to Tarrytown, which is on the Hudson Line. Trains run quite frequently: on weekdays, approximately every half hour. Taxis are available at the train station.

TRAVEL BY CAR

FROM MANHATTAN, West Side: Take the West Side Highway north, which will turn into the Henry Hudson Parkway, and then into the Saw Mill River Parkway. Get off at the Saw Mill River Road - Eastview Exit 23. At the foot of the exit ramp, turn left onto an unmarked road and drive about 0.6 miles beside a reservoir to the first right turn (Lake Road). Drive uphill for 0.6 miles to the main entrance on the left.

FROM MANHATTAN, East Side: Take the F.D.R. Drive north to the Triborough Bridge (follow lanes marked "Bronx" and "Thruway") and onto the Major Deegan Expressway (Interstate 87). The Major Deegan will turn into the N.Y. Thruway. Get off the Thruway at Exit 7A (Saw Mill River Parkway - Taconic Parkway). Continue on the Saw Mill River Parkway to the Saw Mill River Road - Eastview Exit 23. At the foot of the exit ramp, turn left onto an unmarked road and drive about 0.6 miles beside a reservoir to the first right turn (Lake Road). Drive uphill for 0.6 miles to the main entrance on the left.

FROM NEW JERSEY AND UPPER NEW YORK STATE: Follow the N.Y. Thruway (Interstate 87-287) across the Tappan Zee Bridge to Exit 9, about 0.2 miles past the tollbooths. Follow U.S. 9 north 1.6 miles to Route 448 (Bedford Road) at North Tarrytown. Turn right and drive 1.5 miles on Bedford Road to a stop sign. Turn right to main entrance.

FROM UPPER WESTCHESTER AND NEW ENGLAND: Drive south on the Saw Mill River Parkway to the Saw Mill River Road - Eastview Exit 23. At the foot of the exit ramp, turn right onto an unmarked road and drive about 0.6 miles beside a reservoir to the first right turn (Lake Road). Drive uphill for 0.6 miles to the main entrance on the left.

FROM CONNECTICUT: From the Merritt Parkway or Connecticut Turnpike, turn right onto Interstate 287 (Cross Westchester Expressway) westbound to Exit 3- Sprain Brook Parkway. Drive north 1.5 miles to Route 100C-Eastview Exit and turn left at the top of the ramp onto Route 100 C. After 1 mile this road bears to the right and becomes Old Saw Mill River Road. Proceed straight 1.2 miles under the Union Carbide building, under the Saw Mill River Parkway and beside a reservoir. Turn right at Lake Road and drive uphill for 0.6 miles to the main entrance on the left.

FROM LONG ISLAND: From either the Bronx-Whitestone Bridge or the Throgs Neck Bridge, follow signs to the Hutchinson River Parkway. Continue on the Parkway to Interstate 287 West (White Plains Exit). Drive west on 287 (Cross Westchester Expressway) to Exit 3 - Sprain Brook Parkway. Drive north 1.5 miles to Route 100C-Eastview Exit and turn left at the top of the ramp onto Route 100 C. After 1 mile this road bears to the right and becomes Old Saw Mill River Road. Proceed straight 1.2 miles under the Union Carbide building, under the Saw Mill River Parkway and beside a reservoir. Turn right at Lake Road and drive uphill for 0.6 miles to the main entrance on the left.

From: Cummins,Patrick on behalf of Cummins,Patrick <
Sent: Thursday, May 30, 2019 2:35 PM EDT
To: Katie McCormack
Subject: RE: Pocantico July 17-18 - Draft Agenda, Logistics, and Travel Reimbursement

That's great. I look forward to talking then.

From: Katie McCormack
Sent: Thursday, May 30, 2019 12:33 PM
To: Cummins,Patrick >
Subject: Re: Pocantico July 17-18 - Draft Agenda, Logistics, and Travel Reimbursement

Thank you, Pat, and sorry for dropping the ball on talking today. 1:30 MT does work. I'll plan to call then at the number below unless you let me know you'd prefer a zoom connection. Katie

---

From: "Cummins,Patrick" <
Date: Thursday, May 30, 2019 at 10:30 AM
To: Curtis Seymour , Amy Fuerstenau >
Cc: Katie McCormack
Subject: RE: Pocantico July 17-18 - Draft Agenda, Logistics, and Travel Reimbursement

Katie –
You are most welcome to attend and I am glad that you will. This is going to be a good time for new Western state officials to connect with their incumbent colleagues, including in advance of the Sept 5 +/- workshop in Santa Fe that we are organizing with NRDC. Let me know if you still want to chat by phone today at 1:30 MT.

All –
CNEE and Georgetown are the only other non-state groups attending this meeting. Bill and I will be there, along with Joe Kruger from GCC. Michael (who is now in Africa for the next 3 weeks) is directing our efforts in the organization of this event. He has a vision and part of that is to keep it as small as possible. Of course, there are also very real space/lodging constraints at Pocantico.

We reached out to IL and MN in January during the first go-round for this event (before it got bumped to July) and didn't get much response. I have had conversations with Doug Scott and Franz Litz about MW states and it sounds like they are really still trying to set their direction on these issues. From the start of this meeting's planning process 6 months ago, Michael has been very focused on trifecta states and those that are seriously moving a clean energy and climate agenda. At this point we are expecting 14 states to attend.

One of the topics for the meeting is how to help bridge to the opportunity states. Those, it seems to me, are mainly the MW states along with NC, VA, and PA. I expect we will have some great opportunities to do that coming out of this meeting and I look forward to assisting in any way I can. Of course, my focus is on the West, but I'm also part of the troupe that helped establish the legacy of inter-regional cooperation 10 years ago and I'd love to see that show get going again. EF was a big supporter of the "Three Regions" process, and many of the other actors are still around – Vicki A., Tim P., Franz, Doug, etc.

Hope this helps and happy to discuss further at your convenience.

All the best, PC

Patrick Cummins
Senior Policy Advisor
Colorado State University
Center for the New Energy Economy

From: Curtis Seymour
Sent: Wednesday, May 29, 2019 3:34 PM
To: Cummins,Patrick >; Amy Fuerstenau
Cc: Katie McCormack >
Subject: Re: Pocantico July 17-18 - Draft Agenda, Logistics, and Travel Reimbursement

Thanks Patrick. I know Amy is planning to attend this. I am wondering if it might also make sense for Katie to join, given the heavy focus on policy and western states. If only one EF person can attend, I understand, and we'll coordinate internally on that.

One thing I noticed is that there is no representation from Midwestern or Southeastern states. We would be happy to help make introductions via our teams in each of those regions if that is helpful. I expect there may be interest from at least MN, MI, IL, WI, NC and VA.

Best,
Curtis

Curtis Seymour

ef.org | **twitter** @EnergyFdn

From: "Cummins,Patrick"
Date: Tuesday, May 28, 2019 at 2:02 PM
To: Curtis Seymour , Amy Fuerstenau
Cc: Katie McCormack <
Subject: FW: Pocantico July 17-18 - Draft Agenda, Logistics, and Travel Reimbursement

Amy / Curtis – Following up on our previous emails and discussion, here is the info on the Pocantico meeting. Hoping you can attend, Amy. Happy to discuss and answer any questions about this meeting. More info to follow in late June. All the best, PC

Patrick Cummins
Senior Policy Advisor
Colorado State University
Center for the New Energy Economy

From: Michael Northrop
Sent: Monday, May 27, 2019 8:18 PM
To: dale.bryk ; 'Kathleen Frangione' < >; Kathleen Theoharides katie.dykes ; kristen.sheeran ; Nichols, Mary D. >; kate.gordon ; Davis, Chris (GOV) ; Toor - CEO, Will >; Brad Crowell (David Bobzien >; 'Janet Coit' >; Burgess, Dan < ; sarah.propst ; james.kenney ; zach.pierce ben.grumbles ; peter.walker
Cc: Ritter Jr,Bill < >; Vicki Arroyo >; Joseph Kruger >; Cummins,Patrick >; Michael Northrop < Deborah Burke >
Subject: Pocantico July 17-18 - Draft Agenda, Logistics, and Travel Reimbursement

We are moving ahead with the July 17-18 Pocantico Center meeting on Accelerating State Climate Action. We've heard from most of you and are looking forward to seeing you at Pocantico on July 17th. Please arrive by 5:00pm at the latest. Time is in short supply so we are planning a dinner and after dinner program and an early start on July 18th. We plan to adjourn by 4:00pm on the 18th.

Please see attached a draft agenda, directions to Pocantico, and travel reimbursement forms from the Georgetown Climate Center.

Please be in touch with Patrick Cummins if you want to talk about the agenda and/or logistics.

We look forward to seeing you in July for this important meeting.

Sincerely,

Bill Ritter, Jr.
Director, Center for the New Energy Economy
41st Governor of Colorado

Vicky Arroyo
Georgetown Climate Center
Georgetown Law School

Michael Northrop
Program Director
Rockefeller Brothers Fund

From: Vicki Arroyo <v
Sent: Tuesday, May 28, 2019 5:06 PM EDT
To: Cummins,Patrick >
CC: Joseph.Kruger Katherine McCormick
>
Subject: RE: Pocantico July 17-18 - Draft Agenda, Logistics, and Travel Reimbursement
Attachment(s): "GT-GELR190015.pdf"

Hi Patrick – This article and some of the recent legislation and executive orders it cites may be useful to your team in pulling together just some of what states and cities are up to, and Kate and Joe might have other suggestions from regular updates we provide on Environmental Law Institute calls. And of course the states themselves will have the most up-to-date info!
All best,
Vicki

From: Cummins,Patrick [mailto
Sent: Tuesday, May 28, 2019 12:55 PM
To: Michael Northrop
Cc: Vicki Arroyo; ; Deborah Burke
Subject: RE: Pocantico July 17-18 - Draft Agenda, Logistics, and Travel Reimbursement

Michael –

CNEE's research staff will get started on background materials related to existing state policies/programs and new legislation in each of the participating states.

I think Mary's idea of a "thought piece" for the different topics is a good one. That could include a description of best practices in terms of state policy/ rules/legislation. We can put our heads together on that when you return. Have a great trip!

All the best, PC

p.s. – I will forward the invite to Amy Furstenau at EF

From: Michael Northrop
Sent: Tuesday, May 28, 2019 8:56 AM
To: Nichols, Mary D.
Cc: Vicki Arroyo < >; Cummins,Patrick
Subject: Re: Pocantico July 17-18 - Draft Agenda, Logistics, and Travel Reimbursement

Mary,
I'm headed to Africa (Uganda and Ethiopia) tomorrow for 3 weeks. I get back on June 20th.
The plan is to work on the materials when I get back..
All the best,
Michael

Sent from my iPhone

On May 28, 2019, at 10:33 AM, Nichols, Mary D. > wrote:

> Thanks, Michael. I guessed as much. I am looking forward to the meeting.
>
> Mary D Nichols, Chair
> California Air Resources Board
>
> ---
>
> **From:** Michael Northrop
> **Sent:** Tuesday, May 28, 2019 3:18:28 PM
> **To:** Nichols, Mary D.
> **Cc:** Vicki Arroyo; Patrick Cummins
> **Subject:** Re: Pocantico July 17-18 - Draft Agenda, Logistics, and Travel Reimbursement
>
>
>
> Hi Mary,
> We do plan materials but it won't be ready till late June..
> Looking forward to seeing you,
> Michael
>
> Sent from my iPhone
>
> On May 28, 2019, at 6:24 AM, Nichols, Mary D. > wrote:

This looks good. Will there be some materials to look at in advance? Can Georgetown prepare a thought piece, or even just a summary of what the participants are doing?

Mary D Nichols, Chair
California Air Resources Board

From: Michael Northrop >
Sent: Tuesday, May 28, 2019 4:17:37 AM
To: dale.bryk 'Kathleen Frangione'; Kathleen Theoharides
katie.dykes ; kristen.sheeran Nichols, Mary D. ; Davis,
Chris (GOV); Toor - CEO, Will; Brad Crowell (David Bobzien; 'Janet Coit'; Burgess,
Dan; sarah.propst ; james.kenney zach.pierce
ben.grumbles ; peter.walker v
Cc: Ritter Jr,Bill; Vicki Arroyo; Joseph Kruger; Cummins,Patrick; Michael Northrop; Deborah Burke
Subject: Pocantico July 17-18 - Draft Agenda, Logistics, and Travel Reimbursement

We are moving ahead with the July 17-18 Pocantico Center meeting on Accelerating State Climate Action. We've heard from most of you and are looking forward to seeing you at Pocantico on July 17th. Please arrive by 5:00pm at the latest. Time is in short supply so we are planning a dinner and after dinner program and an early start on July 18th. We plan to adjourn by 4:00pm on the 18th.

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Please be in touch with Patrick Cummins if you want to talk about the agenda and/or logistics.

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Bill Ritter, Jr.
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41st Governor of Colorado

Vicky Arroyo
Georgetown Climate Center
Georgetown Law School

Michael Northrop
Program Director
Rockefeller Brothers Fund

ARTICLES

From Paris to Pittsburgh: U.S. State and Local Leadership in an Era of Trump

VICKI ARROYO*

ABSTRACT

States and cities have long been leaders on clean energy and climate policy. Their work has informed development of federal policies including motor vehicle standards and the Clean Power Plan. With the election of President Trump and the increasingly severe impacts of climate change, subnational leadership has become even more important and urgent. In response, many states and cities have pledged to enact new policies to mitigate the effects of climate change and help communities adapt. This Article focuses on recent developments in subnational leadership on both climate mitigation and adaptation to demonstrate the breadth and depth of engagement by leading states and cities. It provides just some examples that illustrate how, despite the Trump Administration's best efforts to dismantle federal environmental policies, many states and cities are fighting federal rollbacks and moving forward with their own policies to address climate change, promote a clean energy economy, and prepare for the consequences of a changing climate. Taken together, these efforts are important in keeping the United States within reach of the Paris Agreement targets. However, broader participation and meaningful federal action will be necessary to meet international commitments and avoid the most catastrophic consequences of climate change.

TABLE OF CONTENTS

* Executive Director, Georgetown Climate Center; Professor from Practice and Assistant Dean for Centers and Institutes, Georgetown University Law Center (Email: vaa@georgetown.edu). The author is grateful to Annie Bennett and Katherine McCormick for their research and editorial assistance as well as to Thien Chau of GELR.

INTRODUCTION

From his earliest days in office, Donald Trump and his Administration have worked to unravel the climate policies and programs put in place under President Obama. Whether it is rolling back regulations or announcing his intention to withdraw from the Paris Climate Agreement, Trump's controversial attacks on policies that mitigate and adapt to climate change have unleashed a rapid and strong response across the United States ("U.S.") and around the world. This Article focuses on subnational government leadership—leadership that pre-dates this Administration but has grown more important, vocal, and urgent during the Trump era.

Subnational climate action began in earnest in the early days of the George W. Bush Administration when governors and state legislators began to fill the gap in climate action after the U.S. pulled out of Kyoto Protocol negotiations.[1] Since then, efforts such as the bipartisan Regional Greenhouse Gas Initiative ("RGGI"); California's vehicle and fuels standards and cap-and-trade program; Colorado's Clean Air Clean Jobs Act; and other greenhouse gas ("GHG") reduction policies have helped demonstrate that climate action is not only possible, it is consistent with economic growth and opportunity. Moreover, shifts in electricity generation, catalyzed in part by renewable portfolio standards ("RPS") in a majority of states, and innovation in electric vehicle technologies have led to more widespread leadership on clean energy innovation and GHG reduction.

Part I of this Article provides a discussion of the various alliances of states, businesses, government officials, and more that have come together to pledge adherence to the Paris Agreement and take steps to combat climate change and its effects. Part II describes the specific responses of governors, attorneys general, and other government officials to the Trump Administration's rollbacks of federal GHG regulations. Part III details the bipartisan efforts of several state leaders to advance clean energy and climate policies through implementing renewable portfolio standards, participating in regional programs such as the Transportation and Climate Initiative, and providing incentives for adopting new technology such as electric vehicles. While the efforts to combat climate change and shift to cleaner energy alternatives are essential, states and communities across the country are already experiencing climate change impacts. Part IV discusses the various policies states have implemented to adapt and prepare for the effects of climate

1. *See* JOSEPH E. ALDY ET AL., BEYOND KYOTO: ADVANCING THE INTERNATIONAL EFFORT AGAINST CLIMATE CHANGE, PEW CTR. (Dec. 2003) for a concise summary of climate developments after the U.S. pulled out of the Kyoto Protocol Negotiations.

change. Part V takes a closer look at local action to reduce emissions and prepare for rising sea levels, increased flooding, and more frequent storms. Indeed, with increasingly severe climate-related impacts being observed, states and cities on the front lines are preparing for a new normal.

This Article describes just some of the many subnational activities contributing to meaningful climate action on both reducing greenhouse gas emissions and building resilience to climate change impacts despite the lack of federal leadership. While these activities are essential, they alone are not sufficient to achieve the significant reductions required at a national (and international) level to avoid the most serious climate impacts.

I. COALITIONS OF THE WILLING TAKE THE LEAD

Before Trump announced a planned withdrawal from the Paris Climate Agreement, a bipartisan group of state governors weighed in to urge that the U.S. remain in the Agreement.[2] Upon Trump's announcement in June 2017 of U.S. intent to withdraw from the agreement, Governors Jay Inslee of Washington, Andrew Cuomo of New York, and Jerry Brown of California formed the U.S. Climate Alliance ("USCA"), declaring an intent to honor the U.S.'s Paris Agreement commitments and quickly expand that coalition.[3] As of the time of this publication, twenty-three U.S. governors have joined the USCA.[4] Upon their swearing in, Governors Janet Mills (Maine), Gretchen Whitmer (Michigan), Michelle Lujan Grisham (New Mexico), J.B. Pritzker (Illinois), and Steve Sisolak (Nevada) added their states to the growing number of USCA members pledging to meet the Paris targets within their states.[5] This bipartisan coalition of states and territories represents over 51% of the U.S. population and nearly $11 trillion of the U.S.'s $19.3 trillion gross domestic product ("GDP"). If it were a country, the Alliance would be the third largest economy in the world.[6]

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2. Press Release, *12 Governors Urge Trump to Stay in Paris Agreement, Keep U.S. Commitments*, GEO. CLIMATE CTR. (May 3, 2017), https://www.georgetownclimate.org/articles/12-governors-urge-trump-to-stay-in-paris-agreement-keep-u-s-commitments.html*; see also States React to Trump's Decision to Abandon Paris Climate Agreement*, GEO. CLIMATE CTR. (June 1, 2017), http://www.georgetownclimate.org/articles/states-react-to-trump-s-decision-to-abandon-paris-climate-agreement.html.

3. Press Release, *New York Governor Cuomo, California Governor Brown, and Washington Governor Inslee Announce Formation of United States Climate Alliance*, GOVERNOR.NY.GOV (June 1, 2017), https://www.governor.ny.gov/news/new-york-governor-cuomo-california-governor-brown-and-washington-governor-inslee-announce.

4. *Governors*, U.S. CLIMATE ALLIANCE, https://www.usclimatealliance.org/governors-1/ (last visited Mar. 3, 2019).

5. *Id.*

6. Press Release, *Maine Governor Janet Mills Joins U.S. Climate Alliance*, U.S. CLIMATE ALLIANCE (Feb. 28, 2019), https://www.usclimatealliance.org/publications/2019/2/28/maine-governor-janet-mills-joins-us-climate-alliance.

On its first anniversary in June 2018, USCA announced its continued progress in meeting the Paris Agreement Emissions Targets,[7] cutting short-lived climate pollutants from the power sector, and financing cleaner, more efficient renewable energy sources.[8] In September 2018, USCA released its annual report, declaring that, "[b]ased on climate and clean energy policies already in place across Alliance states, we are projected to have a combined 18–25% reduction in GHG emissions below 2005 levels by 2025."[9]

On June 5, 2017, just four days after Trump's Paris Agreement announcement, an even broader cross-sectoral coalition of businesses, investors, cities, states, universities and other organizations formed the "We Are Still In" coalition, pledging a shared commitment to helping the U.S. meet the Paris Agreement goals.[10] Members include over 2,700 signatories, consisting of 2,121 business leaders, 281 cities and counties, 334 colleges and universities, and 10 states.[11] These leaders represent over 154 million people across all 50 states, totaling almost $10 trillion in GDP.[12]

These new alliances built on previous work by state and regional subnational governments around the world, such as the Under2 Coalition, which has pledged to do their part to limit global temperature rise to 1.5 degrees Celsius and has members stretching across 200 governments—from 43 countries and 6 continents.[13] That number represents 1.3 billion people, $30 trillion GDP in US dollars, and almost 40% of global GDP.[14]

In addition, the Powering Past Coal Alliance has been an active coalition of subnational governments and countries, and it recently gained several new members at the Global Climate Action Summit ("GCAS") in California in September 2018—including Hawaii, Minnesota, and New York State, as well as several cities.[15] Members of the Powering Past Coal Alliance agree that phasing out coal use is one of the most important steps governments can take to tackle climate

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7. Press Release, *Seventeen Governors in U.S. Climate Alliance Mark One-Year Anniversary with New Wave of Climate Actions*, U.S. CLIMATE ALLIANCE (June 1, 2018), https://www.usclimatealliance.org/publications/oneyearanniversary.

8. Dean Scott, *States to Target Climate Pollutants, in Contrast with Paris Exit*, BLOOMBERG ENV'T (June 1, 2018, 3:34 PM), https://news.bloombergenvironment.com/environment-and-energy/states-to-target-climate-pollutants-in-contrast-with-paris-exit-1.

9. FIGHTING FOR OUR FUTURE: GROWING OUR ECONOMIES AND PROTECTING OUR COMMUNITIES THROUGH CLIMATE LEADERSHIP, U.S. CLIMATE ALLIANCE (Sept. 11, 2018), *available at* https://static1.squarespace.com/static/5a4cfbfe18b27d4da21c9361/t/5b9bda1d1ae6cf830c7f80a7/1536940617096/USCA_2018+Annual+Report_20180911-FINAL.pdf.

10. *About*, WE ARE STILL IN, https://www.wearestillin.com/about (last visited Mar. 3, 2019).

11. *Who's In*, WE ARE STILL IN, https://www.wearestillin.com/signatories (last visited Mar. 3, 2019).

12. *Home*, WE ARE STILL IN, https://www.wearestillin.com/ (last visited Mar. 3, 2019).

13. *About*, UNDER2 COALITION, https://www.under2coalition.org/about (last visited Mar. 3, 2019).

14. *Id.*

15. Press Release, *Powering Past Coal Alliance Announces 10 New Members at Global Climate Action Summit*, GLOBAL CLIMATE ACTION SUMMIT (Sept. 14, 2018), https://www.globalclimateactionsummit.org/powering-past-coal-alliance/.

change and meet their commitments to keep global temperature increase well below 2 degrees Celsius, and to pursue efforts to limit it to 1.5 degrees Celsius.[16] As of September 14, 2018, members number seventy-four, including twenty-nine national and seventeen subnational governments and twenty-eight businesses.[17]

While these actions are laudable, analyses released during the GCAS show that cities, states, businesses, and market forces are poised to trim carbon emissions to 17% below 2005 levels by 2025—falling short of the Paris Agreement goal.[18]

II. PUSHING BACK ON TRUMP ROLLBACKS OF FEDERAL CARBON POLICIES

In addition to launching and expanding coalitions to demonstrate leadership in their own jurisdictions, states are working together on a bipartisan basis to push back on the Trump Administration's projected rollbacks. For example, regulators from twelve states wrote to the U.S. Environmental Protection Agency ("EPA") in support of the Clean Power Plan in 2017, and numerous governors and state officials voiced opposition when the EPA announced a proposal to repeal the Plan.[19] In February 2018, 236 mayors from 47 states submitted comments on the proposed repeal of the Clean Power Plan while urging then-administrator Scott Pruitt to retain the rule.[20] In August 2018, immediately after the replacement rule was proposed, senior officials from fourteen states—representing 43% of GDP and upwards of 123 million people—wrote EPA in opposition to the replacement.[21] Simultaneously, seven governors also issued statements opposing the Administration's proposal to replace the Clean Power Plan.[22]

In August 2018, sixteen attorneys general requested an extension for comment period and additional public hearings regarding Trump's rollback of fuel economy standards for vehicles.[23] Several statements were written by governors, as

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16. *Id.*

17. *Id.*

18. FULFILLING AMERICA'S PLEDGE, HOW STATES, CITIES, AND BUSINESSES ARE LEADING THE UNITED STATES TO A LOW-CARBON FUTURE, BLOOMBERG PHILANTHROPIES at 9 (2018), *available at* https://www.bbhub.io/dotorg/sites/28/2018/09/Fulfilling-Americas-Pledge-2018.pdf.

19. *States Urge Trump Administration to Move Forward with Clean Power Plan*, GEO. CLIMATE CTR. (July 17, 2017), https://www.georgetownclimate.org/articles/states-urge-trump-administration-to-move-forward-with-clean-power-plan.html; *State Reactions to Trump Repealing the Clean Power Plan*, GEO. CLIMATE CTR. (Oct. 10, 2017), https://www.georgetownclimate.org/articles/state-reactions-to-trump-repealing-the-clean-power-plan.html.

20. Sabrina Shankman, *236 Mayors Urge EPA Not to Repeal U.S. Clean Power Plan*, INSIDE CLIMATE NEWS (Feb. 21, 2018).

21. Press Release, *Agency Leaders For 14 States Oppose Trump Administration's Clean Power Plan Replacement*, GEO. CLIMATE CTR. (Aug. 21, 2018).

22. Press Release, *State Officials Oppose the Trump Administration's Proposal to Replace the Clean Power Plan*, GEO. CLIMATE CTR. (Aug. 22, 2018), https://www.georgetownclimate.org/articles/state-officials-oppose-the-trump-administration-s-proposal-to-replace-the-clean-power-plan.html.

23. Xavier Becerra, et al., *Request for Extension of Comment Period and Additional Public Hearings Regarding Joint Proposed Rule to Roll Back Vehicle Greenhouse Gas Emissions and Corporate Average Fuel Economy Standards for Model* (Aug. 27, 2018), *available at* https://oag.ca.gov/system/files/attachments/press-docs/states-ltr-re-extension-cars-comment-period-8-27-18-2.pdf. For information on

well as other state officials, opposing the proposed rule.[24] Attorneys general wrote acting EPA Administrator Wheeler for another 60-day extension for comment, "consistent with past practice for matters of similar importance and complexity, including EPA's 2014 proposal to adopt the Clean Power Plan and its 2017 proposal to repeal the Clean Power Plan."[25] Similarly, states and surrogates asked for more time to comment on the Clean Power Plan replacement, or the Affordable Clean Energy Rule ("ACE") rule.[26] The EPA responded by providing only one extra day. Before the end of the comment period, fourteen states joined together to submit a more robust set of formal comments with support from Georgetown Climate Center in opposition to the proposal.[27] These comments focused on the backward-looking approach of ACE and "voiced concern that EPA's weak regulatory approach provides no minimum standards for states, has no definitive dates for compliance, and will facilitate a 'race-to-the-bottom.'"[28] These states also noted that the Clean Power Plan built on successful state and regional programs, some of which are highlighted below.

III. STATE AND REGIONAL LEADERSHIP ON CLIMATE AND CLEAN ENERGY

Launched in 2009 on a bipartisan basis, the Regional Greenhouse Gas Initiative ("RGGI") became the first multi-state cap-and-trade program in the U.S. for reducing carbon dioxide (CO_2) emissions from the power sector.[29] Participating states (a majority led by Republican governors) announced in August 2017 an agreement on a draft strategy to extend the program through 2030, including a 30% tightening of the emissions cap from 2020 to 2030, which would reduce the region's power-sector emissions by 65% below 2009 levels.[30]

Trump's rollback of fuel economy standards for vehicles, *see The Safer Affordable Fuel Efficient (SAFE) Vehicles Proposed Rule for Model Years 2021–2026*, EPA, https://www.epa.gov/regulations-emissions-vehicles-and-engines/safer-affordable-fuel-efficient-safe-vehicles-proposed (last visited Mar. 3, 2019).

24. *U.S. EPA and NHTSA Propose to Freeze GHG Emissions and Fuel Economy Standards for Cars and Trucks*, GEO. CLIMATE CTR. (Aug. 2, 2018), https://www.georgetownclimate.org/articles/u-s-epa-and-nhtsa-propose-to-freeze-ghg-emissions-and-fuel-economy-standards-for-cars-and-trucks.html.

25. Xavier Becerra, et al., *supra* note 23, at 1.

26. Jessica Wentz, *6 Important Points About the "Affordable Clean Energy Rule,"* EARTH INST.: COLUM. U. (Aug. 22, 2018), https://blogs.ei.columbia.edu/2018/08/22/affordable-clean-energy-rule/. For the rule, *see* Emission Guidelines for Greenhouse Gas Emissions From Existing Electric Utility Generating Units; Revisions to Emission Guideline Implementing Regulations; Revisions to New Source Review Program, 83 Fed. Reg. 44,746 (Aug. 31, 2018).

27. Press Release, *14 States Submit Joint Comments Opposing Clean Power Plan Replacement*, GEO. CLIMATE CTR. (Oct. 31, 2018), https://www.georgetownclimate.org/articles/10-31-2018-ace-joint-state-comments.html.

28. *Id.*

29. *Elements of RGGI*, REGIONAL GREENHOUSE GAS INITIATIVE (2019), https://www.rggi.org/program-overview-and-design/elements.

30. Press Release, *Regional States Announce Proposed Program Changes: Additional 30 percent Emissions Cap Decline by 2030*, RGGI, INC. (Aug. 23, 2017), *available at* https://www.rggi.org/sites/default/files/Uploads/Program-Review/8-23-2017/Announcement_Proposed_Program_Changes.pdf.

In 2016, Terry McAuliffe, then-Governor of Virginia, signed an executive directive instructing the Virginia Department of Environmental Quality to develop and issue regulations to reduce CO_2 emissions from Virginia power plants, including regulation that is "trading-ready" and able to link to RGGI.[31] The proposed program would impose a carbon cap of 33–34 million short tons starting in 2020, declining 3% annually for 10 years.[32] In April 2018, Governor Ralph Northam vetoed a bill that would have limited the cap-and-trade program and has been actively working with his staff to take the program forward.[33] At the GCAS, Virginia also joined the regional Transportation and Climate Initiative—now thirteen members strong.[34]

New Jersey Governor Phil Murphy directed state agencies to begin the rulemaking process for New Jersey to rejoin RGGI.[35] The January 29th Executive Order, EO 7, directs the Department of Environmental Protection Commissioner and Board of Public Utilities President to immediately begin negotiations with RGGI states to determine how to best reenter the program, and discussions between New Jersey officials and RGGI states are underway.[36]

In addition, Governor Murphy signed an executive order requiring that the state develop 3,500 megawatts of offshore wind power by 2030. Executive Order 8 directs the Board of Public Utilities and the New Jersey Department of Environmental Protection to develop an Offshore Wind Strategic Plan to focus on achieving scale to reduce costs, produce job growth, and encourage workforce development.[37] New Jersey also passed two major energy bills signed by Governor Murphy.[38] Assembly Bill 3723 sets an RPS requiring that power companies generate 35% of their power by using renewable energy by 2025 and 50% by 2030.[39] The state also approved a Zero Emission Credit program that provides

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31. Va. Exec. Order No. 57 (2016), *available at* https://www.naturalresources.virginia.gov/media/governorvirginiagov/governor-of-virginia/pdf/eo/eo-57-development-of-carbon-reduction-strategies-for-electric-power-generation-facilities.pdf.

32. *Id.* at art. 5; Robert Walton, *Virginia Advances Stricter Carbon Emissions Cap Rule*, UTILITY DIVE (Oct. 31, 2018), https://www.utilitydive.com/news/virginia-advances-stricter-carbon-emissions-cap-rule/541013/.

33. Capital News Service, *Gov. Northam Vetoes 7 Bills; 1 Would Block Higher Wages*, WTRV (Apr. 9, 2018, 6:35 PM), https://wtvr.com/2018/04/09/gov-northam-vetoes-7-bills-1-would-block-higher-wages/.

34. *About Us*, Transportation & Climate Initiative, https://www.transportationandclimate.org/content/about-us (last visited Mar. 3, 2019).

35. *Governor Murphy Signs Executive Order Directing New Jersey to Reenter the Regional Greenhouse Gas Initiative*, NJ.GOV (Jan. 29, 2018), https://www.nj.gov/governor/news/news/562018/approved/20180129a_eo.shtml.

36. N.J. Exec. Order No. 7 (Jan. 29, 2018), https://www.nj.gov/infobank/eo/056murphy/pdf/EO-7.pdf.

37. N.J. Exec. Order No. 8 (Jan. 31, 2018), https://nj.gov/infobank/eo/056murphy/pdf/EO-8.pdf.

38. Nick Corasaniti & Brad Plumer, *New Jersey Takes a Big Step Toward Renewable Energy (and Nuclear Gets Help, for Now)*, N.Y. TIMES (Apr. 12, 2018), https://www.nytimes.com/2018/04/12/nyregion/new-jersey-renewable-energy.html.

39. *Id.*

$300 million annually to the state's remaining nuclear power plants, which provide 40% of the state's electricity.[40]

New York announced a number of new clean energy initiatives in 2017 and 2018. In December 2017, New York enacted a law directing its State Energy Research and Development Authority ("NYSERDA") and its Department of Public Service to develop a package of energy storage policies.[41] In January 2018, New York Governor Cuomo announced that NYSERDA will solicit proposals for at least 800 megawatts (MW) of offshore wind power in 2018 and 2019.[42] This is part of the Governor's plan to achieve 2,400 MW of offshore wind by 2030.[43] Governor Cuomo also announced that the state will invest $200 million in energy storage, in support of its goal of creating 1,500 MW of storage by 2025, and will provide free community solar to 10,000 low-income residents.[44] Cuomo also directed the Department of Environmental Conservation to develop policies to end the use of coal in the state by 2020.[45]

In March 2018, Governor Cuomo announced that his state would commit $1.4 billion to 26 renewable projects.[46] The proposed projects include twenty-two solar farms, three wind farms, and one hydroelectric project.[47] In total, the projects will add 1,380 MW of renewable energy to New York's generation portfolio.[48] In April 2018, Governor Cuomo announced that the state would increase its current 2025 energy efficiency goal by 50%.[49] New York will provide $36 million in incentives for localities, homebuilders, residents and business to make efficiency investments.[50]

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40. *Id.*

41. Peter Maloney, *New York energy storage target official after Gov. Cuomo signs bill*, UTILITY DIVE (Dec. 1, 2017), https://www.utilitydive.com/news/new-york-energy-storage-target-official-after-gov-cuomo-signs-bill/512056/.

42. Press Release, *Governor Cuomo Releases First-in-the-Nation Offshore Wind Master Plan to Guide New York's Development of Renewable Energy*, NYSERDA (Jan. 29, 2018), https://www.nyserda.ny.gov/About/Newsroom/2018-Announcements/2018-01-29-Governor-Cuomo-Releases-First-in-the-Nation-Offshore-Wind-Master-Plan.

43. Kit Kennedy, *New York State Plans 2400 of Offshore Wind by 2030*, NRDC (Jan. 10, 2019), https://www.nrdc.org/experts/kit-kennedy/new-york-state-plans-2400-mw-offshore-wind-2030.

44. Press Release, *supra* note 42.

45. Press Release, *Governor Cuomo Announces Proposed Regulations to Make New York Power Plants Coal-Free by 2020*, NY.GOV (May 17, 2018), https://www.governor.ny.gov/news/governor-cuomo-announces-proposed-regulations-make-new-york-power-plants-coal-free-2020.

46. Megan Geuss, *New York commits $1.4 billion to renewable energy projects*, ARS TECHNICA (Mar. 12, 2018), https://arstechnica.com/tech-policy/2018/03/new-york-commits-1-4-billion-to-renewable-energy-projects/.

47. *Id.*

48. *Id.*

49. Associated Press, *New York to Get New Energy Efficiency Standards*, U.S. NEWS (Apr. 20, 2018), https://www.usnews.com/news/best-states/new-york/articles/2018-04-20/new-york-to-get-new-energy-efficiency-standards.

50. *Id.*

The Massachusetts Department of Environmental Protection issued a suite of six regulations strengthening the state's reductions of GHGs.[51] The regulations increased required reductions of short-lived climate pollutants,[52] established a Clean Energy Standard,[53] set an annually-declining carbon emission standard for fossil-fuel power plants,[54] created enforceable carbon emissions standards for the state's passenger vehicle and mobile equipment fleet, and required reporting on statewide surface transportation carbon emissions.[55] The Clean Energy Standard requires utilities and power suppliers to provide at least 16% of electricity from clean energy sources (including hydro and nuclear power). The standard increases 2% annually, up to 80% in 2050.[56] The regulations are required by state law in order to meet legislatively mandated emissions reductions of 40% of 1990 levels by 2020 and 80% by 2050.[57] Additionally, Massachusetts announced that it selected an 800 MW project proposal as its first offshore wind development—the first accepted proposal resulting from the legislation signed by Governor Charlie Baker in 2016 that directed the state to hold competitive solicitations in order to reach 1,600 MW of offshore wind capacity.[58]

Rhode Island Gina Governor Raimondo made a parallel announcement that the state selected a 400 MW offshore wind project in a competitive solicitation that was held jointly with Massachusetts.[59] Rhode Island also adopted several bills bolstering the state's clean energy programs.[60] The bills extend the existing renewable energy growth programs for ten years, streamline the permitting process for solar power and for connecting renewable generation to the grid, allow for renewable energy development on up to 20% of protected farmland and open space, and make schools, hospitals, and some non-profits eligible to participate in the state's virtual-net-metering program.[61] Additionally, Rhode Island state agencies completed phase one of the Power Sector Transformation initiative, which aims to design a new regulatory framework for the electric power sector to help

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51. *Reducing GHG Emissions Under Section 3(d) of the Global Warming Solutions Act*, MASS.GOV, https://www.mass.gov/guides/reducing-ghg-emissions-under-section-3d-of-the-global-warming-solutions-act#Final%20Regulations (last visited Mar. 3, 2019).

52. 310 C.M.R. 7.72, 7.73 (2017).

53. 310 C.M.R. 7.75.

54. 310 C.M.R. 7.74.

55. 310 C.M.R. 60.05, 60.06.

56. 310 C.M.R. 7.75.

57. *Leading by Example Initiatives*, MASS.GOV, https://www.mass.gov/service-details/leading-by-example-initiatives (last visited Mar. 8, 2019).

58. Saqib Rahim, *Vineyard Wind would put 100 turbines off Mass. coast*, ENERGYWIRE (May 24, 2018), https://www.eenews.net/energywire/stories/1060082537.

59. *Id.*

60. Press Release, *Raimondo Signs Bills Supporting Clean Energy Growth*, RI.GOV (August 9, 2017), https://www.ri.gov/press/view/31127.

61. *Id.*

enable vehicle electrification, distributed generation, and renewable energy integration.[62]

Maryland revised its RPS to increase the state's electricity from qualified sources of renewable energy from 20% by 2022 to 25% by 2020.[63] Also, the Maryland Public Service Commission launched Public Conference 44 to review electric distribution systems and address rate-related issues affecting deployment of distributed energy resources and electric vehicles.[64]

California has of course long been a leader in climate action. In 2017, Governor Jerry Brown signed legislation extending the state's cap-and-trade program.[65] AB 398 extends California's economy-wide cap-and-trade program, which requires companies to buy permits to release GHG emissions, to 2030.[66] In 2018, Gov. Brown signed SB 100 committing the state to 100% clean energy by 2045, making California "the most significant political jurisdiction in the word to take that step, by a wide margin."[67] To accommodate this target, as of early August 2018, California's three largest investor-owned electric utilities have procured or are seeking approval to procure almost 1,500 MW of energy storage.[68] California's climate and energy policies have spurred huge private and public investments in clean energy. As of 2018, the state led the country in solar jobs, with over 76,000 employees,[69] and has tripled its wind-energy capacity in recent years by creating 12 new wind manufacturing facilities—producing $12.6 billion in investments through 2017.[70]

In April 2018, Hawaii's legislature passed a law to reform utility regulation in the state, moving toward a performance-based model.[71] The Ratepayer Protection Act (SB 2939) directs the Public Utility Commission to design incentives and

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62. *Power Sector Transformation Initiative*, R.I. PUB. UTILITIES COMM'N & DIV. OF PUB. UTILITIES (Nov. 2017), http://www.ripuc.ri.gov/utilityinfo/electric/PST_home.html.

63. *Maryland increases renewable portfolio standard target to 25% by 2020*, U.S. ENERGY INFO. ADMIN.: TODAY IN ENERGY (March 24, 2017), https://www.eia.gov/todayinenergy/detail.php?id=30492.

64. *Transforming Maryland's Electric Grid (PC44)*, MD. PUB. SERV. COMM'N, https://www.psc.state.md.us/transforming-marylands-electric-grid-pc44/ (last visited Mar. 3, 2019).

65. Chris Megerian, *Gov. Jerry Brown Signs Climate Change Legislation to Extend California's Cap-and-Trade Program*, L.A. TIMES (July 25, 2017), https://www.latimes.com/politics/essential/la-pol-ca-essential-politics-updates-jerry-brown-climate-change-1500992377-htmlstory.html.

66. *Id.*

67. David Roberts, *California Just Adopted Its Boldest Energy Target Yet: 100% Clean Electricity*, VOX (Sept. 10, 2018), https://www.vox.com/energy-and-environment/2018/8/31/17799094/california-100-percent-clean-energy-target-brown-de-leon.

68. *Energy Storage*, CAL. ENERGY COMM'N (Aug. 28, 2018), https://www.energy.ca.gov/renewables/tracking_progress/documents/energy_storage.pdf.

69. *Appendix A: Solar Jobs by State*, THE SOLAR FOUND. (2018), http://www.thesolarfoundation.org/wp-content/uploads/2019/02/Appendix-A.pdf.

70. Lauren Navarro, *100% by 2045: California Evaluates One of the Nation's Biggest Clean Energy Goals*, ENVTL DEF. FUND (June 27, 2018), http://blogs.edf.org/energyexchange/2018/06/27/100-by-2045-california-evaluates-one-of-the-nations-biggest-clean-energy-goals/.

71. Julia Pyper, *Hawaii Gov Signs Performance-Based Ratemaking Into Law*, GREENTECH MEDIA (Apr. 24, 2018), https://www.greentechmedia.com/articles/read/performance-based-ratemaking-becomes-law-in-hawaii#gs.97kAvKxQ.

penalties that link utility revenue to several customer-focused performance metrics by 2020. Hawaii also enacted legislation that establishes a Hawaii Climate Change Mitigation and Adaptation Commission to lead and expand the state's efforts to reduce GHG emissions and improve resiliency in line with goals set out in the Paris Agreement, and it passed a law to become carbon neutral by 2045.[72]

In 2017, Florida Governor Rick Scott signed Senate Bill 90—implementing the Amendment 4 ballot initiative that passed in 2016 with 73% approval[73]—that exempts tangible personal property tax on solar or other renewable energy source devices installed on commercial and industrial property.[74] Ultimately, 80% of the assessed value of a renewable energy source device installed on real property on or after January 1, 2018 will be exempt from ad valorem taxation.[75]

The Oregon Department of Environmental Quality released its final report on considerations for designing a cap-and-trade program to reduce GHG emissions in February 2018.[76] The report found that a cap-and-trade program could achieve emissions reductions with a limited economic effect.[77] Lawmakers in Oregon now have legislation under consideration that would create a cap-and-trade program that could be linked with California's program.[78]

In Pennsylvania, newly re-elected Governor Tom Wolf recently signed Executive Order 2019-01, which established the first ever statewide goal to reduce carbon emissions in Pennsylvania.[79] The state is aiming to achieve a 26% reduction of emissions by 2025, with the ultimate goal of reducing carbon emissions by 80% by 2050 from 2005 levels.[80] To achieve this goal, the order created the GreenGov Council, which will work with agencies to promote sustainable, green practices throughout the government.[81]

In Connecticut, lawmakers passed a sweeping energy bill in May 2018, creating a renewable energy portfolio increase of 40% by 2030.[82] The bill, signed into

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72. S.B. 559, H.D. 2, S.D. 1, 29th Leg., Reg. Sess. (2017); *see also* Adele Peters, *Hawaii just passed a law to make the state carbon neutral by 2045*, FAST COMPANY (June 4, 2018), https://www.fastcompany.com/40580669/hawaii-just-passed-a-law-to-make-the-state-carbon-neutral-by-2045.

73. *Florida Voters Pass Amendment 4; Tax Breaks for Solar Energy*, CBSMIAMI (August 30, 2016, 8:45 PM), https://miami.cbslocal.com/2016/08/30/amendment-4-would-make-solar-cheaper-for-property-owners-2/.

74. Fla. Sen. Bill 90 (2017), *available at* https://www.flsenate.gov/Session/Bill/2017/00090.

75. *Id*.

76. CONSIDERATIONS FOR DESIGNING A CAP-AND-TRADE PROGRAM IN OREGON, OR. DEPT. OF ENVTL. QUAL. (February 14, 2017), *available at* https://www.oregon.gov/deq/FilterDocs/ghgmarketstudy.pdf.

77. *See id*. at 30–42.

78. H.B. 2020, 80th Leg. Assemb., Reg. Sess. (Or. 2019).

79. Penn. Exec. Order 2019-01 (Jan. 8, 2018), *available at* https://www.oa.pa.gov/Policies/eo/Documents/2019-01.pdf; Press Release, *Governor Wolf Establishes First Statewide Goal to Reduce Carbon Pollution in Pennsylvania*, GOVERNOR TOM WOLF (Jan. 8, 2019), https://www.governor.pa.gov/governor-wolf-establishes-first-statewide-goal-reduce-carbon-pollution-pennsylvania/.

80. *Id*.

81. *Id*.

82. Robert Walton, *Connecticut Lawmakers Pass Sweeping Energy Bill*, UTILITY DIVE (May 10, 2018), https://www.utilitydive.com/news/connecticut-lawmakers-pass-sweeping-energy-bill/523264/.

law by Governor Malloy, also creates incentives to develop and use renewables as an energy source and goes toward Connecticut's overall goal of cutting greenhouse gases by 45% by 2030, in comparison to their 2001 levels—the most aggressive in the U.S.[83]

Illinois approved the Long Term Renewable Resources Procurement Plan in April 2018, charting how utilities are to achieve 25% renewable generation by the year 2025.[84] The Plan includes the Illinois Solar for All Program, which aims to provide a solar market for low-income households and communities.[85]

In August 2018, Colorado adopted the Colorado Energy Plan, incentivizing increases in renewable production within the state.[86] Most of the renewable energy is expected to come from wind and solar resources.[87] Ultimately, the plan is expected to cut carbon emissions by 60%, increase renewable energy sources to 55% of the state's mix by 2026, and save customers about $213 million by 2026.[88] A third of Colorado's coal generation is to be retired during this time period as well in order to meet the 60% emissions cut stipulated within the plan.[89]

In Maine, the Legislature unanimously passed Bill LD 1657, "An Act to Update the Allowance Budget for the Regional Greenhouse Gas Initiative," in February 2018. The bill commits the state to RGGI from 2021 to 2030.[90]

At the GCAS in September 2018, several states, including New York, Maryland, and Connecticut, announced their plans to "phase out super-polluting hydrofluorocarbons (HFCs) and replace them with climate-friendlier coolants" in various consumer products.[91] New York regulations, expected this year, will phase out HFCs in new equipment by 2024. Connecticut and Maryland both announced that state agencies would begin developing regulations.[92]

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83. *Id.*; Conn. S.B. No. 9 (2018), *available at* https://www.cga.ct.gov/asp/cgabillstatus/cgabillstatus.asp?selBillType=Bill&which_year=2018&bill_num=9.

84. Christie Hicks and David Kolata, *Ambitious Plan Solidifies Illinois as Renewable Energy Leader*, ENVTL. DEF. FUND (Apr. 3, 2018), https://www.edf.org/media/ambitious-plan-solidifies-illinois-renewable-energy-leader.

85. Jason W. Allen & Larry J. Bonney, *Illinois Approves Long-Term Renewable Plan*, THE NAT'L L. REV. (Apr. 9, 2018), https://www.natlawreview.com/article/illinois-approves-long-term-renewable-plan.

86. Judith Kohler, *Colorado Regulators Green-Light Xcel's Plan Boosting Renewables, Cutting Coal*, THE DENVER POST (Aug. 27, 2018), https://www.denverpost.com/2018/08/27/xcel-plan-boosting-renewables-greenlighted/.

87. *Id.*

88. *Id.*

89. *Id.*

90. Phelps Turner, *Maine Recommits to Cutting Carbon Pollution*, CONSERVATION L. FOUND. (Mar. 3, 2018), https://www.clf.org/blog/maine-cutting-carbon-pollution/; Me. LD 1657 (2018), *available at* http://www.mainelegislature.org/LawMakerWeb/summary.asp?ID=280067066.

91. Courtney Lindwall, *Tracking Climate Commitments from the Global Climate Action Summit*, NRDC (Sept. 12, 2018), https://www.nrdc.org/stories/tracking-climate-commitments-global-climate-action-summit.

92. Phil McKenna, *3 States Announce Plans to Phase Out Climate Super-Pollutants Used in Cooling*, INSIDE CLIMATE NEWS (Sept. 13, 2018), https://insideclimatenews.org/news/10092018/new-york-ban-hfcs-potent-greenhouse-gas-climate-pollutant-cooling-refrigeration.

Newly-elected Wisconsin Governor Tony Evers proposed carbon-free electricity by 2050 in his new energy budget, which was released in early 2019.[93] In addition, the budget includes $75 million in funds to facilitate the development of energy conservation projects, one third of which would be allotted to state-owned facilities.[94] The State Energy Office would also be transformed "into the Office of Sustainability and Clean Energy, which would be overseen by a political appointee and administer a $4 million clean energy research grant. Evers would transfer the office and five employees from the Public Service Commission to the Department of Administration."[95]

North Carolina has entered the climate fight as well. In October 2018, Governor Roy Cooper issued Executive Order No. 80, emphasizing the state's need to combat the effects of climate change.[96] Calling for the state to grow its clean energy output and capacity, the EO commits North Carolina to reducing its emissions to 40% below 2005 levels by 2025. Additionally, it "calls for an increase in registered, zero-emissions vehicles ('ZEVs') in North Carolina to at least 80,000 and a 40% reduction in energy consumption in state-owned buildings."[97]

Many other states in addition to North Carolina are looking to reduce greenhouse gas emissions through innovative transportation policies that can encourage electric vehicle ("EV") use and deployment and lower-carbon fuels. For example, in December of 2018, nine states from the mid-Atlantic through New England as well as Washington, D.C. announced that they would be working together on a bipartisan basis to design a regional low-carbon transportation policy proposal, capping carbon emissions and investing the proceeds in low carbon and more resilient transportation infrastructure through the Transportation and Climate Initiative.[98] Such an approach builds upon the successful RGGI

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93. Chris Hubbuch, *Tony Evers Proposes Carbon-Free Electricity by 2050*, WISCONSIN STATE JOURNAL (Mar. 1, 2019), https://madison.com/wsj/news/local/environment/evers-proposes-carbon-free-electricity-by/article_47e58324-d301-537f-adf6-61cddf6760cc.html.

94. *Id.*

95. *Id.*

96. N.C. Exec. Order No. 80 (Oct. 29, 2018), *available at* https://files.nc.gov/governor/documents/files/EO80-%20NC%27s%20Commitment%20to%20Address%20Climate%20Change%20%26%20Transition%20to%20a%20Clean%20Energy%20Economy.pdf.

97. Press Release, *Governor Cooper Commits to Clean Energy Economy for NC to Combat Climate Change, Create Jobs*, GOVERNOR NC (Oct. 29, 2018), https://governor.nc.gov/news/governor-cooper-commits-clean-energy-economy-nc-combat-climate-change-create-jobs.

98. *Nine States and D.C. to Design Regional Approach to Cap Greenhouse Gas Pollution from Transportation*, TRANSP. & CLIMATE INITIATIVE (Dec. 18, 2018), https://www.transportationandclimate.org/nine-states-and-dc-design-regional-approach-cap-greenhouse-gas-pollution-transportation. Initially launched in 2010, TCI includes a total of twelve states plus Washington, D.C. working together to support a transition to clean transportation alternatives. TCI is facilitated by the Georgetown Climate Center. For more information, *see Home*, TRANSP. & CLIMATE INITIATIVE, https://www.transportationandclimate.org/ (last visited Mar. 25, 2019).

experience in reducing power sector emissions and investing in clean energy alternatives in this region.

The Public Utilities Commission in California approved $780 million to fund the acceleration of the electrification of light, medium, and heavy duty transportation in May of 2018.[99] Colorado, Massachusetts, and Virginia have identified transit bus electrification as a priority for investment with the funding received from the Volkswagen ("VW") diesel emissions settlement. Rhode Island has already launched early deployments of electric transit buses purchased with VW settlement funding[100] and has prioritized routes that travel through neighborhoods that currently suffer from higher levels of air pollution.[101]

Washington Governor Jay Inslee announced his Washington Maritime Blue 2050 Initiative in 2017 to create and expand a sustainable ocean industry through the combined use of electric ferries and ships and zero-carbon-emissions port terminals.[102] Washington State plans to use around 45% of its VW settlement money to fund the electrification of public vessels, with a particular focus on ferries, recognizing that in Washington State, "ferries account for more than half of the air pollution generated by harbor vessels."[103]

In November 2017, Governor Kate Brown signed two executive orders, one of which aims to accelerate the adoption of electric vehicles, whereas the other aims to increase efficiency.[104] Oregon also is seeking to develop a more sustainable source of funding for transportation projects as fuel economy improves and electric vehicle usage increases (thereby decreasing revenues from gas taxes). Oregon completed two pilot programs to test out mileage-based user fees, and following the pilots, launched a permanent voluntary program to charge drivers for road usage.[105]

At the end of 2017, Minnesota Governor Mark Dayton signed an executive order that set fifteen-year environmental performance goals for all state agencies.

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99. Chloe Looker, *California Regulators Approve $780 Million to Drive Clean Transportation*, ENVTL. DEF. FUND (May 31, 2018), https://www.edf.org/media/california-regulators-approve-780-million-drive-clean-transportation.

100. Press Release, *Raimondo, Congressional Delegation Unveil RIPTA's First Electric Buses*, RI.GOV (Oct. 22, 2018), https://www.ri.gov/press/view/34479.

101. *Id.*

102. Tara Lee, *Leading in the Maritime Sector: Washington Launches Maritime Blue 2050 Initiative*, WASH. GOVERNOR JAY INSLEE (Dec. 12, 2017), https://www.governor.wa.gov/news-media/leading-maritime-sector-washington-launches-maritime-blue-2050-initiative.

103. The Washington State Plan notes that converting diesel to all-battery electric ferries will significantly reduce diesel and carbon emissions, improve fleet reliability, virtually eliminate engine noise that can harm marine animals, and reduce ferry operating costs by up to 20%. Brett Rude & Mike Boyer, *State of Washington Volkswagen Beneficiary Mitigation Plan*, DEP'T OF ECOLOGY: STATE OF WASH. (Nov. 2018), https://fortress.wa.gov/ecy/publications/documents/1802023.pdf.

104. Hillary Borrud, *Kate Brown adopts broad green building mandates and electric vehicle goals*, THE OREGONIAN: OR. LIVE (Nov. 6, 2017), https://www.oregonlive.com/politics/2017/11/kate_brown_adopts_broad_green.html.

105. *About*, OREGO, http://www.myorego.org/about/ (last visited Feb. 19, 2019).

Particularly, each agency is mandated to cut their gas and diesel use by 30% and their water use by 15%, while 75% of any waste produced must be compostable or recyclable.[106] Additionally, the transit agency recently announced a 2040 full electrification goal.[107] The new Minnesota Governor, Tim Walz, also announced in March 2019 a proposal to power the electricity sector using 100% carbon-free sources by 2050.[108]

At the first meeting of Nevada Governor Sandoval's Ahead of the Curve: Innovation Governors initiative, Colorado Governor Hickenlooper announced that seven states will work together to create a Regional Electric Vehicle Plan for the West—"REV West Plan."[109] A bipartisan group of states signed a Memorandum of Understanding ("MOU") with the goal to promote a network of electric vehicle corridors. The MOU calls for coordinating EV charging station buildout to reduce range anxiety and optimize EV utilization.[110] This coordination across states in the region continues despite recent elections and leadership changes in 2019.

This section provides just some examples of individual and collective leadership by U.S. states on climate change mitigation through efforts to reduce GHG emissions and promote renewable energy and efficiency. As significant climate impacts are already underway, states and local governments are acting on adaptation as well—as the next section highlights.

IV. ADAPTATION AND PLANNING

Extreme weather events are increasing in frequency and severity, leading to ever costlier consequences for communities, infrastructure, and natural systems. In fact, nearly one-third of total costs from billion-dollar disaster events since 1980 have come from events in just the past five years.[111] In 2018, there were

106. Josephine Marcotty, *California Did It. North Carolina Did It. Can Minnesota Government Go Green?*, STAR TRIBUNE (Dec. 12, 2017, 5:18 AM), http://www.startribune.com/california-did-it-north-carolina-did-it-can-minnesota-government-go-green/463519113/.

107. *Metro Transit's 100% Electric Bus Fleet Target Is a Big Step*, FRESH ENERGY (Dec. 10, 2018), https://fresh-energy.org/metro-transit-100-percent/.

108. Adam Uren, *Governor Walz Reveals Plan for 100% Clean Energy in Minnesota by 2050*, BRING ME THE NEWS (Mar. 4, 2019), https://bringmethenews.com/minnesota-news/governor-walz-reveals-plan-for-100-clean-energy-for-minnesota-by-2050.

109. *Seven-State Electric Vehicle Highway Unveiled at Energy Summit*, NAT'L GOVERNORS ASSOC. (Oct. 4, 2017), https://www.nga.org/news/press-releases/seven-state-electric-vehicle-highway-unveiled-at-energy-summit/. Those states are Colorado, Idaho, Montana, Nevada, New Mexico, Utah, and Wyoming.

110. *Memorandum of Understanding*, COLORADO.GOV (Oct. 12, 2017), https://www.colorado.gov/governor/sites/default/files/rev_west_plan_mou_10_12_17_all_states_final_1.pdf.

111. The total cost of the 241 disasters since 1980 that have each caused over $1 billion is estimated at over $1.6 trillion (CPI-adjusted), with approximately $500 billion of this coming from events in the years 2014-2018. *Billion Dollar Weather and Climate Disasters: Overview*, NOAA: NAT'L CTRS. FOR ENVTL. INFO., https://www.ncdc.noaa.gov/billions/overview; (last visited Mar. 15, 2019) *Billion Dollar Weather and Climate Disasters: Time Series*, NOAA: NAT'L CTRS. FOR ENVTL. INFO., https://www.ncdc.noaa.gov/billions/time-series (last visited Mar. 15, 2019).

fourteen weather and climate disaster events with losses exceeding $1 billion, including Hurricanes Florence and Michael and wildfires in California that broke state records dating back to 1933 in terms of overall cost, acreage burned, and lives lost.[112] Furthermore, 2017 was the most expensive year in history in terms of U.S. disaster events, exceeding $300 billion in damages.[113]

At the same time, the Trump Administration is pulling back from financial and technical support to assist with preparing for—and responding to—climate impacts. The Trump Administration has reversed most of the Obama Administration's policies promoting adaptation and resilience to climate change at all levels—federal, state, and local.[114] In 2017, Trump revoked many supervisory documents that originally were intended to guide agency decision-making when it came to adaptation.[115] As a result, strategic plans released by agencies charged with policymaking have either de-emphasized or omitted reference to climate change or what to do in the face of its increasing effects.[116] Nevertheless state and local efforts move forward on a bipartisan basis.[117]

In August 2018, New England Governors and Eastern Canadian Premiers signed a Resolution at their annual conference to explore opportunities on climate adaptation and resilience strategies.[118] Ohio, Kentucky, and Indiana, through their Regional Council of Governments, developed a tool in 2018 to help government councils, permitting committees, and contractors integrate green infrastructure into city planning designs.[119]

In November 2017, Alaska Governor Bill Walker issued an administrative order establishing an Alaska Climate Change Strategy and a Climate Action for Alaska Leadership Team to advise on adaptation, mitigation, and other actions to help safeguard the states from climate impacts.[120] In late July 2018, a draft of an Alaska Climate Change Policy was released while the Leadership Team

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112. *U.S. Billion-Dollar Weather and Climate Disasters*, NOAA: NAT'L CTRS. FOR ENVTL. INFO., https://www.ncdc.noaa.gov/billions/events/US/1980-2018 (last visited Mar. 15, 2019).

113. Arianna Skibell, *Hurricanes, wildfires make 2017 most expensive year on record*, E&E NEWS (Jan. 8, 2018), https://www.eenews.net/eenewspm/stories/1060070387.

114. Andrew Schatz, et al., *Climate Change, Sustainable Development, and Ecosystems: 2017 Annual Report*, 2017 ABA ENV'T ENERGY, & RES. L.: YEAR IN REV. 321, 339 (2017).

115. *Id.*

116. *Id.* at 340.

117. *See State and Local Adaptation Plans*, GEO. CLIMATE CTR., https://www.georgetownclimate.org/adaptation/plans.html (last visited Mar. 3, 2019).

118. Pat Bradley, *New England Governors and Eastern Canadian Premiers Hold Annual Meeting in Stowe*, WAMC (Aug. 16, 2018), https://www.wamc.org/post/new-england-governors-and-eastern-canadian-premiers-hold-annual-meeting-stowe; *Resolution 42-1*, NEW ENGLAND GOVERNORS AND EASTERN CANADIAN PREMIERS (Aug. 13, 2018), *available at* https://www.coneg.org/wp-content/uploads/transferred/Data/Sites/1/media/documents/correspondence/42-1_en.pdf.

119. *Greenspace Program*, OKI REGIONAL COUNCIL OF GOV'TS, https://www.oki.org/plans-and-programs/greenspace-program-2/ (last visited Mar. 8, 2019).

120. Alaska Admin. Order No. 289 (Oct. 31, 2017), *available at* https://gov.alaska.gov/admin-orders/administrative-order-no-289/; Margaret Kriz Hobson, *State on 'Front Lines' Drafts New Climate Team*, CLIMATEWIRE (Nov. 1, 2017), https://www.eenews.net/climatewire/2017/11/01/stories/1060065279.

developed a Climate Action Plan.[121] Unfortunately, in February 2019, newly-elected Alaska Governor Mike Dunleavy rescinded Governor Walker's administrative order[122] and disbanded the leadership team before the draft policy had been implemented.[123] This abrupt change in direction illustrates one of the challenges associated with relying solely on state executive authority and leadership.

In September 2017, Rhode Island took actions to enhance climate preparedness in the state with legislation (H 5042/S 1005, signed by Governor Raimondo) that will require local planning board members to participate in training on the effects of sea-level rise and developing in floodplains.[124] Governor Raimondo also signed Executive Order 17-10, establishing a State Chief Resiliency Officer and requiring the preparation of a new climate action plan.[125] In early July 2018, Resilient Rhody was released, and implementation of the strategy has already begun.[126]

Mid-Atlantic states are expanding efforts to improve coastal resilience. For example, Maryland passed HB 1350 in April 2018, expanding existing requirements under the Coast Smart Program to apply to more state and state-funded local projects and mandating that certain local jurisdictions develop plans to address nuisance flooding.[127] In Virginia, Governor Ralph Northam issued an executive order in November 2018 that designates a new position of Chief Resilience Officer and requires the state to develop a Coastal Resilience Master Plan.[128]

In 2018, California enacted legislation directing its Insurance Commissioner to convene a group to assess opportunities to promote investments in natural infrastructure that will reduce risk from climate hazards through "risk transfer market

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121. *See* Kevin Gullufsen, Gov Accepts Climate Change Plan, JUNEAU EMPIRE (Sept. 28, 2018, 7:00 PM), https://www.juneauempire.com/news/gov-accepts-climate-change-plan/.

122. Alaska Admin. Order No. 309 (Feb. 22, 2019), *available at* https://gov.alaska.gov/admin-orders/administrative-order-no-309/ (rescinding Admin. Order No. 289).

123. *Governor Disbands State Climate Change Strategy Team*, GREENWIRE (Feb. 26, 2019), https://www.eenews.net/greenwire/2019/02/26/stories/1060122439.

124. Press Release, *New law creates flooding and sea rise training requirement for planning boards*, R.I. GEN. ASSEMBLY (Oct. 6, 2017), http://www.rilin.state.ri.us/pressrelease/_layouts/RIL.PressRelease.ListStructure/Forms/DisplayForm.aspx?List=c8baae31-3c10-431c-8dcd-9dbbe21ce3e9&ID=13236; *Rhode Island H 5042/S 1005 2017: Flooding and Sea Level Rise Training for Municipal Planning Boards and Commissions*, GEO. CLIMATE CTR.: ADAPTATION CLEARINGHOUSE, https://www.adaptationclearinghouse.org/resources/rhode-island-h-5042-s-1005-2017-flooding-and-sea-level-rise-training-for-municipal-planning-boards-and-commissions.html (last visited Mar. 3, 2019).

125. *Rhode Island E.O. 17-10: Action Plan to Stand up to Climate Change*, GEO. CLIMATE CTR.: ADAPTATION CLEARINGHOUSE, https://www.adaptationclearinghouse.org/resources/rhode-island-e-o-17-10-action-plan-to-stand-up-to-climate-change.html (last visited Mar. 3, 2019).

126. *Resilient Rhody*, R.I. INFRASTRUCTURE BANK (July 2, 2018), https://www.riib.org/ResilientRhody.

127. *Policy Spotlight: Maryland Bill to Address Sea Level Rise Inundation and Coastal Flooding*, NCEL (Apr. 27, 2018), https://www.ncel.net/2018/04/27/policy-spotlight-maryland-bill-to-address-sea-level-rise-inundation-and-coastal-flooding/; *see also* Md. H.B. 1350 (2018), *available at* http://mgaleg.maryland.gov/webmga/frmMain.aspx?id=HB1350&stab=01&pid=billpage&tab=subject3&ys=2018rs.

128. Va. Exec. Order No. 24 (Nov. 2, 2018).

mechanisms."[129] Agencies within the state also have developed numerous resources, including the Fourth California Climate Assessment, as well as updated sea-level rise guidance, which is used by state agencies and local governments.[130] California's Climate-Safe Infrastructure Working Group released recommendations on how to better integrate climate science into planning, design, and construction of infrastructure projects.[131] California has launched the Climate Change and Health Equity Program which "embeds health and equity in California climate change planning, and embeds climate change and equity in public health planning" by working with state and local partners to "assure that climate change mitigation and adaptation activities have beneficial effects on health while not exacerbating already existing unfair and preventable difference in health status of some groups."[132]

In August 2018, Massachusetts Governor Baker signed legislation authorizing over $2.4 billion for adaptation and environmental stewardship efforts at both state and local levels.[133] Along with providing funding, the legislation codifies in statute essential components of Executive Order 569 (issued in September 2016), including requirements that the state develop and update every five years a statewide adaptation strategy and that each executive office designate a climate change coordinator.[134] In January 2019, Governor Baker proposed a 0.2% tax increase to a real estate transfer tax, which would raise funds to assist communities across the state in protecting property and infrastructure from damage wrought by climate change.[135]

In Connecticut, legislation (SB 7) was enacted in June 2018 that requires the updating of sea-level rise projections every ten years and the use of the most recent projections in state and local planning.[136] For development that is required

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129. S.B. 30, 2017-2018 Sess. (Cal. 2018).

130. CAL. NAT. RES. AGENCY AND CAL. OCEAN PROT. COUNCIL, STATE OF CALIFORNIA SEA-LEVEL RISE GUIDANCE: 2018 UPDATE (Mar. 2018); STATE OF CALIFORNIA, CALIFORNIA'S FOURTH CLIMATE ASSESSMENT (Aug. 2018).

131. CAL. CLIMATE-SAFE INFRASTRUCTURE WORKING GRP., PAYING IT FORWARD: THE PATH TOWARD CLIMATE-SAFE INFRASTRUCTURE IN CALIFORNIA (Sept. 2018), *available at* http://resources.ca.gov/climate/climate-safe-infrastructure-working-group/.

132. *Climate Change & Health Equity Program (CCHEP)*, CAL. DEP'T OF PUB. HEALTH, https://www.cdph.ca.gov/programs/OHE/pages/CCHEP.aspx (last visited Mar. 13, 2019).

133. Press Release, *Governor Baker Signs Legislation Directing $2.4 Billion to Climate Change Adaptation, Environmental Protection, and Community Investments*, MASS.GOV (Aug. 21, 2018), https://www.mass.gov/news/governor-baker-signs-legislation-directing-24-billion-to-climate-change-adaptation; *see also* Mass. H.4835 (2018), *available at* https://malegislature.gov/Bills/190/H4835.

134. *See* Mass. H.4835 (2018); Mass. Exec. Order No. 569 (Sept. 16, 2016), *available at* https://www.mass.gov/executive-orders/no-569-establishing-an-integrated-climate-change-strategy-for-the-commonwealth.

135. Steve Brown, *Baker Proposes Real Estate Tax To Pay for Local Climate Resiliency Projects*, WBUR (Jan. 18, 2019), https://www.wbur.org/news/2019/01/18/baker-real-estate-tax-climate-change-plan.

136. Conn. SB 7, Pub. Act No 18-82 (2018), *available at* https://www.cga.ct.gov/2018/ACT/pa/2018PA-00082-R00SB-00007-PA.htm.

to be "flood-proofed," it requires a minimum two-feet freeboard plus any additional freeboard necessary for the most recent sea-level rise projections.[137]

In 2017, Louisiana updated its Coastal Master Plan, detailing the state's long-term plans to address sea-level rise and land loss through coastal restoration and protection projects.[138] Louisiana also moved forward in the implementation of the Louisiana Strategic Adaptations for Future Environments ("LA SAFE") process, a community-focused adaptation planning and flood-risk reduction effort.[139] Since the initial efforts to engage with communities in high-risk areas, LA SAFE has resulted in a wide range of approaches to improve community resilience in six different parishes, including flood risk reduction projects, resilient housing prototypes, and wetland education centers.[140] Using funding secured through the National Disaster Resilience Competition, the state also is moving forward with the purchase of land for the relocation of the community on Isle de Jean Charles to a more northern part of Terrebone Parish.[141]

While states are already facing and preparing for climate impacts, the effects of climate change are most often felt locally at the community and neighborhood level. This next section discusses leadership in cities and communities which have unique authorities and responsibilities related to both GHG emissions and building resilience to climate impacts.

V. LOCAL LEADERSHIP

In June 2017, 407 members of the U.S. Conference of Mayors[142] adopted several resolutions, including one that explicitly recognized the importance of the Paris Agreement, the Clean Power Plan, and the importance of federal action to support clean transportation alternatives and to provide cities the tools they need to combat climate change and prepare for its impacts on communities.[143] It also adopted resolutions encouraging utilities, the federal government, and others to help accelerate the electrification of the transportation sector and encouraging cities to pursue a transition to "100 percent clean, renewable energy" by 2035.[144]

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137. *See id*.

138. Schatz, *supra* note 114, at 341.

139. *See Home*, LA.'S STRATEGIC ADAPTATION FOR FUTURE ENV'TS, https://lasafe.la.gov/ (last visited Mar. 3, 2019).

140. Travis Lux, *Louisiana Unveils 'Flood Resilience' Projects in Six Coastal Parishes*, WWNO (Apr. 20, 2018), https://www.wwno.org/post/louisiana-unveils-flood-resilience-projects-six-coastal-parishes.

141. Chevel Johnson, *As Louisiana Island Shrinks, State Paying to Move Residents*, AP NEWS (Mar. 22, 2018), https://apnews.com/5974b9a7bdac415398e667301f18c9f8.

142. Schatz, *supra* note 114, at 333.

143. *Resolutions: 84th Annual Meeting, In Support of Climate Action*, U.S. CONF. OF MAYORS, https://www.usmayors.org/the-conference/resolutions/?category=a0F61000003rjqsEAA&meeting=84th%20Annual%20Meeting (last visited Mar. 19, 2019).

144. *Resolutions: 86th Annual Meeting, 100% Renewable Energy in American Cities*, U.S. CONF. OF MAYORS, https://www.usmayors.org/the-conference/resolutions/?category=c9169&meeting=86th%20Annual%20Meeting (last visited Mar. 19, 2019).

At the GCAS, the C40 announced that twenty-seven of its member cities had peaked in their carbon emissions, and since that time, emissions have declined.[145]

In October 2017, twelve cities—including London, Los Angeles, Mexico City, and Paris—pledged to procure only zero-emission buses for municipal transit fleets beginning in 2025.[146] Also in October, Atlanta and Detroit both released plans designed to improve their cities' resilience and sustainability. Atlanta, a participant in the Rockefeller Foundation's 100 Resilient Cities Initiative, released its comprehensive resilience strategy, "Resilient Atlanta: Actions to Build a More Equitable Future."[147] Detroit released its first Climate Action Plan, focusing on strategies to mitigate and adapt to climate change.[148]

In July 2018, the Honolulu Mayor signed a directive mandating that government agencies plan for future sea-level rise. The directive was based on a brief prepared by Honolulu's Climate Change Commission, which stated that the city should plan for a sea-level rise of at least three feet by 2050. Because of that rise, the brief concluded that if action is not taken, "nearly 4,000 structures on Oahu would be flooded, and nearly 18 miles of coastal roads would become impassable."[149]

Cities in southeast coastal regions are taking action to improve flood resilience through funding and zoning changes. In Houston, voters in August 2018 approved a new $2.5 billion bond proposal aimed at flood mitigation. The Harris County Flood Control District, which would oversee use of the funds, has identified over 200 projects that could potentially be funded by the bond.[150] The vote marked the anniversary of Hurricane Harvey, with many Houston residents still dealing with its devastating effects. The bond vote followed earlier action by the Houston City Council in April 2018, wherein the Council voted 9-7 to enact stronger floodplain regulations.[151] "The changes, which are slated to go into effect

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145. Matt McGrath, *Cities Lead the Way on Curbing Carbon Emissions*, BBC (Sept. 14, 2018). https://www.bbc.com/news/science-environment-45515216. The C40 Leadership Group "is a network of the world's megacities", which is dedicated to "tackling climate change and driving urban action that reduces greenhouse gas emissions and climate risks, while increasing the health, wellbeing, and economic opportunities of urban citizens." *About*, C40 Cities, https://www.c40.org/about (last visited Mar. 3, 2019).

146. Alister Doyle, *Twelve big cities to buy zero emissions buses, extend green areas*, REUTERS (October 23, 2017), https://www.reuters.com/article/us-climatechange-cities/twelve-big-cities-to-buy-zero-emissions-buses-extend-green-areas-idUSKBN1CS13J.

147. RESILIENT ATLANTA: ACTIONS TO BUILD AN EQUITABLE FUTURE, RESILIENT ATLANTA (2017), *available at* http://www.100resilientcities.org/wp-content/uploads/2017/11/Atlanta-Resilience-Strategy-PDF-v2.pdf.

148. DETROIT CLIMATE ACTION PLAN, DETROITERS WORKING FOR ENVTL. JUSTICE (Oct. 24, 2017), *available at* https://detroitenvironmentaljustice.org/wp-content/uploads/2017/10/CAP_WEB.pdf.

149. Nikki Schenfeld, *Mayor Issues Directive on Climate Change*, KHON2 (July 16, 2018), https://www.khon2.com/news/local-news/mayor-issues-directive-on-climate-change/1306968449.

150. Edward Klump & Mike Lee, *Houston Area Backs $2.5B Flood Prevention Bond*, GREENWIRE (Aug. 27, 2018), https://www.eenews.net/greenwire/2018/08/27/stories/1060095285.

151. Edward Klump and Mike Lee, *Houston Sees 'Defining Moment' With New Regulations*, ENERGYWIRE (Apr. 5, 2018), https://www.eenews.net/energywire/2018/04/05/stories/1060078211.

in September, include a requirement that new construction in the 100- and 500-year floodplains be at least 2 feet above the 500-year level."[152]

Norfolk, Virginia adopted a new zoning ordinance with components designed to improve flood resilience significantly. The ordinance, which took effect in March 2018, requires that construction in the 100-year floodplain be built with at least 3 feet of freeboard, and construction in areas within the 500-year (0.2% chance) floodplain be elevated or flood-proofed to 1.5 feet above the flood elevation.[153] Norfolk's ordinance also includes an innovative "resilience quotient" system which assigns points for practices that promote flood risk reduction, stormwater management, and energy resilience, among other practices.[154]

In Miami, voters passed a $400 million bond measure in November 2017, nearly $200 million of which will fund flood mitigation projects and other measures to adapt to sea-level rise.[155] Also in Miami, Mayor Suarez signed the nation's first climate gentrification resolution in November 2018, directing the city to study how lower-income communities living on higher ground are being affected by climate gentrification driven by sea-level rise and other coastal impacts and to study ways for the city to help stabilize property tax rates in these areas.[156]

Cities in the Northeast also are implementing new development requirements designed to improve the resilience of buildings and facilities. In April 2018 in New York City, the Mayor's Office of Recovery and Resiliency released new Climate Resiliency Design Guidelines to be used in the planning and design of city facilities.[157] Additionally, while attending GCAS, Mayor de Blasio announced a new goal of doubling New York City's investments into climate change solutions to $4 billion within the next three years.[158] And in Boston, the Planning and Development Agency approved a Smart Utilities Policy in June 2018, requiring new large developments to make investments that will help prepare utility infrastructure for climate change impacts like flooding and heat waves.[159]

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152. *Id.*

153. Norfolk Zoning Ordinance, art, 3.9.7(M)(1), (J)(1) (2019), *available at* https://www.norfolk.gov/DocumentCenter/View/35581.

154. *Id.* at art. 5, § 5.12.

155. Adam Aton, *Climate funding passes; vulnerable cities get new mayors*, CLIMATEWIRE (Nov. 8, 2017), https://www.eenews.net/climatewire/2017/11/08/stories/1060065971.

156. Ines Kagubare, *Miami passes first-ever climate gentrification resolution*, CLIMATEWIRE (Dec. 5, 2018), https://www.eenews.net/climatewire/2018/12/05/stories/1060108749.

157. *See* CLIMATE RESILIENCY DESIGN GUIDELINES, N.Y.C. MAYOR'S OFFICE OF RECOVERY AND RESILIENCY (Apr. 2018), *available at* https://www1.nyc.gov/assets/orr/pdf/NYC_Climate_Resiliency_Design_Guidelines_v2-0.pdf.

158. Michelle Froese, *NYC to Double Investment Funds for Climate Change*, WINDPOWER (Sept. 14, 2018), https://www.windpowerengineering.com/business-news-projects/nyc-to-double-investment-funds-for-climate-change/.

159. *BPDA Passes Smart Utilities Policy*, BOSTON PLANNING & DEV. AGENCY (June 14, 2018), http://www.bostonplans.org/news-calendar/news-updates/2018/6/14/bpda-passes-smart-utilities-policy.

CONCLUSION

Cities, states, and regions have long been leaders on climate change, clean energy policy, and efforts to prepare for climate impacts. This subnational leadership has never been more important or more urgent as federal environmental and clean energy policies are dismantled by the Trump Administration. But while subnational action is essential given different authorities and roles, and while it provides models and substantial benefits in its own right, state and local actions alone cannot secure sufficient emission reductions. Subnational governments also benefit from federal expertise, guidance, and support in adapting to climate impacts as well. Ultimately, federal and international solutions to global climate challenges must be enacted and implemented. Scaling up the policies and technology solutions discussed in this Article will be important to achieving the significant changes required. Without comprehensive "top down" federal leadership, the best hope may well be to connect and extend the diverse "bottom up" approaches described in this Article across states and regions in order to ultimately achieve a path consistent with the Paris Agreement goals and what the science demands.

From: Vicki Arroyo <
Sent: Tuesday, May 28, 2019 1:56 PM EDT
To: Cummins,Patrick >; Michael Northrop
CC: Joseph.Kruger >; Deborah Burke
Subject: RE: Pocantico July 17-18 - Draft Agenda, Logistics, and Travel Reimbursement

Thanks, Patrick – We have some recent articles/summaries of what states are doing that might be helpful to the CNEE team we'll share under separate cover. We have a TCI leadership team meeting in Boston on June 21st but perhaps Joe can step away for this planning call. Safe travels, Michael. I'll be around this week but heading into the Grand Canyon (and off the grid as a result) from June 3-12 so Joe will continue to be point here with Megan helping on travel logistics.
All best,
Vicki

From: Cummins,Patrick [mailto
Sent: Tuesday, May 28, 2019 12:55 PM
To: Michael Northrop
Cc: Vicki Arroyo; Joseph.Kruger Deborah Burke
Subject: RE: Pocantico July 17-18 - Draft Agenda, Logistics, and Travel Reimbursement

Michael –

CNEE's research staff will get started on background materials related to existing state policies/programs and new legislation in each of the participating states.

I think Mary's idea of a "thought piece" for the different topics is a good one. That could include a description of best practices in terms of state policy/ rules/legislation. We can put our heads together on that when you return. Have a great trip!

All the best, PC

p.s. – I will forward the invite to Amy Furstenau at EF

From: Michael Northrop <
Sent: Tuesday, May 28, 2019 8:56 AM
To: Nichols, Mary D. >
Cc: Vicki Arroyo < ; Cummins,Patrick <
Subject: Re: Pocantico July 17-18 - Draft Agenda, Logistics, and Travel Reimbursement

Mary,
I'm headed to Africa (Uganda and Ethiopia) tomorrow for 3 weeks. I get back on June 20th.
The plan is to work on the materials when I get back..
All the best,
Michael

Sent from my iPhone

On May 28, 2019, at 10:33 AM, Nichols, Mary D. > wrote:

> Thanks, Michael. I guessed as much. I am looking forward to the meeting.
>
> Mary D Nichols, Chair
> California Air Resources Board
>
> ---
>
> **From:** Michael Northrop
> **Sent:** Tuesday, May 28, 2019 3:18:28 PM
> **To:** Nichols, Mary D.
> **Cc:** Vicki Arroyo; Patrick Cummins
> **Subject:** Re: Pocantico July 17-18 - Draft Agenda, Logistics, and Travel Reimbursement
>
>
>
> Hi Mary,
> We do plan materials but it won't be ready till late June..
> Looking forward to seeing you,
> Michael
>
> Sent from my iPhone
>
> On May 28, 2019, at 6:24 AM, Nichols, Mary D. > wrote:

This looks good. Will there be some materials to look at in advance? Can Georgetown prepare a thought piece, or even just a summary of what the participants are doing?

Mary D Nichols, Chair
California Air Resources Board

From: Michael Northrop >
Sent: Tuesday, May 28, 2019 4:17:37 AM
To: dale.bryk ; 'Kathleen Frangione'; Kathleen Theoharides ; katie.dykes ; kristen.sheeran Nichols, Mary D. Davis, Chris (GOV); Toor - CEO, Will; Brad Crowell); David Bobzien; 'Janet Coit'; Burgess, Dan; sarah.propst ; james.kenney zach.pierce ben.grumbles ; peter.walker
Cc: Ritter Jr,Bill; Vicki Arroyo; Joseph Kruger; Cummins,Patrick; Michael Northrop; Deborah Burke
Subject: Pocantico July 17-18 - Draft Agenda, Logistics, and Travel Reimbursement

We are moving ahead with the July 17-18 Pocantico Center meeting on Accelerating State Climate Action. We've heard from most of you and are looking forward to seeing you at Pocantico on July 17th. Please arrive by 5:00pm at the latest. Time is in short supply so we are planning a dinner and after dinner program and an early start on July 18th. We plan to adjourn by 4:00pm on the 18th.

Please see attached a draft agenda, directions to Pocantico, and travel reimbursement forms from the Georgetown Climate Center.

Please be in touch with Patrick Cummins if you want to talk about the agenda and/or logistics.

We look forward to seeing you in July for this important meeting.

Sincerely,

Bill Ritter, Jr.
Director, Center for the New Energy Economy
41st Governor of Colorado

Vicky Arroyo
Georgetown Climate Center
Georgetown Law School

Michael Northrop
Program Director
Rockefeller Brothers Fund

From: Michael Northrop <
Sent: Tuesday, May 28, 2019 1:11 PM EDT
To: Cummins,Patrick <
Subject: RE: Pocantico July 17-18 - Draft Agenda, Logistics, and Travel Reimbursement

I'm happy to follow Bill's lead on this. Delighted to invite her if it makes sense.

From: Cummins,Patrick
Sent: Tuesday, May 28, 2019 1:11 PM
To: Michael Northrop
Subject: RE: Pocantico July 17-18 - Draft Agenda, Logistics, and Travel Reimbursement

I will double check. He wanted Curtis to get an invite but Curtis can't make it. Amy is the alternate, but maybe it's not essential that we invite her. I will see what Bill thinks before sending.

From: Michael Northrop
Sent: Tuesday, May 28, 2019 10:58 AM
To: Cummins,Patrick <
Subject: RE: Pocantico July 17-18 - Draft Agenda, Logistics, and Travel Reimbursement

Thanks.
I was going to ask you about Amy. Bill is supportive of her attending?

From: Cummins,Patrick >
Sent: Tuesday, May 28, 2019 12:55 PM
To: Michael Northrop
Cc: Vicki Arroyo >; Joseph.Kruger Deborah Burke
Subject: RE: Pocantico July 17-18 - Draft Agenda, Logistics, and Travel Reimbursement

Michael –

CNEE's research staff will get started on background materials related to existing state policies/programs and new legislation in each of the participating states.

I think Mary's idea of a "thought piece" for the different topics is a good one. That could include a description of best practices in terms of state policy/ rules/legislation. We can put our heads together on that when you return. Have a great trip!

All the best, PC

p.s. – I will forward the invite to Amy Furstenau at EF

From: Michael Northrop <
Sent: Tuesday, May 28, 2019 8:56 AM
To: Nichols, Mary D.
Cc: Vicki Arroyo <>; Cummins,Patrick <
Subject: Re: Pocantico July 17-18 - Draft Agenda, Logistics, and Travel Reimbursement

Mary,
I'm headed to Africa (Uganda and Ethiopia) tomorrow for 3 weeks. I get back on June 20th.
The plan is to work on the materials when I get back..
All the best,
Michael

Sent from my iPhone

On May 28, 2019, at 10:33 AM, Nichols, Mary D. wrote:

> Thanks, Michael. I guessed as much. I am looking forward to the meeting.
>
> Mary D Nichols, Chair
> California Air Resources Board
>
> ---
>
> **From:** Michael Northrop <>
> **Sent:** Tuesday, May 28, 2019 3:18:28 PM
> **To:** Nichols, Mary D.
> **Cc:** Vicki Arroyo; Patrick Cummins
> **Subject:** Re: Pocantico July 17-18 - Draft Agenda, Logistics, and Travel Reimbursement
>
>

Hi Mary,
We do plan materials but it won't be ready till late June..
Looking forward to seeing you,
Michael

Sent from my iPhone

On May 28, 2019, at 6:24 AM, Nichols, Mary D. > wrote:

> This looks good. Will there be some materials to look at in advance? Can Georgetown prepare a thought piece, or even just a summary of what the participants are doing?
>
> Mary D Nichols, Chair
> California Air Resources Board
>
> ---
>
> **From:** Michael Northrop >
> **Sent:** Tuesday, May 28, 2019 4:17:37 AM
> **To:** dale.bryk 'Kathleen Frangione'; Kathleen Theoharides (; katie.dykes kristen.sheeran ; Nichols, Mary D. Davis, Chris (GOV); Toor - CEO, Will; Brad Crowell David Bobzien; 'Janet Coit'; Burgess, Dan; sarah.propst ; james.kenney ; zach.pierce ben.grumbles peter.
> **Cc:** Ritter Jr,Bill; Vicki Arroyo; Joseph Kruger; Cummins,Patrick; Michael Northrop; Deborah Burke
> **Subject:** Pocantico July 17-18 - Draft Agenda, Logistics, and Travel Reimbursement
>
>
>
> We are moving ahead with the July 17-18 Pocantico Center meeting on Accelerating State Climate Action. We've heard from most of you and are looking forward to seeing you at Pocantico on July 17th. Please arrive by 5:00pm at the latest. Time is in short supply so we are planning a dinner and after dinner program and an early start on July 18th. We plan to adjourn by 4:00pm on the 18th.
>
> Please see attached a draft agenda, directions to Pocantico, and travel reimbursement forms from the Georgetown Climate Center.
>
> Please be in touch with Patrick Cummins if you want to talk about the agenda and/or logistics.
>
> We look forward to seeing you in July for this important meeting.
>
> Sincerely,
>
> Bill Ritter, Jr.
> Director, Center for the New Energy Economy
> 41st Governor of Colorado
>
> Vicky Arroyo
> Georgetown Climate Center
> Georgetown Law School
>
> Michael Northrop
> Program Director
> Rockefeller Brothers Fund

From: Michael Northrop >
Sent: Tuesday, May 28, 2019 1:01 PM EDT
To: Cummins,Patrick >
CC: Vicki Arroyo < >; Joseph.Kruger
Deborah Burke <
Subject: RE: Pocantico July 17-18 - Draft Agenda, Logistics, and Travel Reimbursement

Lets plan to talk on June 21st about what we want in our briefing book.
Getting something from each of the states about their over all climate planning and their policy agenda would be a great step. If there is any to collect those before the 21st that would be great.
Then, a short discussion brief that lays out an approach to the conversation that starts at the global and travels to the state level would be great.
I'm excited about the conversation.
Thanks for all the support on this.
Best,
Michael

From: Cummins,Patrick
Sent: Tuesday, May 28, 2019 12:55 PM
To: Michael Northrop <
Cc: Vicki Arroyo < Joseph.Kruger Deborah Burke
Subject: RE: Pocantico July 17-18 - Draft Agenda, Logistics, and Travel Reimbursement

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Mary D Nichols, Chair
California Air Resources Board

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Sent: Tuesday, May 28, 2019 4:17:37 AM
To: dale.bryk 'Kathleen Frangione'; Kathleen Theoharides katie.dykes ; kristen.sheeran ; Nichols, Mary D. Davis, Chris (GOV); Toor - CEO, Will; Brad Crowell); David Bobzien; 'Janet Coit'; Burgess, Dan; sarah.propst ; james.kenney zach.pierce ben.grumbles ; peter.walker
Cc: Ritter Jr,Bill; Vicki Arroyo; Joseph Kruger; Cummins,Patrick; Michael Northrop; Deborah Burke
Subject: Pocantico July 17-18 - Draft Agenda, Logistics, and Travel Reimbursement

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Bill Ritter, Jr.
Director, Center for the New Energy Economy
41st Governor of Colorado

Vicky Arroyo
Georgetown Climate Center
Georgetown Law School

Michael Northrop
Program Director
Rockefeller Brothers Fund

From: Cummins,Patrick on behalf of Cummins,Patrick
Sent: Monday, June 17, 2019 11:31 AM EDT
To: Deborah Burke >
Subject: RE: Pocantico, July 17-18: Accelerating State Action on Climate Change

Western response has been good. Eastern responses slow so far – only heard back from RI, NJ, and MA

Patrick Cummins
Senior Policy Advisor
Colorado State University
Center for the New Energy Economy

From: Deborah Burke
Sent: Monday, June 17, 2019 9:30 AM
To: Cummins,Patrick
Subject: Re: Pocantico, July 17-18: Accelerating State Action on Climate Change

Thanks! Good response rate so far from the others?

Sent from my iPad

On Jun 17, 2019, at 11:21, Cummins,Patrick > wrote:

> Yes, I will send to Lisa. Thanks.
>
> *Patrick Cummins*
> *Senior Policy Advisor*
> *Colorado State University*
> *Center for the New Energy Economy*
>
> ---
>
> **From:** Deborah Burke
> **Sent:** Monday, June 17, 2019 9:04 AM
> **To:** Cummins,Patrick >
> **Subject:** Re: Pocantico, July 17-18: Accelerating State Action on Climate Change
>
> Hey Patrick, I don't see Lisa Hiraoka from Hawaii on this list. I know Michael touched base with her--do we want to send her this info?
>
> Sent from my iPad
>
> On Jun 12, 2019, at 09:18, Cummins,Patrick > wrote:
>
> > Dear Pocantico Participants:
> >
> > So that we can confirm your attendance, and to provide our Pocantico hosts with some information for your stay, please click here to complete a short registration form.
> > http://events.constantcontact.com/register/event?llr=fji8qakab&oeidk=a07ege9eh81b217f8f4
> >
> > We appreciate your participation in this timely gathering of state leaders for an action-oriented conversation on advancing clean energy and climate strategies across the country. Michael, Vicki, and I will touch base with each of you later this month to get further input on the agenda in order to ensure our time together is as productive as possible.
> >
> > In the meantime, please do not hesitate to contact me with any questions about this event. All the best, PC
> >
> > p.s. - State officials requiring travel support to attend this meeting can have Travel Leaders Corporate book and pay for their flight/train ticket. You may contact TLC at Georgetown@tlcorporate.com. When requesting travel from TLC, please copy Megan Burnett on the email.
> >
> > *Patrick Cummins*
> > *Senior Policy Advisor*
> > *Colorado State University*
> > *Center for the New Energy Economy*
> >
> > <Draft Agenda - Pocantico July 17-18.docx>
> > <PC Information Directions E-Mail Updated 0416.doc>

From: Cummins,Patrick on behalf of Cummins,Patrick
Sent: Wednesday, May 29, 2019 12:38 PM EDT
To: Plant,Tom <
Subject: RE: Pocantico

Want you? Yes. But not currently thinking you would attend. If you want to, let's discuss with Bill.

From: Plant,Tom
Sent: Wednesday, May 29, 2019 10:27 AM
To: Cummins,Patrick
Subject: Pocantico

Do you want me at that meeting? Just want to get it on the calendar if you do...

Thanks,
Tom

Tom Plant
Senior Policy Advisor
Center for the New Energy Economy
Colorado State University

From: Cummins,Patrick on behalf of Cummins,Patrick >
Sent: Friday, June 07, 2019 2:42 PM EDT
To: Davis, Chris (GOV)
Subject: Re: spot at Pocantico
Attachment(s): "image001.png","image002.png","image003.png","image004.png"

Chris,

I will send Michael an update on numbers. Based on what he told me previously, there should be a spot for Reed. It would be great to have both of you there.

Michael is in Africa for two more weeks, but I've seen him respond to a couple of other emails so hopefully we will hear from him in a couple of days.

Sent from my iPhone

On Jun 7, 2019, at 11:55 AM, Davis, Chris (GOV) > wrote:

> Hey guys
>
> Reed Schuler from our team would very much like to join in July. If there's room or a cancellation, could you consider his participation. Understand that there may currently be space constraints….many thanks
>
> Chris
>
> **CHRIS DAVIS**
> Senior Advisor – Climate and Energy Affairs| Office of Governor Jay Inslee
> Mobile:
> www.governor.wa.gov |
> <image001.png><image002.png><image003.png><image004.png>

From: Schuler, Reed (GOV) <
Sent: Friday, June 07, 2019 5:48 PM EDT
To: Davis, Chris (GOV) < ; Cummins,Patrick
Subject: RE: spot at Pocantico

Hi Patrick, that sounds great. Sept. 5/6 likely would work for me though as Chris says, that's a fairly busy time – I suspect early October would be easier once some of or Sept. craziness is out of the way.

Reed

From: Davis, Chris (GOV) <
Sent: Friday, June 7, 2019 1:38 PM
To: Cummins,Patrick <
Cc: Schuler, Reed (GOV) < >
Subject: RE: spot at Pocantico

Patrick

Thanks – happy to find some time to chat west coast in NY. Sept dates are probably OK. We have an USCA retreat the following week and there's climate week. I will say, personally, Sept 4 is the first day back at school so those dates aren't great for me on the home front. I"d do what I can….

CHRIS DAVIS
Senior Advisor – Climate and Energy Affairs| Office of Governor Jay Inslee
Mobile:
www.governor.wa.gov |

From: Cummins,Patrick <
Sent: Friday, June 7, 2019 12:45 PM
To: Davis, Chris (GOV) <
Subject: RE: spot at Pocantico

So, Reed should definitely hold the dates and I will make sure you get a firm answer ASAP. Even if that's not until Michael is back, we should still be far enough out for reasonable airfare.

We are going to have a strong Western contingent at Pocantico and I'm hoping we can find ½ an hour or so for a Western caucus discussion on regional next steps. I'm doing a lot of work with NM right now, and things will really be gearing up in CO.

Looking at a CNEE-sponsored Western states & stakeholders meeting in Santa Fe on Sept 5-6. Any sense of whether those dates would work for you and Reed?

Patrick Cummins
Senior Policy Advisor
Colorado State University
Center for the New Energy Economy

From: Davis, Chris (GOV) <
Sent: Friday, June 7, 2019 11:55 AM
To: Cummins,Patrick < Michael Northrop <
Subject: spot at Pocantico

Hey guys

Reed Schuler from our team would very much like to join in July. If there's room or a cancellation, could you consider his participation. Understand that there may currently be space constraints….many thanks

Chris

CHRIS DAVIS
Senior Advisor – Climate and Energy Affairs| Office of Governor Jay Inslee
Mobile:
www.governor.wa.gov |

From: Cummins,Patrick on behalf of Cummins,Patrick
Sent: Friday, June 07, 2019 3:14 PM EDT
To: Michael Northrop
Subject: Re: spot at Pocantico

Michael, I have us at 27 right now including staff, observers, and our keynote speaker. I believe you told me you want to keep it to 28.

Sent from my iPhone

On Jun 7, 2019, at 12:44 PM, Michael Northrop > wrote:

> If there's room for sure. We'll know more as we get closer.
>
> Sent from my iPhone
>
> On Jun 7, 2019, at 8:55 PM, Davis, Chris (GOV) > wrote:
>
> > Hey guys
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> > Reed Schuler from our team would very much like to join in July. If there's room or a cancellation, could you consider his participation. Understand that there may currently be space constraints….many thanks
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> > **CHRIS DAVIS**
> > Senior Advisor – Climate and Energy Affairs | Office of Governor Jay Inslee
> > Mobile:
> > www.governor.wa.gov |
> > <image001.png><image002.png><image003.png><image004.png>

From: Cummins,Patrick on behalf of Cummins,Patrick <
Sent: Wednesday, June 12, 2019 9:33 AM EDT
To: Michael Northrop >
Subject: RE: spot at Pocantico

Michael –

As you'll see, I just sent a note to all the participants asking them to complete a short registration form so that we can confirm their attendance. As far as I can tell, we've got the right people from the right states.

There are a total of 18 state reps from 14 states – 6 Western states and 8 Eastern states – along with 8 other attendees from RBF, CNEE, GCC, EF and WRI for a total of 26 at this point.

WA would really like Reed Schuler to attend with Chris Davis. I think he'd be a good addition. Let me know if it's ok to extend an invite.

Hope your trip is great and look forward to connecting on your return. Thanks, PC

Patrick Cummins
Senior Policy Advisor
Colorado State University
Center for the New Energy Economy

From: Michael Northrop <
Sent: Friday, June 7, 2019 10:31 PM
To: Cummins,Patrick
Subject: Re: spot at Pocantico

Definitely no more than 28, correct.
Anyone we still haven't heard from who we'd like to entice in?

Sent from my iPhone

On Jun 7, 2019, at 10:14 PM, Cummins,Patrick > wrote:

> Michael, I have us at 27 right now including staff, observers, and our keynote speaker. I believe you told me you want to keep it to 28.
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> > > Senior Advisor – Climate and Energy Affairs | Office of Governor Jay Inslee
> > > Mobile:
> > > www.governor.wa.gov |
> > > <image001.png><image002.png><image003.png><image004.png>

From: Cummins,Patrick on behalf of Cummins,Patrick
Sent: Monday, June 03, 2019 11:16 AM EDT
To: Stewart, Shannon
Subject: RE: Travel Support: Pocantico July 17-18

Hello, Shannon!

I am going to prepare a registration link soon and will send to you when it's ready. No need to book accommodation since this is a private retreat center.

So nothing more needed at this time. Further details to follow soon. Thank you, PC

Patrick Cummins
Senior Policy Advisor
Colorado State University
Center for the New Energy Economy

From: Stewart, Shannon
Sent: Monday, June 3, 2019 9:05 AM
To: Cummins,Patrick
Subject: FW: Travel Support: Pocantico July 17-18

Good morning Patrick

At your first convenience, can you send me information (or a link) on how to register Chair Nichols and also to book her accommodation? Thanks!

If you need anything from our office, please let me know. Thanks!

Shannon Stewart
Administrative Assistant to the Chair
California Air Resources Board
1001 I Street
Sacramento, CA 95814
)

From: Nichols, Mary D.
Sent: Tuesday, May 28, 2019 11:40 AM
To: Stewart, Shannon
Subject: Fwd: Travel Support: Pocantico July 17-18

Booking my travel
Mary D Nichols, Chair
California Air Resources Board

From: Cummins,Patrick < >
Sent: Tuesday, May 28, 2019 8:21:54 PM
To: Michael Northrop; dale.bryk v; 'Kathleen Frangione'; Kathleen Theoharides ; katie.dykes ; kristen.sheeran ; Nichols, Mary D. kate.gordon Davis, Chris (GOV); Toor - CEO, Will; Brad Crowell ( ); David Bobzien; 'Janet Coit'; Burgess, Dan; sarah.propst ; james.kenney ; zach. ; ben. peter.walke
Cc: Ritter Jr,Bill; Vicki Arroyo; Joseph Kruger; Deborah Burke; Grimes, Victoria S (ENV); Steinheimer - CEO, Nancey; Kathy Bishop - MDE-; Panebianco, Barbara; Valerie.Moquinc mlb329
Subject: Travel Support: Pocantico July 17-18

All –

State officials requiring travel support to attend this meeting can have Travel Leaders Corporate book and pay for their flight/train ticket. You may contact TLC at Georgetown@tlcorporate.com.

When requesting travel from TLC, please copy Megan Burnett on the email.

Thank you, PC

Patrick Cummins

Senior Policy Advisor
Colorado State University
Center for the New Energy Economy

From: Michael Northrop >
Sent: Monday, May 27, 2019 8:18 PM
Subject: Pocantico July 17-18 - Draft Agenda, Logistics, and Travel Reimbursement

We are moving ahead with the July 17-18 Pocantico Center meeting on Accelerating State Climate Action. We've heard from most of you and are looking forward to seeing you at Pocantico on July 17th. Please arrive by 5:00pm at the latest. Time is in short supply so we are planning a dinner and after dinner program and an early start on July 18th. We plan to adjourn by 4:00pm on the 18th.

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Director, Center for the New Energy Economy
41st Governor of Colorado

Vicky Arroyo
Georgetown Climate Center
Georgetown Law School

Michael Northrop
Program Director
Rockefeller Brothers Fund

From: Hartzell,Wendy
Sent: Wednesday, June 12, 2019 9:44 AM EDT
To: Cummins,Patrick <
Subject: RE: Try again... FW: Thank you for registering for Accelerating State Action on Climate Change

Changed… http://events.constantcontact.com/register/event?llr=fji8qakab&oeidk=a07ege9eh81b217f8f4

Wendy

From: Cummins,Patrick
Sent: Wednesday, June 12, 2019 7:36 AM
To: Hartzell,Wendy <
Subject: RE: Try again... FW: Thank you for registering for Accelerating State Action on Climate Change

Thank you! As you'll see, I sent this out. It's fine the way it is, but there's no phone field and says "Business Information"….

Patrick Cummins
Senior Policy Advisor
Colorado State University
Center for the New Energy Economy

From: Hartzell,Wendy <
Sent: Tuesday, June 11, 2019 1:51 PM
To: Cummins,Patrick <
Subject: RE: Try again... FW: Thank you for registering for Accelerating State Action on Climate Change

http://events.constantcontact.com/register/event?llr=fji8qakab&oeidk=a07ege9eh81b217f8f4

Try again? Event is live, so…??

w

From: Cummins,Patrick
Sent: Tuesday, June 11, 2019 1:36 PM
To: Hartzell,Wendy
Subject: RE: Try again... FW: Thank you for registering for Accelerating State Action on Climate Change

Hmmm – this link not working…

Patrick Cummins
Senior Policy Advisor
Colorado State University
Center for the New Energy Economy

From: Hartzell,Wendy <
Sent: Tuesday, June 11, 2019 10:22 AM
To: Cummins,Patrick <
Subject: Try again... FW: Thank you for registering for Accelerating State Action on Climate Change

I think we're good to go now: http://events.constantcontact.com/register/event?llr=fji8qakab&oeidk=a07ege9eh81b217f8f4

I removed you from the registration list again so give it a try. We "think" the other info is adding if we're already in the CC Contact list/database. I ended up creating a new form from scratch and deleted all other references to me in the list of CC Contacts (did the same with yours, too), and that seemed to do the trick. So, hopefully your new participants won't see any weirdness. Give a try.

Let me know,
W

From: Patrick Cummins > **On Behalf Of** Patrick Cummins
Sent: Tuesday, June 11, 2019 10:17 AM
To: Hartzell,Wendy <W
Subject: Thank you for registering for Accelerating State Action on Climate Change

Accelerating State Action on Climate Change

We will meet at the Pocantico Center of the Rockefeller Brothers Fund beginning on Wednesday, July 17 for dinner, and conclude at 4:00 p.m. on Thursday, July 18. We will use the dinner and time after dinner the first night for active discussion, so please plan to arrive no later than by 5:00 pm on July 17.

Wednesday, July 17, 2019 at 5:00 PM EDT
-to-
Thursday, July 18, 2019 at 4:00 PM EDT

The Pocantico Center
200 Lake Road
Tarrytown, NY 10591

Thank you again for registering.

Personal Information:

First Name:	Wendy
Last Name:	Test2NewForm
Email Address:	

Business Information

Organization:	Center for the New Energy Economy
Job Title:	Exec. Assistant

Other Logistics:

Mode of travel:	Driving
Name of arriving airport and arrival time:	tbd
Name of departing airport and departure time:	tbd
Please note any dietary restrictions:	tbd

Contact
Patrick Cummins
Center for the New Energy Economy at CSU
970-799-0970

Add to Calendar

From: Cummins,Patrick on behalf of Cummins,Patrick <
Sent: Tuesday, May 28, 2019 2:21 PM EDT
To: Michael Northrop ; dale.bryk >; Kathleen Frangione >; Kathleen Theoharides) >; katie.dykes kristen.sheeran <kristen.sheeran >; Nichols, Mary D. <mary.nichols ; kate.gordon <kate.gordon >; Davis, Chris (GOV) >; Toor - CEO, Will < >; Brad Crowell David Bobzien < >; Janet Coit <j ; Burgess, Dan < >; sarah.propst <sarah.propst ; james.kenney us>; zach.pierce < >; ben.grumbles >; peter.walke >
CC: Ritter Jr,Bill < >; Vicki Arroyo <a >; Joseph Kruger ; Deborah Burke >; Grimes, Victoria S (ENV) >; Steinheimer - CEO, Nancey < >; Kathy Bishop -MDE- >; Panebianco, Barbara < Valerie.Moquino >; mlb329
Subject: Travel Support: Pocantico July 17-18

All –

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Senior Policy Advisor
Colorado State University
Center for the New Energy Economy

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Sent: Monday, May 27, 2019 8:18 PM
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41st Governor of Colorado

Vicky Arroyo
Georgetown Climate Center
Georgetown Law School

Michael Northrop
Program Director
Rockefeller Brothers Fund

From: Cummins,Patrick on behalf of Cummins,Patrick >
Sent: Monday, May 20, 2019 7:22 PM EDT
To: Michael Northrop ; Ritter Jr,Bill ; Vicki Arroyo
< joseph.kruger >; Deborah Burke

CC: Megan.Burnett ; Hartzell,Wendy

Subject: Check in Call on Pocantico Meeting

Here's the number for our call tomorrow at 10am Eastern / 8am Mountain
Conference number: 1-866-425-9377
Code: 4683-6236-35

Here's where we are with invites and responses. Positive response from all except those highlighted in yellow.

Per Vicki: With Vermont, Peter Walke of ANR who has the governor's ear.

With states at 18 per all on the list below, RBF at 2, CNEE at 2, Georgetown at 1, Keynote speaker at 1 and Energy Foundation at 1 – we would be at 25 with max of 28. I also extended an invite to Franz Litz but he has not yet responded.

We talked about possible invites for QC and BC, but I have not done that yet. Let's revisit that question in the morning.

I will get a draft of the meeting description and agenda to you before the call. Thanks, PC

California	Mary Nichols	Chairman	California Air Resources Board
	Kate Gordon	Director	Gov's Office of Planning and Research
Colorado	Will Toor	Director	Governor's Energy Office
	Zach Pierce	Sr. Policy Advisor, Energy & Natural Res.	Office of the Governor
Connecticut	Katie Dykes	Commissioner	Department of Energy and Environmental Protection
Maine	Dan Burgess	Director	Governor's Energy Office
Maryland	Ben Grumbles	Secretary	Department of the Environment
Massachusetts	Katie Theoharides	Asst. Secretary for Climate Change	Office of Energy and Environmental Affairs
Nevada	Brad Crowell	Director	Dept. of Conservation and Natural Resources
	David Bobzien	Director	Governor's Energy Office
New Jersey	Kathleen Frangione	Chief Policy Advisor	Office of Gov. Phil Murphy
New Mexico	Sarah Cottrell Propst	Cabinet Secretary	Energy, Minerals and Natural Resources Department
	Jim Kenney	Cabinet Secretary	Environment Department
New York	Dale Bryk	Deputy Secretary	Energy and Environment
Oregon	Kristen Sheeran	Director	Governor's Carbon Policy Office
Rhode Island	Janet Coit	Director	Department of Environmental Management
Vermont	Kendal Smith	Director, Policy and Legislative Affairs	Governor's Office
Washington	Chris Davis	Senior Advisor, Climate and Energy	Governor's Office

Subject: Check in on Pocantico Meeting
Location: 1-866-425-9377; 4683-6236-35

Start: Tuesday, May 21, 2019 10:00 AM EDT
End: Tuesday, May 21, 2019 11:00 AM EDT
Show Time As: Tentative

Recurrence: None

Meeting Status: Not yet responded

Organizer: Cummins,Patrick
Required Attendees: False

Call Agenda:

1) Finalize invite list and confirm participants
2) Logistics and travel support
3) Draft meeting description and agenda – topics, format, speakers,
4) Individual calls to get input on meeting agenda and outcomes
5) Keynote speaker
6) Briefing book
7) Western caucus?

Accelerating U.S. State Action on Climate Change
5 pm Wednesday, July 17 – 4 pm Thursday, July 18, 2019
The Pocantico Center
Tarrytown, NY

An off-the-record discussion on:

- meeting the increasingly ambitious climate goals being established by governors and state legislatures across the country.
- Leveraging the actions of leadership states to influence the federal government, bring more states into the fold, and help represent the US in international discussions.

Despite state leadership and significant progress in the electric power sector, US emissions are not on track to meet the US target under the Paris Agreement

- ***US GHG emissions were actually higher in 2018 than in 2012.***

The Trump Administrations ongoing rollback of federal rules and its assault on state authority jeopardizes the ability of states to make progress and undermines the efforts of all those in the US seeking to advance climate solutions and live up to our international obligations.

State climate goals for 2030 are increasingly ambitious, but won't be achieved without implementation of additional strategies, especially in sectors other than electric power.

Potential topics for meeting:

Day 1 – after dinner / keynote speaker

- 2019 and 2020 COPs
  - What's on tap for these meetings?
  - How can US states continue to effectively represent the US at these meetings?

Day 2 –

- Transportation
  - Status of EPA rollback and CA waiver (Mary Nichols)
    - § What should states be doing? How to respond when final?
  - TCI – status and info for Western states to consider
  - LCFS – should this strategy be considered by more states
  - Incentives for vehicle purchases and charging infrastructure

- Buildings
  - Efficiency and retrofits
  - Codes and standards, incl. appliances
  - Electrification, incl. enabling utility investment
  - Renewable natural gas and obstacles for gas utilities

- Industrial Sources, Oil & Gas, Methane, HFCs
  - Similar to buildings in terms of efficiency, retrofits and electrification
  - What are tools, policies and incentives to make progress in these sectors
  - Upstream (CO, NM) and downstream (all) strategies for oil&gas, methane
  - What are states doing on HFCs – model rule/legislation?

- Strategy Session and Next Steps – Working together
  - Group actions by leadership states

- Outreach / support for opportunity states
- Impact national conversation – federal rules, 2020 election cycle
- Santiago and London

From: Deborah Burke <
Sent: Thursday, May 16, 2019 12:13 PM EDT
To: Cummins,Patrick <
CC: Michael Northrop
Subject: early arrivals at Pocantico on July 17

Hi Patrick,

Regina says that normally if they start with dinner we say arrival after 1:00 p.m. since lunch would not be available, however if there are folks from the west coast we can make exceptions and let those arrive earlier we can certainly make arrangements for those and can get a box lunch if necessary.

So, sounds like the West Coast caucus is a go. Just be sure to let Regina know if you want a box lunch for those arrivals.

Cheers,
Deborah

Deborah Burke, Program Associate, Sustainable Development
Rockefeller Brothers Fund | 475 Riverside Drive, Suite 900 | New York, NY 10115
direct

Philanthropy for an Interdependent World

From: Cummins,Patrick on behalf of Cummins,Patrick >
Sent: Monday, May 20, 2019 7:36 PM EDT
To: Ritter Jr,Bill <
Subject: FW: Check in Call on Pocantico Meeting

Bill – you do not need to be on this call. This was just FYI

From: Cummins,Patrick
Sent: Monday, May 20, 2019 5:22 PM
To: Michael Northrop >; Ritter Jr,Bill < >; Vicki Arroyo >; joseph.kruger ; Deborah Burke
Cc: Megan.Burnett ; Hartzell,Wendy <
Subject: Check in Call on Pocantico Meeting

Here's the number for our call tomorrow at 10am Eastern / 8am Mountain
Conference number: 1-866-425-9377
Code: 4683-6236-35

Here's where we are with invites and responses. Positive response from all except those highlighted in yellow.

Per Vicki: With Vermont, Peter Walke of ANR who has the governor's ear.

With states at 18 per all on the list below, RBF at 2, CNEE at 2, Georgetown at 1, Keynote speaker at 1 and Energy Foundation at 1 – we would be at 25 with max of 28. I also extended an invite to Franz Litz but he has not yet responded.

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Oregon	Kristen Sheeran	Director	Governor's Carbon Policy Office
Rhode Island	Janet Coit	Director	Department of Environmental Management
Vermont	Kendal Smith	Director, Policy and Legislative Affairs	Governor's Office
Washington	Chris Davis	Senior Advisor, Climate and Energy	Governor's Office

From: Vicki Arroyo
Sent: Tuesday, May 21, 2019 10:48 AM EDT
To: Theoharides, Kathleen (EEA) >
CC: Grimes, Victoria S (ENV) < ; Joseph Kruger < >; Michael Northrop < >; Cummins,Patrick >
Subject: FW: July 17-18 Invitation: State Strategies for Meeting Ambitious Climate Goals

Dear Katie – I hope this finds you well, and you are enjoying your new role! Might you be able to attend this event in July at Pocantico? There's a great group of state leaders from around the US who will attend, and Joe Kruger will be representing GCC (I'll be in Germany watching my son compete for the US men's Ultimate Frisbee team). I hate to miss what will be a great opportunity to help states share what they are doing and elevate ambition across important sectors, including transportation. Let us know if you have any questions or want to discuss, and we hope you (or perhaps Dan if you are booked ?) can make it!

All best,
Vicki

Vicki Arroyo
Executive Director, Georgetown Climate Center
Asst. Dean, Centers & Institutes and Professor from Practice, Georgetown Law

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From: Michael Northrop [mailto: g]
Sent: Sunday, April 28, 2019 5:08 PM
To: kathleen.theoharides ; matthew.beaton
Cc: Ritter Jr,Bill; Vicki Arroyo; Cummins,Patrick; Joseph Kruger; Hartzell,Wendy; Sonia Jagtiani; Michael Northrop
Subject: July 17-18 Invitation: State Strategies for Meeting Ambitious Climate Goals

April 28, 2019

Dear Matt and Katie,

On behalf of the Center for the New Energy Economy at Colorado State University, the Georgetown Climate Center, and the Rockefeller Brothers Fund, we are writing to invite you to an off-the-record discussion on meeting the increasingly ambitious climate goals being established by governors and state legislatures across the country.

We are asking lead energy policy advisors to attend from a dozen states with supportive, and in many cases, new governors and legislatures interested in accelerating the transition to a clean, low-carbon economy. You are invited because you are the, or one of the, lead policy advisors to your governor on energy and climate policy.

We will meet at the Pocantico Center of the Rockefeller Brothers Fund beginning on Wednesday, July 17 for dinner, and conclude at 4:00 p.m. on Thursday, July 18. We will use the dinner and time after dinner the first night for active discussion, so please plan to arrive by 5:00pm on July 17th.

The Pocantico Center, on the former Rockefeller family estate outside Tarrytown, New York, is 40 minutes from midtown Manhattan by train from Grand Central Station, or is easily accessible by car from any of the metro area's three airports. We'll stay at Pocantico on the evening of July 17 and eat our meals there. The RBF will cover all inside the gate costs and travel to and from airports or midtown Manhattan. If your state cannot cover travel, we can help you cover your travel costs as well.

Given the arrival of a substantial number of new governors, who have committed to moving aggressively on climate and energy, and the ongoing commitment of many other governors, we think this is an opportunity to support this subset of states to move forward aggressively with sensible, economically beneficial policies. We believe your state can help lead this effort. CSU, Georgetown, and the RBF have long prioritized state clean energy policymaking and look forward to supporting your work in the coming months and years.

To tell you some more about the rationale for this discussion, and to get your input on what would be most helpful, we would like to have a brief discussion with you by phone in the coming weeks. In the meantime, please save the dates, and please do not hesitate to reach out to either one of us to discuss this event. You may RSVP to Patrick Cummins at CSU (We will follow up with additional travel planning information after we hear from you.

We sincerely hope you are able to participate and look forward to speaking with you soon. Many thanks.

Sincerely,

Bill Ritter, Jr.
Director, Center for the New Energy Economy
41st Governor of Colorado

Vicky Arroyo
Georgetown Climate Center

Georgetown Law School

Michael Northrop
Program Director
Rockefeller Brothers Fund

From: Vicki Arroyo <
Sent: Tuesday, May 21, 2019 10:38 AM EDT
To: Walke, Peter < >
CC: Joseph Kruger >; kendal.smith ; Michael Northrop < >; Cummins,Patrick < u>
Subject: FW: July 17-18 Invitation: State Strategies for Meeting Ambitious Climate Goals

Dear Peter – Hope this finds you well. Might you or Kendal be able to attend this event in July at Pocantico? There's a great group of state leaders from around the US who will attend, and Joe Kruger will be representing GCC (I'll be in Germany watching my son compete for the US men's Ultimate Frisbee team). I hate to miss what will be a great opportunity to help states share what they are doing and elevate ambition across important sectors, including transportation. Let us know if you have any questions or want to discuss, and we hope you or Kendal can make it!

All best,
Vicki

Vicki Arroyo
Executive Director, Georgetown Climate Center
Asst. Dean, Centers & Institutes and Professor from Practice, Georgetown Law

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From: Michael Northrop [mailto]
Sent: Sunday, April 28, 2019 5:23 PM
To: kendal.smith
Cc: Ritter Jr,Bill; Vicki Arroyo; Cummins,Patrick; Joseph Kruger; Hartzell,Wendy; Sonia Jagtiani; Michael Northrop
Subject: July 17-18 Invitation: State Strategies for Meeting Ambitious Climate Goals

April 28, 2019

Dear Kendal,

On behalf of the Center for the New Energy Economy at Colorado State University, the Georgetown Climate Center, and the Rockefeller Brothers Fund, we are writing to invite you to an off-the-record discussion on meeting the increasingly ambitious climate goals being established by governors and state legislatures across the country.

We are asking lead energy policy advisors to attend from a dozen states with supportive, and in many cases, new governors and legislatures interested in accelerating the transition to a clean, low-carbon economy. You are invited because you are the, or one of the, lead policy advisors to your governor on energy and climate policy.

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Given the arrival of a substantial number of new governors, who have committed to moving aggressively on climate and energy, and the ongoing commitment of many other governors, we think this is an opportunity to support this subset of states to move forward aggressively with sensible, economically beneficial policies. We believe your state can help lead this effort. CSU, Georgetown, and the RBF have long prioritized state clean energy policymaking and look forward to supporting your work in the coming months and years.

To tell you some more about the rationale for this discussion, and to get your input on what would be most helpful, we would like to have a brief discussion with you by phone in the coming weeks. In the meantime, please save the dates, and please do not hesitate to reach out to either one of us to discuss this event. You may RSVP to Patrick Cummins at CSU (We will follow up with additional travel planning information after we hear from you.

We sincerely hope you are able to participate and look forward to speaking with you soon. Many thanks.

Sincerely,

Bill Ritter, Jr.
Director, Center for the New Energy Economy
41st Governor of Colorado

Vicky Arroyo
Georgetown Climate Center
Georgetown Law School

Michael Northrop
Program Director
Rockefeller Brothers Fund

From: Michael Northrop >
Sent: Thursday, May 16, 2019 2:26 PM EDT
To: kathleen.theoharides
CC: Cummins,Patrick
Subject: FW: July 17-18 Invitation: State Strategies for Meeting Ambitious Climate Goals

Dear Katie,
I am just back from Ecuador and following up on the upcoming July 17-18 meeting. Fingers crossed you can make it.
If you want to grab a few minutes by phone today or tomorrow, let me know.
Thanks,
Michael

From: Michael Northrop
Sent: Sunday, April 28, 2019 5:08 PM
To: kathleen.theoharides matthew.beaton s
Cc: Ritter Jr,Bill < >; Vicki Arroyo < >; Cummins,Patrick >; Joseph Kruger < >; Hartzell,Wendy < >; Sonia Jagtiani < >; Michael Northrop <
Subject: July 17-18 Invitation: State Strategies for Meeting Ambitious Climate Goals

April 28, 2019

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41st Governor of Colorado

Vicky Arroyo
Georgetown Climate Center
Georgetown Law School

Michael Northrop
Program Director
Rockefeller Brothers Fund

From: Cummins,Patrick < >
Sent: Tuesday, May 07, 2019 1:02 PM EDT
To: Cummins,Patrick < >
CC: Vicki Arroyo >; Deborah Burke
Subject: FW: July 17-18 Invitation: State Strategies for Meeting Ambitious Climate Goals

All –

I am following up on this invitation that you received last week from for Michael Northrup, Vicki Arroyo and Governor Ritter. Plans are coming together for this meeting of state officials at the Pocantico Center on July 17-18 and it would be helpful to know if it looks like you will be able to attend. As mentioned in the invitation, support is available to cover your travel expenses if needed.

Michael is currently out on vacation, but will be reaching out to set up a time to discuss the meeting in more detail once he is back in about two weeks. In the meantime, his team at the Rockefeller Brothers Fund are planning the logistics and getting an approximate head count would be helpful.

Please reply with a thumbs up or down when you have a minute. And do not hesitate to let me know if you have any questions or need more information about the meeting. You can call me anytime at the phone number shown below.

Thank you and we will be in touch soon. All the best, PC

Patrick Cummins
Senior Policy Advisor
Center for the New Energy Economy
Colorado State University

From: Michael Northrop
Sent: Sunday, April 28, 2019 3:31 PM
Subject: July 17-18 Invitation: State Strategies for Meeting Ambitious Climate Goals

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Vicki Arroyo
Georgetown Climate Center
Georgetown Law School
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Michael Northrop
Program Director
Rockefeller Brothers Fund

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Sent: Tuesday, May 07, 2019 1:02 PM EDT
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CC: Vicki Arroyo >; Deborah Burke
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Colorado State University

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41st Governor of Colorado

Vicki Arroyo
Georgetown Climate Center
Georgetown Law School
a

Michael Northrop
Program Director
Rockefeller Brothers Fund

From: Vicki Arroyo
Sent: Tuesday, May 21, 2019 10:58 AM EDT
To: Dykes, Katie >; Colon, Carmen
CC: Joseph Kruger >; Michael Northrop ; Cummins,Patrick

Subject: FW: July 17-18 Invitation: State Strategies for Meeting Ambitious Climate Goals

Dear Katie (and Carmen) – Hope this finds you well. Might you be able to attend this event in July at Pocantico? There's a great group of state leaders from around the US who will attend, and Joe Kruger will be representing GCC (I'll be in Germany watching my son compete for the US men's Ultimate Frisbee team). I hate to miss what will be a great opportunity to help states share what they are doing and elevate ambition across important sectors, including transportation. Let us know if you have any questions or want to discuss, and we hope you can make it!

All best,
Vicki

Vicki Arroyo
Executive Director, Georgetown Climate Center
Asst. Dean, Centers & Institutes and Professor from Practice, Georgetown Law

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From: Michael Northrop [mailto:
Sent: Sunday, April 28, 2019 5:01 PM
To: katie.dykes
Cc: Ritter Jr,Bill; Vicki Arroyo; Cummins,Patrick; Michael Northrop; Joseph Kruger; Hartzell,Wendy; Sonia Jagtiani
Subject: July 17-18 Invitation: State Strategies for Meeting Ambitious Climate Goals

April 28, 2019

Dear Katie,

On behalf of the Center for the New Energy Economy at Colorado State University, the Georgetown Climate Center, and the Rockefeller Brothers Fund, we are writing to invite you to an off-the-record discussion on meeting the increasingly ambitious climate goals being established by governors and state legislatures across the country.

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Sincerely,

Bill Ritter, Jr.
Director, Center for the New Energy Economy
41st Governor of Colorado

Vicky Arroyo

Georgetown Climate Center
Georgetown Law School

Michael Northrop
Program Director
Rockefeller Brothers Fund

From: Cummins,Patrick on behalf of Cummins,Patrick <
Sent: Monday, May 20, 2019 1:09 PM EDT
To: mnorthrop
Subject: Fwd: July 17-18 Invitation: State Strategies for Meeting Ambitious Climate Goals

From: Kathy Bishop -MDE- >
Date: May 20, 2019 at 11:06:11 AM MDT
To: "Cummins,Patrick" >
Subject: Re: July 17-18 Invitation: State Strategies for Meeting Ambitious Climate Goals

Patrick,

Secretary Ben Grumbles accepts your invitation to participate in the climate conversation scheduled for July 17 & 18 at the Pocantico Center. Please copy me on the logistics, when available.

Thanks,
Kathy

--
Kathy Bishop
Executive Assistant to the Secretary
Maryland Department of the Environment
1800 Washington Blvd., Baltimore, MD 21230

From: Michael Northrop

Sent: Sunday, April 28, 2019 3:05 PM
To: ben.grumbles
Cc: Ritter Jr,Bill < >; Vicki Arroyo < >; Cummins,Patrick >; Joseph Kruger < >; Hartzell,Wendy >; Sonia Jagtiani < ; Michael Northrop
Subject: July 17-18 Invitation: State Strategies for Meeting Ambitious Climate Goals

April 28, 2019

Dear Ben,

On behalf of the Center for the New Energy Economy at Colorado State University, the Georgetown Climate Center, and the Rockefeller Brothers Fund, we are writing to invite you to an off-the-record discussion on meeting the increasingly ambitious climate goals being established by governors and state legislatures across the country.

We are asking lead energy policy advisors to attend from a dozen states with supportive, and in many cases, new governors and legislatures interested in accelerating the transition to a clean, low-carbon economy. You are invited because you are the, or one of the, lead policy advisors to your governor on energy and climate policy.

We will meet at the Pocantico Center of the Rockefeller Brothers Fund beginning on Wednesday, July 17 for dinner, and conclude at 4:00 p.m. on Thursday, July 18. We will use the dinner and time after dinner the first

night for active discussion, so please plan to arrive by 5:00pm on July 17th.

The Pocantico Center, on the former Rockefeller family estate outside Tarrytown, New York, is 40 minutes from midtown Manhattan by train from Grand Central Station, or is easily accessible by car from any of the metro area's three airports. We'll stay at Pocantico on the evening of July 17 and eat our meals there. The RBF will cover all inside the gate costs and travel to and from airports or midtown Manhattan. If your state cannot cover travel, we can help you cover your travel costs as well.

Given the arrival of a substantial number of new governors, who have committed to moving aggressively on climate and energy, and the ongoing commitment of many other governors, we think this is an opportunity to support this subset of states to move forward aggressively with sensible, economically beneficial policies. We believe your state can help lead this effort. CSU, Georgetown, and the RBF have long prioritized state clean energy policymaking and look forward to supporting your work in the coming months and years.

To tell you some more about the rationale for this discussion, and to get your input on what would be most helpful, we would like to have a brief discussion with you by phone in the coming weeks. In the meantime, please save the dates, and please do not hesitate to reach out to either one of us to discuss this event. You may RSVP to Patrick Cummins at CSU). We will follow up with additional travel planning information after we hear from you.

We sincerely hope you are able to participate and look forward to speaking with you soon. Many thanks.

Sincerely,

Bill Ritter, Jr.

Director, Center for the New Energy Economy

41st Governor of Colorado

Vicky Arroyo

Georgetown Climate Center

Georgetown Law School

Michael Northrop

Program Director

Rockefeller Brothers Fund

From: Deborah Burke
Sent: Tuesday, May 21, 2019 10:07 AM EDT
To: Cummins,Patrick <
Subject: Fwd: July meeting for Governors' senior energy policy advisors

Hawaii

Sent from my iPhone

Begin forwarded message:

> **From:** "Hiraoka, Lisa M" <
> **Date:** May 16, 2019 at 14:04:08 EDT
> **To:** Ian Chan Hodges , Michael Northrop
> **Cc:** Deborah Burke
> **Subject: RE: July meeting for Governors' senior energy policy advisors**
>
> Hi, Ian,
> Thank you for contacting me and sharing this meeting opportunity! I will speak with Governor Ige about this invitation and get back to you.
> Mahalo,
> Lisa
>
> ---
>
> **From:** Ian Chan Hodges
> **Sent:** Thursday, May 16, 2019 6:55 AM
> **To:** Hiraoka, Lisa M >; Michael Northrop
> **Cc:** Deborah Burke
> **Subject:** Re: July meeting for Governors' senior energy policy advisors
>
> Good morning Lisa,
>
> I am connecting you with Michael Northrop who serves as program director for sustainable development at the Rockefeller Brothers Fund where he focuses on climate change and energy. Rockefeller Brothers Fund is working with Colorado State University and the Georgetown Climate Center to organize a meeting in July of lead energy policy advisors to Governors who are committed to accelerating the transition to a clean, low-carbon economy. As Governor Ige's leadership in this area is nationally recognized and you are a key advisor to him, I thought it would make sense to connect Michael directly with you so he can provide additional information on the July meeting.
>
> Mahalo,
> Ian
>
> > On May 15, 2019, at 10:25 PM, Ian Chan Hodges wrote:
> >
> > Hi Lisa,
> >
> > Good talking with you today.
> >
> > Here is the basic information that was sent to me by Deborah Burke from the Rockefeller Brothers Fund regarding the July meeting in New York. My understanding is that California, Colorado, Massachusetts, Nevada, New Jersey, New York and Washington have confirmed attendance.
> >
> > Aloha,
> > Ian
> >
> > > On May 3, 2019, at 11:54 AM, Deborah Burke > wrote:
> > >
> > > Great to see you! Here's more info on the meeting in July:
> > > On behalf of the Center for the New Energy Economy at Colorado State University, the Georgetown Climate Center, and the Rockefeller Brothers Fund, we are writing to invite you to an off-the-record discussion on meeting the increasingly ambitious climate goals being established by governors and state legislatures across the country.
> > >
> > > We are asking lead energy policy advisors to attend from a dozen states with supportive, and in many cases, new governors and legislatures interested in accelerating the transition to a clean, low-carbon economy. You are invited because you are the, or one of the, lead policy advisors to your governor on energy and climate policy.
> > >
> > > We will meet at the Pocantico Center of the Rockefeller Brothers Fund beginning on Wednesday, July 17 for dinner, and conclude at 4:00 p.m. on Thursday, July 18. We will use the dinner and time after dinner the first night for active discussion, so please plan to arrive by 5:00pm on July 17th.
> > >
> > > The Pocantico Center, on the former Rockefeller family estate outside Tarrytown, New York, is 40 minutes from midtown Manhattan by train from Grand Central Station, or is easily accessible by car from any of the metro area's three airports. We'll stay at Pocantico on the evening of July 17 and eat our meals there. The RBF will cover all inside the gate costs and travel to and from airports or midtown Manhattan. If your state cannot cover travel, we can help you cover your

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Given the arrival of a substantial number of new governors, who have committed to moving aggressively on climate and energy, and the ongoing commitment of many other governors, we think this is an opportunity to support this subset of states to move forward aggressively with sensible, economically beneficial policies. We believe your state can help lead this effort. CSU, Georgetown, and the RBF have long prioritized state clean energy policymaking and look forward to supporting your work in the coming months and years.

From: Deborah Burke <
Sent: Tuesday, May 07, 2019 10:22 AM EDT
To: Cummins,Patrick
CC: Michael Northrop >; Megan.Burnett <>
Subject: Hawaii

Hi Patrick,

I had lunch with a close advisor to Governor Ige last week—and (with Michael's encouragement) asked him about inviting Hawaii to the July Pocantico meeting. He confirmed our intuition that there is not a clear invitee in Hawaii. Gov. Ige does not have a dedicated climate advisor per se, someone who would be on the level with the folks coming.

I sent my connection information about the summit in case there was someone they thought would make sense, and he replied that they would like to know which states are being invited to the Pocantico gathering and which Governors among those states are already considering sending someone.

Can you share that with me so I can pass along? I think it would be great to get Hawaii there, and perhaps this invite will help them identify someone to be the state's dedicated climate person.

Cheers,
Deborah

Deborah Burke, Program Associate, Sustainable Development
Rockefeller Brothers Fund | 475 Riverside Drive, Suite 900 | New York, NY 10115

From: Cummins,Patrick on behalf of Cummins,Patrick < >
Sent: Friday, May 24, 2019 1:40 PM EDT
To: Michael Northrop Deborah Burke < ; Vicki Arroyo
>; joseph.kruger >; Ritter Jr,Bill

Subject: July 17-18 at Pocantico: Accelerating State Action on Climate Change
Attachment(s): "Draft Agenda - Pocantico July 17-18.docx"

Michael and all –

Here is the draft letter and agenda for your review and input. This is probably about 66.67% good, so please have a close look and make your changes, additions, and subtractions so we get this where it needs to be before sending. I think we will have to wait to put the names of designated discussion leaders on the agenda until after we touch base with the participants by phone over the next few weeks, but let me know if you want to handle that differently.

I did not see a response from CT, VT, or RI to the latest outreach. Did anyone hear back?

I will work on the logistics and travel attachment now.

Thanks, PC

_____

May 29, 2019

Dear State Officials,

We are thrilled that you will be able to join us this summer for an important conversation among state officials on meeting the increasingly ambitious climate goals being established by governors and state legislatures across the country.

We will meet at the Pocantico Center of the Rockefeller Brothers Fund beginning at 6:00 pm on Wednesday, July 17 with a reception and dinner, and will conclude at 4:00 p.m. on Thursday, July 18. We will use the dinner and time after dinner the first night for active discussion, so please plan to arrive by 5:00pm on July 17th.

The Pocantico Center, on the former Rockefeller family estate outside Tarrytown, New York, is 40 minutes from midtown Manhattan by train from Grand Central Station, or is easily accessible by car from any of the metro area's three airports. We'll stay at Pocantico on the evening of July 17 and eat our meals there. The RBF will cover all inside the gate costs and travel to and from airports or midtown Manhattan. If your state cannot cover travel, we can help you cover your travel costs as well. Please see the attached document on logistics and travel support.

Also attached is a draft agenda for the meeting. We are interested in your thoughts on the agenda and how to structure our time together so that it is as productive as possible. As we work to finalize the agenda we will identify two state participants to be the discussion leaders for each topic. Our goal is to conclude each segment with a number of clear action items and next steps that we can continue to work on together in the coming months and years.

To further discuss the meeting purpose, and to get your input on what would be most helpful, we would like to have a brief discussion with you by phone in the coming weeks. One of us will reach out to each of you to get that call scheduled soon. In the meantime, please make your travel plans and do not hesitate to contact any one of us to discuss this event.

We look forward to your participation and to speaking with you soon. Many thanks.

Sincerely,

Bill Ritter, Jr.
Director, Center for the New Energy Economy
41st Governor of Colorado

Vicky Arroyo
Georgetown Climate Center
Georgetown Law School

Michael Northrop
Program Director
Rockefeller Brothers Fund

Draft Agenda

Accelerating State Action on Climate Change

The Pocantico Center
200 Lake Road
Tarrytown, New York

July 17-18, 2019

This meeting will provide an opportunity for officials from states taking action on climate change to share information on recent developments in their states and to strategize together on ways to accelerate the pace of action in response to the increasingly ambitious climate goals being established by governors and state legislatures.

The group will also discuss how state action can influence the federal government and how to assist other states that are starting to take action on climate action.

Wednesday, July 17

6:00 pm Reception
7:00 pm Dinner
8:00 pm Hayloft conversation on international climate action with keynote speaker

Thursday, July 18

7:00 am Breakfast buffet available

8:00 am Agenda Review and Meeting Objectives — Governor Bill Ritter, CNEE

8:15 am Renewable and Clean Energy Standards

- Overview of state policies and recent legislation
- Working together on implementation
  - Next steps for RGGI
  - Coordination on the Western grid
- What's needed now to hit long-term goal of 100% clean electricity?

9:15 am Meeting the challenges posed by the transportation sector

- Update on federal vehicle standards and state response (Mary Nichols)
  - How can states work together to establish ambitious federal and state emission standards for new cars and trucks.
- Status of Transportation and Climate Initiative
  - What can other states learn from this effort?
- Discussion of other strategies to address CO2 emissions from transportation (e.g., Low-Carbon Fuel Standard; incentives for vehicle purchases and charging infrastructure, etc.)

10:30 am Break

10:45 am State strategies for natural gas used in buildings

Reducing the use of natural gas in existing homes and businesses poses a significant long-term challenge to state efforts to achieve their climate goals. During this segment, participants will discuss strategies that have been successfully implemented to date and how they can work together to further progress in this sector.

- Efficiency and retrofits
- Codes and standards
- Electrification, incl. enabling utility investment
- Renewable natural gas

12:00 pm Lunch

1:00 pm Industrial Sources, Oil & Gas, Methane, and HFCs

Moving industrial sources away from fossil fuels and onto clean energy sources poses a set of challenges similar to those associated with buildings in terms of efficiency, retrofits and electrification. In addition, some states face the issue of a rapidly expanding oil & gas sector and associated methane emissions.

- What are tools, policies and incentives can states use to make progress in these sectors
- Examples of state action on HFCs – model rule/legislation?

2:15 pm Break

2:30 pm Carbon pricing strategies

- Update on WCI and Oregon
- Opportunities to expand existing programs (RGGI, TCI, WCI) and enhance collaboration between programs
- Carbon tax – is this an approach being pursued in any states?

3:30 pm Action items and follow up

- Group actions by leadership states
- Outreach / support for opportunity states
- Opportunity to impact the national conversation
- Participation in upcoming COPs

4:00 pm Adjourn

From: Michael Northrop
Sent: Tuesday, May 21, 2019 11:17 AM EDT
To: Janet Coit
CC: Schrag, Jonathan (DPUC) < >; Vicki Arroyo
Cummins,Patrick < ; Ritter Jr,Bill < >; Michael Northrop
>; Deborah Burke
Subject: July 17-18 Invitation: State Strategies for Meeting Ambitious Climate Goals

May 21, 2019

Dear Janet,

On behalf of the Center for the New Energy Economy at Colorado State University, the Georgetown Climate Center, and the Rockefeller Brothers Fund, we are writing to invite you to an off-the-record discussion on meeting the increasingly ambitious climate goals being established by governors and state legislatures across the country.

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We sincerely hope you are able to participate and look forward to speaking with you soon. Many thanks.

Sincerely,

Bill Ritter, Jr.
Director, Center for the New Energy Economy
41st Governor of Colorado

Vicky Arroyo
Georgetown Climate Center
Georgetown Law School

Michael Northrop
Program Director
Rockefeller Brothers Fund

From: Cummins,Patrick on behalf of Cummins,Patrick <
Sent: Thursday, May 23, 2019 12:20 PM EDT
To: Ritter Jr,Bill >; Plant,Tom < ; Tegen,Suzanne >; Hartzell,Wendy < ; Hoffer,Trina >; Gregory,Alison < >; Crew,Seth >
Subject: Maryland's New Renewable Energy Mandate

Team - This is pretty interesting in a number of ways….MD is one of the states attending the Pocantico meeting July 17-18. "We" will take the lead on developing a briefing book for that meeting that summarizes the participating states' policies related to the topics on the agenda – which I am developing now. I will set a team call next week to discuss. PC

Maryland's New Renewable Energy Mandate: Maryland Governor Larry Hogan allowed a significant renewables mandate to become law Wednesday, making him the first GOP governor to support a 100 percent clean energy goal. The Clean Energy Jobs Act raises the state's renewable portfolio standard to 50 percent by 2030 and requires studying how to reach 100 percent by 2040. While the state's legislature sent the measure to Hogan's desk last month, the governor did not sign the bill, allowing it instead to pass under a state law that mandates bills not signed or vetoed become law after 30 days. Hogan, who has publicly opposed the bill, has announced his own plan for the state to reach 100 percent clean electricity by 2040, which he plans to submit to the General Assembly on the first day of the 2020 legislative session. (Baltimore Sun, CBS DC, AP)

Governor Hogan Outlines Bold Energy Strategy

Sets Goal of 100% Clean Electricity by 2040; Allows Energy Bill to Take Effect With Concerns Over Sending Jobs Out of State, Poor Environmental Stewardship

ANNAPOLIS, MD—Governor Larry Hogan today outlined a bold strategy to set Maryland on a path to 100% clean electricity by 2040. The innovative Clean and Renewable Energy Standard (CARES) promises to set an example for the nation, continuing the Hogan administration's strong commitment to leading the charge on clean energy, climate change, and greenhouse gas emission reductions.

The governor made the announcement in a letter to Senate President Thomas V. "Mike" Miller, indicating he will allow ***Senate Bill 516 — Clean Energy Jobs*** to take effect without his signature, expressing serious concerns that the legislation could send too many jobs out of state and enable poor environmental stewardship.

"**Despite its name, this bill is not clean enough, nor smart enough, nor does it create the intended jobs within Maryland** ," wrote Governor Hogan, who goes on to note that "this legislation appears politically motivated—it mandates a broad and untargeted increase in the RPS that threatens to roll back our progress and send jobs and environmental benefits to other states."

The governor adds that the measure "fails to address land use issues and could impose serious damage on economically and environmentally sensitive areas and viewsheds. And, while *Senate Bill 516*masquerades as a job-creating proposal, Maryland stands to lose out on far too many of those jobs to out-of-state companies."

Clean and Renewable Energy Standard (CARES)

In his State of the State address earlier this year, Governor Hogan called on legislators to "support clean and renewable energy solutions and green energy jobs." To that end, he is setting a path for a bolder, smarter energy strategy that he plans to submit to the General Assembly on the first day of the 2020 legislative session.

"Our CARES plan aims to get us to zero carbon emissions, rather than just increasing the quotas for dirty energy and outdated technologies," writes Governor Hogan. "It uses competition to get better results at a lower cost to ratepayers. Our CARES target is clear: **100% clean electricity by 2040**. This better and bolder goal is what our state should be striving for as we continue to set an example for the rest of the nation."

The goals of the CARES plan include:

- Increasing the strategic use of zero- and low-carbon clean and renewable energy sources;
- Recognizing the clean and safe aspects of nuclear energy;
- Supporting hydropower, coupled directly with maintaining environmental stewardship;
- Advancing emerging technology for carbon capture and storage; and
- Utilizing the role of energy-efficient combined heat and power.

Governor Hogan closes the letter by stating, "We will continue to work with the General Assembly to reduce greenhouse gas emissions and safeguard our environment."

-###-

Patrick Cummins
Senior Policy Advisor
Colorado State University
Center for the New Energy Economy

From: Schrag, Jonathan (DPUC)
Sent: Thursday, May 16, 2019 3:01 PM EDT
To: Michael Northrop >
CC: Cummins,Patrick
Subject: Re: [EXTERNAL] : Re: Northrop / McCleary into

Happy to chat. This afternoon is gloriously free. Or late tomorrow afternoon.

Get Outlook for iOS

From: Michael Northrop
Sent: Thursday, May 16, 2019 2:18:16 PM
To: Schrag, Jonathan (DPUC)
Cc: Cummins,Patrick
Subject: RE: [EXTERNAL] : Re: Northrop / McCleary into

Jonathan,
Are you still with the RI PUC?
Do you have 10 minutes for a call with me and/or Patrick?
Best,
Michael

From: Schrag, Jonathan (DPUC)
Sent: Sunday, November 12, 2017 11:10 AM
To: Michael Northrop <
Subject: Re: [EXTERNAL] : Re: Northrop / McCleary into

Boston for my wife's job and parents. I am a daily commuter. 35 minutes by train! Easier than UWS to Wall Street.....

Jonathan E. Schrag
Deputy Administrator
Rhode Island Division of Public Utilities and Carriers
89 Jefferson Boulevard, Warwick RI 02888

From: Michael Northrop
Sent: Sunday, November 12, 2017 8:59:46 AM
To: Schrag, Jonathan (DPUC)
Subject: Re: [EXTERNAL] : Re: Northrop / McCleary into

Terrific.. are you living in Providence?

Sent from my iPhone

On Nov 11, 2017, at 5:28 PM, Schrag, Jonathan (DPUC) > wrote:

> Michael!
>
> What a pleasant email chain. I look forward to joining the call and sharing with you all we are doing in Rhode Island!
> JS
>
> Jonathan E. Schrag
> Deputy Administrator
> Rhode Island Division of Public Utilities and Carriers
> 89 Jefferson Boulevard, Warwick RI 02888
>
> ---
>
> **From:** Michael Northrop <
> **Sent:** Saturday, November 11, 2017 5:09:03 PM
> **To:** McCleary, Macky (DPUC)
> **Cc:** Schrag, Jonathan (DPUC); Grant, Carol (DOA); Masse, Kristen (DPUC)
> **Subject:** Re: [EXTERNAL] : Re: Northrop / McCleary into
>
> Thanks Mackey,
> I'm in Bonn this week for the Climate meetings. Friday is possible or the week following.
> Looking forward to talking.
> Michael
>
> Sent from my iPhone

On Nov 11, 2017, at 4:16 PM, McCleary, Macky (DPUC) wrote:

Thanks George, moving you to bcc

Hi Michael,

I understand you know my colleague, Jonathan Schrag as well! Maybe Jonathan, Carol and I could set up a phone call with you sometime next week and we can explain the governors thoughts on regional carbon pricing. Are there some times that work for you?

Macky McCleary
Administrator
RI Division of Public Utilities and Carriers

From: Michael Northrop <
Sent: Friday, November 10, 2017 10:17:35 AM
To: George Favaloro (US - Advisory)
Cc: McCleary, Macky (DPUC)
Subject: [EXTERNAL] : Re: Northrop / McCleary into

Thanks George.
Hi Macky,
Your Governor is terrific.. I'd love to hear what you're thinking about.
Best,
Michael

Sent from my iPhone

On Nov 10, 2017, at 10:10 AM, George Favaloro (US - Advisory) > wrote:

Michael, Mackey is a key state administrator in Rhode Island working with the Governor on developing an advanced climate strategy for the Northeast region.

Mackey, As I mentioned, Michael is a leader in climate that you should know.

I encourage you two to connect.

Best,

George

--
George Favaloro
PwC | Managing Director | Sustainable Business Solutions |
Email: |https://www.linkedin.com/in/georgefavaloro [linkedin.com]

From: Davis, Chris (GOV) ·
Sent: Wednesday, May 08, 2019 6:32 PM EDT
To: Cummins,Patrick <
Subject: RE: FYI - CO legislation

I'm around tomorrow and Friday Patrick. Tomorrow after 2 is best; Friday after noon (PAC time)

Thanks

CHRIS DAVIS
Senior Advisor – Climate and Energy Affairs| Office of Governor Jay Inslee
Mobile
www.governor.wa.gov |

From: Cummins,Patrick ·
Sent: Wednesday, May 8. 2019 3:32 PM
To: Davis, Chris (GOV) ·
Subject: FW: FYI - CO legislation

Chris –

Lots of great stuff happening in Western states, including your own. Congratulations!
I thought you might like to see this summary from CO. I look forward to catching up at your convenience. Just let me know a time that works best for you.
All the best, PC

https://www.colorado.gov/energyoffice

From: Cummins,Patrick on behalf of Cummins,Patrick >
Sent: Tuesday, May 07, 2019 12:16 PM EDT
To: Deborah Burke
CC: Michael Northrop < Megan.Burnett <Megan.Burnett
Subject: RE: Hawaii

Deborah –

So far, invites have gone to 7 NE states and 6 Western states. They are:

NY, VT, NJ, MA, MD, ME, CT and
CA, WA, OR, NM, CO and NV.

Positive responses so far from:
CA, NM, CO, NV, and NY

I am going to ping all the others today and will let you know what I hear back.

Please let me know if you need anything else.

Patrick Cummins
Senior Policy Advisor
Center for the New Energy Economy

From: Deborah Burke
Sent: Tuesday, May 7, 2019 8:23 AM
To: Cummins,Patrick
Cc: Michael Northrop >; Megan.Burnett
Subject: Hawaii

Hi Patrick,

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Cheers,
Deborah

Deborah Burke, Program Associate, Sustainable Development
Rockefeller Brothers Fund | 475 Riverside Drive, Suite 900 | New York, NY 10115

Philanthropy for an Interdependent World

From: Cummins,Patrick on behalf of Cummins,Patrick < >
Sent: Tuesday, May 21, 2019 8:44 AM EDT
To: Franz Litz <
Subject: RE: July 17-18 Invitation: State Strategies for Meeting Ambitious Climate Goals

Bummer, but I will stay in touch on this to make sure we get your input and ideas and then help with follow up…

From: Franz Litz <
Sent: Tuesday, May 21, 2019 6:43 AM
To: Cummins,Patrick
Subject: Re: July 17-18 Invitation: State Strategies for Meeting Ambitious Climate Goals

Thanks for the invitation, Pat. And sorry for the delay responding. I have to be in Michigan for a Midcontinent EV thing those two days. I was trying to see whether they really need me to be there because I really would rather be at your meeting! But I was told I am need in at the EV meeting. Sorry I cannot participate.

Sent from my iPad

On May 21, 2019, at 8:32 AM, Cummins,Patrick wrote:

> Franz – Resending message below. Please let me know if you can participate. Thanks, PC
>
> ---
>
> **From:** Cummins,Patrick
> **Sent:** Thursday, May 16, 2019 4:41 PM
> **To:** Franz Litz
> **Subject:** FW: July 17-18 Invitation: State Strategies for Meeting Ambitious Climate Goals
>
> Franz – Looks like this is going to happen, though still no Midwest states. Are you interested and available to attend? If yes, you are invited. I think it will be good. Let me know and I can provide more info. Thanks, PC
>
> **From:** Michael Northrop
> **Sent:** Sunday, April 28, 2019 3:05 PM
>
> On behalf of the Center for the New Energy Economy at Colorado State University, the Georgetown Climate Center, and the Rockefeller Brothers Fund, we are writing to invite you to an off-the-record discussion on meeting the increasingly ambitious climate goals being established by governors and state legislatures across the country.
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>). We will follow up with additional travel planning information after we hear from you.
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> Sincerely,
>
> Bill Ritter, Jr.
> Director, Center for the New Energy Economy
> 41st Governor of Colorado

Vicky Arroyo
Georgetown Climate Center
Georgetown Law School

Michael Northrop
Program Director
Rockefeller Brothers Fund

From: Kathy Bishop -MDE- >
Sent: Monday, May 20, 2019 1:06 PM EDT
To: Cummins,Patrick
Subject: Re: July 17-18 Invitation: State Strategies for Meeting Ambitious Climate Goals

Patrick,

Secretary Ben Grumbles accepts your invitation to participate in the climate conversation scheduled for July 17 & 18 at the Pocantico Center. Please copy me on the logistics, when available.

Thanks,
Kathy

--
Kathy Bishop
Executive Assistant to the Secretary
Maryland Department of the Environment
1800 Washington Blvd., Baltimore, MD 21230

From: Michael Northrop

Sent: Sunday, April 28, 2019 3:05 PM
To:
Cc: Ritter Jr,Bill ; Vicki Arroyo >; Cummins,Patrick u>; Joseph Kruger >; Hartzell,Wendy >; Sonia Jagtiani >; Michael Northrop
Subject: July 17-18 Invitation: State Strategies for Meeting Ambitious Climate Goals

April 28, 2019

Dear Ben,

On behalf of the Center for the New Energy Economy at Colorado State University, the Georgetown Climate Center, and the Rockefeller Brothers Fund, we are writing to invite you to an off-the-record discussion on meeting the increasingly ambitious climate goals being established by governors and state legislatures across the country.

We are asking lead energy policy advisors to attend from a dozen states with supportive, and in many cases, new governors and legislatures interested in accelerating the transition to a clean, low-carbon economy. You are invited because you are the, or one of the, lead policy advisors to your governor on energy and climate policy.

We will meet at the Pocantico Center of the Rockefeller Brothers Fund beginning on Wednesday, July 17 for dinner, and conclude at 4:00 p.m. on Thursday, July 18. We will use the dinner and time after dinner the first night for active discussion, so please plan to arrive by 5:00pm on July 17th.

The Pocantico Center, on the former Rockefeller family estate outside Tarrytown, New York, is 40 minutes from midtown Manhattan by train from Grand Central Station, or is easily accessible by car from any of the metro area's three airports. We'll stay at Pocantico on the evening of July 17 and eat our meals there. The RBF will cover all inside the gate costs and travel to and from airports or midtown Manhattan. If your state cannot cover travel, we can help you cover your travel costs as well.

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We sincerely hope you are able to participate and look forward to speaking with you soon. Many thanks.

Sincerely,

Bill Ritter, Jr.

Director, Center for the New Energy Economy

41st Governor of Colorado

Vicky Arroyo

Georgetown Climate Center

Georgetown Law School

Michael Northrop

Program Director

Rockefeller Brothers Fund

From: Burgess, Dan >
Sent: Friday, May 17, 2019 5:21 PM EDT
To: Michael Northrop
CC: Cummins,Patrick <
Subject: RE: July 17-18 Invitation: State Strategies for Meeting Ambitious Climate Goals

Michael,

Sorry for the late response, it was a busy couple of days with our legislature. I could talk Monday at some point if that worked for you.

Dan

From: Michael Northrop
Sent: Thursday, May 16, 2019 2:22 PM
To: Burgess, Dan
Cc: Cummins,Patrick <
Subject: RE: July 17-18 Invitation: State Strategies for Meeting Ambitious Climate Goals

Dear Dan,
Do you have a few minutes today or tomorrow? I'm just back from Ecuador and would love to fill you in.
Many thanks,
Michael

Michael Northrop, Program Director
Sustainable Development Program
Rockefeller Brothers Fund | 475 Riverside Drive, Suite 900 | New York, NY 10115

Philanthropy for an Interdependent World

From: Burgess, Dan <
Sent: Monday, April 29, 2019 2:13 PM
To: Michael Northrop
Subject: RE: July 17-18 Invitation: State Strategies for Meeting Ambitious Climate Goals

Michael,

I'm the new Director of the Governor's Energy Office here in Maine and I'm interested in learning more about this event.

Thanks,
Dan

Dan Burgess
Director, Governor's Energy Office

From: Michael Northrop
Sent: Sunday, April 28, 2019 5:02 PM
To: Monroe, Angela
Cc: Ritter Jr,Bill ; Vicki Arroyo ; Cummins,Patrick < ; Joseph Kruger < ; Hartzell,Wendy < Sonia Jagtiani >; Michael Northrop
Subject: July 17-18 Invitation: State Strategies for Meeting Ambitious Climate Goals

April 28, 2019

Dear Angela,

On behalf of the Center for the New Energy Economy at Colorado State University, the Georgetown Climate Center, and the Rockefeller Brothers Fund, we are writing to invite you to an off-the-record discussion on meeting the increasingly ambitious climate goals being established by governors and state legislatures across the country.

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We sincerely hope you are able to participate and look forward to speaking with you soon. Many thanks.

Sincerely,

Bill Ritter, Jr.
Director, Center for the New Energy Economy
41st Governor of Colorado

Vicky Arroyo
Georgetown Climate Center
Georgetown Law School

Michael Northrop
Program Director
Rockefeller Brothers Fund

From: Cummins,Patrick on behalf of Cummins,Patrick <
Sent: Thursday, May 09, 2019 6:08 PM EDT
To: Ritter Jr,Bill
Subject: Re: July 17-18 Invitation: State Strategies for Meeting Ambitious Climate Goals

Yes, Michael is out on vacation for another week but I am quite certain we can say yes to Zach

Sent from my iPhone

On May 9, 2019, at 4:01 PM, Ritter Jr,Bill > wrote:

> Patrick,
>
> Is Michael Northrop on vacation or something? Can we just say yes to Will Toor on this?
>
> Thanks,
>
> Bill
>
> **Bill Ritter, Jr.**
> Director, Center for the New Energy Economy
> Colorado State University
> 475 17th Street, Suite 450
> Denver, Colorado 80202
>
> www.CNEE.colostate.edu
>
> **From:** Toor - CEO, Will
> **Sent:** Thursday, May 9, 2019 3:52 PM
> **To:** Michael Northrop >
> **Cc:** Ritter Jr,Bill < >; Vicki Arroyo < >; Cummins,Patrick
> Joseph Kruger >; Hartzell,Wendy
> >; Sonia Jagtiani
> **Subject:** Re: July 17-18 Invitation: State Strategies for Meeting Ambitious Climate Goals
>
> Hi Michael. I had a brief conversation with Bill Ritter earlier this week about also having Zach Pierce attend. Zach is Governor Polis's senior advisor on energy and climate, and has been integral to all of the policymaking in this arena. I want to confirm that Zach can also join, as I think his participation would be valuable.
>
> Will Toor
> Executive Director, Colorado Energy Office
>
> On Mon, Apr 29, 2019 at 5:08 PM Michael Northrop wrote:
>
> > Fantastic!
> > Many thanks Will.
> > All the best,
> > Michael
> >
> > Sent from my iPhone
> >
> > On Apr 29, 2019, at 7:04 PM, Toor - CEO, Will > wrote:
> >
> > > Thanks Michael. These dates should work well for me, and I look forward to participating. I am cc:ing Nancey Stenheimer who can follow up on logistics and on scheduling an advance phone call.-Will
> > > Will Toor
> > > Executive Director, Colorado Energy Office
> > >
> > > On Sun, Apr 28, 2019 at 2:58 PM Michael Northrop wrote:
> > >
> > > > April 28, 2019
> > > >
> > > > Dear Will,

On behalf of the Center for the New Energy Economy at Colorado State University, the Georgetown Climate Center, and the Rockefeller Brothers Fund, we are writing to invite you to an off-the-record discussion on meeting the increasingly ambitious climate goals being established by governors and state legislatures across the country.

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Director, Center for the New Energy Economy
41st Governor of Colorado

Vicky Arroyo
Georgetown Climate Center
Georgetown Law School

Michael Northrop
Program Director
Rockefeller Brothers Fund

From: Cummins,Patrick on behalf of Cummins,Patrick
Sent: Friday, May 10, 2019 11:48 AM EDT
To: Toor - CEO, Will < ; Michael Northrop
CC: Ritter Jr,Bill < ; Vicki Arroyo ; Joseph Kruger
< ; Hartzell,Wendy < Sonia Jagtiani <
Subject: RE: July 17-18 Invitation: State Strategies for Meeting Ambitious Climate Goals

Will –

It would be great to have Zach with us for this meeting. More info coming soon.

Thank you, Patrick

From: Toor - CEO, Will
Sent: Thursday, May 9, 2019 3:52 PM
To: Michael Northrop
Cc: Ritter Jr,Bill <B ; Vicki Arroyo >; Cummins,Patrick
< >; Joseph Kruger >; Hartzell,Wendy
< ; Sonia Jagtiani
Subject: Re: July 17-18 Invitation: State Strategies for Meeting Ambitious Climate Goals

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Sent: Thursday, May 09, 2019 5:52 PM EDT
To: Michael Northrop
CC: Ritter Jr,Bill < Vicki Arroyo >; Cummins,Patrick >; Joseph Kruger < >; Hartzell,Wendy Sonia Jagtiani
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Vicky Arroyo

Georgetown Climate Center

Georgetown Law School

Michael Northrop

Program Director

Rockefeller Brothers Fund

From: Theoharides, Kathleen (ENV)
Sent: Wednesday, May 08, 2019 6:30 AM EDT
To: Cummins,Patrick >
CC: Vicki Arroyo >; Deborah Burke ; Grimes, Victoria S (ENV)

Subject: Re: July 17-18 Invitation: State Strategies for Meeting Ambitious Climate Goals

Hi Patrick,

Thanks so much for the email and invitation. I'll be sitting with my scheduler this week to make sure it works and should be able to have an answer back shortly. Sounds like a great opportunity!

Thanks,
Katie
Get Outlook for iOS

From: Cummins,Patrick >
Sent: Tuesday, May 7, 2019 1:02 PM
To: Cummins,Patrick
Cc: Vicki Arroyo; Deborah Burke
Subject: FW: July 17-18 Invitation: State Strategies for Meeting Ambitious Climate Goals

All –

I am following up on this invitation that you received last week from for Michael Northrup, Vicki Arroyo and Governor Ritter. Plans are coming together for this meeting of state officials at the Pocantico Center on July 17-18 and it would be helpful to know if it looks like you will be able to attend. As mentioned in the invitation, support is available to cover your travel expenses if needed.

Michael is currently out on vacation, but will be reaching out to set up a time to discuss the meeting in more detail once he is back in about two weeks. In the meantime, his team at the Rockefeller Brothers Fund are planning the logistics and getting an approximate head count would be helpful.

Please reply with a thumbs up or down when you have a minute. And do not hesitate to let me know if you have any questions or need more information about the meeting. You can call me anytime at the phone number shown below.

Thank you and we will be in touch soon. All the best, PC

Patrick Cummins
Senior Policy Advisor
Center for the New Energy Economy
Colorado State University

From: Michael Northrop
Sent: Sunday, April 28, 2019 3:31 PM
Subject: July 17-18 Invitation: State Strategies for Meeting Ambitious Climate Goals

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41st Governor of Colorado

Vicki Arroyo
Georgetown Climate Center
Georgetown Law School

Michael Northrop
Program Director
Rockefeller Brothers Fund

From: Cummins,Patrick on behalf of Cummins,Patrick < >
Sent: Tuesday, May 07, 2019 4:10 PM EDT
To: SHEERAN Kristen * GOV < >
Subject: RE: July 17-18 Invitation: State Strategies for Meeting Ambitious Climate Goals

Kristen – The dates are pretty firm, but I'll let you know if that changes. I'm sure they would like to have someone else from OR if you are unable to attend. Thank you, PC

From: SHEERAN Kristen * GOV >
Sent: Tuesday, May 7, 2019 1:37 PM
To: Cummins,Patrick <
Subject: RE: July 17-18 Invitation: State Strategies for Meeting Ambitious Climate Goals

Unfortunately, these dates conflict with scheduled personal travel. Are the dates firmly set? If so, I can see about a replacement.

Kristen Sheeran Ph.D.
Energy and Climate Change Policy Advisor to Governor Kate Brown
Director, Carbon Policy Office
775 Court Street NE
Salem, Oregon 97301

Assistant: Miles Palacios

From: Cummins,Patrick
Sent: Tuesday, May 7, 2019 10:02 AM
To: Cummins,Patrick < >
Cc: Vicki Arroyo < >; Deborah Burke <
Subject: FW: July 17-18 Invitation: State Strategies for Meeting Ambitious Climate Goals

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41st Governor of Colorado

Vicki Arroyo
Georgetown Climate Center
Georgetown Law School

Michael Northrop
Program Director
Rockefeller Brothers Fund

From: Davis, Chris (GOV) <
Sent: Tuesday, May 07. 2019 1:18 PM EDT
To: Cummins,Patrick <
Subject: RE: July 17-18 Invitation: State Strategies for Meeting Ambitious Climate Goals

Hey Patrick

Thanks for the note. I'm a likely yes….Could you send me a note on the other invitees…..would help me think about this in the context of various networks and their efforts to facilitate multi-state coordination (primarily USCA).

Thanks -

CHRIS DAVIS
Senior Advisor – Climate and Energy Affairs| Office of Governor Jay Inslee
Mobile:
www.governor.wa.gov |.

From: Cummins,Patrick <
Sent: Tuesday, May 7, 2019 10:02 AM
To: Cummins,Patrick <
Cc: Vicki Arroyo < ; Deborah Burke <
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Thank you and we will be in touch soon. All the best, PC

Patrick Cummins
Senior Policy Advisor
Center for the New Energy Economy
Colorado State University

From: Michael Northrop <
Sent: Sunday, April 28, 2019 3:31 PM
Subject: July 17-18 Invitation: State Strategies for Meeting Ambitious Climate Goals

On behalf of the Center for the New Energy Economy at Colorado State University, the Georgetown Climate Center, and the Rockefeller Brothers Fund, we are writing to invite you to an off-the-record discussion on meeting the increasingly ambitious climate goals being established by governors and state legislatures across the country.

We are asking lead energy policy advisors to attend from a dozen states with supportive, and in many cases, new governors and legislatures interested in accelerating the transition to a clean, low-carbon economy. You are invited because you are the, or one of the, lead policy advisors to your governor on energy and climate policy.

We will meet at the Pocantico Center of the Rockefeller Brothers Fund beginning on Wednesday, July 17 for dinner, and conclude at 4:00 p.m. on Thursday, July 18. We will use the dinner and time after dinner the first night for active discussion, so please plan to arrive by 5:00pm on July 17th.

The Pocantico Center, on the former Rockefeller family estate outside Tarrytown, New York, is 40 minutes from midtown Manhattan by train from Grand Central Station, or is easily accessible by car from any of the metro area's three airports. We'll stay at Pocantico on the evening of July 17 and eat our meals there. The RBF will cover all inside the gate costs and travel to and from airports or midtown Manhattan. If your state cannot cover travel, we can help you cover your travel costs as well.

Given the arrival of a substantial number of new governors, who have committed to moving aggressively on climate and energy, and the ongoing commitment of many other governors, we think this is an opportunity to support this subset of states to move forward aggressively with sensible, economically beneficial policies. We believe your state can help lead this effort. CSU, Georgetown, and the RBF have long prioritized state clean energy policymaking and look forward to supporting your work in the coming months and years.

To tell you some more about the rationale for this discussion, and to get your input on what would be most helpful, we would like to have a brief discussion with you by phone in the coming weeks. In the meantime, please save the dates, and please do not hesitate to reach out to either one of us to discuss this event. You may RSVP to Patrick Cummins at CSU). We will follow up with additional travel planning information after we hear from you.

We sincerely hope you are able to participate and look forward to speaking with you soon. Many thanks.

Sincerely,

Bill Ritter, Jr.
Director, Center for the New Energy Economy
41st Governor of Colorado

Vicki Arroyo
Georgetown Climate Center
Georgetown Law School

Michael Northrop
Program Director
Rockefeller Brothers Fund

From: Grimes, Victoria S (ENV) >
Sent: Tuesday, May 21, 2019 10:52 AM EDT
To: Vicki Arroyo Theoharides, Kathleen (ENV)
CC: Joseph Kruger ; Michael Northrop ; Cummins,Patrick >
Subject: RE: July 17-18 Invitation: State Strategies for Meeting Ambitious Climate Goals

Hi Vicki,

I do have this held on her schedule, but cannot confirm her attendance at this time. I will catch the Secretary on scheduling this week, so hope to have an answer for you by Friday!

Best,

Vicki Grimes

Victoria Grimes
Executive Assistant to Secretary Kathleen Theoharides
Executive Office of Energy & Environmental Affairs
100 Cambridge Street, Suite 900, Boston, MA 02114

From: Vicki Arroyo
Sent: Tuesday, May 21, 2019 10:48 AM
To: Theoharides, Kathleen (EEA)
Cc: Grimes, Victoria S (EEA) < >; Joseph Kruger < >; Michael Northrop ; Cummins,Patrick
Subject: FW: July 17-18 Invitation: State Strategies for Meeting Ambitious Climate Goals

Dear Katie – I hope this finds you well, and you are enjoying your new role! Might you be able to attend this event in July at Pocantico? There's a great group of state leaders from around the US who will attend, and Joe Kruger will be representing GCC (I'll be in Germany watching my son compete for the US men's Ultimate Frisbee team). I hate to miss what will be a great opportunity to help states share what they are doing and elevate ambition across important sectors, including transportation. Let us know if you have any questions or want to discuss, and we hope you (or perhaps Dan if you are booked ?) can make it!

All best,
Vicki

Vicki Arroyo
Executive Director, Georgetown Climate Center
Asst. Dean, Centers & Institutes and Professor from Practice, Georgetown Law

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From: Michael Northrop [mailto:
Sent: Sunday, April 28, 2019 5:08 PM
To:
Cc: Ritter Jr,Bill; Vicki Arroyo; Cummins,Patrick; Joseph Kruger; Hartzell,Wendy; Sonia Jagtiani; Michael Northrop
Subject: July 17-18 Invitation: State Strategies for Meeting Ambitious Climate Goals

April 28, 2019

Dear Matt and Katie,

On behalf of the Center for the New Energy Economy at Colorado State University, the Georgetown Climate Center, and the Rockefeller Brothers Fund, we are writing to invite you to an off-the-record discussion on meeting the increasingly ambitious climate goals being established by governors and state legislatures across the country.

We are asking lead energy policy advisors to attend from a dozen states with supportive, and in many cases, new governors and legislatures interested in accelerating the transition to a clean, low-carbon economy. You are invited because you are the, or one of the, lead policy advisors to your governor on energy and climate policy.

We will meet at the Pocantico Center of the Rockefeller Brothers Fund beginning on Wednesday, July 17 for dinner, and conclude at 4:00 p.m. on Thursday, July 18. We will use the dinner and time after dinner the first night for active discussion, so please plan to arrive by 5:00pm on July 17th.

The Pocantico Center, on the former Rockefeller family estate outside Tarrytown, New York, is 40 minutes from midtown Manhattan by train from Grand Central Station, or is easily accessible by car from any of the metro area's three airports. We'll stay at Pocantico on the evening of

July 17 and eat our meals there. The RBF will cover all inside the gate costs and travel to and from airports or midtown Manhattan. If your state cannot cover travel, we can help you cover your travel costs as well.

Given the arrival of a substantial number of new governors, who have committed to moving aggressively on climate and energy, and the ongoing commitment of many other governors, we think this is an opportunity to support this subset of states to move forward aggressively with sensible, economically beneficial policies. We believe your state can help lead this effort. CSU, Georgetown, and the RBF have long prioritized state clean energy policymaking and look forward to supporting your work in the coming months and years.

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Sincerely,

Bill Ritter, Jr.
Director, Center for the New Energy Economy
41st Governor of Colorado

Vicky Arroyo
Georgetown Climate Center
Georgetown Law School

Michael Northrop
Program Director
Rockefeller Brothers Fund

From: Cummins,Patrick on behalf of Cummins,Patrick <
Sent: Tuesday, May 07, 2019 12:09 PM EDT
To: Deborah Burke ; Regina Creegan Sonia Jagtiani
Subject: RE: July 9-10 and July 17-18

All – That is correct. The meeting will adjourn at 4 pm on 7/18. PC

From: Deborah Burke
Sent: Tuesday, May 7, 2019 10:07 AM
To: Regina Creegan ; Sonia Jagtiani
Cc: Cummins,Patrick >
Subject: RE: July 9-10 and July 17-18

Hi Regina,
Yes, I believe we do not need the 19th. Michael's email to the states said: "We will meet at the Pocantico Center of the Rockefeller Brothers Fund beginning on Wednesday, July 17 for dinner, and conclude at 4:00 p.m. on Thursday, July 18. We will use the dinner and time after dinner the first night for active discussion, so please plan to arrive by 5:00pm on July 17th."

I'm looping in Patrick Cummins from Colorado State University, who is collecting the participant information for this meeting.

Thanks,
Deborah

From: Regina Creegan
Sent: Tuesday, May 7, 2019 8:42 AM
To: Deborah Burke Sonia Jagtiani
Subject: RE: July 9-10 and July 17-18

Hi again Deborah and Sonia,
I will be sending you logistical questions soon for the above two meetings. Quick question, I was holding July 17-19, just confirming you do not need July 19th?
Best,
Regina

From: Vicki Arroyo
Sent: Thursday, May 16, 2019 1:38 PM EDT
To: Deborah Burke
CC: Megan.Burnett < >; Michael Northrop < Cummins,Patrick >; joseph.kruger
Subject: RE: State Pocantico meeting July 17-18

Hi Deborah – Yes, I'm sorry to miss it, but we'll be represented by Joe Kruger, our Director of Research and Strategy – looping him in here.
With Rhode Island, I would recommend starting with Janet Coit, Director of DEM.
With Vermont, Peter Walke of ANR who has the governor's ear.
With Maine, have you tried Jerry Reid?

We generally have staff meetings at 10 am (I assume you mean eastern) but one of us can peel off if you send the call in info…

All best,
Vicki

From: Deborah Burke [mailto
Sent: Thursday, May 16, 2019 12:17 PM
To: Vicki Arroyo
Cc: Megan.Burnett Michael Northrop; Cummins,Patrick
Subject: State Pocantico meeting July 17-18

Hi Vicki,

Sad to hear you won't be able to join us on July 17-18 for the states meeting at Pocantico. Michael mentioned that you are sending an emissary. Can you loop her/him in with us and Patrick so we can start working on the agenda together? We have a planning call scheduled for 10am eastern next Tuesday and would love to have GCC join.

Also, would really appreciate your help on a few northeast states. Can you help us with Vermont, Maine, and Rhode Island? With Rhode Island, it is new to our list, so not sure who is the right person there—is it Jonathan Schrag?

Many thanks!!
Deborah

Deborah Burke, Program Associate, Sustainable Development
Rockefeller Brothers Fund | 475 Riverside Drive, Suite 900 | New York, NY 10115

Philanthropy for an Interdependent World

From: Michael Northrop
Sent: Wednesday, May 01, 2019 2:14 PM EDT
To: Curtis Seymour
CC: Cummins,Patrick >; Amy Fuerstenau
Subject: Re: States Meeting at Pocantico July 17-18

Thanks Curtis. Sorry about the timing.
Hi Amy, let's connect on or after May 16th. I'll be back from Ecuador. Just taking off now from JFK. Looking forward to talking. This could be a really great gathering. I look forward to your thoughts and participation.
All the best,
Michael

Sent from my iPhone

On Apr 30, 2019, at 12:51 PM, Curtis Seymour wrote:

> Thanks Michael. This looks like a really interesting gathering and timely. We've been speaking with a number of these Governor's offices as well. I am actually going to be out of the country these dates in July, but my colleague Amy Fuerstenau who leads our States work with me is available and interested in attending in my stead if that would be possible. She has actually been closer to conversations with several of these offices about direct support needs they have to help advance their policy agendas, which we are trying to find resources to support.
>
> Thanks again for reaching out and including us in this. I look forward to hearing how the conversation goes.
>
> Best,
> Curtis
>
> Sent from my iPhone
>
> On Apr 28, 2019, at 2:35 PM, Michael Northrop wrote:
>
> > Hi Curtis,
> > Bill Ritter, Patrick Cummins, and I have been talking about assembling a susbset of states to talk about how we're going to get to ambitious state climate goals.
> > It would be great to have you there if you can make it. We are planning July 17th 5pm until July 18th 4pm at the Pocantico Center outside New York City.
> > Save the date and lets get on the phone to talk about it when we can.
> > We've had a few misfires around availability of states already so I'm not 100% sure this is going to happen. If it does, please do come
> > Hope all's well there.
> > Best,
> > Michael
> >
> > **Michael Northrop**, Program Director
> > Sustainable Development Program
> > Rockefeller Brothers Fund | 475 Riverside Drive, Suite 900 | New York, NY 10115
> >
> > *Philanthropy for an Interdependent World*

From: Cummins,Patrick on behalf of Cummins,Patrick >
Sent: Friday, May 24, 2019 4:26 PM EDT
To: Michael Northrop >; Vicki Arroyo < ; joseph.kruger
>; Deborah Burke
Subject: Travel and Logistics info
Attachment(s): "Reimbursement LetterTemplate.docx","Georgetown University Travel Reimbursement Guidelines.docx","PC Information Directions E-Mail Updated 0416.doc"

Michael –

If state officials attending the Pocantico meeting need travel support they can either:

- purchase their own travel and request reimbursement after the event (see attached guidelines and letter template from Georgetown), or
- they can have Travel Leaders Corporate (TLC), Georgetown's travel agency, book and pay for the flight/train ticket.
    - Contact TLC at Georgetown@tlcorporate.com. When requesting travel from TLC, please copy Megan Burnett on the email.

Also attached is the info sheet from Pocantico.

I think this is the info that needs to go with the agenda. Then we can follow up with additional logistical details, such as arranging ground transport.

PC

Dear Friends,

Please find below the details on the reimbursement process for travel expenses incurred for participation in a meeting facilitated by the Georgetown Climate Center.

REIMBURSEMENT OF TRAVEL COST: We will need the following materials to process a reimbursement:
1) The reimbursement request letter, 2) the originals of all supporting documents for all expenses to be reimbursed, and 3) registry of payee in the University online system.

1) At the end of your travel, please send a detailed letter outlining the expenses for which you seek reimbursement, along with supporting documents, signed by the traveler to Megan Burnett by email at the following address: megan.burnett@georgetown.edu

A template of the travel reimbursement letter is provided in Word format for your convenience. You may use this template to create the reimbursement request letter (see item 1 above).

2) In order to process the reimbursement we will need you to submit all original documents for your travel, including:
    I. The itinerary, showing the price of the ticket and confirmation of payment by you;
    II. The boarding passes for each leg of your flight/train travel; and
    III. All receipts for any other travel-related expense for which you are requesting reimbursement.

    Mileage will be reimbursed at the 2019 standard of $0.54 per mile. Your mileage reimbursement request will need to be accompanied by a MapQuest print-out indicating start and end point and total mileage for the specific trip. Please see the Georgetown University Guidelines on the next page for additional information.

3) In order for Georgetown to issue a check, we will need to have you or your agency registered in the University online payee system. The W9 form has recently been updated and all payees will need to complete a new form through the online system even if they have received a payment from the University in the past. Please complete the online registry at https://georgetown.secure.force.com/gusupplier

    If the reimbursement will be made to your departments/agencies, we will need the agency to be registered in the University System. If the reimbursement is in your name, please provide your personal information on the University web system. Once you have completed the online registry, please let me know the ID number you were issued so that I can follow up internally to process the reimbursement.

    If you already have registered as a supplier in the past you can search for your supplier number here: https://georgetown.app.box.com/s/7reegi1w15s6cx0src2n

Please do not hesitate to contact me at megan.burnett@georgetown.edu if you need any additional information. Thank you and we look forward to your participation.

Regards,
Megan

Expenses	Current Allowed Rate	Documentation Needed for Reimbursement and Procurement Card Transactions
Airfare	Actual cost of less-than-first class ticket; business class allowed for international travel.	Original airline ticket passenger receipt (it's the "passenger receipt" coupon, looks just like the ticket, but says "passenger receipt"), usually the last coupon in the ticket book **Electronic Ticketing:** documentation required for E- tickets (air or rail) would be the original boarding passes and a printout of the Internet order aka "Itinerary/Receipt" that includes credit card payment information. If the "Itinerary/ Receipt" does not show credit card payment information, the traveler needs to provide a copy of the credit card bill showing the purchase (all info on the copy other than the e-ticket transaction can be blocked out). If boarding passes are lost, the traveler needs to include with the reimbursement paperwork, a written request for exception to policy.
Train/Rail	Lowest available coach fare (unless first class train fare is more economical than discounted coach airfare)	Original train ticket receipt (See note above for documentation required for E-ticket and Internet purchases).
Hotel	Actual cost of single room, single occupancy (and business calls and meals on hotel bill).	Original hotel folio and payment receipt; if the folio does not show payment information, the traveler must provide a credit card receipt or copy of credit card bill showing the transaction.
Use of personal Automobile	Mileage rate: Of travel occurred For 2019: 54 cents per mile	A MapQuest printout that shows address of departure and address of destination, and total miles.
Local Transport	Actual Cost (cabs, parking, bus, etc.)	Original receipt.
Auto Rental	Economy/compact (larger if rented to group of three or more); gas reimbursed for rental cars; apply for education discounts wherever available	Rental agreement and original –payment receipt; original receipts for gas purchases.

Non-allowable costs include: purchase or rental of clothing to attend business functions; purchase of toiletries,
books, magazines, newspapers, health facility fees, movie or theater tickets, or other items of a personal nature. Spouses or other family members accompanying individuals on University business travel must travel at their own expense. Use of limousines (defined as all chauffeured vehicles with the exception of taxi cabs and airport travel vans or cars/buses secured to benefit from a group rate) at University expense is prohibited unless for use by visiting dignitaries (e.g. members of the diplomatic corps, elected officials, individuals receiving honorary degrees, etc.). The special airport sedan shuttle rates offered through West End Travel are permissible. The University will reimburse laundry expenses only

Meals, Personal	Actual cost	Original receipt showing what was purchased and proof of payment (e.g. restaurant tab and credit card receipt)
Meals, Business	Actual cost	Original receipt/proof of payment (see personal meals, above) and names of guests, their affiliation with the University, and business purpose of the meal.
Conference Registration Fees	Actual cost	Copy of completed registration form & proof of payment (credit card receipt or cancelled check).

Non-allowable costs include: purchase or rental of clothing to attend business functions; purchase of toiletries,
books, magazines, newspapers, health facility fees, movie or theater tickets, or other items of a personal nature. Spouses or other family members accompanying individuals on University business travel must travel at their own expense. Use of limousines (defined as all chauffeured vehicles with the exception of taxi cabs and airport travel vans or cars/buses secured to benefit from a group rate) at University expense is prohibited unless for use by visiting dignitaries (e.g. members of the diplomatic corps, elected officials, individuals receiving honorary degrees, etc.). The special airport sedan shuttle rates offered through West End Travel are permissible. The University will reimburse laundry expenses only

THE POCANTICO CENTER OF THE ROCKEFELLER BROTHERS FUND

TRAVEL DIRECTIONS & CONFERENCE CENTER INFORMATION

THE POCANTICO CENTER of the Rockefeller Brothers Fund is located approximately one hour north of Manhattan in the Pocantico Historic Area, the heart of the Rockefeller family estate in Westchester County, New York. The Historic Area has been a property of the National Trust for Historic Preservation (www.nthp.org) since 1979, when it was willed to the National Trust by Governor Nelson A. Rockefeller. The Pocantico Center includes John D. Rockefeller's home, Kykuit; the surrounding gardens and sculpture collections; and the Coach Barn (Conference Center), which houses guests on the second floor and the family's carriages and vintage automobiles on the first floor. The lower floor has been transformed into a modern meeting facility. The Pocantico Center is maintained and administered by the Rockefeller Brothers Fund (www.rbf.org), a private foundation, which operates the site as an extension of its grantmaking activities under an agreement with the National Trust. The Conference Center provides a unique setting where the RBF brings together people of diverse backgrounds and perspectives from nonprofit organizations and public institutions to engage important issues related to the Fund's philanthropic programs. In addition to conferences, the RBF's Pocantico Programs include stewardship of the historic portion of the estate and oversight of a visitation program at Kykuit, operated on behalf of the Fund by Historic Hudson Valley (www.hudsonvalley.org).

The directions are provided to help direct you to the Conference Center. Please advise the conference organizer of your travel plans, so arrangements can be made to pick you up if needed. All travel plans, including the time of your arrival at Pocantico, must be confirmed. When you arrive at the Main Gate, announce yourself to the security personnel, who will provide you with further directions.

ACCOMMODATIONS

Guests are lodged on the second floor of the Coach Barn (Conference Center) and on the third and fourth floors of Kykuit. All accommodations have a private bath. Hair dryers are also provided in each bedroom and adapters for electric razors are available upon request. Electrical service is 115 volts/60 cycles.

DRESS

In keeping with the Fund's programmatic emphasis on global warming and the desire to mitigate RBF's carbon footprint, guests at Pocantico should dress comfortably according to the season.

SMOKING POLICY

Guests may not smoke indoors, either at Kykuit or in the Coach Barn (Conference Center).

RECREATION

Guests are welcome to stroll the Coach Barn (Conference Center) and Kykuit grounds, including Kykuit's lovely gardens, or may go jogging on the roads and trails outside the estate.

TELEPHONE, FACSIMILE & BUSINESS CENTER

Each bedroom at the Coach Barn (Conference Center) and Kykuit has a private telephone number with voice mail, and phone calls may be received 24 hours a day. During conference sessions messages will be taken by the center's staff at 914.524.6500. Facsimile messages may be sent during normal business hours from the Conference Center. Faxes are received 24 hours a day at 914.524.6550 and distributed as promptly as possible. Computers are available for the use of conferees in the business center of the Conference Center with IBM-compatible machines, as well as commonly used word-processing, presentation, spreadsheet programs and high speed Internet access. Please note, however, that computer assistance is not available. Wireless Internet access is available in the entire Coach Barn (Conference Center) building as well as on the bedroom floors at Kykuit.

SUSTAINABLE PRACTICES AT POCANTICO

The Pocantico staff is committed to incorporating responsible environmental practices in all aspects of its operation. Green initiatives at Pocantico to date include renewable energy, through the purchase of 100% wind-generated electricity; the use of green cleaning products; a recycling program; and the option for towel and linen reuse.

It is a goal to incorporate sustainable building practices in ongoing maintenance and capital improvement projects and we endeavor to serve sustainable seafood and locally grown food.

In addition, a portion of the conference fees are utilized to acquire Green Tags [Renewable Energy Certificates (RECs)] from *Native*Energy (www.nativeenergy.com) to offset greenhouse gas emissions associated with conference attendees' travel to/from the Pocantico Center. This purchase will be dedicated to help finance new wind farm projects in the United States.

WEATHER

Temperatures at the Pocantico Center vary considerably with the four seasons. Winter can be quite cold, with either rain or snowfall, while summers are often hot and humid. You may find the following chart of average temperatures in New York City useful. The weather at the Conference Center is usually a few degrees cooler.

January	32°	(0° C)
February	34°	(1° C)
March	41°	(5° C)
April	52°	(12° C)
May	62°	(17° C)
June	71°	(22° C)
July	76°	(25° C)
August	76°	(25° C)
September	69°	(21° C)
October	58°	(15° C)
November	47°	(8° C)
December	36°	(2° C)

THE POCANTICO CENTER OF
THE ROCKEFELLER BROTHERS FUND
200 Lake Road
Tarrytown, New York 10591
Tel: (914) 524-6500 Fax: (914) 524-6550

The Pocantico Center of the Rockefeller Brothers Fund is located in the village of Tarrytown, 25 miles north of New York City on the Hudson River. From New York City, it takes approximately one hour to reach Pocantico by car (up to two if traffic is heavy) or forty minutes by train.

TRAVEL BY AIR

From Westchester/White Plains (20 mins.): Travel south on I-684 to Route 287 West. From 287 West, take exit 3, Sprain Brook Parkway North. Exit at the first ramp (1.5 miles) to Eastview. Turn left at exit ramp traffic light onto Route 100C. Follow road approx. 2 miles, past reservoir on your left(becomes Old Saw Mill River Road). Make a right at the stop sign onto Lake Road. Drive uphill for 0.6 miles to the main entrance on the left.

From LaGuardia (40 mins. +): Travel west on Grand Central Pkwy to I-278 over Triborough Bridge. Follow signs to I-87 (Major Deegan). Stay on I-87 to exit 7-A (Saw Mill River Parkway – Taconic Parkway). Continue on the Saw Mill Parkway North to Exit 23 (Eastview). At the foot of the exit ramp, turn left onto an unmarked road and drive about 0.6 miles beside a reservoir to the first right turn (Lake Road). Drive uphill for 0.6 miles to the main entrance on the left.

From JFK (1 hour +): Take the Van Wyck Expressway to the Whitestone Bridge exit. From the Whitestone Bridge follow signs to the Hutchinson River Parkway. Continue on the Parkway to Interstate 287 West (White Plains Exit). Drive west on 287 (Cross Westchester Expressway) to Exit 3 - Sprain Brook Parkway. Drive north 1.5 miles to Route 100C-Eastview Exit and turn left at the top of the ramp onto Route 100 C. After 1 mile this road bears to the right and becomes Old Saw Mill River Road. Proceed straight 1.2 miles under the Union Carbide building, under the Saw Mill River Parkway and beside a reservoir. Turn right at Lake Road and drive uphill for 0.6 miles to the main entrance on the left.

TRAVEL BY TRAIN

From Grand Central Station in New York City (42nd Street at Madison Avenue), take the Metro-North train to Tarrytown, which is on the Hudson Line. Trains run quite frequently: on weekdays, approximately every half hour. Taxis are available at the train station.

TRAVEL BY CAR

FROM MANHATTAN, West Side: Take the West Side Highway north, which will turn into the Henry Hudson Parkway, and then into the Saw Mill River Parkway. Get off at the Saw Mill River Road - Eastview Exit 23. At the foot of the exit ramp, turn left onto an unmarked road and drive about 0.6 miles beside a reservoir to the first right turn (Lake Road). Drive uphill for 0.6 miles to the main entrance on the left.

FROM MANHATTAN, East Side: Take the F.D.R. Drive north to the Triborough Bridge (follow lanes marked "Bronx" and "Thruway") and onto the Major Deegan Expressway (Interstate 87). The Major Deegan will turn into the N.Y. Thruway. Get off the Thruway at Exit 7A (Saw Mill River Parkway - Taconic Parkway). Continue on the Saw Mill River Parkway to the Saw Mill River Road - Eastview Exit 23. At the foot of the exit ramp, turn left onto an unmarked road and drive about 0.6 miles beside a reservoir to the first right turn (Lake Road). Drive uphill for 0.6 miles to the main entrance on the left.

FROM NEW JERSEY AND UPPER NEW YORK STATE: Follow the N.Y. Thruway (Interstate 87-287) across the Tappan Zee Bridge to Exit 9, about 0.2 miles past the tollbooths. Follow U.S. 9 north 1.6 miles to Route 448 (Bedford Road) at North Tarrytown. Turn right and drive 1.5 miles on Bedford Road to a stop sign. Turn right to main entrance.

FROM UPPER WESTCHESTER AND NEW ENGLAND: Drive south on the Saw Mill River Parkway to the Saw Mill River Road - Eastview Exit 23. At the foot of the exit ramp, turn right onto an unmarked road and drive about 0.6 miles beside a reservoir to the first right turn (Lake Road). Drive uphill for 0.6 miles to the main entrance on the left.

FROM CONNECTICUT: From the Merritt Parkway or Connecticut Turnpike, turn right onto Interstate 287 (Cross Westchester Expressway) westbound to Exit 3- Sprain Brook Parkway. Drive north 1.5 miles to Route 100C-Eastview Exit and turn left at the top of the ramp onto Route 100 C. After 1 mile this road bears to the right and becomes Old Saw Mill River Road. Proceed straight 1.2 miles under the Union Carbide building, under the Saw Mill River Parkway and beside a reservoir. Turn right at Lake Road and drive uphill for 0.6 miles to the main entrance on the left.

FROM LONG ISLAND: From either the Bronx-Whitestone Bridge or the Throgs Neck Bridge, follow signs to the Hutchinson River Parkway. Continue on the Parkway to Interstate 287 West (White Plains Exit). Drive west on 287 (Cross Westchester Expressway) to Exit 3 - Sprain Brook Parkway. Drive north 1.5 miles to Route 100C-Eastview Exit and turn left at the top of the ramp onto Route 100 C. After 1 mile this road bears to the right and becomes Old Saw Mill River Road. Proceed straight 1.2 miles under the Union Carbide building, under the Saw Mill River Parkway and beside a reservoir. Turn right at Lake Road and drive uphill for 0.6 miles to the main entrance on the left.

[YOUR LETTERHEAD]

DATE:_____

TO: Megan Burnett, Georgetown Climate Center

FROM:_____

RE: Reimbursement Request for _____(Name of Event)_____, _____(Date of Event)_____.

I am writing to request reimbursement for the following travel expenses associated with _____(Participant's Name)_____ participation in the Georgetown Climate Center _____(Name of Event)_____, which took place on _____(Date of Event)_____.

Please find attached original receipts for the following expenses:

- AMTRAK [Train Ticket] - $ X.00
- AIRLINES USED [Air Ticket] - $ X.00
- CITY CAB [Taxi] - $X.00
- etc…

A reimbursement check in the amount of $_____should be made payable to [YOUR NAME]. Please find my home address below (Your home address will be required for any personal reimbursement.)

or

A reimbursement check in the amount of $_____should be made payable to the [X State Agency/Department or Organization].

I have entered the proper information on the Georgetown University website [https://georgetown.secure.force.com/gusupplier] and have been issued the following Number SUP-XXXXXXX at the end of the registration process. ***(NOTE: The reimbursement check will be sent to the address submitted to Georgetown during the agency registration.)***

If you have any follow-up question, please contact [provide contact information for you or your assistant].

PLEASE SIGN THIS MEMO AS IT IS YOUR OFFICIAL REQUEST FOR REIMBURSEMENT. THANK YOU!

From: Cummins,Patrick on behalf of Cummins,Patrick >
Sent: Monday, May 27, 2019 10:01 PM EDT
To: mnorthrop
Subject: Vermont

Sent from my iPhone

Begin forwarded message:

From: Vicki Arroyo
Date: May 21, 2019 at 8:38:28 AM MDT
To: "Walke, Peter" <
Cc: Joseph Kruger >, kendal.smith , Michael Northrop >, "Cummins,Patrick" >
Subject: FW: July 17-18 Invitation: State Strategies for Meeting Ambitious Climate Goals

Dear Peter – Hope this finds you well. Might you or Kendal be able to attend this event in July at Pocantico? There's a great group of state leaders from around the US who will attend, and Joe Kruger will be representing GCC (I'll be in Germany watching my son compete for the US men's Ultimate Frisbee team). I hate to miss what will be a great opportunity to help states share what they are doing and elevate ambition across important sectors, including transportation. Let us know if you have any questions or want to discuss, and we hope you or Kendal can make it!

All best,
Vicki

Vicki Arroyo
Executive Director, Georgetown Climate Center
Asst. Dean, Centers & Institutes and Professor from Practice, Georgetown Law

Cell:

From: Michael Northrop [mailto:
Sent: Sunday, April 28, 2019 5:23 PM
To: kendal.smith
Cc: Ritter Jr,Bill; Vicki Arroyo; Cummins,Patrick; Joseph Kruger; Hartzell,Wendy; Sonia Jagtiani; Michael Northrop
Subject: July 17-18 Invitation: State Strategies for Meeting Ambitious Climate Goals

April 28, 2019

Dear Kendal,

On behalf of the Center for the New Energy Economy at Colorado State University, the Georgetown Climate Center, and the Rockefeller Brothers Fund, we are writing to invite you to an off-the-record discussion on meeting the increasingly ambitious climate goals being established by governors and state legislatures across the country.

We are asking lead energy policy advisors to attend from a dozen states with supportive, and in many cases, new governors and legislatures interested in accelerating the transition to a clean, low-carbon economy. You are invited because you are the, or one of the, lead policy advisors to your governor on energy and climate policy.

We will meet at the Pocantico Center of the Rockefeller Brothers Fund beginning on Wednesday, July 17 for dinner, and conclude at 4:00 p.m. on Thursday, July 18. We will use the dinner and time after dinner the first night for active discussion, so please plan to arrive by 5:00pm on July 17th.

The Pocantico Center, on the former Rockefeller family estate outside Tarrytown, New York, is 40 minutes from midtown Manhattan by train from Grand Central Station, or is easily accessible by car from any of the metro area's three airports. We'll stay at Pocantico on the evening of July 17 and eat our meals there. The RBF will cover all inside the gate costs and travel to and from airports or midtown Manhattan. If your state cannot cover travel, we can help you cover your travel costs as well.

Given the arrival of a substantial number of new governors, who have committed to moving aggressively on climate and energy, and the ongoing commitment of many other governors, we think this is an opportunity to support this subset of states to move forward aggressively with sensible, economically beneficial policies. We believe your state can help lead this effort. CSU, Georgetown, and the RBF have long prioritized state clean energy policymaking and look forward to supporting your work in the coming months and years.

To tell you some more about the rationale for this discussion, and to get your input on what would be most helpful, we would like to

have a brief discussion with you by phone in the coming weeks. In the meantime, please save the dates, and please do not hesitate to reach out to either one of us to discuss this event. You may RSVP to Patrick Cummins at CSU (
). We will follow up with additional travel planning information after we hear from you.

We sincerely hope you are able to participate and look forward to speaking with you soon. Many thanks.

Sincerely,

Bill Ritter, Jr.
Director, Center for the New Energy Economy
41st Governor of Colorado

Vicky Arroyo
Georgetown Climate Center
Georgetown Law School

Michael Northrop
Program Director
Rockefeller Brothers Fund

From: Cummins,Patrick >
Sent: Monday, May 20, 2019 7:22 PM EDT
To: Michael Northrop ; Ritter Jr,Bill ; Vicki Arroyo ; joseph.kruger ; Deborah Burke

CC: Megan.Burnett < >; Hartzell,Wendy

Subject: Check in Call on Pocantico Meeting

Here's the number for our call tomorrow at 10am Eastern / 8am Mountain
Conference number: 1-866-425-9377
Code: 4683-6236-35

Here's where we are with invites and responses. Positive response from all except those highlighted in yellow.

Per Vicki: With Vermont, Peter Walke of ANR who has the governor's ear.

With states at 18 per all on the list below, RBF at 2, CNEE at 2, Georgetown at 1, Keynote speaker at 1 and Energy Foundation at 1 – we would be at 25 with max of 28. I also extended an invite to Franz Litz but he has not yet responded.

We talked about possible invites for QC and BC, but I have not done that yet. Let's revisit that question in the morning.

I will get a draft of the meeting description and agenda to you before the call. Thanks, PC

California	Mary Nichols	Chairman	California Air Resources Board
	Kate Gordon	Director	Gov's Office of Planning and Research
Colorado	Will Toor	Director	Governor's Energy Office
	Zach Pierce	Sr. Policy Advisor, Energy & Natural Res.	Office of the Governor
Connecticut	Katie Dykes	Commissioner	Department of Energy and Environmental Protection
Maine	Dan Burgess	Director	Governor's Energy Office
Maryland	Ben Grumbles	Secretary	Department of the Environment
Massachusetts	Katie Theoharides	Asst. Secretary for Climate Change	Office of Energy and Environmental Affairs
Nevada	Brad Crowell	Director	Dept. of Conservation and Natural Resources
	David Bobzien	Director	Governor's Energy Office
New Jersey	Kathleen Frangione	Chief Policy Advisor	Office of Gov. Phil Murphy
New Mexico	Sarah Cottrell Propst	Cabinet Secretary	Energy, Minerals and Natural Resources Department
	Jim Kenney	Cabinet Secretary	Environment Department
New York	Dale Bryk	Deputy Secretary	Energy and Environment
Oregon	Kristen Sheeran	Director	Governor's Carbon Policy Office
Rhode Island	Janet Coit	Director	Department of Environmental Management
Vermont	Kendal Smith	Director, Policy and Legislative Affairs	Governor's Office
Washington	Chris Davis	Senior Advisor, Climate and Energy	Governor's Office

From: Karen Hopf <
Sent: Friday, June 07, 2019 5:39 PM EDT
To: Hartzell,Wendy <
Subject: Final Eticketed Itinerary for: CUMMINS JR/ROBERT PATRICK 17Jul Durango to LaGuardia 18Jul LaGuardia to St Louis

Here is Patrick's final itinerary.

Thank you.

Karen Hopf
Travel Consultant
New Horizons Travel
300 Boardwalk Bldg 1
Fort Collins, CO 80525

From: NEW HORIZONS TRAVEL [mailto:noreply@amadeus.com]
Subject: CUMMINS JR/ROBERT PATRICK 17Jul DRO

Invoice

Booking ref:	**OPXYQ6**	Check My Trip	
Issued date:	**07 June 2019**	Baggage Info	
Invoice Number:	**0000042444**		

Traveler	**Robert Patrick Cummins Jr**	Agency	**NEW HORIZONS TRAVEL** **300 E Boardwalk Dr** **FT COLLINS CO 80525** **United States Of America**
		Telephone	**970 223-7400**
		Fax	**970 225-0538**
		Agent initial	**05**
Accounting Information	**Account Number: 2100**		

Billing address
Dohe - Csu
Johnson Hall
Fort Collins
Co
80523
Us

Wednesday 17 July 2019

United Airlines UA 3745 (Operated by Republic Airlines Dba United Expres)

Departure	**17 July 6:00 AM**	**Durango, (La Plata County)** (+)	
Arrival	**17 July 7:09 AM**	**Denver, (Denver International)** (+)	
Duration		01:09 (Non stop)	
Distance		249.79 Miles	
Booking status		Confirmed	
Class		Economy (H)	
Seat		11B Confirmed	
Aircraft		Embraer 170	

Wednesday 17 July 2019

United Airlines UA 303

Departure	**17 July 9:02 AM**	**Denver, (Denver International)** (+)	
Arrival	**17 July 2:59 PM**	**New York, (Laguardia)** (+)	**Terminal: B**
Duration		03:57 (Non stop)	
Distance		1613.70 Miles	
Booking status		Confirmed	
Class		Economy (H)	
Seat		22D Confirmed	
Aircraft		Airbus Industrie A320	
Flight meal		Food For Purchase	

Thursday 18 July 2019

United Airlines UA 6367 (Operated by Mesa Airlines Dba United Express)

Departure	**18 July 7:15 PM**	**New York, (Laguardia)** (+)	**Terminal: B**
Arrival	**18 July 8:43 PM**	**Washington, (Dulles Intl)** (+)	
Duration		01:28 (Non stop)	
Distance		228.04 Miles	
Booking status		Confirmed	

Class	Economy (Q)
Seat	10B Confirmed
Aircraft	Canadair Regional Jet 700

Thursday 18 July 2019

United Airlines UA 4976 (Operated by Commutair Dba United Express)

Departure	**18 July 10:15 PM**	**Washington, (Dulles Intl)** (+)	
Arrival	**18 July 11:25 PM**	**St Louis, (Lambert)** (+)	**Terminal: 1**
Duration		02:10 (Non stop)	
Distance		694.07 Miles	
Booking status		Confirmed	
Class		Economy (Q)	
Seat		02A Confirmed	
Aircraft		Embraer Rj135/140/145	
Flight meal		Food And Beverages For Purchase	

Retention

Location	**Denver - Co**
Booking status	Confirmed
Details	Thank You For Calling New Horizons Travel

Invoice Details

Air Fare	USD	658.61
Taxes And Airline Imposed Fees	USD	86.39
Air Total	**USD**	**745.00**
*Service Fee	USD	27.00
Invoice Total	**USD**	**772.00**

Payment Details

Ticket Payment: New	CCVIXXXXXXXXXXXX5473/A006421	
Mco Payment: New	CCVIXXXXXXXXXXXX5473/A025233	Cummins Jr/Robert Patrick

Airline Booking Reference(s)

UA: CH19PF

Ticket details

E-ticket UA 016-7322679607 for Robert Patrick Cummins Jr
SVC Ticket 890 0777525846

General Information

UA Frequent Flyer

Tickets Are Non-Refundable And Non-Transferable
Valid Photo Id With Name Matching Tkt Required At Check In
Please Reconfirm Flights 24Hrs Prior To Travel
Ticket Has No Value After Outbound Travel Date
Unless Cancelled Prior To That Date
Change Of Return May Cost As Much As Full One Way Fare
Please Go To Airline Website To Check Most Recent
Restrictions And Surcharges..Costs Are Changing
Daily And Airlines Are Adding Many Hidden Fees
Airfare Is 745 Plus 27 For Total 772.00

Ecological information

Calculated average CO2 emission is 546.61 kg/person
Source: ICAO Carbon Emissions Calculator
http://www.icao.int/environmental-protection/CarbonOffset/Pages/default.aspx

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Click here for Hazardous Materials Information

Data Protection Notice: Your personal data will be processed in accordance with the applicable carrier's privacy policy and, if your booking is made via a reservation system provider ("GDS"), with its privacy policy. These are available at http://www.iatatravelcenter.com/privacy or from the carrier or GDS directly. You should read this documentation, which applies to your booking and specifies, for example, how your personal data is collected, stored, used, disclosed and transferred. (applicable for interline carriage)

From: Cummins,Patrick on behalf of Cummins,Patrick
Sent: Wednesday, July 10, 2019 10:46 AM EDT
To: Michael Northrop ; Regina Creegan Deborah Burke
Subject: FW: 071719questionnaire
Attachment(s): "071719questionnaire.docx"

Michael – I think you answered all the questions. Regarding rankings and room assignments: Here are my thoughts, which you can certainly modify.

To the best of my knowledge, the hike up the hill will not be a problem for most.

But we should have the following stay in deluxe rooms in the Coach Barn:
Leo Asuncion
Mary Nichols

Per Michael, organizers to stay in Coach Barn, but don't need deluxe rooms:

Deborah	Burke
Jacob	Corvidae
Patrick	Cummins
Carla	Frisch
Joe	Kruger
Michael	Northrop
Bill	Ritter, Jr.

After that, it's pretty subjective who is a VIP and whether you want them in Coach Barn or at Kykuit. Here are my thoughts – I've added VIP or either next to the remaining names.

Nik	Blosser – vip
David	Bobzien – either
Dale	Bryk - either
Betsy	Campbell - VIP
Janet	Coit – either (Coach Barn for convenience)
Sarah	Cottrell Propst - either
Bradley	Crowell - either
Chris	Davis – either
Katie	Dykes – either (coach barn for convenience)
Sandra	Ely – either
Kathleen	Frangione - VIP
Carla	Frisch - either
Kate	Gordon - VIP
Ben	Grumbles - either
Katie	McCormack – either (coach barn for convenience)
Zach	Pierce - either
Hannah	Pingree – coach barn
Reed	Schuler - either
Andrew	Steer - VIP
Kathleen	Theoharides - either
Will	Toor - either
Peter	Walke - either

From: Michael Northrop
Sent: Tuesday, July 9, 2019 6:34 PM
To: Regina Creegan ; Deborah Burke ; Cummins,Patrick <
Cc: Michael Northrop

Subject: 071719questionnaire

Patrick, can you look at the attached? I filled it out but added notes for you in a few places.
Regina needs a total number of participants (count Betsy Campbell from the RBF who is coming to dinner)
Regina needs arrival info for everyone
We also want to know who besides Hannah wants to do the tour on Thursday at 4. I'll join Hannah if she is alone. A note to everyone to say a 4pm tour on Thursday is an option would be great. Regina requests we call it a tour of Kykuit, the Rockefeller Family home, not a tour of the Rockefeller Estate
Regina, let us know what else you need.
Regina, I apologize we have been a little less organized than we should have been. We have been wildly spoiled by Wilson Rickerson obviously.
Thank you!
Michael

MEMORANDUM

<AUTODATE>

To: Patrick Cummins

From: Regina Creegan

Re: *Rockefeller Brothers Fund: Accelerating U.S. State Action on Climate Change on Wednesday, July 17 – Thursday, July 18, 2019*

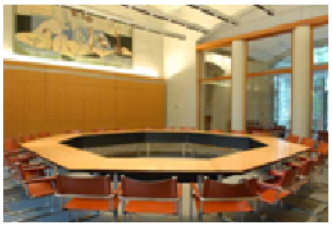
Following is a list of questions/requests I have with regard to the above meeting:
WE WILL USE HAYLOFT. CAN WE ASK YOU TO SET IT UP IN A CIRCLE FOR AFTER DINNER? THANKS

1. Number of participants, including staff : **SEE AGENDA MATERIALS. ADD BETSY CAMPBELL. PATRICK HOW MANY ARE WE INCLUDING BETSY CAMPBELL?**

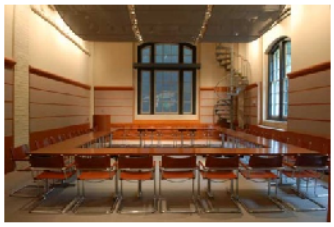
2. Agenda, to include arrival and departure times; meal times; breaks; Kykuit tour (1 hour), etc.
   - Tour of Kykuit can be scheduled during daylight hours. **4PM ON THURSDAY**
   -Please include a reception prior to dinner, allow at least 30 minutes for the Loggia or allow 45 minutes – 1 hour if you choose the Autohall. (The Kykuit Terrace is not available Wednesday evening) **6PM IN LOGGIA**
   -Allow 1 hour for lunches and 1 ½ hours for dinner. **OK . WE HAVE LUNCH ON THURSDAY SCHEDULED FOR 1.5 HOURS.**

3. Will all of the sessions be in plenary, or will you break out into small working groups at any time? If so, how many break out spaces will be required? **PLENARY**
4. For plenary sessions, how should the table be arranged? (In the lecture room, we can seat a maximum of 30 people around a hollow square or at 5 or 6 small blocks of tables or 24 people at a U-shaped table with a dais for 2-4 more. Our main conference room seats a maximum of 24 around the octagonal table. We can put a few observer chairs in either room.) **Note: pads, pens, easel pads and markers and tape will be provided. MAIN CONFERENCE ROOM. WE WILL HAVE 26 AROUND THE TABLE AND SOME ALONG THE BACK.**

Main Conference Room



Main Conference Room



Lecture Room Open Square or hollow Square

Lecture Room Blocks

Additional Pocantico Facilities information can be found: http://www.rbf.org/sites/default/files/meeting_rooms_v4.pdf

5. Do you want any easels in the meeting room, and, if so, how many? If using break out rooms, do you need easels in those spaces? We have a total of four easels in the Center. **3 EASELS PLEASE**

6. Do you need a note taker table in the meeting room? **NO**

7. Do you need tent cards for the meeting table or name badges, or does everyone know one another? We can provide one or the other. **TENT CARDS AND NAME BADGES. PLEASE ADD A BADGE FOR BETSY**

8. What audio visual equipment is required (i.e. LCD projector, laptop PC or Mac, VCR, simultaneous translation, video conferencing etc.) **NONE**

9. Do you want to have the meeting audio recorded? If so, you must have everyone's consent. **NO**

10. Do you need a podium in the Conference Center dining room. (for keynote speakers) **NO**

11. Please complete the attached "Participant Information" Excel spreadsheet and return it to us at least one week before the conference begins. (Please alphabetize list)

12. Please rank the participants on the guest list indicating those who should have "deluxe" rooms. There are nine "deluxe" rooms at the Coach Barn, which includes 2 suites with queen-size beds; 3 rooms with king-size beds, and 3 additional rooms with queen-size beds and one larger room with 2 twin-size beds. All other rooms have a single twin-size bed. Most of the rooms at Kykuit are deluxe, 6 bedrooms have king-size beds, 4 rooms with queen-size beds and the remaining rooms however, have either 1 or 2 twin-size beds. Please note that Kykuit is a 5 minute uphill walk from the Center when assigning room locations. For anyone not ranked, we arbitrarily make the room assignments. **(Smaller groups will be housed in the Coach Barn building only) PATRICK WILL YOU RANK PARTICIPANTS. ALL ORGANIZERS EXCEPT BILL RITTER SHOULD STAY IN COACH BARN. LETS GET EVERYONE ELSE IF POSSIBLE UP AT KYKUIT OR IN A NICER ROOM IN CB**

13. Before the meeting, we will need a transportation schedule with each participant's estimated arrival time and mode of transportation. Same for departure. You can enter the information in sheet two of the participant information spreadsheet. **PATRICK WILL YOU DO THIS?**

I look forward to hearing back from. In the meantime, please let me know if you have any questions or if I can be of further assistance to you.

From: Cummins,Patrick
Sent: Wednesday, June 05, 2019 12:00 PM EDT
To: Hartzell,Wendy
Subject: FW: Accelerating U.S. State Action on Climate Change on Wednesday, July 17 – Thursday, July 18, 2019
Attachment(s): "PC Information Directions E-Mail Updated 0416.doc","TransportationOptionsOctober2018.docx","ParticipantInformationExcel-2019.xlsx"

For our discussion of a registration form….

Patrick Cummins
Senior Policy Advisor
Colorado State University
Center for the New Energy Economy

From: Regina Creegan
Sent: Thursday, May 9, 2019 8:00 PM
To: Cummins,Patrick
Cc: Deborah Burke ; Sonia Jagtiani
Subject: Accelerating U.S. State Action on Climate Change on Wednesday, July 17 – Thursday, July 18, 2019
Importance: High

Dear Patrick,

I'm looking forward to working with you or anyone else on the team on the logistics of the Accelerating U.S. State Action on Climate Change on Wednesday, July 17 – Thursday, July 18, 2019.

Attached is a "generic" list of logistical questions which will give you an idea of the information we will need to get from you a week to 10 days prior to your meeting. In addition, I am attaching a "Participant Information" Excel spreadsheet which you need to complete (using our form) and return to us at least one week before the conference, if not earlier. **When completing the form, please be advised that column "S" is optional and has been included to assist the RBF in its effort to help build a more just, sustainable and peaceful world. By collecting this data, you will be helping us to identify and measure the diversity of conference participants.** Transportation information can be entered on the additional sheets of this document to track travel details or other pertinent information, if you wish.

Additional Pocantico Facilities information can be found:http://www.rbf.org/sites/default/files/meeting_rooms_v4.pdf

I am also attaching an on-line brochure with information about staying at Pocantico and travel directions, which you can send to the confirmed participants and a Transportation Options document with information about ground transportation arrangements to the Center. Of the car services given, our preference is **Tri-State Limousine Service (877.510.5466)** and our contact there is Joe Soleiman. To transport guests between the local hotels, train stations, and Pocantico, it will be more economical to use a local taxi. Prices on document are subject to change.

Copies of our Lobbying Memo and RBF Disclaimer also attached for your information.

The menus are attached as well, you will need to select a reception item, 1st course and main course and dessert for Wednesday evening and a luncheon menu and dessert for Thursday. Let me know if you have any questions. I will need the selections 1 week ahead of the meeting. You can highlight them in different colors and add the date if you prefer and send the selections back to me. Please note the dietary restrictions on the participant excel sheet and the caterer will take care of selecting a menu for those with dietary requests.

Please also note that professional conduct of attendees is expected at all times.

As I said earlier I'm looking forward to working with you on the logistics of this meeting. In the meantime, should you have any additional questions or if I can be of assistance to you, please don't hesitate to contact me at 6 or by e-mail at

Regards,
Regina

Regina Creegan, Director, Conferences and Administration
The Pocantico Center of the Rockefeller Brothers Fund
200 Lake Road, Pocantico Hills | Tarrytown, NY 10591

| www.rbf.org

	A	B	C	D	E	F	G	H	I	J
1	**Salutation**	**LastName**	**FirstName**	**Title**	**Organization**	**Address1**	**Address2**	**City**	**State**	**PostalCode**
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31	**1. African American/Black, 2. American Indian or Alaska Native, 3. Asian, 4. Hispanic or Latino, 5. Native Hawaiian or other Pacific Islander, 6. White, 7. Two or more races**									

	K	L	M	N	O	P	Q	R	S
1	**Country**	**Phone**	**Mobile**	**Email**	**Fax**	**Web**	**Gender**	**Mobility**	**Race / Ethnicity (optional) See line 31 for Category #'s**
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1	**Special Dietary**	**Room Ranking**
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	A	B	C	D	E	F	G	H	I	J
1	**Last Name**	**First Name**	**Approximate time of Arrival at PCC**	**Mode of Transportation to PCC i.e. PMV / Limo**	**Name of Arriving Airport and Flight Information**	**Method of Transportation from Arriving Airport to PCC**	**Travel by Train to PCC**	**Taxi from Train Station**	**Time of Departure from PCC**	**Name of Departure Airport and Flight Information**

	K	L
1	**Method of Transportation from PCC to Departure Airport**	**Taxi to Train Station**

THE POCANTICO CENTER OF THE ROCKEFELLER BROTHERS FUND

TRAVEL DIRECTIONS & CONFERENCE CENTER INFORMATION

THE POCANTICO CENTER of the Rockefeller Brothers Fund is located approximately one hour north of Manhattan in the Pocantico Historic Area, the heart of the Rockefeller family estate in Westchester County, New York. The Historic Area has been a property of the National Trust for Historic Preservation (www.nthp.org) since 1979, when it was willed to the National Trust by Governor Nelson A. Rockefeller. The Pocantico Center includes John D. Rockefeller's home, Kykuit; the surrounding gardens and sculpture collections; and the Coach Barn (Conference Center), which houses guests on the second floor and the family's carriages and vintage automobiles on the first floor. The lower floor has been transformed into a modern meeting facility. The Pocantico Center is maintained and administered by the Rockefeller Brothers Fund (www.rbf.org), a private foundation, which operates the site as an extension of its grantmaking activities under an agreement with the National Trust. The Conference Center provides a unique setting where the RBF brings together people of diverse backgrounds and perspectives from nonprofit organizations and public institutions to engage important issues related to the Fund's philanthropic programs. In addition to conferences, the RBF's Pocantico Programs include stewardship of the historic portion of the estate and oversight of a visitation program at Kykuit, operated on behalf of the Fund by Historic Hudson Valley (www.hudsonvalley.org).

The directions are provided to help direct you to the Conference Center. Please advise the conference organizer of your travel plans, so arrangements can be made to pick you up if needed. All travel plans, including the time of your arrival at Pocantico, must be confirmed. When you arrive at the Main Gate, announce yourself to the security personnel, who will provide you with further directions.

ACCOMMODATIONS

Guests are lodged on the second floor of the Coach Barn (Conference Center) and on the third and fourth floors of Kykuit. All accommodations have a private bath. Hair dryers are also provided in each bedroom and adapters for electric razors are available upon request. Electrical service is 115 volts/60 cycles.

DRESS

In keeping with the Fund's programmatic emphasis on global warming and the desire to mitigate RBF's carbon footprint, guests at Pocantico should dress comfortably according to the season.

SMOKING POLICY

Guests may not smoke indoors, either at Kykuit or in the Coach Barn (Conference Center).

RECREATION

Guests are welcome to stroll the Coach Barn (Conference Center) and Kykuit grounds, including Kykuit's lovely gardens, or may go jogging on the roads and trails outside the estate.

TELEPHONE, FACSIMILE & BUSINESS CENTER

Each bedroom at the Coach Barn (Conference Center) and Kykuit has a private telephone number with voice mail, and phone calls may be received 24 hours a day. During conference sessions messages will be taken by the center's staff at 914.524.6500. Facsimile messages may be sent during normal business hours from the Conference Center. Faxes are received 24 hours a day at 914.524.6550 and distributed as promptly as possible. Computers are available for the use of conferees in the business center of the Conference Center with IBM-compatible machines, as well as commonly used word-processing, presentation, spreadsheet programs and high speed Internet access. Please note, however, that computer assistance is not available. Wireless Internet access is available in the entire Coach Barn (Conference Center) building as well as on the bedroom floors at Kykuit.

SUSTAINABLE PRACTICES AT POCANTICO

The Pocantico staff is committed to incorporating responsible environmental practices in all aspects of its operation. Green initiatives at Pocantico to date include renewable energy, through the purchase of 100% wind-generated electricity; the use of green cleaning products; a recycling program; and the option for towel and linen reuse.

It is a goal to incorporate sustainable building practices in ongoing maintenance and capital improvement projects and we endeavor to serve sustainable seafood and locally grown food.

In addition, a portion of the conference fees are utilized to acquire Green Tags [Renewable Energy Certificates (RECs)] from *Native*Energy (www.nativeenergy.com) to offset greenhouse gas emissions associated with conference attendees' travel to/from the Pocantico Center. This purchase will be dedicated to help finance new wind farm projects in the United States.

WEATHER

Temperatures at the Pocantico Center vary considerably with the four seasons. Winter can be quite cold, with either rain or snowfall, while summers are often hot and humid. You may find the following chart of average temperatures in New York City useful. The weather at the Conference Center is usually a few degrees cooler.

January	32°	(0° C)
February	34°	(1° C)
March	41°	(5° C)
April	52°	(12° C)
May	62°	(17° C)
June	71°	(22° C)
July	76°	(25° C)
August	76°	(25° C)
September	69°	(21° C)
October	58°	(15° C)
November	47°	(8° C)
December	36°	(2° C)

THE POCANTICO CENTER OF
THE ROCKEFELLER BROTHERS FUND
200 Lake Road
Tarrytown, New York 10591
Tel: (914) 524-6500 Fax: (914) 524-6550

The Pocantico Center of the Rockefeller Brothers Fund is located in the village of Tarrytown, 25 miles north of New York City on the Hudson River. From New York City, it takes approximately one hour to reach Pocantico by car (up to two if traffic is heavy) or forty minutes by train.

TRAVEL BY AIR

From Westchester/White Plains (20 mins.): Travel south on I-684 to Route 287 West. From 287 West, take exit 3, Sprain Brook Parkway North. Exit at the first ramp (1.5 miles) to Eastview. Turn left at exit ramp traffic light onto Route 100C. Follow road approx. 2 miles, past reservoir on your left(becomes Old Saw Mill River Road). Make a right at the stop sign onto Lake Road. Drive uphill for 0.6 miles to the main entrance on the left.

From LaGuardia (40 mins. +): Travel west on Grand Central Pkwy to I-278 over Triborough Bridge. Follow signs to I-87 (Major Deegan). Stay on I-87 to exit 7-A (Saw Mill River Parkway – Taconic Parkway). Continue on the Saw Mill Parkway North to Exit 23 (Eastview). At the foot of the exit ramp, turn left onto an unmarked road and drive about 0.6 miles beside a reservoir to the first right turn (Lake Road). Drive uphill for 0.6 miles to the main entrance on the left.

From JFK (1 hour +): Take the Van Wyck Expressway to the Whitestone Bridge exit. From the Whitestone Bridge follow signs to the Hutchinson River Parkway. Continue on the Parkway to Interstate 287 West (White Plains Exit). Drive west on 287 (Cross Westchester Expressway) to Exit 3 - Sprain Brook Parkway. Drive north 1.5 miles to Route 100C-Eastview Exit and turn left at the top of the ramp onto Route 100 C. After 1 mile this road bears to the right and becomes Old Saw Mill River Road. Proceed straight 1.2 miles under the Union Carbide building, under the Saw Mill River Parkway and beside a reservoir. Turn right at Lake Road and drive uphill for 0.6 miles to the main entrance on the left.

TRAVEL BY TRAIN

From Grand Central Station in New York City (42nd Street at Madison Avenue), take the Metro-North train to Tarrytown, which is on the Hudson Line. Trains run quite frequently: on weekdays, approximately every half hour. Taxis are available at the train station.

TRAVEL BY CAR

FROM MANHATTAN, West Side: Take the West Side Highway north, which will turn into the Henry Hudson Parkway, and then into the Saw Mill River Parkway. Get off at the Saw Mill River Road - Eastview Exit 23. At the foot of the exit ramp, turn left onto an unmarked road and drive about 0.6 miles beside a reservoir to the first right turn (Lake Road). Drive uphill for 0.6 miles to the main entrance on the left.

FROM MANHATTAN, East Side: Take the F.D.R. Drive north to the Triborough Bridge (follow lanes marked "Bronx" and "Thruway") and onto the Major Deegan Expressway (Interstate 87). The Major Deegan will turn into the N.Y. Thruway. Get off the Thruway at Exit 7A (Saw Mill River Parkway - Taconic Parkway). Continue on the Saw Mill River Parkway to the Saw Mill River Road - Eastview Exit 23. At the foot of the exit ramp, turn left onto an unmarked road and drive about 0.6 miles beside a reservoir to the first right turn (Lake Road). Drive uphill for 0.6 miles to the main entrance on the left.

FROM NEW JERSEY AND UPPER NEW YORK STATE: Follow the N.Y. Thruway (Interstate 87-287) across the Tappan Zee Bridge to Exit 9, about 0.2 miles past the tollbooths. Follow U.S. 9 north 1.6 miles to Route 448 (Bedford Road) at North Tarrytown. Turn right and drive 1.5 miles on Bedford Road to a stop sign. Turn right to main entrance.

FROM UPPER WESTCHESTER AND NEW ENGLAND: Drive south on the Saw Mill River Parkway to the Saw Mill River Road - Eastview Exit 23. At the foot of the exit ramp, turn right onto an unmarked road and drive about 0.6 miles beside a reservoir to the first right turn (Lake Road). Drive uphill for 0.6 miles to the main entrance on the left.

FROM CONNECTICUT: From the Merritt Parkway or Connecticut Turnpike, turn right onto Interstate 287 (Cross Westchester Expressway) westbound to Exit 3- Sprain Brook Parkway. Drive north 1.5 miles to Route 100C-Eastview Exit and turn left at the top of the ramp onto Route 100 C. After 1 mile this road bears to the right and becomes Old Saw Mill River Road. Proceed straight 1.2 miles under the Union Carbide building, under the Saw Mill River Parkway and beside a reservoir. Turn right at Lake Road and drive uphill for 0.6 miles to the main entrance on the left.

FROM LONG ISLAND: From either the Bronx-Whitestone Bridge or the Throgs Neck Bridge, follow signs to the Hutchinson River Parkway. Continue on the Parkway to Interstate 287 West (White Plains Exit). Drive west on 287 (Cross Westchester Expressway) to Exit 3 - Sprain Brook Parkway. Drive north 1.5 miles to Route 100C-Eastview Exit and turn left at the top of the ramp onto Route 100 C. After 1 mile this road bears to the right and becomes Old Saw Mill River Road. Proceed straight 1.2 miles under the Union Carbide building, under the Saw Mill River Parkway and beside a reservoir. Turn right at Lake Road and drive uphill for 0.6 miles to the main entrance on the left.

●Nearest Airports:

The closest airports to the Pocantico Center are:

- **Westchester/White Plains Airport** (20 min. Driving distance to Pocantico)
- **La Guardia**, 8 miles (13km) east of Manhattan (about 40 min. driving distance to Pocantico)
- **John F Kennedy (JFK)**, 15 miles (24km) southeast of midtown Manhattan (1+ hour drive time to Pocantico)
- **Newark**, 10 miles (16km) west of Manhattan in New Jersey (1+ hour drive time to Pocantico)

●Trans Transportation Options from the Airports and New York City:

Comme **Commercial pick-up service** is available, with advance reservation. The car services below are familiar location of the P of the Pocantico Center. If you use any other car or taxi service, please note that the directions provid provided on the next page will likely be necessary for your driver, ocation of the Conference Center is not generally well-kno well-known outside the area. Each of the companies below redit cards.

Airport/NYC to Pocantico	Hired Town Car: **Tri-State Limousine** 914-592-5466 1-877-510-5466 gratuity +tolls included plus tax, if applicable	Hired Town Car: **Red Oak Transportation** 914-694-2222 gratuity, tax + tolls included	Local Taxi: **National Taxi/Limo Service** 914-366-0202 gratuity + tolls included plus tax, if applicable	Hired Town Car: **Green World Transport** 1-877-85 GREEN Green car not always available. gratuity, tax + tolls included
White Plains	**$66** / **$120 for Van** + parking	**$78 / $174 SUV** + parking	**$52** + parking	**$56 / $80 for SUV** + parking
LaGuardia	**$113 / $227 for Van** + parking	**$106 / $202 SUV** + parking	**$108** + parking	**$109 / $136 for SUV** + parking
JFK	**$131 / $227 for Van** + parking	**$120 / $216 SUV** + parking	**$128** + parking	**$123 / $151 for SUV** + parking
Newark	**$176.70 / $242.70 for Van** + parking	**$142 / $238 SUV** + parking	**$142** + parking	**$151 / $169 for SUV** + parking
NYC Midtown **NYC Downtown**	**$130 / $226 for Van** **$142.00 / $226 for Van**	**$126/222 SUV** **$144/240 SUV**	**$120** **$132**	**$93.22 / $119.26 for SUV** **$105.03 / 131.95 for SUV**

Bus service is available to both Tarrytown and Manhattan from the Airports. If you go to Manhattan, train service is available from there to Tarrytown (details below). It takes approximately 30 – 60 minutes to get to Grand Central Station from the airports by Express Bus or Taxi (longer at peak hours – cost and information below). Train service to Tarrytown is approximately 40 minutes, and the Pocantico Center is about 10 minutes from the train station by taxi. All totaled, plan on about 2 ½ - 3 hours from the airport to the Center by public transportation. Getting to the train departure point of Grand Central Station in Manhattan is possible by taxi or express bus. Express Bus information is below:

Airport	*Service*	*Cost*	*Approximate Frequency*	*Approximate Travel Time to Manhattan*
LaGuardia	**New York City Airport Service Express Bus** à Midtown Manhattan Grand Central Terminal (41st Street between Lexington and 3rd Avenues. In front of 140 E. 41st St. (718) 777-5111	**$15** **$28** **R/T**	Every 30 minutes 5:00 AM to 11:30 PM	30 - 60 minutes, longer at peak hours
JFK		**$18** **$34** **R/T**	Every 30 minutes 5:00 AM to 11:30 PM	50 - 70 minutes, longer at peak hours
Newark	**Newark Olympia Trails Bus Co.** à Midtown Manhattan/East Side Grand Central Terminal (Between Park & Lexington Ave) (877) 8NEWARK	**$17** **$29** **R/T**	Every 15 minutes during day 30 minutes before 6:45 AM & after 11:15 PM NYC to EWR 4:45 AM to 1:45 AM EWR to NYC 4:00 AM to 1:00 AM	30-60 minutes, longer at peak hours
LaGuardia/ JFK	**Red Dot Shuttle Service** à Tarrytown, NY Drop off at Westchester Marriott/Sheraton/Doubletree (800-673-3368) Then take a local taxi to the Conference Center, about a 15-minute ride	**$68** **$18**	Within 45 minutes of landing time	1 - 1.5 hours, Depending on traffic

- **Directions to the Pocantico Center by Train:**

From Grand Central Station in New York City (42nd Street at Madison Avenue), take the Metro-North train to Tarrytown, which is on the Hudson Line. Trains run quite frequently: on weekdays, approximately every half hour. The train from Grand Central to Tarrytown has a one-way peak fare $13.50; one-way off-peak fare is $10.25. There are taxis located at the Tarrytown station. Taxi fare is approximately $18.00.

DRIVING DIRECTIONS TO THE POCANTICO CENTER OF THE ROCKEFELLER BROTHERS FUND

200 Lake Road, Tarrytown, New York 10591 (25 miles north of New York City on the Hudson River)
(914) 524-6500

From Westchester/White Plains Airport (20 mins.): Travel south on I-684 to Route 287 West. From 287 West, take exit 3, Sprain Brook Parkway North. Exit at the first ramp (1.5 miles) to Eastview. Turn left at exit ramp traffic light onto Route 100C. Follow road approx. 2 miles, past reservoir on your left (becomes Old Saw Mill River Road). Make a right at the stop sign onto Lake Road. Drive uphill for 0.6 miles to the main entrance on the left.

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Mill River Road. Proceed straight 1.2 miles under the Union Carbide building, under the Saw Mill River Parkway and beside a reservoir. Turn right at Lake Road and drive uphill for 0.6 miles to the main entrance on the left.

From: Cummins,Patrick on behalf of Cummins,Patrick
Sent: Tuesday, July 09, 2019 11:58 AM EDT
To: Plant,Tom ; Tegen,Suzanne ; Hoffer,Trina

Subject: FW: July 17-18 Pocantico Leadership States Meeting: Background Note, Agenda, Participant List, and Pocantico Center Information
Attachment(s): "Background Note for July 17-18 2019.docx","Draft Agenda Pocantico Leadership States July 17-18 2019.docx","List of Attendees.pdf","PC Information Directions E-Mail Updated 0416.doc"

FYI

Patrick Cummins
Senior Policy Advisor
Colorado State University
Center for the New Energy Economy

From: Michael Northrop
Sent: Thursday, July 4, 2019 11:21 AM
To: kate.gordon ; mary.nichols ; zach.pierce will.toor katie.dykes leo.r.asuncion Hannah.Pingree ; ben.grumbles kathleen.theoharides dbobzien ; bcrowell ; kathleen.frangione sandra.ely sarah.propst dale.bryk ; nik.blosser ; janet.coit peter.walke chris.davis reed.schuler Michael Northrop < Deborah Burke >; Ritter Jr,Bill Cummins,Patrick ; jk2128 ; jcorvidae cfrisch katie.mccormack asteer ; Betsy Campbell
Cc: shelby.mcmichael ; shannon.stewart ; nancey.steinheimer ; Carmen.Colon shanell.k.feliciano kathy. ; victoria.s. pamalloy Barbara.Panebianco Minerva.Canc ; jennifer.j.andrew Suzanne.Amerault Hartzell,Wendy < ; eda.lee ; Claudia Hernandez < ; Regina Creegan ; 'Vicki Arroyo'
Subject: July 17-18 Pocantico Leadership States Meeting: Background Note, Agenda, Participant List, and Pocantico Center Information

Happy July 4th!

Hopefully you are outside enjoying the day and not reading this email.

Attached are materials for the July 17-18th State Climate Leadership meeting at Pocantico. You will find a background note, a draft agenda, a participant list, and an information note on Pocantico.

We are trying to pack a lot into our short time together. The organizers still have some work to do to make sure we surface key points in each part of the discussion. We may reach out to you next week to help with specific parts of the agenda.

Please plan to arrive no later than 5:00pm on July 17th at the Pocantico Center. We plan an early dinner and important discussions over dinner and after dinner on Wednesday night.

If you are arriving at one of the regional airports (LaGuardia, JFK, Newark, or Westchester), please grab an Uber to the conference Center or ask us for help. We can arrange cars to pick you up at airports if necessary. Please alert Regina Creegan if you need a car from an airport. Her email is

If you plan on coming through New York City on your way to Pocantico, there are 3 trains an hour from Grand Central Station on Metro North Railroad to Tarrytown (45-minute trip), where you can get a taxi to Pocantico (10 minutes). If you are planning to come by train, please alert Regina so we will know when you are arriving. Regina can make sure there is a taxi waiting for you at the Tarrytown train station too. If you are driving yourself, please also let Pocantico know in advance.

Pocantico staff will arrange your travel back to Manhattan or to area airports at the conclusion of the meeting on Thursday afternoon. We can get those details figured out during the meeting. We plan to adjourn at 4:00pm on July 18th. **If you can stick around after 4:00pm, we are arranging a 75-90 minute tour of the Rockefeller Estate.**

Thank you again for making the time for this discussion.

All the best,

Michael

Michael Northrop, Program Director
Sustainable Development Program
Rockefeller Brothers Fund | 475 Riverside Drive, Suite 900 | New York, NY 10115

Philanthropy for an Interdependent World

MEMORANDUM

To: **Pocantico Participants**
Subject: **Accelerating State Action on Climate Change**
July 17-18, 2019

The 2018 elections brought forward a new group of state leaders – governors, legislators, policy makers, and agency officials – committed to reducing greenhouse gas emissions in their states. This new group of state leaders joins those of you who have been leading the charge for a decade or more. We are thrilled that so many of you are able to join us for this event where we will discuss ways to accelerate state action and ensure that the progress being made by U.S. leadership states is recognized and understood across the U.S. and at a global level.

While our time together at Pocantico is short, we hope to address each of the following topics:

- What are the leading edge clean energy policies and GHG reduction programs being enacted and implemented by U.S. states? We will focus especially on electricity, buildings and transportation, but hope we can also touch on other gases (methane and HFC's), land use, and carbon pricing.

- How are leadership states managing the politics of climate action? Are there lessons for how best to keep momentum going?

- How can this group of states support each other, and also work together to bring other states into the fold? Can states do more to drive bipartisan approaches to climate action?

- Can states work together accelerate market creation for cleaner vehicles, air source heat pumps, and other appliances? Which should be priorities?

- What steps can states be taking over the next 18 months to show the way forward for a federal administration in 2021 that supports clean energy and climate action?

- How can we ensure that leadership state voices (alongside other subnational leaders) offer encouragement to multilateral climate negotiations in the run-up to COP 26 in December 2020?

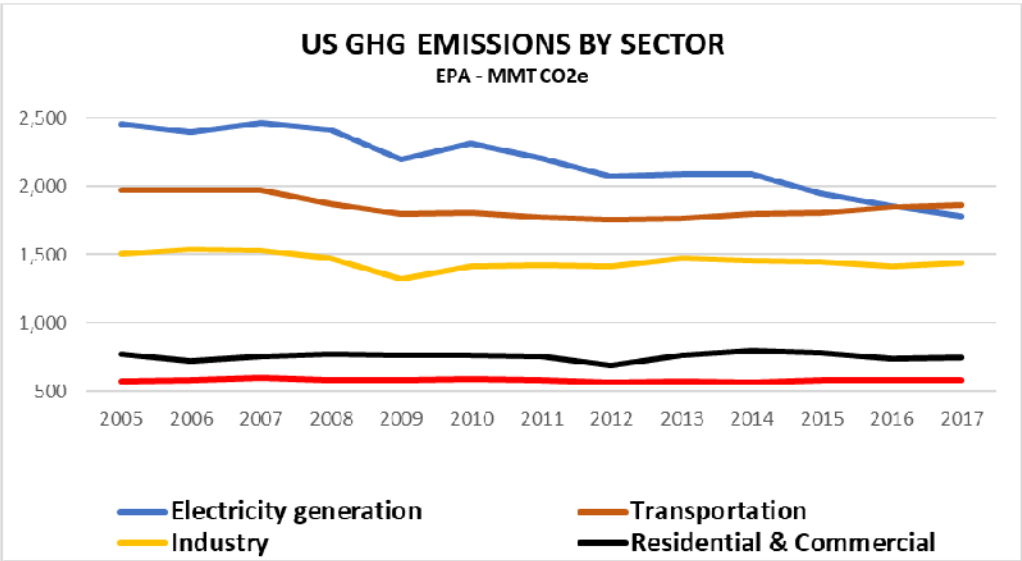
With these questions in mind, we will kick things off on Wednesday night with a discussion of the state of play in the international climate negotiations. Dr. Andrew Steer, President and CEO of the World Resources Institute, will join us for that conversation. We want to understand where the U.S. needs to be in order to play a constructive role in international discussions.

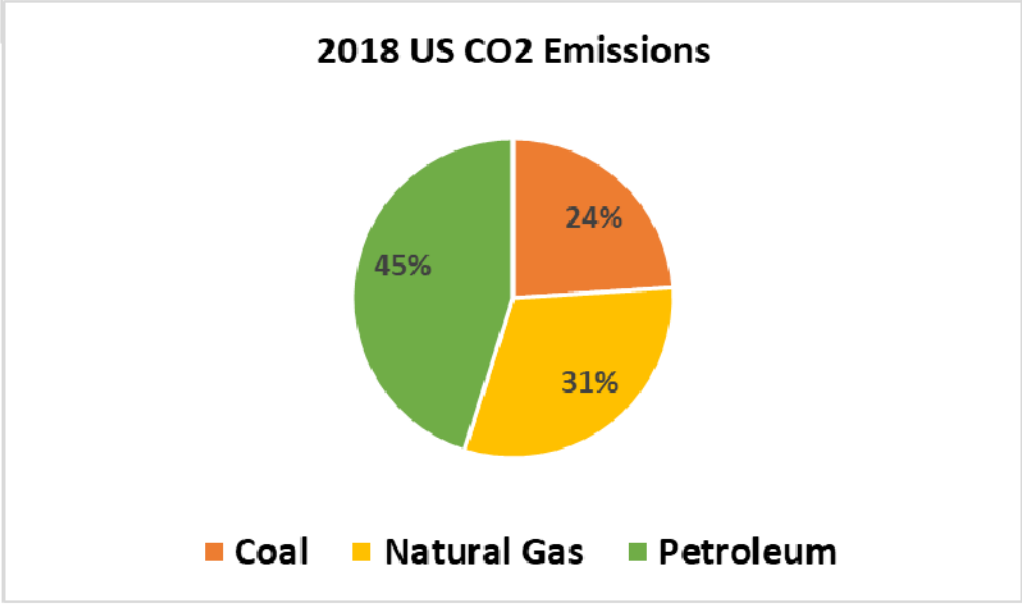
This has bearing on what level of ambition states must aim for. Kathleen Frangione, Chief Policy Advisor to New Jersey Governor, Phil Murphy, will describe the ambitious Paris-aligned approach her state has taken since Governor Murphy took office last year, how it has been framed, and how it has gathered

momentum. We want each of the participating states to weigh in on how they are thinking about this. We want to get lessons, good ideas, and questions on the table to help frame our conversation on Thursday. A core concern is how to get the politics right in order to maintain forward momentum.

Thursday morning, we will start with a rapid-fire review of the high ambition policies that states are implementing to get to net zero carbon. (Prior to the meeting, we will send two additional pieces of background material. One laying out the specific policies each state in the room has enacted and another that describes leading edge policies being enacted even more broadly sector-by-sector.) Rather than reviewing the full suite of leading edge policies in detail, we plan to focus in on a few key policy challenges.

Transportation. We will begin with a conversation on how to meet the challenge posed by emissions from the transportation sector. As we all know by now, the transportation sector has surpassed the electricity sector as the largest source of GHG emissions in the U.S. In 2018, emissions from the combustion of petroleum products were almost twice that of coal. Moreover, while emissions from coal continue to decline, emissions from the transportation sector have increased each year since 2012.





Vehicle Standards. Front and center in the discussion of how to reduce emissions from the transportation sector is the pending rollback of federal standards and the potential revocation of California's waiver, which would impact many of your states. We are fortunate that Mary Nichols will be with us to lead this discussion and help all the states in attendance figure out how you can work together to protect the progress you've made in this area.

Electric Vehicles. While each state in the room has some policies and programs in place to incentivize electric vehicle purchases and charging infrastructure, some states are going farther. A group of Northeast states is evaluating a market-based approach to reducing emissions from the transportation sector (Transportation Climate Initiative). Pacific states and British Columbia have also been working to create regional solutions for EV's. California and Oregon both have a low-carbon fuel standard. We will ask participating states to share their ideas for additional policies and programs to drive down emissions from the transportation sector.

Electricity. To date, states have had the greatest success in reducing emissions from the electric power sector. This is an area where states have a number of effective policy options, like renewable portfolio standards/clean energy standards, and you have used these policies to achieve substantial CO2 emissions reductions from the electric power sector over the last 10 years (-30% nationwide). Building on this success, you are moving to achieve even more progress with many states and utilities setting aggressive near-term targets for renewable energy, along with the long-term goal of 100% clean energy. What challenges are emerging and how can states successfully implement these bold electricity goals?

Natural Gas. One of the primary challenges to deep de-carbonization of the electric power sector is the reliance on natural gas as the replacement for coal. On the Eastern grid, coal generation has fallen by almost half over the last ten years, but 75% of that has been replaced by natural gas generation. We will review the current landscape of state policies for clean and renewable electricity, share ideas for next steps, and then discuss how you can work together – and with other states/regions – to make continued progress on the transition to a clean electric power sector.

Buildings. Residential and commercial buildings and industry are source categories where emissions have plateaued as square footage has increased, but where steep reductions have not yet begun. We will discuss what states are currently doing to transition buildings to clean energy, and then identify what options exist for states to expand their policies and programs in areas like net zero building codes, mandatory retrofits, and electrification.

Industrial Sector. Reducing emissions from the industrial sector poses a set of challenges similar to those associated with buildings, including continued reliance on natural gas as a primary energy source.

Methane and HFC's. Some states are also dealing with very significant methane emissions problems associated with oil and gas production, and from industrial livestock operations. States also have a chance to reduce methane leaks from aging residential heating infrastructure. A few states, including Connecticut, New York, Vermont, Maryland and California have also taken action on eliminating HFC's. Since methane and HFC's are super greenhouse gases, progress in the near-term can be extremely meaningful.

Land use is an additional category we hope to make some time for in the discussion if possible. Pacific states and Climate Alliance states have taken some actions here that we can learn from.

Carbon Pricing. The U.S. Chamber of Commerce and the oil sector have said they are open to carbon pricing. Recent state attempts to enact carbon pricing in Washington, Oregon, and Virginia have met heavy resistance and offer lessons we should consider as well.

During the last few hours of the meeting, we want to discuss several additional possible opportunities for collaborative work, including how best to encourage other states to enact leadership policies, how states can work together with cities and business, how to use state action to lay the groundwork for ambitious federal policy as soon as 2021, and how to make state, and other subnational, voices present during a string of important upcoming international climate meetings in 2019 and 2020.

Draft Agenda

Accelerating State Action on Climate Change

The Pocantico Center

200 Lake Road

Tarrytown, New York

July 17-18, 2019

This meeting will provide an opportunity for officials from leadership states taking action on climate change to share information on recent developments in their states and to strategize together on the most promising ways to accelerate the pace of implementation in response to the increasingly ambitious climate goals being established by these states' governors and state legislatures. The group will also discuss how state action can influence and underpin future federal action and how U.S. federal action needs to be positioned within the global climate negotiations.

Wednesday, July 17

6:00 pm Reception in Loggia area of the Coach Barn

7:00 Dinner and Introductions

8:30 Hayloft conversation on the international climate negotiation; and on how states are successfully setting and implementing science-based targets.
Dr. Andrew Steer, President and CEO, World Resources Institute
Kathleen Frangione, Chief Policy Advisor to Governor Phil Murphy

Thursday, July 18

7:00 am **Breakfast buffet available in Coach Barn**

8:00 **Agenda Review and Meeting Objectives, Governor Bill Ritter, CNEE**

8:15 **Summary Review of High Ambition Policies.** Please review the two documents provided in advance. Please share your questions and suggestions for additions. These are intended to be resources you and others can use to further policy goals in your states.

9:00 **Meeting the Challenges Posed by the Transportation Sector**

- Update on federal vehicle standards and states' response
  - How can states work together to establish ambitious federal and state emission standards for new cars and trucks?
- Status of Transportation and Climate Initiative
  - What can other states learn from this effort?
- Discussion of other strategies to address CO2 emissions from transportation (e.g., incentives for EV purchases and charging infrastructure, Low-Carbon Fuel Standards.)

10:00 **Power Sector**

- Achieving 100%
- Replacing Coal with Natural Gas?

11:00 **Net Zero Buildings**

- Standard Setting, Disclosure, and Mandatory Retrofits
- Electrification Instead of Gas Heating and Cooling

12:00pm **Working Lunch: Industrial Sources, Oil & Gas Methane, HFCs, Land Use**
Moving industrial sources away from fossil fuels and onto clean energy sources poses a set of challenges similar to those associated with buildings in terms of efficiency, retrofits and electrification. In addition, some states face the issue of a rapidly expanding oil & gas sector and associated methane emissions. Several states are early movers on HFC's: what are the lessons for other states?
We will break up into 3-4 groups over lunch for a discussion on the model tools, policies and incentives states can use to make progress in these sectors?

1:30 **Carbon pricing strategies**

- Tough sledding in WA, OR, VA
- Opportunities to expand existing programs (RGGI, TCI, WCI, EU, China) and enhance collaboration between programs
- Carbon tax

2:00 **Collaborative Opportunities**

- Group actions by leadership states on policy and market creation
- Outreach / support for opportunity states
- Setting the Policy Stage for Federal Action in 2021/Preparing for the Worst
- Participation in upcoming COPs in Santiago and London

3:30 **Next Steps**

4:00 **Adjourn and Optional Tour of the Rockefeller Estate for anyone who can delay their departure to 5:30.**

LIST OF ATTENDEES - ACCELERATING STATE ACTION ON CLIMATE CHANGE - JULY 17-18, 2019 AT THE POCANTICO CENTER

First Name:	Last Name:	Job Title:	Organization:
Leo	Asuncion	Commissioner	Hawaii Public Utilities Commisson
Nik	Blosser	Chief of Staff	Office of the Governor, Oregon
David	Bobzien	Director	Nevada Governor's Office of Energy
Dale	Bryk	Dep. Sec. for Energy & Environment	Office of the Governor, New York
Deborah	Burke	Program Associate	Rockefeller Brothers Fund
Janet	Coit	Director	Rhode Island Department of Environmental Management
Jacob	Corvidae	Principal	Rocky Mountain Institute
Sarah	Cottrell Propst	Cabinet Secretary	New Mexico Energy, Minerals, and Natural Resources Dept.
Bradley	Crowell	Director	Nevada Department of Conservation and Natural Resources
Patrick	Cummins	Senior Policy Advisor	Center for the New Energy Economy
Chris	Davis	Senior Advisor	Office of Washington Governor Jay Inslee
Katie	Dykes	Commissioner	Connecticut Dept. of Energy & Environmental Protection
Sandra	Ely	Director	New Mexico Environmental Protection Division
Kathleen	Frangione	Chief Policy Advisor	Office of the Governor, New Jersey
Carla	Frisch	Principal	Rocky Mountain Institute
Kate	Gordon	Director	California Governor's Office of Planning and Research
Ben	Grumbles	Secretary	Maryland Department of the Environment
Joe	Kruger	Director for Research & Strategy	Georgetown Climate Center
Katie	McCormack	Program Director, West Policy	Energy Foundation
Mary	Nichols	Chair	California Air Resources Board
Michael	Northrop	Program Director	Rockefeller Brothers Fund
Zach	Pierce	Senior Policy Advisor	Colorado Governor's Office
Hannah	Pingree	Director	Maine Office of Innovation and the Future
Bill	Ritter, Jr.	Director	Center for the New Energy Economy
Reed	Schuler	Senior Advisor	Office of Washington Governor Jay Inslee
Andrew	Steer	President and CEO	World Resources Institute
Kathleen	Theoharides	Secretary	Massachusetts Exec. Office of Energy & Environmental Affairs
Will	Toor	Executive Director	Colorado Energy Office
Peter	Walke	Deputy Secretary	Vermont Agency of Natural Resources

THE POCANTICO CENTER OF THE ROCKEFELLER BROTHERS FUND

TRAVEL DIRECTIONS & CONFERENCE CENTER INFORMATION

THE POCANTICO CENTER of the Rockefeller Brothers Fund is located approximately one hour north of Manhattan in the Pocantico Historic Area, the heart of the Rockefeller family estate in Westchester County, New York. The Historic Area has been a property of the National Trust for Historic Preservation (www.nthp.org) since 1979, when it was willed to the National Trust by Governor Nelson A. Rockefeller. The Pocantico Center includes John D. Rockefeller's home, Kykuit; the surrounding gardens and sculpture collections; and the Coach Barn (Conference Center), which houses guests on the second floor and the family's carriages and vintage automobiles on the first floor. The lower floor has been transformed into a modern meeting facility. The Pocantico Center is maintained and administered by the Rockefeller Brothers Fund (www.rbf.org), a private foundation, which operates the site as an extension of its grantmaking activities under an agreement with the National Trust. The Conference Center provides a unique setting where the RBF brings together people of diverse backgrounds and perspectives from nonprofit organizations and public institutions to engage important issues related to the Fund's philanthropic programs. In addition to conferences, the RBF's Pocantico Programs include stewardship of the historic portion of the estate and oversight of a visitation program at Kykuit, operated on behalf of the Fund by Historic Hudson Valley (www.hudsonvalley.org).

The directions are provided to help direct you to the Conference Center. Please advise the conference organizer of your travel plans, so arrangements can be made to pick you up if needed. All travel plans, including the time of your arrival at Pocantico, must be confirmed. When you arrive at the Main Gate, announce yourself to the security personnel, who will provide you with further directions.

ACCOMMODATIONS

Guests are lodged on the second floor of the Coach Barn (Conference Center) and on the third and fourth floors of Kykuit. All accommodations have a private bath. Hair dryers are also provided in each bedroom and adapters for electric razors are available upon request. Electrical service is 115 volts/60 cycles.

DRESS

In keeping with the Fund's programmatic emphasis on global warming and the desire to mitigate RBF's carbon footprint, guests at Pocantico should dress comfortably according to the season.

SMOKING POLICY

Guests may not smoke indoors, either at Kykuit or in the Coach Barn (Conference Center).

RECREATION

Guests are welcome to stroll the Coach Barn (Conference Center) and Kykuit grounds, including Kykuit's lovely gardens, or may go jogging on the roads and trails outside the estate.

TELEPHONE, FACSIMILE & BUSINESS CENTER

Each bedroom at the Coach Barn (Conference Center) and Kykuit has a private telephone number with voice mail, and phone calls may be received 24 hours a day. During conference sessions messages will be taken by the center's staff at 914.524.6500. Facsimile messages may be sent during normal business hours from the Conference Center. Faxes are received 24 hours a day at 914.524.6550 and distributed as promptly as possible. Computers are available for the use of conferees in the business center of the Conference Center with IBM-compatible machines, as well as commonly used word-processing, presentation, spreadsheet programs and high speed Internet access. Please note, however, that computer assistance is not available. Wireless Internet access is available in the entire Coach Barn (Conference Center) building as well as on the bedroom floors at Kykuit.

SUSTAINABLE PRACTICES AT POCANTICO

The Pocantico staff is committed to incorporating responsible environmental practices in all aspects of its operation. Green initiatives at Pocantico to date include renewable energy, through the purchase of 100% wind-generated electricity; the use of green cleaning products; a recycling program; and the option for towel and linen reuse.

It is a goal to incorporate sustainable building practices in ongoing maintenance and capital improvement projects and we endeavor to serve sustainable seafood and locally grown food.

In addition, a portion of the conference fees are utilized to acquire Green Tags [Renewable Energy Certificates (RECs)] from *Native*Energy (www.nativeenergy.com) to offset greenhouse gas emissions associated with conference attendees' travel to/from the Pocantico Center. This purchase will be dedicated to help finance new wind farm projects in the United States.

WEATHER

Temperatures at the Pocantico Center vary considerably with the four seasons. Winter can be quite cold, with either rain or snowfall, while summers are often hot and humid. You may find the following chart of average temperatures in New York City useful. The weather at the Conference Center is usually a few degrees cooler.

January	32°	(0° C)
February	34°	(1° C)
March	41°	(5° C)
April	52°	(12° C)
May	62°	(17° C)
June	71°	(22° C)
July	76°	(25° C)
August	76°	(25° C)
September	69°	(21° C)
October	58°	(15° C)
November	47°	(8° C)
December	36°	(2° C)

THE POCANTICO CENTER OF
THE ROCKEFELLER BROTHERS FUND
200 Lake Road
Tarrytown, New York 10591
Tel: (914) 524-6500 Fax: (914) 524-6550

The Pocantico Center of the Rockefeller Brothers Fund is located in the village of Tarrytown, 25 miles north of New York City on the Hudson River. From New York City, it takes approximately one hour to reach Pocantico by car (up to two if traffic is heavy) or forty minutes by train.

TRAVEL BY AIR

From Westchester/White Plains (20 mins.): Travel south on I-684 to Route 287 West. From 287 West, take exit 3, Sprain Brook Parkway North. Exit at the first ramp (1.5 miles) to Eastview. Turn left at exit ramp traffic light onto Route 100C. Follow road approx. 2 miles, past reservoir on your left(becomes Old Saw Mill River Road). Make a right at the stop sign onto Lake Road. Drive uphill for 0.6 miles to the main entrance on the left.

From LaGuardia (40 mins. +): Travel west on Grand Central Pkwy to I-278 over Triborough Bridge. Follow signs to I-87 (Major Deegan). Stay on I-87 to exit 7-A (Saw Mill River Parkway – Taconic Parkway). Continue on the Saw Mill Parkway North to Exit 23 (Eastview). At the foot of the exit ramp, turn left onto an unmarked road and drive about 0.6 miles beside a reservoir to the first right turn (Lake Road). Drive uphill for 0.6 miles to the main entrance on the left.

From JFK (1 hour +): Take the Van Wyck Expressway to the Whitestone Bridge exit. From the Whitestone Bridge follow signs to the Hutchinson River Parkway. Continue on the Parkway to Interstate 287 West (White Plains Exit). Drive west on 287 (Cross Westchester Expressway) to Exit 3 - Sprain Brook Parkway. Drive north 1.5 miles to Route 100C-Eastview Exit and turn left at the top of the ramp onto Route 100 C. After 1 mile this road bears to the right and becomes Old Saw Mill River Road. Proceed straight 1.2 miles under the Union Carbide building, under the Saw Mill River Parkway and beside a reservoir. Turn right at Lake Road and drive uphill for 0.6 miles to the main entrance on the left.

TRAVEL BY TRAIN

From Grand Central Station in New York City (42nd Street at Madison Avenue), take the Metro-North train to Tarrytown, which is on the Hudson Line. Trains run quite frequently: on weekdays, approximately every half hour. Taxis are available at the train station.

TRAVEL BY CAR

FROM MANHATTAN, West Side: Take the West Side Highway north, which will turn into the Henry Hudson Parkway, and then into the Saw Mill River Parkway. Get off at the Saw Mill River Road - Eastview Exit 23. At the foot of the exit ramp, turn left onto an unmarked road and drive about 0.6 miles beside a reservoir to the first right turn (Lake Road). Drive uphill for 0.6 miles to the main entrance on the left.

FROM MANHATTAN, East Side: Take the F.D.R. Drive north to the Triborough Bridge (follow lanes marked "Bronx" and "Thruway") and onto the Major Deegan Expressway (Interstate 87). The Major Deegan will turn into the N.Y. Thruway. Get off the Thruway at Exit 7A (Saw Mill River Parkway - Taconic Parkway). Continue on the Saw Mill River Parkway to the Saw Mill River Road - Eastview Exit 23. At the foot of the exit ramp, turn left onto an unmarked road and drive about 0.6 miles beside a reservoir to the first right turn (Lake Road). Drive uphill for 0.6 miles to the main entrance on the left.

FROM NEW JERSEY AND UPPER NEW YORK STATE: Follow the N.Y. Thruway (Interstate 87-287) across the Tappan Zee Bridge to Exit 9, about 0.2 miles past the tollbooths. Follow U.S. 9 north 1.6 miles to Route 448 (Bedford Road) at North Tarrytown. Turn right and drive 1.5 miles on Bedford Road to a stop sign. Turn right to main entrance.

FROM UPPER WESTCHESTER AND NEW ENGLAND: Drive south on the Saw Mill River Parkway to the Saw Mill River Road - Eastview Exit 23. At the foot of the exit ramp, turn right onto an unmarked road and drive about 0.6 miles beside a reservoir to the first right turn (Lake Road). Drive uphill for 0.6 miles to the main entrance on the left.

FROM CONNECTICUT: From the Merritt Parkway or Connecticut Turnpike, turn right onto Interstate 287 (Cross Westchester Expressway) westbound to Exit 3- Sprain Brook Parkway. Drive north 1.5 miles to Route 100C-Eastview Exit and turn left at the top of the ramp onto Route 100 C. After 1 mile this road bears to the right and becomes Old Saw Mill River Road. Proceed straight 1.2 miles under the Union Carbide building, under the Saw Mill River Parkway and beside a reservoir. Turn right at Lake Road and drive uphill for 0.6 miles to the main entrance on the left.

FROM LONG ISLAND: From either the Bronx-Whitestone Bridge or the Throgs Neck Bridge, follow signs to the Hutchinson River Parkway. Continue on the Parkway to Interstate 287 West (White Plains Exit). Drive west on 287 (Cross Westchester Expressway) to Exit 3 - Sprain Brook Parkway. Drive north 1.5 miles to Route 100C-Eastview Exit and turn left at the top of the ramp onto Route 100 C. After 1 mile this road bears to the right and becomes Old Saw Mill River Road. Proceed straight 1.2 miles under the Union Carbide building, under the Saw Mill River Parkway and beside a reservoir. Turn right at Lake Road and drive uphill for 0.6 miles to the main entrance on the left.

From: Cummins,Patrick on behalf of Cummins,Patrick
Sent: Wednesday, July 10, 2019 9:55 AM EDT
To: Michael Northrop ; jk2128 ; Vicki Arroyo ; Deborah Burke ; jcorvidae cfrisch
Subject: FW: Rhodium - Taking Stock 2019
Attachment(s): "RHG_USCS_Taking_Stock2019.pdf"

From: Whitney Herndon
Sent: Wednesday, July 10, 2019 7:41 AM
To: Cummins,Patrick

Patrick – sorry for the delay on this, I took a few days off for the holiday! We decided to release Taking Stock to the public early and you can now find it here: https://rhg.com/research/taking-stock-2019/

Whitney Herndon
Rhodium Group (RHG)
312 Clay Street
Oakland,CA 94607

www.rhg.com

Taking Stock 2019

For the past five years, Rhodium has provided an independent annual assessment of US greenhouse gas (GHG) emissions and progress towards achieving the country's climate goals. Given the current state and federal policy landscape and range of potential energy market dynamics on the horizon, we find that the US is on track to reduce emissions 13% to 16% below 2005 levels by 2020. This puts the US potentially out of reach of its Copenhagen Accord target of a 17% reduction by 2020, with little room for policy to affect outcomes in the next 18 months.[1] Looking ahead to 2025, the US is on track to achieve reductions anywhere from 12% to 19% below 2005 levels absent major policy changes—a far cry from its Paris Agreement pledge to reduce emissions 26% to 28%. Taking into account additional uncertainty in the direction and pace of US economic growth, we project 2025 emission reductions as small as 11% below 2005 levels, or as great as 21%.

Hannah Pitt

Kate Larsen

Hannah Kolus

Shashank Mohan

John Larsen

Whitney Herndon

Trevor Houser

What's Changed Since Last Year

In this year's edition of Taking Stock, we unpack the trends driving US emissions in the coming decade by providing a more nuanced look at how changing energy market dynamics affect various sectors of the US. On the policy front, we assess how the Trump administration's ongoing push to roll back federal regulations that limit GHG emissions is shaping the trajectory. We account for potential U.S. participation in the Kigali Amendment to the Montreal Protocol to phasedown hydrofluorocarbons (HFCs) and Obama-era methane standards for oil and gas production, both in limbo.

Despite the lack of forward momentum at the federal level, the last year has brought a wide range of new mid- and long-term climate goals from states, companies, and others looking to fill the gap. However, much of the work to implement these ambitions remains to be done. In order to assess progress, we incorporate only those state-level policies that contain clear, feasible milestones and real compliance obligations.

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Web: www.rhg.com

New York
5 Columbus Circle
New York, NY 10019

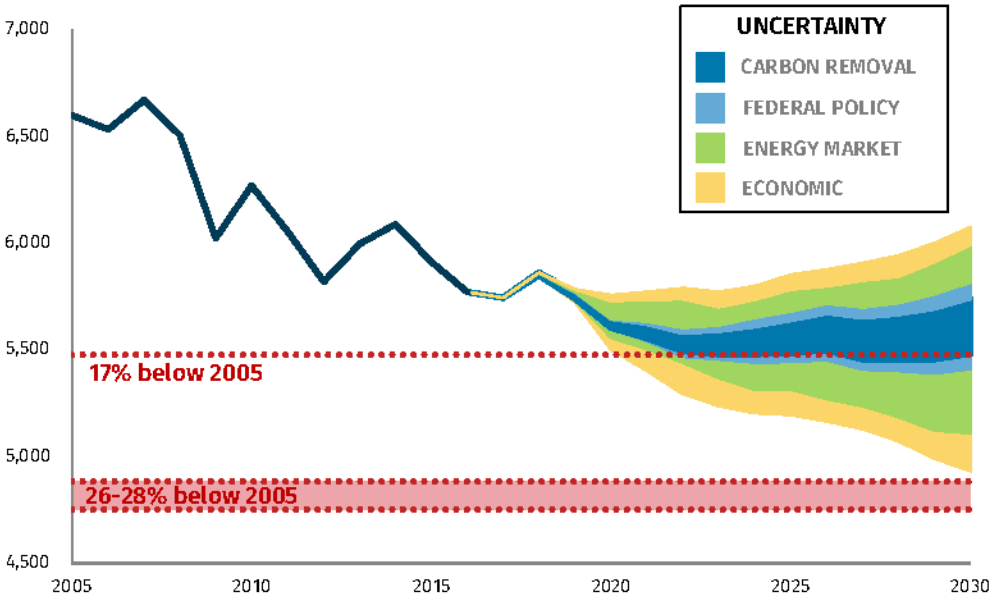
California
312 Clay Street
Oakland, CA 94617

Hong Kong
135 Bonham Strand
Sheung Wan, HK

Paris
33 Avenue du Maine
75015 Paris

[1] The official US target (here) is "in the range of 17%, in conformity with anticipated U.S. energy and climate legislation, recognizing that the final target will be reported to the Secretariat in light of enacted legislation."

FIGURE 1
US greenhouse gas emissions under current federal and state policy
Net emissions (million metric tons of CO_2e)



Source: Rhodium US Climate Service. Carbon Removal refers to emissions and removals from land use, land use change and forestry as well as carbon capture and sequestration.

Unpacking the Biggest Trends

Power sector emissions continue to decline through the 2020s, as coal is pushed out by increasingly competitive natural gas and renewables, but natural gas over time becomes a threat to zero-emitting power sources.

Low natural gas prices and falling renewable costs have the potential to shrink the coal fleet by almost a third of its current size by 2025. Renewable deployment continues apace thanks primarily to steadily declining costs, along with tax credit support and state renewable policies through 2025. Just how fast will depend largely on renewables' relative competitiveness with natural gas. In a best-case scenario for emissions, high natural gas prices—around $4 per one million British Thermal Units (MmBTU)—combined with steep declines in the cost of renewables would, by 2025, result in 50% more wind capacity than today and more than four times current solar deployment. If natural gas prices persist near current levels ($2.65 per MMBtu or lower) through the mid-2020s, they pose a serious threat to climate goals over time. With cheap natural gas and only moderate reductions in renewable costs, solar capacity grows more slowly, and wind deployment rises only 20% though 2025 from today's levels. Sustained low natural gas prices could also spell trouble for the country's nuclear fleet absent significant changes in federal or state policy. In the worst-case scenario for nuclear power, 45% of the current fleet could retire by 2025. This represents nearly 12% of the zero-carbon capacity on the nation's power grid today.

Transportation emissions decline modestly through 2025—even if the cost of owning an electric vehicle falls dramatically—as consumers continue to favor larger, higher-emitting vehicles.

Due to sustained low oil prices over the last half decade, Americans are driving more and buying larger vehicles. This trend is expected to continue through the next decade if oil prices remain below $55 per barrel. Cheaper and more plentiful electric vehicle (EV) options could counterbalance this effect, but the impact is minor. Even with the most optimistic estimates of EV battery cost declines,

in 2025 these vehicles would represent just 16% of all light-duty sales and transportation emissions would fall by only 12% below 2005 levels. More moderate EV cost reductions lead to EVs capturing only 6% of total sales in 2025, putting transportation emission reductions at the low end of our potential range at just 8% below 2005 levels.

Cheap, plentiful natural gas may also be a liability for emissions from industry and buildings.

Although industrial emissions have fallen since 2005, that trend will reverse as low-cost natural gas bolsters more activity in energy-intensive industries, including steel, cement, chemicals, and refineries. Industrial emissions climb highest when natural gas is cheap, rising 7% from 2018 levels by 2025. Conversely, if natural gas gets more expensive, industrial emissions grow by only 1% in the same timeframe. If the natural gas boom in the US continues, and the Trump administration is successful in walking back Obama-era regulation, the oil and gas sector could see a nearly 30% increase in methane emissions from today's levels by 2025.

In 2025, emissions in the buildings sector fall 3% to 8% from 2005 levels, depending primarily on natural gas and oil prices. Emission reductions level off by the mid-2020s.

There is a narrow and shrinking window for state and federal policy to play a role by 2025.

Since our last Taking Stock report, the Trump administration has continued to move forward with its agenda to dismantle Obama-era climate regulations, with federal Corporate Average Fuel Economy (CAFE) standards the latest to succumb. Two major decisions are still in limbo involving non-carbon dioxide (CO_2) gases: Obama-era efforts to reduce methane from oil and gas production; and plans to decrease hydrofluorocarbon (HFCs) emissions through both federal standards and participation in the Kigali Amendment. If these remaining policies are not implemented, overall US emissions in 2025 could be 58-78 million metric tons (MMt) of carbon dioxide equivalent (CO_2e) higher than today, or about 1.0% to 1.4% of net GHG emissions in that year. This uptick would take place despite current efforts by states to fill the gap.

The 2018 elections swept climate-progressive leaders into a handful of state legislatures and governors' offices across the US. Many of these elected officials have announced plans to dramatically expand clean energy, adopted new climate policies, and established long-term emission reduction goals. These developments could make a significant dent in emissions in the future. However, the majority of these announcements will not meaningfully impact emissions before 2025, thus doing little to help the US meet its 2020 and 2025 climate commitments.

TABLE 1
US GHG emissions under carbon removal, policy and energy market uncertainty
Million metric tons of CO_2e

Gas	2005	2017	2020	2025	2030
Carbon Dioxide	6,131	5,271	5,179 to 5,315	4,965 to 5,184	4,748 to 5,216
Methane	691	656	677 to 662	647 to 698	629 to 683
Nitrous Oxide	376	360	362	364	362 to 368
HFCs	122	158	171 to 179	163 to 204	133 to 228
Other F-Gases	19	11	6	5	5
Gross GHG emissions	7,339	6,457	6,396 to 6,525	6,145 to 6,456	5,877 to 6,499
Carbon Removal*	-740	-714	-837 to -797	-825 to -674	-768 to -508
Net GHG emissions	6,599	5,743	5,559 to 5,728	5,319 to 5,782	5,109 to 5,991
Change from 2005	*0%*	*-13%*	*-13% to -16%*	*-12% to -19%*	*-9% to -23%*

Source: Rhodium US Climate Service. Columns represents the minimum and maximum annual net US emissions given likely energy market, policy and carbon removal outcomes.
*Includes Land Use Land Use Change and Forestry (LULUCF) and carbon capture and sequestration.

Explore the data

Rhodium's annual Taking Stock report provides objective, up-to-date analysis of legislative and regulatory action at the US federal and state level in a framework consistent with accounting methodologies of the US government and United Nations Framework Convention on Climate Change. This report offers an overview of our national results for 2019. For more granular detail on our results,
Rhodium's US Climate Service provides direct access to all emissions data from Taking Stock as well as 50-state emissions and energy data (broken down by sector and by gas). US Climate Service subscriptions include interactive data visualizations of a wider range of energy market and policy
scenarios, as well as research coverage of key developments in US energy and climate policy.

For more information about our approach and methods, see the Taking Stock 2019 Technical Appendix.

Disclosure Appendix

From: Jill Adams
Sent: Thursday, July 11, 2019 11:09 AM EDT
To: Cummins,Patrick >; Michael Northrop
CC: Regina Creegan
Subject: Guest List

Hi Patrick & Michael,

Please review the guest list and let me know if there are any changes, corrections or concerns.

https://rockefellerbrothersfund.box.com/s/s4y0pps99ttbsq8ijrfr2n8aey2y9p1a
(open link)

Best,
Jill

Jill Adams, Conference and Office Services Coordinator
The Pocantico Center
| fax 914.524.6550
| www.rbf.org

Rockefeller Brothers Fund | Philanthropy for an Interdependent World

From: Cummins,Patrick on behalf of Cummins,Patrick <
Sent: Wednesday, July 10, 2019 2:49 PM EDT
To: mnorthrop ; Cummins,Patrick
Subject: Maine Hits Clean Energy Grand Slam - Union of Concerned Scientists

https://blog.ucsusa.org/steve-clemmer/maine-hits-clean-energy-grand-slam

Sent from my iPhone

From: Cummins,Patrick
Sent: Thursday, May 23, 2019 12:20 PM EDT
To: Ritter Jr,Bill ; Plant,Tom >; Tegen,Suzanne >; Hartzell,Wendy < Hoffer,Trina >; Gregory,Alison >; Crew,Seth

Subject: Maryland's New Renewable Energy Mandate

Team - This is pretty interesting in a number of ways….MD is one of the states attending the Pocantico meeting July 17-18. "We" will take the lead on developing a briefing book for that meeting that summarizes the participating states' policies related to the topics on the agenda – which I am developing now. I will set a team call next week to discuss. PC

Maryland's New Renewable Energy Mandate: Maryland Governor Larry Hogan allowed a significant renewables mandate to become law Wednesday, making him the first GOP governor to support a 100 percent clean energy goal. The Clean Energy Jobs Act raises the state's renewable portfolio standard to 50 percent by 2030 and requires studying how to reach 100 percent by 2040. While the state's legislature sent the measure to Hogan's desk last month, the governor did not sign the bill, allowing it instead to pass under a state law that mandates bills not signed or vetoed become law after 30 days. Hogan, who has publicly opposed the bill, has announced his own plan for the state to reach 100 percent clean electricity by 2040, which he plans to submit to the General Assembly on the first day of the 2020 legislative session. (Baltimore Sun, CBS DC, AP)

Governor Hogan Outlines Bold Energy Strategy

Sets Goal of 100% Clean Electricity by 2040; Allows Energy Bill to Take Effect With Concerns Over Sending Jobs Out of State, Poor Environmental Stewardship

ANNAPOLIS, MD—Governor Larry Hogan today outlined a bold strategy to set Maryland on a path to 100% clean electricity by 2040. The innovative Clean and Renewable Energy Standard (CARES) promises to set an example for the nation, continuing the Hogan administration's strong commitment to leading the charge on clean energy, climate change, and greenhouse gas emission reductions.

The governor made the announcement in a letter to Senate President Thomas V. "Mike" Miller, indicating he will allow ***Senate Bill 516 — Clean Energy Jobs*** to take effect without his signature, expressing serious concerns that the legislation could send too many jobs out of state and enable poor environmental stewardship.

"**Despite its name, this bill is not clean enough, nor smart enough, nor does it create the intended jobs within Maryland** ," wrote Governor Hogan, who goes on to note that "this legislation appears politically motivated—it mandates a broad and untargeted increase in the RPS that threatens to roll back our progress and send jobs and environmental benefits to other states."

The governor adds that the measure "fails to address land use issues and could impose serious damage on economically and environmentally sensitive areas and viewsheds. And, while *Senate Bill 516*masquerades as a job-creating proposal, Maryland stands to lose out on far too many of those jobs to out-of-state companies."

Clean and Renewable Energy Standard (CARES)

In his State of the State address earlier this year, Governor Hogan called on legislators to "support clean and renewable energy solutions and green energy jobs." To that end, he is setting a path for a bolder, smarter energy strategy that he plans to submit to the General Assembly on the first day of the 2020 legislative session.

"Our CARES plan aims to get us to zero carbon emissions, rather than just increasing the quotas for dirty energy and outdated technologies," writes Governor Hogan. "It uses competition to get better results at a lower cost to ratepayers. Our CARES target is clear: **100% clean electricity by 2040**. This better and bolder goal is what our state should be striving for as we continue to set an example for the rest of the nation."

The goals of the CARES plan include:

- Increasing the strategic use of zero- and low-carbon clean and renewable energy sources;
- Recognizing the clean and safe aspects of nuclear energy;
- Supporting hydropower, coupled directly with maintaining environmental stewardship;
- Advancing emerging technology for carbon capture and storage; and
- Utilizing the role of energy-efficient combined heat and power.

Governor Hogan closes the letter by stating, "We will continue to work with the General Assembly to reduce greenhouse gas emissions and safeguard our environment."

-###-

Patrick Cummins
Senior Policy Advisor
Colorado State University
Center for the New Energy Economy

From: Michael Northrop
Sent: Tuesday, July 16, 2019 4:35 PM EDT
To: kate.gordon >; mary.nichols
zach.pierce will.toor katie.dykes
>; leo.r.asuncion ; Hannah.Pingree
ben.grumbles >;
kathleen.theoharides >; dbobzien
bcrowell ; kathleen.frangione
; sandra.ely sarah.propst
>; dale.bryk ; nik.blosser
; janet.coit ; peter.walke
; chris.davis ; reed.schuler
; Deborah Burke ; Ritter Jr,Bill ; Cummins,Patrick
jk2128 ; jcorvidae
>; cfrisch ; katie.mccormack ;
asteer
CC: shelby. ; shannon.stewart
; nancey.steinheimer ;
Carmen.Colon shanell.k.feliciano
kathy.bishop ; victoria.s.grimes
>; pamalloy Barbara.Panebianco
; Minerva.Cano
jennifer.j.andrew ; Suzanne.Amerault
>; Hartzell,Wendy ; eda.lee
Subject: Pocantico Agenda July 17-18, 2019
Attachment(s): "Agenda Pocantico Leadership States July 17-18 2019.docx"

Finally. The Agenda.
Looking forward to seeing you tomorrow afternoon.
Last note: Please dress comfortably. No need for business attire.

Safe travels,

Michael

From: Cummins,Patrick on behalf of Cummins,Patrick
Sent: Monday, July 22, 2019 1:42 PM EDT
To: Hoffer,Trina
Subject: MLG...

…..as they like to call her…

NM would like us to change references in the Pocantico Policy Tables from Gov. Grisham to Gov. Lujan Grisham…

Thanks, PC

Patrick Cummins
Senior Policy Advisor
Colorado State University
Center for the New Energy Economy

From: Hartzell,Wendy
Sent: Tuesday, July 16, 2019 1:22 PM EDT
To: Cummins,Patrick
Subject: Pocantico 7-16_Registrant__details_report (9).xlsx
Attachment(s): "7-16_Registrant__details_report (9).xlsx"

Here you go…

	A	B	C	D	E	F	G	H
1	First Name:	Last Name:	Email Address:	Organization:	Job Title:	Phone:	Mode of travel:	Name of arriving airport and arrival time:
2	Leodoloff	Asuncion, Jr.		Hawaii Public Utiliti	Commissioner		Flight	LaGuardia Airport; 1:30 p.m.
3	Nik	Blosser		Office of the Gover	Chief of Staff		Flight	Newark, NJ @2:13pm
4	David	Bobzien		Nevada Governor's	Director		Flight	JFK Wed 1:29pm
5	Dale	Bryk		New York State Ex	New York Sta		Train	
6	Deborah	Burke		Rockefeller Brothers	Sustainable De		Train	N/A
7	Janet	Coit		Rhode Island Depart	Director		Driving	n/a (driving); arrival around 5PM
8	Jacob	Corvidae		Rocky Mountain Ins	Rocky Mounta		Flight	LGA at 1:30pm - and then plan to take train out,
9	Bradley	Crowell		Nevada Department	Director		Flight	TBD
10	Patrick	Cummins		Center for the New	Senior Policy		Flight	LGA
11	Katherine	Dykes		Department of Ener	Commissioner			
12	Sandra	Ely		New Mexico Enviro	Director - Env		Flight	
13	Kathleen	Frangione		Office of the Gover	Office of the		Driving	n/a
14	Carla	Frisch		Rocky Mountain Ins	Rocky Mounta			
15	Kate	Gordon		California Governor	Director		Flight	Newark Liberty International Airport, 2:56 PM
16	Ben	Grumbles		Maryland Departmer	Maryland Dep		Train	
17	Joe	Kruger		Georgetown Climate	Director for R		Train	NA
18	Katie	McCormack		Energy Foundation	Program Direc		Flight	White Plains, United3837 arrives (if Chicago connec
19	Mary	Nichols		CA Air Resources B	Chair		Flight	ITH; no arrival time as yet; will drive personal vehi
20	Michael	Northrop		Rockefeller Brothers	Sustainable De		Driving	N/A
21	Zach	Pierce		Colorado Governor's	Senior Policy		Flight	not confirmed
22	Hannah	Pingree		Governor's Office o	Director		Flight	LGA, 7:30pm
23	Sarah	Propst		New Mexico Energy	Cabinet Secret		Flight	LGA 3pm
24	Bill	Ritter, Jr.		Center for the New	Director		Flight	LGA, TBD
25	Reed	Schuler		Governor Jay Inslee	Senior Advisor		Flight	LGA, time TBD
26	Andrew	Steer		World Resources Ins	President & C		Train	TBC: Penn Station, then Tarrytown Station
27	Kathleen	Theoharides		Executive Office of	Secretary		Driving	
28	Elizabeth	Thomas		Energy Foundation	Program Mana		Flight	TBD
29	Will	Toor		Colorado Energy Of	Executive Dire			
30	Peter	Walke		Vermont Agency of	Deputy Secreta		Driving	
31	Total	29						

	I	J	K	L	M
1	Name of departing airport and departure time:	Please note any dietary restrictions:	Registration Date	Registration Status	Payment Status
2	LaGuardia Airport; 10:00 a.m.		07/08/2019 07:43:06 PM	Registered	
3	Newark, NJ 6:59pm	vegetarian	06/28/2019 07:15:27 PM	Registered	
4	JFK Monday 6:53 (staying over for weekend)	none	06/12/2019 11:54:33 AM	Registered	
5			07/08/2019 09:35:37 PM	Registered	
6	N/A	none	07/08/2019 11:29:57 AM	Registered	
7	n/a (driving)	n/a	06/12/2019 01:45:24 PM	Registered	
8	LGA at 6:29pm, 7/18	None - prefer vegan, but catered vegan food	07/15/2019 07:15:58 PM	Registered	
9	TBD	n/a	06/12/2019 07:55:12 PM	Registered	
10	LGA	none	06/11/2019 06:13:07 PM	Registered	
11		None	06/20/2019 02:25:24 PM	Registered	
12	Santa Fe Regional Airport		06/28/2019 03:07:52 PM	Registered	
13	n/a	none	06/12/2019 09:24:19 AM	Registered	
14			07/09/2019 12:49:21 PM	Registered	
15	Newark Liberty International Airport, 9:00 PM	N/A	06/12/2019 02:42:41 PM	Registered	
16	BWI		06/20/2019 12:22:38 PM	Registered	
17	NA	NA	06/12/2019 03:40:51 PM	Registered	
18	White Plains, United 3836 to Chicago departs 6:11PM	None	06/19/2019 04:42:20 PM	Registered	
19	JFK; no depart time as yet	None	06/12/2019 01:14:57 PM	Registered	
20	N/A	none	07/08/2019 11:31:39 AM	Registered	
21	not confirmed	n/a	06/14/2019 05:33:15 PM	Registered	
22	LGA, 9pm	none	07/08/2019 02:28:05 PM	Registered	
23	LGA 6:30pm		07/01/2019 05:31:10 PM	Registered	
24	LGA, TBD	N/A	06/12/2019 03:42:18 PM	Registered	
25	LGA, time TBD		06/25/2019 04:05:24 PM	Registered	
26	TBC: Tarrytown Station	n/a	07/08/2019 11:17:46 AM	Registered	
27			06/17/2019 09:39:09 AM	Registered	
28	TBD	Gluten/Dairy	06/18/2019 03:26:12 PM	Registered	
29			06/15/2019 04:25:19 PM	Registered	
30			06/20/2019 11:29:02 AM	Registered	
31					

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From: Michael Northrop
Sent: Tuesday, July 16, 2019 4:35 PM EDT
To: kate.gordon ; mary.nichols
zach.pierce < will.toor katie.dykes
; leo.r.asuncion ; Hannah.Pingree
; ben.grumbles
kathleen.theoharides dbobzien
>; bcrowell kathleen.frangione
>; sandra.ely ; sarah.propst
dale.bryk ; nik.blosser
; janet.coit ; peter.walke
; chris.davis ; reed.schuler
; Deborah Burke ; Ritter Jr,Bill ; Cummins,Patrick
; jk2128 ; jcorvidae
; cfrisch ; katie.mccormack
asteer
CC: shelby.mcmichael shannon.stewart
; nancey.steinheimer ;
Carmen.Colon ; shanell.k.feliciano
kathy.bishop ; victoria.s.grimes
>; pamalloy <pamalloy ; Barbara.Panebianco
>; Minerva.Canc <Minerva.Canc ;
jennifer.j.andrew <jennifer.j.andrew ; Suzanne.Amerault
< >; Hartzell,Wendy < ; eda.lee
Subject: Pocantico Agenda July 17-18, 2019
Attachment(s): "Agenda Pocantico Leadership States July 17-18 2019.docx"

Finally. The Agenda.
Looking forward to seeing you tomorrow afternoon.
Last note: Please dress comfortably. No need for business attire.

Safe travels,

Michael

Draft Agenda

Accelerating State Action on Climate Change

The Pocantico Center

200 Lake Road

Tarrytown, New York

July 17-18, 2019

This meeting will provide an opportunity for lead policymakers from trifecta states taking action on climate change to share information on recent developments in their states and to strategize together on the most promising ways to accelerate the pace of implementation in response to the increasingly ambitious climate goals being established by their governors and state legislatures. The group will also discuss how state action can influence and underpin future federal action and how U.S. action should be aligning with the global climate negotiations.

Wednesday, July 17

6:00 pm Reception in Loggia area of the Coach Barn

7:00 Dinner and Introductions

8:30 Hayloft conversation on the international climate negotiation; and on how states are successfully setting and implementing science-based targets.
Dr. Andrew Steer, President and CEO, World Resources Institute
Kathleen Frangione, Chief Policy Advisor to Governor Phil Murphy

Thursday, July 18

7:00 am **Breakfast available in Coach Barn**

8:00 **Agenda Review and Meeting Objectives, Governor Bill Ritter, CNEE**
Summary Review of High Ambition Policy Papers.
Carla Frisch, Rocky Mountain Institute
Patrick Cummins, Center for the New Energy Economy

8:30 **Meeting the Challenges Posed by the Transportation Sector**

- Update on federal vehicle standards and states' response: How can states work together to establish ambitious federal and state emission standards for new cars and trucks?
- Regional Approaches: Status of Transportation and Climate Initiative and Pacific Coast Collaborative on EV's
- Reducing VMT: Transit and Land Use initiatives
- Other strategies to address CO2 emissions from transportation (e.g., incentives for EV purchases and charging infrastructure, Low-Carbon Fuel Standards, Volkswagon settlement funding.)

10:00 **Break**

10:30 **Natural Gas Lock in**

- Power Sector Infrastructure: Renewables Not Gas
- Buildings: Electrification for Heating and Cooling:

- Other Appliances: Stoves, Washer-Dryers, etc.
- Industrial Sector: Moving industrial users away from fossil fuels and to clean energy sources poses a set of challenges similar to those associated with buildings in terms of efficiency, retrofits and electrification.

12:00 **Net Zero Buildings**

- Standard Setting, Disclosure, and Mandatory Retrofits, Market Creation

12:30pm **Working Lunch: Oil & Gas Methane, HFC's, Land Based Storage & Resilience, Carbon Pricing**

Some states face the issue of a rapidly expanding oil & gas sector and associated methane emissions. Colorado, New Mexico and California are working on this. Several states are early movers on HFC's: what are the lessons for other states? Land based sequestration and resilience strategies are under consideration in multiple states. Carbon pricing has been fiercely contested in WA, OR, and VA, just as a federal conversation on a carbon tax is starting. How should we be thinking about this?
We will break up into 3-4 groups over lunch for a discussion on the model tools, policies and incentives states can use to make progress in these 4 sectors?

2:00 **Collaborative Opportunities**

- Group actions by leadership states on policy and market creation
- Outreach / support for opportunity states
- Working with Cities
- Setting the Policy Stage for Federal Action in 2021/Preparing for the Worst
- Participation in upcoming COPs in Santiago and London

3:30 **Next Steps**

4:00 **Adjourn and Optional Tour of Kykuit for anyone who can delay their departure to 5:30.**

From: Cummins,Patrick on behalf of Cummins,Patrick < >
Sent: Sunday, July 14, 2019 11:41 AM EDT
To: Michael Northrop <m
CC: Carla Frisch ; Jacob Corvidae ; Joseph Kruger

Subject: Pocantico Materials
Attachment(s): "1 Background Note for July 17-18 2019.pdf","2 Leading Edge State Policy Options.pdf","3 Summary of Existing State Policies.pdf","4 Transportation and EV Policy Table.pdf"

Michael – Here are pdf versions of what I think are the final versions of all the background materials to be sent to meeting participants.

Patrick Cummins
Senior Policy Advisor
Colorado State University
Center for the New Energy Economy

MEMORANDUM

To: **Pocantico Participants**
Subject: **Accelerating State Action on Climate Change**
July 17-18, 2019

The 2018 elections brought forward a new group of state leaders – governors, legislators, policy makers, and agency officials – committed to reducing greenhouse gas emissions in their states. This new group of state leaders joins those of you who have been leading the charge for a decade or more. We are thrilled that so many of you are able to join us for this event where we will discuss ways to accelerate state action and ensure that the progress being made by U.S. leadership states is recognized and understood across the U.S. and at a global level.

While our time together at Pocantico is short, we hope to address each of the following topics:

- What are the leading edge clean energy policies and GHG reduction programs being enacted and implemented by U.S. states? We will focus especially on electricity, buildings and transportation, but hope we can also touch on other gases (methane and HFC's), land use, and carbon pricing.

- How are leadership states managing the politics of climate action? Are there lessons for how best to keep momentum going?

- How can this group of states support each other, and also work together to bring other states into the fold? Can states do more to drive bipartisan approaches to climate action?

- Can states work together accelerate market creation for cleaner vehicles, air source heat pumps, and other appliances? Which should be priorities?

- What steps can states be taking over the next 18 months to show the way forward for a federal administration in 2021 that supports clean energy and climate action?

- How can we ensure that leadership state voices (alongside other subnational leaders) offer encouragement to multilateral climate negotiations in the run-up to COP 26 in December 2020?

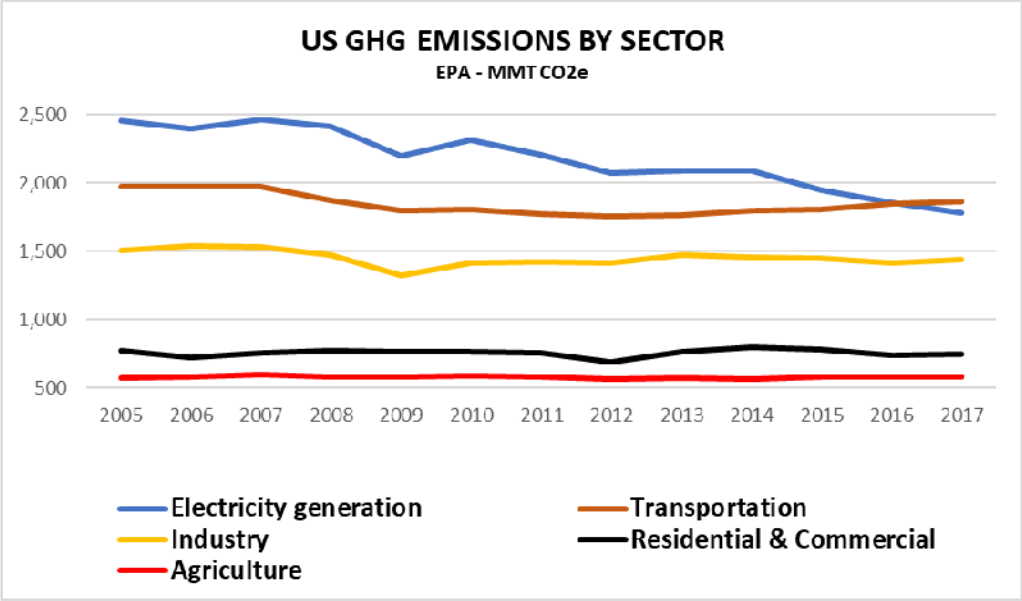
With these questions in mind, we will kick things off on Wednesday night with a discussion of the state of play in the international climate negotiations. Dr. Andrew Steer, President and CEO

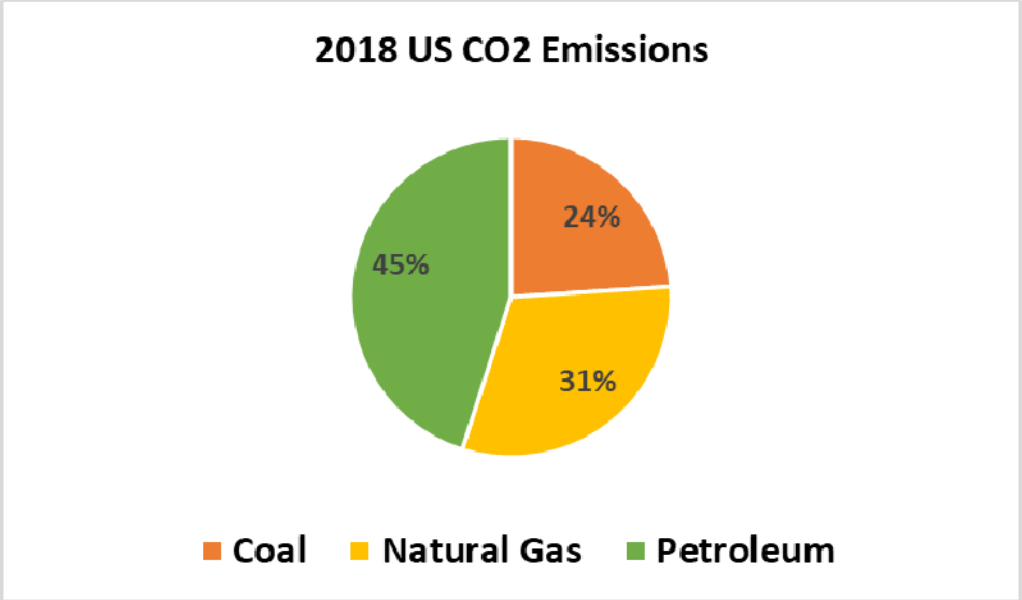
of the World Resources Institute, will join us for that conversation. We want to understand where the U.S. needs to be in order to play a constructive role in international discussions.

This has bearing on what level of ambition states must aim for. Kathleen Frangione, Chief Policy Advisor to New Jersey Governor, Phil Murphy, will describe the ambitious Paris-aligned approach her state has taken since Governor Murphy took office last year, how it has been framed, and how it has gathered momentum. We want each of the participating states to weigh in on how they are thinking about this. We want to get lessons, good ideas, and questions on the table to help frame our conversation on Thursday. A core concern is how to get the politics right in order to maintain forward momentum.

Thursday morning, we will start with a rapid-fire review of the high ambition policies that states are implementing to get to net zero carbon. (Prior to the meeting, we will send two additional pieces of background material. One laying out the specific policies each state in the room has enacted and another that describes leading edge policies being enacted even more broadly sector-by-sector.) Rather than reviewing the full suite of leading edge policies in detail, we plan to focus in on a few key policy challenges.

Transportation. We will begin with a conversation on how to meet the challenge posed by emissions from the transportation sector. As we all know by now, the transportation sector has surpassed the electricity sector as the largest source of GHG emissions in the U.S. In 2018, emissions from the combustion of petroleum products were almost twice that of coal. Moreover, while emissions from coal continue to decline, emissions from the transportation sector have increased each year since 2012.





Vehicle Standards. Front and center in the discussion of how to reduce emissions from the transportation sector is the pending rollback of federal standards and the potential revocation of California's waiver, which would impact many of your states. We are fortunate that Mary Nichols will be with us to lead this discussion and help all the states in attendance figure out how you can work together to protect the progress you've made in this area.

Electric Vehicles. While each state in the room has some policies and programs in place to incentivize electric vehicle purchases and charging infrastructure, some states are going farther. A group of Northeast states is evaluating a market-based approach to reducing emissions from the transportation sector (Transportation Climate Initiative). Pacific states and British Columbia have also been working to create regional solutions for EV's. California and Oregon both have a low-carbon fuel standard. We will ask participating states to share their ideas for additional policies and programs to drive down emissions from the transportation sector.

Electricity. To date, states have had the greatest success in reducing emissions from the electric power sector. This is an area where states have a number of effective policy options, like renewable portfolio standards/clean energy standards, and you have used these policies to achieve substantial CO2 emissions reductions from the electric power sector over the last 10 years (-30% nationwide). Building on this success, you are moving to achieve even more progress with many states and utilities setting aggressive near-term targets for renewable energy, along with the long-term goal of 100% clean energy. What challenges are emerging and how can states successfully implement these bold electricity goals?

Natural Gas. One of the primary challenges to deep de-carbonization of the electric power sector is the reliance on natural gas as the replacement for coal. On the Eastern grid, coal generation has fallen by almost half over the last ten years, but 75% of that has been replaced by

natural gas generation. We will review the current landscape of state policies for clean and renewable electricity, share ideas for next steps, and then discuss how you can work together – and with other states/regions – to make continued progress on the transition to a clean electric power sector.

Buildings. Residential and commercial buildings and industry are source categories where emissions have plateaued as square footage has increased, but where steep reductions have not yet begun. We will discuss what states are currently doing to transition buildings to clean energy, and then identify what options exist for states to expand their policies and programs in areas like net zero building codes, mandatory retrofits, and electrification.

Industrial Sector. Reducing emissions from the industrial sector poses a set of challenges similar to those associated with buildings, including continued reliance on natural gas as a primary energy source.

Methane and HFC's. Some states are also dealing with very significant methane emissions problems associated with oil and gas production, and from industrial livestock operations. States also have a chance to reduce methane leaks from aging residential heating infrastructure. A few states, including Connecticut, New York, Vermont, Maryland and California have also taken action on eliminating HFC's. Since methane and HFC's are super greenhouse gases, progress in the near-term can be extremely meaningful.

Land use is an additional category we hope to make some time for in the discussion if possible. Pacific states and Climate Alliance states have taken some actions here that we can learn from.

Carbon Pricing. The U.S. Chamber of Commerce and the oil sector have said they are open to carbon pricing. Recent state attempts to enact carbon pricing in Washington, Oregon, and Virginia have met heavy resistance and offer lessons we should consider as well.

During the last few hours of the meeting, we want to discuss several additional possible opportunities for collaborative work, including how best to encourage other states to enact leadership policies, how states can work together with cities and business, how to use state action to lay the groundwork for ambitious federal policy as soon as 2021, and how to make state, and other subnational, voices present during a string of important upcoming international climate meetings in 2019 and 2020.

BACKGROUND MEMORANDUM

To: **Pocantico Participants**
Subject: **Leading Edge Policy Priorities**
July 17-18, 2019

This memo includes examples of sector-specific states policies that will significantly reduce, or put states on a path to significantly reduce, greenhouse gas emissions. In particular, the policy priorities listed here are can be addressed by states through collective action.

Several of these topics are covered in existing US Climate Alliance working groups. This list and the Pocantio meeting are meant to support those and other existing workstreams, in particular by providing an opportunity to think about how to amplify ambition. The state examples included in this document are by no means exhaustive, rather are intended as a sampling to spur ideas. For additional examples, see the Carbon-free Regions Handbook or the Fulfilling America's Pledge report.

Context:
Overall, natural gas now emits more greenhouse gases than coal in the United States and emissions from petroleum combustion are almost twice that of coal. At the same time, new estimates of methane leakage from natural gas systems indicate the impact may be larger than previously understood, especially considering that most inventories are based on the 100-year global warming potential of natural gas at 25X, not the 20-year potential of 84X. The top line opportunity is to move away from the use of natural gas in buildings as a first priority, then electricity, and industry, while simultaneously moving quickly to move transportation systems off petroleum.

We are well past the point of using natural gas as a transition fuel, and new policies and programs should explicitly avoid further "lock-in" investments like natural gas fueled municipal buses or energy efficiency funding for natural gas equipment. Biogas or "renewable" natural gas have the potential to replace a small portion of existing natural gas demand and should be reserved for high value uses, in particular uses that cannot be electrified. In this memo, policy opportunities to reduce and eliminate natural gas are embedded under sector headings.

Transportation: electrification and efficiency, including through standards

- Establish a top-level transportation goal and work with key stakeholders to develop an inclusive, sustainable transportation roadmap that aligns with the state's (or region's) climate action goals and includes best practices, implementation strategies, and a clear path forward. Be sure to include medium- and heavy-duty vehicles.
    - For example, the 12 northeastern states in the Transportation and Climate Initiative (TCI) are exploring regional solutions to accelerate EV deployment.
    - Hawaii, Colorado, Minnesota, and Tennessee have recently adopted electrification roadmaps that identify implementation strategies for increased EV adoption in 5 to 10 years.
- Enable smart mobility by integrating transportation policy with land-use policy.
    - Minneapolis banned single-family zoning across the entire city, enabling more compact and mixed-use development to be built.
    - Denver's Transit Oriented Development Strategic Plan outlines implementation steps, policy recommendations, and a monitoring system for development around city rail stations. New Jersey's Transit Village Initiative offers logistical and financial incentives for municipalities that revitalize areas around transit stations using principles of Transit Oriented Development.
    - New York City and Los Angeles are investigating the implementation of congestion pricing for high-traffic urban areas, building off schemes underway in London and Stockholm. Los Angeles made a massive, multi-year commitment to building transit: Measure M.
    - California's SB375 uses the regional transportation planning process; California recently replaced "level-of-service" with "vehicle miles traveled" as the environmental impact evaluation metric for transportation plans and projects.
- Establish statewide electric vehicle adoption requirements with near-term benchmarks and implement market enablers that drive adoption.
    - Set zero-emission vehicle (ZEV) targets that increase over time, providing directional guidance to automakers, bus, and truck manufacturers. 9 states (CA, CT, ME, MD, OR, NJ, NY, RI, and VT), representing one-third of the US automobile market, have adopted ZEV mandates.
    - Connecticut and Vermont offer significantly reduced EV registration fees.
    - Seattle, Los Angeles, New York City, and Washington DC have committed to fully electrified bus fleets (by 2020, 2030, 2040, and 2045 respectively).
- Provide incentives or programs to support low-income electric vehicle adoption.
    - Washington and Oregon offer tax credits for used EV purchases. Los Angeles, CA offers low-income residents the ability to participate in a zero-emission carshare program.
- Continue to support clean car standards that enable increased efficiency, and in the longer term, advocate for standards that require electrification.

    - 14 states have adopted California's aggressive vehicle emissions standards.
- Build on and update existing low carbon (CA, OR) and alternative fuels standards (WA, MN, MO, LA, PA, HI, OR) where they exist. For new policies, work towards the next generation of clean fuel standards that prioritize clean electricity as a fuel source while aggressively decreasing the carbon intensity of difficult-to-electrify heavy-duty transport, shipping, and aviation.
- Remove barriers to building out charging infrastructure and work with public utility commissions to reassess regulatory approaches to pricing and vehicle-grid integration.
    - Vermont and Washington's new building codes require EV make-ready infrastructure and parking spaces.
    - California's SB 350 provides guidance and direction towards utilities on participating in electrifying transportation.
    - Pacific Gas & Electric and Southern California Edison offer lower rate pricing for non-residential EV charging customers that charge during off-peak hours.
- Continue to cooperate on education and awareness.
    - "Drive Change. Drive Electric" is a joint effort by NY, CT, MA, NH, RI, VT, and NJ and 16 global automakers to promote the benefits of driving EVs, incentives available for purchasing, fuel cost savings, and charging locations.

Electricity

- For those that have not yet done so, set 100% clean energy goals through a Renewable Portfolio Standard or Integrated Resource Planning requirements, and work with the state legislature to allocate resources to support achieving the goal.
    - Hawaii, California, New Mexico, Washington, Puerto Rico and the District of Columbia have all enacted a legally binding 100% clean electricity standard. Nevada enacted a non-binding 100% clean electricity goal, and the Colorado legislature has passed a 100% goal applicable to Xcel Energy.
- Retire coal plants and reject plans for new coal plants, including through using securitization to deal with any remaining debt for plants.
    - Xcel Energy, a utility serving Colorado, Michigan, Minnesota, New Mexico, North Dakota, South Dakota, Texas, and Wisconsin, has committed to going 80% carbon-free by 2030 and 100% carbon-free by 2050. Part of this initiative includes accelerating the retirement of its last two coal plants in MN to conclude by 2030.
- Retire natural gas plants and, where possible, reject plans for new natural gas plants as well as pipeline infrastructure. Require carbon capture and sequestration on natural gas plants.
- Support responsive grid planning that puts distributed energy resources on an equal footing with other generation sources.
- Support utility and rural coops as they work on clean electricity deployment, e.g. https://beneficialelectrification.com/

- Reduce barriers to deploying small and medium-scale solar PV by replacing the existing permitting system with an automatic online registration system.
- For states that have not done so already, join wholesale utility markets to take advantage of market efficiencies as well as trade electricity more seamlessly with other locations.

Buildings: Electrification (reduce/eliminate the direct use of fossil fuels in buildings) and efficiency

- As a minimum, adopt or encourage localities to adopt the 2018 international building codes.
- Implement aggressive appliance efficiency standards which help save consumers money. Where possible, focus on enabling fuel switching from gas to electric appliances.
- Engage with key stakeholders to build a strong, inclusive and durable vision and plan for decarbonizing both public and private buildings, including setting clear timelines that align with state's climate goals.
    - New York state policy directs its utility regulator to pursue decarbonization and Massachusetts state energy plan acknowledges the need to increase electricity use in home heating.
    - California set a goal to reduce emissions from buildings by 40% and double energy efficiency by 2030.
- Ensure new buildings are all-electric through building codes or other authorities. All-electric new construction is already more cost-effective than construction with natural gas.
    - Arcata, CA and some small towns in upstate New York have all-electric policies. Berkeley, CA and Alameda, CA are in progress on all electric.
    - Rhode Island released a new Executive Order to transform the heating sector.
    - Oregon and Colorado are discussing net zero building codes. Oakland, CA has a net zero code. California has a residential code that is net zero electricity with some incentives to make homes all electric.
- Begin orderly retrofit of existing buildings, starting with aligning incentives and programs with climate goals and focusing on existing replacement schedules.
    - Led by the rural coops, Minnesota is working through energy efficiency resource standards (EERS) redesign to allow fuel switching.
    - New York State has established a requirement that utilities achieve a portion of their required energy efficiency savings through deployment of heat pumps in over 80,000 homes. Massachusetts set a non-binding target for 500,000 homes to adopt heat pumps by 2030.
    - Vermont has an RPS that includes moving away from direct use of fossil fuels.
- Stop expanding the gas distribution system and start planning for a staged transition.
    - California PUC has opened a proceeding to begin crafting a policy framework surrounding decarbonization of buildings.

- Assess the medical and other costs associated with burning of gas and other fossil fuels in our buildings, including the indoor and outdoor air quality impacts, and implement programs to eliminate such burdens.
    - Australian researchers estimated that gas stoves were responsible for 12.8% of that country's heavy asthma burden.
    - John Hopkins researchers recommend replacing gas stoves in homes with asthmatic children.
    - Burning fossil fuels in California's buildings emits 3-4 times more NOx than the state's power plants.

Industry

- Establish emissions standards that require the installation of carbon capture and sequestration on high-emitting industrial facilities, while deploying financial incentives and support for industry to adopt electrified technology for processes where feasible and commercially available, and defray capital costs related to fuel-switching.
- Direct public utility commissions to work with state utilities to: implement or update energy efficiency resource standards (EERS) to specifically target energy-intensive facilities, develop new rate designs for industrial customers, and engage in long-term energy planning that considers increased transmission and distribution infrastructure for electrifying industries.
- Allocate R&D investments in support of industrial process/product redesign, identifying electric/low-carbon alternative manufacturing processes, and enhanced material efficiency.
- Consider applying carbon pricing schemes to industrial facilities to incentivize continuous improvement and investment in efficiency and lower-emitting technologies, while accounting for the heterogeneity of industrial actors.
    - California's cap and trade program includes high-emitting (>25,000 tons CO2e/year) industrial facilities and allocates part of the program revenues towards a utility bill credit for proactive facilities that have reduced their energy and emissions intensities.
    - States can encourage companies to adopt internal carbon prices for planning purposes, a practice which has helped update the operations of several companies.

Super-polluting Methane and Hydrofluorocarbons (HFCs)

- In the short term, work on stopping methane leaks throughout the supply chain, primarily through enhanced leak detection and monitoring technologies. Over time, while moving toward electrification, eliminate downstream gas distribution pipelines.
    - State-level standards like Colorado's and California's standards go beyond federal standards by covering not only new and upgraded equipment, but also existing, high-emitting sources. They require operators to conduct periodic

reviews of equipment to catch and repair methane leaks (America's Pledge (AP) 2018). Several other states have taken action.
    - California's AB 1496 requires the identification and monitoring of methane hot spots. California and other states meet these requirements through satellite remote sensing, flyovers, ground verification, and regional inventory analysis. These observations inform the development of methane control programs.
- Promote methane capture from livestock waste in the agricultural sector as well as from wastewater treatment facilities.
    - California's SB 1383, which, along with HFC targets, established a target to cut methane emissions by 40%, including methane from manure management, and direct funds to programs that support installation of dairy digesters and other methane reduction tools and strategies. CA also credits methane abatement as an offset under its cap-and-trade program. (AP 2018)
    - Washington, D.C., installed biodigesters at its Blue Plains water treatment facility and used the captured methane to supply 50 megawatts of power. (AP 2018)
    - Biomethane can be used to meet California and Oregon's LCFS.
- Reduce fugitive methane emissions from landfills by promoting policies that divert waste from landfills and incentivize biomethane capture
    - Rhode Island, New York, Massachusetts, California, Vermont, and Connecticut have set statewide goals to divert solid waste from landfills.
- Adopt state SNAP standards to reduce HFCs.
    - California adopted regulations requiring a 40% reduction in HFC emissions below 2013 levels by 2030, consistent with the EPA's original vacated rules. Connecticut, Maryland, and New York announced their intent to regulate. Vermont passed legislation calling on executive agencies to develop regulations, and Delaware announced they would do the same. (AP 2018)
- Begin to address existing sources of HFCs, for example by partnering with businesses and manufacturers that are already transitioning away from HFCs or incentivizing businesses and residences to switch to HFC alternatives.
    - For example, in EPA's GreenChill program supermarket chains have committed to reducing their HFC emissions.

Land Use

Land use solutions are unique to each state but follow the principle of sequestering as much carbon as possible. Those listed here are from Fulfilling America's Pledge 2018:

- Establish state-level programs that engage state and local governments, businesses, and communities in improving forest management, tree cover expansion, and soil health.
    - For example, Pennsylvania's Working Woodlands program accelerates large-scale forest protection and sustainable management by offering a new value

proposition to forest landowners through forest certification and carbon markets. This model has been implemented in Tennessee, Michigan, and New York.

- Preserve forestland by increasing conservation designations and pursuing smart-growth development policies aimed at addressing development pressure.
- Invest in natural and working lands' GHG inventories and other measuring and monitoring programs, including remote sensing, to track progress.
- Collaborate with city officials and residents to preserve and expand urban forests through planting and tree-retention ordinances.
- Enhance opportunities for land-use and natural resources management at the landscape and watershed level by enabling multi-jurisdictional planning and regulation.
- Work with farmers by providing incentives and education to promote emissions reductions and sequestration through fertilizer management, crop changes, conservation tillage, and waste reduction.

CENTER FOR THE NEW ENERGY ECONOMY
Colorado State University

Summary of Existing State Policies:

State Climate / Carbon Policies

State	Emissions / GHG Goals	Other Carbon / Climate Activities and Policies
California	Adopted in 2006 (AB 05-32): 1990 levels by 2020; amended in 2016 (SB 15-32): 40% below 1990 levels by 2030. E.O. S-03 in 2005: 80% below 1990 levels by 2050.	Cap & Trade Program EO B-55-2018: achieve carbon-neutrality by 2045 and net-negative emissions thereafter. AB 17-398: extends cap-and-trade through 2030. SB 15-350: directs CARB to adopt rules removing disincentives for utilities' emissions reductions programs.
Colorado	Adopted 2019 (HB 19-1261): more than 26% from 2005 levels by 2025, 50% below 2005 levels by 2030, and 90% below 2005 levels by 2050.	HB 19-1261: in addition to expanding GHG reduction goals, provides for possibility of joining other jurisdictions in regional abatement schemes. SB 19-096: directs the Air Quality Control Commission to track long-term emissions data and publish an inventory. SB 19-236: utilities must include emissions reductions plans in their IRPs, and PUC must consider social cost of carbon.
Connecticut	Originally adopted 2004 (SB 04-595), last amended 2018 (SB 18-7): 10% below 1990 levels by 2020, 45% below 2001 levels by 2030, and 80% below 2001 levels by 2050.	The 2018 amendment to the GHG targets (SB 7) also requires publication of seal level rise scenarios. In 2018, the Governor's Council on Climate Change put forward several policy recommendations for reducing emissions.
Hawaii	Adopted 2018 (HB 18-2182): carbon neutral by 2045.	HB 18-2182 also creates the Greenhouse Gas Sequestration Task Force to examine incentives and policies that will help the state further reduce emissions. Hawaii is on track to reduce GHG emissions to 1990 levels by 2020. The legislature set this target in 2007 (HB 226).
Maine	Adopted 2019 (LD 19-1679): 45% below 1990 levels by 2030, 80% below 1990 levels by 2050.	LD 19-1679: establishes the Maine Climate Council, tasked with developing a climate action plan and clean energy economy transition plan.
Maryland	Adopted 2009, reauthorized and amended in 2016 (SB 16-323): 25% below 2006 levels by 2020, and 40% below 2006 levels by 2030.	HB 19-277: Authorizes Governor to include the state as full participant in regional initiatives (TCI) to reduce emissions from transportation. SB 19-516: Among other provisions, increases the state's RPS to 50% by 2030. Requires study of a 100% renewable energy goal.

State	Emissions / GHG Goals	Other Carbon / Climate Activities and Policies
Massachusetts	Adopted 2008 (the Global Warming Solutions Act): 25% below 1990 levels by 2020, and 80% below 1990 levels by 2050.	E.O. 2016-569: requires the Secretary of Energy and Environmental Affairs to consult the GWSA Implementation Advisory Committee to establish statewide limits for 2030 and 2040, achieve further reductions from government operations, work to develop regional transportation policies, and lead reform on capacity and wholesale markets to achieve state mandates. DEP must also consider limits on sources such as natural gas pipelines and the transportation sector. The state's 2015 update to its Clean Energy and Climate Plan provides a comprehensive suite of policies to reduce statewide emissions.
Nevada	Adopted 2019 (SB 19-254): 28% below 2005 levels by 2025, 45% below 2005 levels by 2030, and "zero or near-zero" by 2050.	SB 19-254: requires DCNR to submit a report on whether existing/pending state policies can ensure that the state achieves zero carbon emissions by 2050.
New Jersey	Adopted 2007 (AB 07-3301): 1990 levels by 2020, and 80% below 2006 levels by 2050.	The Draft 2019 New Jersey Energy Master Plan outlines multiple strategies for emissions reductions in the energy, transportation, and building sectors.
New Mexico	Adopted 2019 (E.O 003): 45% below 2005 levels by 2030.	Governor Grisham's executive order on climate also created the interagency Climate Change Task Force to evaluate and report on mitigation and adaptation policies, including a market-based program to reduce carbon emissions. SB 19-489 requires that the Environmental Improvement Board (EIB) promulgate a rule limiting CO_2 emissions from coal fired generating plants to an emissions standard of 1,100 lbs-CO_2/MWh on or after January 1, 2023.
New York	Adopted by Executive Order 24 in 2009, reaffirmed as a goal of the Reforming the Energy Vision initiative: 40% below 1990 levels by 2030, and 80% below 1990 levels by 2050. Senate Bill 19-6599 will create GHG emissions targets of 40% below 1990 levels by 2030 and 85% below 1990 levels by 2050, with the remaining 15% offset. The bill also requires the PSC to create a clean energy standard of 70% renewable energy by 2030 and 100% zero emissions by 2040.	The state Soil & Water Conservation Committee administers a Climate Resilient Farming Program to reduce agricultural emissions. Governor Cuomo's REV initiative is a series of smaller initiatives to achieve carbon emissions reductions from multiple sectors, including transportation and buildings.
Oregon	Adopted 2007 (HB 07-3543): 10% below 1990 levels by 2020 and 75% below 1990 levels by 2050.	HB 19-2020 (second reading in Senate on 6/19) would create a GHG emissions standard of 45% below 1990 levels by 2035 and 80% below 1990 levels by 2050 and achieve those reductions through a cap and trade program.

State	Emissions / GHG Goals	Other Carbon / Climate Activities and Policies
Rhode Island	Adopted 2014 (the Resilient Rhode Island Act): 10% below 1990 levels by 2020, 45% below 1990 levels by 2035, and 80% below 1990 levels by 2050.	Governor Rainmondo's executive order 2017-10 required the development of a statewide Climate Resilience Action Strategy by June 2018.
Vermont	Adopted 2006 (S 06-259): 50% below 1990 levels by 2028, and if feasible, 75% below 1990 levels by 2050.	Executive Order 2017-12 created the Vermont Climate Action Committee. The Committee's 2018 report recommends using market-based mechanisms, sequestration measures, and carbon offset projects to address emissions.
Washington	Adopted 2008 (HB 08-2815): 1990 levels by 2020, 25% below 1990 levels by 2035, and 50% below 1990 levels by 2050 or 70% below the state's expected emissions in 2050.	SB 19-5116: Requires utilities to use emissions-free resources by 2045. Social cost of carbon must factor into IRP process.

State Energy Policies and Utility Goals

State	Renewable / Clean Energy Targets	EERS	Utility Commitments / Goals
California	Adopted 2002, last amended 2018: 33% by 2020, 60% by 2030, with a target of 100% carbon-free by 2045.	Electric: Long-term goals average about 1.15% of retail sales through 2024. Average incremental savings targets average about 1.3% of retail sales electricity from 2020-2025. Natural Gas: Incremental savings target of 0.56% through 2024. SB 15-350 requires state agencies and utilities to double cumulative efficiency savings achieved by 2030. Work to develop specific utility targets is ongoing.	Pacific Gas & Electric: Member of the WeAreStill in coalition. Goal to avoid one million tons of cumulative greenhouse gas emissions from 2018 through 2022, compared to a 2016 baseline. SMUD: 33% renewable energy by 2020, 60% by 2030, and reduce retail load GHG emissions to net zero by 2040. Sempra Energy: 35% below 2010 emissions by 2021, SDG&E is on track to meet CA's 50% by RE target.
Colorado	Adopted 2004: 30% by 2020 (IOUs), 10% or 20% by 2020 for municipalities and electric cooperatives depending on size. Polis Administration's Roadmap to 100% Renewable Energy by 2040.	Electric: Flat target of 500 GWh or roughly 1.7% of sales per year. Black Hills follows Xcel's targets. HB 17-1227 extended electric efficiency programs to 2028 and required the commission to set goals of at least 5% peak demand reduction and 5% energy savings (as compared to 2018) by 2028 for demand-side management programs implemented during 2019 through 2028. Natural Gas: Savings targets commensurate with spending targets (at least 0.5% of prior year's revenue).	Xcel Energy: 55% RE by 2026, 80% GHG reduction by 2030, carbon-free by 2050. Platte River Power Authority: Zero carbon emissions by 2030. Holy Cross Energy: 70% emissions reduction by 2030. Poudre Valley Rural Electric Association: increase carbon-free energy from 33% to 80% by 2030. Colorado Springs Utilities: 20% renewable energy by 2020.

State	Renewable / Clean Energy Targets	EERS	Utility Commitments / Goals
Connecticut	Adopted 1998, last amended 2018: Class 1: 21% by 2020, 30% by 2025, 40% by 2030 (plus 4% class 1 or 2 by 2018, 4% class 3 by 2010).	Electric: Average incremental savings of 1.11% of sales from 2019 through 2021.The state's renewable portfolio standard (RPS), established in 1998 and revised thereafter, requires that electricity providers and wholesale suppliers obtain 27% of their retail load from renewable energy and energy efficiency by 2020. Natural Gas: Average incremental savings of 0.59% per year from 2019 through 2021.	AVANGRID (the United Illuminating Company is a subsidiary): increase installed renewable capacity by 2GW, reduce emissions intensity 25% below 2015 levels by 2020, 100% carbon neutral by 2035.
Hawaii	Adopted 2015 (HB 15-623): 40% by 2030, 70% by 2040, and 100% by 2045.	Electric: reduce electricity consumption by 4,300 GWh by 2030 (equal to approximately 30% of forecast electricity sales or 1.4% annual savings). Natural Gas: N/A (Natural gas plays a limited role in the state's energy generation mix.)	Hawaiian Electric Company: reduce GHG emissions more than 16% below 2010 levels by 2020. Achieved: 2014. Committed to meeting the 100% renewable energy target. Kaua'i Island Cooperative: 70% renewable by 2030.
Maine	Adopted 2019 (LD 19-1494): 80% by 2030, 100% by 2050.	Electric: Savings of 20% by 2020, with incremental savings targets of ~ 1.6% per year for 2014-2016 and ~2.4% per year for 2017-2019. While Efficiency Maine operates under an all cost-effective mandate, the agency has fallen short of targets in recent years due to budget cuts. Natural Gas: Incremental savings of ~0.2% per year for 2017-2019.	AVANGRID (Central Maine Power is a subsidiary): increase installed renewable capacity by 2GW, reduce emissions intensity 25% below 2015 levels by 2020, 100% carbon neutral by 2035.
Maryland	Adopted 2004, last amended 2019 (SB 19-516): 28% by 2020, 40% by 2025, and 50% by 2030.	Electric: 2% incremental energy savings goal through 2023. Utilities must also file an energy efficiency program plan every 3 years to be approved by the PSC. Natural Gas: goals and limited income goals are being developed.	FirstEnergy (Potomac Edison Company is subsidiary in MD): 90% below 2005 emission levels by 2045.

State	Renewable / Clean Energy Targets	EERS	Utility Commitments / Goals
Massachusetts	Adopted 1997, last amended 2018 (Clean Energy Standard): 20% by 2020, 40% by 2030, 60% by 2040, and 80% by 2050. RPS: 13% by 2018, 55% by 2050.	Electric: Net annual savings of 3.45 million MWh (not including fuel switching) for 2019-2021, equivalent to savings of ~2.7% of retail sales per year. Natural Gas: 1.25% of retail sales. Net savings of 95.89 MMTherms for 2019-2021. Additional goal of 261.9 million net lifetime MMBtu for 2019-2021.	NationalGrid: 45% below 1990 emission levels by 2020, 70% below 1990 levels by 2030, and 80% below 1990 levels by 2050.
Nevada	Adopted 1997, last amended 2019: 24% by 2021, 50% by 2030, with 100% by 2050 goal (up to 10% of the standard can be met using energy efficiency from 2020-2024.	SB 17-150 set baseline targets for electricity suppliers: 1% in 2018, 1.5% for 2021-2025.	NV Energy: seeks to double renewable generation by 2023. The utility included $2 billion in renewable projects in its 2018 IRP, and expects to retire or divest 100% of its coal generation by the end of 2025.
New Jersey	Adopted 1999, last amended 2018: 35% by 2025, 50% by 2030.	Electric: 2% electric savings (as a percent of average annual usage from the prior three years) within five years of the initial implementation of a utility's plan. In April, consultants presented the New Jersey Board of Public Utilities with the draft strategic plan for 2019-2022 for the statewide Clean Energy Program, including an energy efficiency portfolio achieving a 56% increase in savings by 2022. Natural Gas: 0.75% savings (as a percent of average annual usage from the prior three years) within five years of the initial implementation of a utility's plan.	FirstEnergy (Jersey Central Power & Light is a subsidiary): 90% below 2005 emission levels by 2045. Public Service Electric and Gas: eliminate 13 million metric tons of CO2 equivalent by 2030 (from 2005 levels).

State	Renewable / Clean Energy Targets	EERS	Utility Commitments / Goals
New Mexico	Adopted 2004, last amended 2019 (Carbon-free Resource Standard): Distribution cooperatives: 10% by 2020, 40% by 2025, 50% by 2030, and zero-carbon (at least 80% RE) by 2050. IOUs: 20% by 2020, 40% by 2025, 50% by 2030, 80% by 2040, and carbon-free by 2045.	Electric: The state's three public utilities must achieve 5% savings of 2020 retail sales by 2025. HB 19-291 directs the Public Regulation Commission to set additional targets through 2030.	Xcel Energy: 55% RE by 2026, 80% GHG reduction by 2030, and carbon-free by 2050. PNM: carbon-free by 2040 (5 years ahead of the deadline established by SB 19-489). PNM plans to retire San Juan by 2022.
New York	Adopted 2016 (Clean Energy Standard): 50% by 2030.	Statewide all-fuels target of 185 TBtu cumulative annual savings for 2015-2025, or approximately 3% of incremental electric sales. Electric: detailed proposals are to be submitted by the utilities to the PSC. The PSC assumes that these plans will account for 2% of the statewide goal, with the remainder accounted for by NYSERDA, codes and standards, and other state activities. Natural Gas: no specific targets, but savings will count toward statewide goal.	Long Island Power Authority: add 800 MW of clean energy by 2030. AVANGRID (New York State Electric & Gas Corporation and Rochester Gas & Electric Corporation are subsidiaries): increase installed renewable capacity by 2GW, reduce emissions intensity 25% below 2015 levels by 2020, and 100% carbon neutral by 2035. NationalGrid: 45% below 1990 emission levels by 2020, 70% below 1990 levels by 2030, and 80% below 1990 levels by 2050.
Oregon	Adopted 2007, last amended 2016: Large IOUs (3% or more of state's load): 50% by 2040 Large COUs: 25% by 2025 Small Utilities (1.5 to <3% of state's load): 10% by 2025 Smallest Utilities (<1.5% of state's load): 5% by 2025 Total coal phase out by 2035.[1]	Electric: Incremental targets average ~1.3% of sales annually for the period 2015-2019. Natural Gas: Incremental savings of 0.3% of sales annually for the period 2015-2019.	Portland General Electric and Pacific Power will be nearly coal free by 2030, entirely coal free by 2035. Avista: carbon-neutral electricity supply by 2027; 100% clean by 2045.

[1] Utilities that buy into a new coal plant or sign a new contract specifically for new coal power and publicly-owned utilities that annex investor-owned utility territory without consent (aside from municipal utilities under certain conditions) are subject to the "large utility" standards.

State	Renewable / Clean Energy Targets	EERS	Utility Commitments / Goals
Rhode Island	Adopted 2004, last amended 2016: 16% by 2020, 31% by 2030, 38.5% by 2036.	Electric: Average incremental savings of 2.5% for 2018-2020. Natural Gas: Average incremental savings of 0.97% for 2018-2020.	NationalGrid: 45% below 1990 emission levels by 2020, 70% below 1990 levels by 2030, 80% below 1990 levels by 2050.
Vermont	Adopted 2015: 55% by 2017, 75% by 2032, and 12% energy transformation projects (EE, EVs, storage) by 2032.	Vermont law requires Energy Efficiency Utility budgets to be set at a level that would realize "all reasonably available, cost-effective energy efficiency" and set specific energy and peak demand savings targets. Average incremental electricity savings totaling 357,400 MWh over 2018-2020, or approximately 2.4% of annual sales. Natural Gas: Three-year annual incremental savings of 192,599 Mcf spanning 2018-2020 or 0.5% of sales.	Green Mountain Power, 2018 Goal: partner with customers to drive down costs and eliminate more than 8,000 metric tons of carbon emissions per year using clean energy for the next two decades.
Washington	Adopted 2006, amended 2019: 15% by 2020, coal phased out by 2025, carbon neutral by 2030, 100% carbon-free by 2045.	Electric: average around 1.4% incremental savings per year. Natural Gas: in 2014, all four IOUs committed to a voluntary pilot program with the potential to save over 280 million therms annually.	Avista: carbon-neutral electricity supply by 2027, 100% clean by 2045. Seattle City Light: carbon neutral since 2005. Puget Sound Energy: reduce carbon emissions 50% by 2040, 100% coal-free generation by the early 2030s.

State Appliance and Building Efficiency Policies

State	Appliance Standards Opposing Federal Rollback[2]	Building Efficiency Codes
California	In December 2008, California adopted a 45 lumen per watt standard for general service lamps (GSLs) as defined in the 2007 Energy Independence and Security Act (EISA). California's Title 20 Appliance Efficiency Regulations have existing provisions that backstop all other federal appliance standards in case of repeal or rollback.	Commercial: meets or exceeds ASHRAE 90.1-2013 Residential: meets or exceeds IECC 2015 Solar: The California Energy Commission adopted revisions to the Energy code in May 2018. The most noteworthy new provision is a requirement for all new low-rise homes to install PV equipment with an annual output greater than or equal to the home's annual electric consumption. The proposed amended standards, which still need to be approved by the California Building Standards Commission would go into effect on January 1, 2020.
Colorado	HB 19-1231 updates and adopts standards for water efficiency and energy efficiency that apply to a list of 15 consumer and commercial appliances and other products. The bill also includes a provision to adopt current federal standards to backstop all other federal appliance standards in case of repeal or rollback.	No mandatory statewide code, but any county or municipality that had a building code in place was required to adopt 2003 IECC or 2006 IECC as the minimum energy code standard by July 1, 2008. Solar: Builders of single-family homes are required to offer solar energy as a standard feature to all prospective homebuyers. Builders are required to give the buyer the option to have either a PV system or a solar water heating system installed on their new home or to have all the necessary wiring and plumbing installed so that they can easily add a solar system later.
Connecticut	N/A	Residential and commercial building codes are based on the 2012 IECC, with weakening amendments.
Hawaii	HB 19-556 requires the Department of Business, Economic Development and Tourism to adopt minimum appliance efficiency standards for certain products sold or installed in the State that are substantially equivalent to existing appliance efficiency standards established in California and by the federal government.	Residential and commercial building codes are based on the 2015 IECC, with weakening amendments. Solar: As of January 1, 2010, building permits may not be issued for new single-family homes that do not include a solar water-heating system.

[2] In May 2019, 36 utility companies opposed the DOE proposal to roll back lightbulb efficiency stating that "The 2020 standard for lightbulbs should remain applicable to all common household lightbulbs, and efficiency standards for other products should not be delayed."

State	Appliance Standards Opposing Federal Rollback	Building Efficiency Codes
Maine	N/A	Commercial: based on the 2009 IECC and ASHRAE 90.1-2007 Residential: based on the 2009 IECC
Maryland	N/A	Residential and commercial building codes are based on the 2015 IECC.
Massachusetts	N/A	Commercial: based on the 2015 IECC and ASHRAE 90.1-2013 Residential: based on the 2015 IECC
Nevada	AB 19-54 adopted the federal light bulb standards.	Commercial: 2012 IECC, with amendments or ASHRAE 90.1-2010 Residential: 2012 IECC, with amendments
New Jersey	N/A	Commercial: based on ASHRAE 90.1-2013 Residential: based on 2015 IECC Solar: Developers of residential developments with 25 or more dwelling units must "offer to install, or to provide for installation of, a solar energy system" when technically feasible. The law took effect immediately upon enactment; however, the Department of Community Affairs (DCA), in cooperation with the New Jersey Board of Public Utilities (BPU), must develop rules and standards for its implementation. The law does not provide a time frame for the adoption of regulations and it does not appear that such rules have been established.
New Mexico	N/A	Commercial and residential are based on the 2009 IECC, with amendments
New York	N/A	Commercial: based on the 2015 IECC and ASHRAE 90.1-2013, as modified by the 2016 supplement Residential: based on the 2015 IECC, as modified by the 2016 supplement
Oregon	N/A	Commercial: based on ASHRAE 90.1-2010 Residential: more stringent than the 2009 IECC
Rhode Island	SB 19-552, which has been "held for further study", would establish minimum appliance energy efficiency standards.	Commercial: based on the 2012 IECC and ASHRAE 90.1-2010 Residential: based on the 2012 IECC, with amendments

State	Appliance Standards Opposing Federal Rollback	Building Efficiency Codes
Vermont	H 17-411 provides that the state will enforce federal standards if they are "withdrawn, repealed or otherwise voided" at the federal level. Efficiency measures protected by the new Vermont law include all standards on the federal books as of January 17, 2017, including ones that have yet to take effect, including the light bulb standards slated for implementation in 2020.	Commercial: based on the 2015 IECC and ASHRAE 90.1-2013, with amendments Residential: based on the 2015 IECC
Washington	HB 19-1444 adopts federal light bulb standards, providing a backstop to a potential federal rollback.	Commercial and Residential: based on the 2015 IECC, with amendments HB 19-1257: Department of Commerce is to create a State Energy Performance Standard by November 1, 2020 to reduce energy use and GHG emissions associated with large commercial buildings.

State Methane and HFC Emissions Policies

State	Methane Emissions Policy	HFC Emissions Policy
California	CARB adopted stringent methane regulations for monitoring and repairing pipeline leaks in 2017 (required by SB 16-1383). The CPUC ordered utilities to file methane abatement compliance plans by March 2019 (pursuant to SB 14-1371).	SB 18-1013 creates the Fluorinated Gases Emission Reduction Incentive Program to promote the adoption of low-global warming potential refrigerants. The schedule to ban products made with HFCs begins 2022.
Colorado	SB 19-181 directs the Air Quality Control Commission to bolster methane regulations by promulgating rules for all points in the natural gas supply chain (processing, gathering & boosting, storage, and transmission). The legislation also affirms local authority over oil and gas siting and sets objectives to protect public health.	SB19-096 requires the development of a GHG inventory, which will include HFCs.
Connecticut	N/A. Connecticut's omnibus energy bill, HB 19-5002, did not include regulations for methane emissions. Studies of CT pipelines reveal the need to modernize gas infrastructure.	Governor Malloy directed DEEP to develop HFC controls modelled after CARB's that would fit within the state's air quality regulatory framework. New regulations are expected in 2020.
Hawaii	N/A	N/A
Maine	Maine's policy establishes a classification system for pipeline leaks, and sets detection and repair requirements for pipeline operators. Governor Mills joined 15 other attorneys general in suing the Trump administration for halting enforcement of federal methane rules.	N/A
Maryland	The Greenhouse Gas Emissions Reductions Act requires the maintenance of GHG emissions inventories. The Maryland Department of Environment (MDE) publishes data on methane from wastewater, landfills, and oil and gas operations. MDE is in the process of developing proposed methane regulations - Methane Emissions Minimization Plans (MEMPs) - for curbing leaks across the natural gas supply chain.	MDE is in the process of developing HFC regulations for foam and refrigerant products pursuant to SB 16-323 (the Greenhouse Gas Emissions Reduction Act).

State	Methane Emissions Policy	HFC Emissions Policy
Massachusetts	To meet state emissions reductions goals, the DEP adopted rules in 2017 to require natural gas operators to reduce methane emissions annually (specified by utility), keep inventories, and repair pipeline leaks. The DPU adopted rules in March 2019 that establish methods for identifying high-priority leaks. The rules also require that gas operators accelerate repairs when leaks are located in 'environmentally sensitive areas'.	Massachusetts published its Comprehensive Energy Plan in late 2018. HFC regulations have not been announced, but the state's Attorney General joined 10 other states to sue the EPA for its HFC rule rollback in 2018.
Nevada	N/A	N/A
New Jersey	S 19-3207, if enacted, would bolster the state's GHG emissions reporting requirements and require the development of a comprehensive statewide strategy for mitigating 'short-lived' GHGs, including methane. As of May 2019, the bill had been passed by both chambers of the legislature.	S 19-3207 includes a provision requiring the development of a comprehensive strategy to reduce emissions of short-lived climate pollutants in the State. This requirement is based on legislation adopted and implemented in California.
New Mexico	Governor Grisham's EO 2019-003 directs EMNRD and NMED to develop a regulatory framework to reduce oil and gas sector methane emissions. The NMED maintains an interactive map of oil and gas site emissions.	N/A
New York	Governor Cuomo's Methane Reduction Plan (2017) outlines multiple policies to achieve emissions reductions targets, including monitoring and repair of natural gas pipelines.	The New York State Department of Environmental Conservation is developing regulations to phase out HFCs between 2020 and 2024, a draft proposal was released in September of 2018.
Oregon	HB 19-2020 would have directed the Environmental Quality Commission to develop rules regulating methane emissions from landfills, agriculture, and forestry. No legislation or regulations are in place for pipeline leaks.	N/A
Rhode Island	The Rhode Island Energy 2035 Plan (2015) recommended reviewing the state's natural gas replacement and repair policy, suggesting an update to National Grid's Gas Infrastructure, Safety, and Reliability Plan for detecting and repairing pipeline leaks.	N/A
Vermont	Gas utilities must 'routinely' inspect for leaks. No comprehensive program for pipeline emissions reductions is in place.	S 19-0030 establishes a schedule between 2020 and 2024 for when certain products must be manufactured without HFCs.
Washington	State law establishes a classification system for pipeline leaks and requires utilities to maintain permanent leak records and conduct a self-audit every five years.	HB 19-1112 establishes a regulatory framework for phasing out HFCs in the state, banning specific products beginning in 2020.

New and Noteworthy Legislation

State	Bill Number	Summary
California	SB 18-1013	Codifies the prohibitions on certain ozone depleting substances and HFC) adopted by the U.S. EPA as part of the Significant New Alternatives Policy (SNAP) Program.
Colorado	HB 19-1261	Sets statewide GHG emissions reduction goals to more than 26% from 2005 levels by 2025, 50% below 2005 levels by 2030, and 90% below 2005 levels by 2050.
	SB 19-096	Requires the AQCC to collect greenhouse gas emissions data from greenhouse gas-emitting entities, report on the data, develop a forecast of future emissions, and propose a draft rule to address the emissions by July 1, 2020.
	SB 19-181	Modifies the composition of the COGCC, requires that the COGCC review and, if necessary, amend existing rules related to methane emissions and oil and gas operations, removes the state preemption of oil and gas regulation, and expands the authority of local governments to regulate oil and gas development.
	SB 19-236	Among other provisions, the bill supplements existing state renewable energy standard laws by establishing targets for the reduction of CO_2 emissions by Xcel Energy (80% below 2005 levels by 2030, 100% by 2050 and thereafter, if practicable). Other utilities may opt in to submitting clean energy plans. The bill also allows utilities to apply to the PUC for approval of a financing order to issue securitized utility ratepayer-backed bonds when retiring an electric generating facility. Bonds are to be used by the utility to purchase, build, or invest in electric generating resources or electricity storage, and repaid through a distinct charge on ratepayers. The bill requires the PUC to promulgate rules that require each wholesale electric cooperative to submit an application for approval of an integrated or electric resource plan. The PUC must evaluate the plans using rules adopted that are applicable to these cooperatives. The bill also requires the PUC to promulgate rules establishing requirements for IOUs to file electric distribution plans; requires IOUs to include a workforce transition plan when proposing the retirement of an electric generating facility; directs the PUC to require electric public utilities to consider the cost of carbon dioxide emissions in certain proceedings; requires the PUC to conduct an investigation of financial performance-based incentives and performance-based metric tracking; and directs the PUC to open an investigatory proceeding to evaluate the costs and benefits associated with regional transmission organizations, energy imbalance markets, joint tariffs, and power pools.
Connecticut		
Hawaii		
Maine	LD 19-1679	Updates the state's GHG emissions reduction targets to 45% below 1990 levels by 2030, and 80% below 1990 levels by 2050. Establishes the Maine Climate Council, comprised of state agencies and stakeholders tasked with developing a climate action plan and a clean energy economy transition plan.

State	Bill Number	Summary
Maryland	HB 19-277	Authorizes the Governor to include the state in any regional governmental initiative, agreement, or compact that limits or reduces greenhouse gas emissions from the transportation sector; requires the Department of the Environment and the Department of Transportation to submit a report on the status of any regional initiative before November 1, 2019.
	SB 19-516	Among other provisions, increases the state's RPS to 50% by 2030. Requires study of a 100% renewable energy goal.
Massachusetts	H 18-4857	Establishes an energy storage target of 1,000 MWh by 2025. Requires electric suppliers to provide a minimum percentage, as determined by the Department of Energy Resources (DER), of kWh sales from clean peak resources. Also provides for EDCs to submit distribution system resiliency reports to the DER. Allows EDCs to hold competitive solicitations for procurement of non-wires alternatives from third party developers. Establishes reporting requirements for lost and unaccounted for gas for gas companies for the purpose of reducing GHG emissions. Requires the DER to study the costs and benefits of requiring EDCs to issue competitive bids for up to 1,600 MW of additional offshore wind.
Nevada	SB 19-254	Sets GHG emissions reduction targets: 28% below 2005 levels by 2025, 45% below 2005 levels by 2030, and "zero or near-zero" by 2050. Also requires DCNR to submit an emissions report, and provide analysis of whether existing/pending state policies can ensure that the state achieves zero carbon emissions by 2050.
	SB 19-358	Increases the state's clean energy standard to 50% by 2030. Includes a zero carbon by 2050 goal.
New Jersey	AB 18-3723	Requires the BPU to conduct an energy storage analysis, make changes to the solar renewable energy certificate program, adopt energy efficiency and peak demand reduction programs, adopt a "Community Solar Energy Pilot Program," and provide tax credits for certain offshore wind energy projects. The bill also requires the Department of Labor and Workforce Development to establish job training programs for those who work in manufacturing and servicing of offshore wind energy equipment.
	SB 19-3207	If enacted, the bill will establish new timeframes for the implementation of certain requirements in the "Global Warming Response Act" (GWRA), and require the Department of Environmental Protection (DEP) to adopt a strategy to reduce short-lived climate pollutants.
New Mexico	SB 19-489	Increases the state's RPS as follows: Distribution cooperatives: 10% by 2020, 40% by 2025, 50% by 2030, zero-carbon (at least 80% RE) by 2050. IOUs: 20% by 2020, 40% by 2025, 50% by 2030, 80% by 2040, and resources must be carbon-free by 2045. Also authorizes an alternative mechanism ("energy transition bonds" or "securitization") for financing the retirement of coal-fired power plants. The mechanism has been designed to accommodate the retirement in 2022 of units 1 and 4 of the San Juan Generation Station (SJGS) and to anticipate the closure of the Four Corners Power Plant in 2031. The bill also requires that the Environmental Improvement Board (EIB) promulgate a rule limiting carbon dioxide emissions from coal fired generating plants to an emissions standard of 1,100 lbs-CO2/MWh on or after January 1, 2023.

State	Bill Number	Summary
New York	SB 19-6599	If enacted, will create GHG emissions targets of 40% below 1990 levels by 2030 and 85% below 1990 levels by 2050, with the remaining 15% offset. The bill also requires that the PSC creates a clean energy standard of 70% renewable energy by 2030 and 100% zero emissions by 2040.
Oregon		
Rhode Island		
Vermont	HB 19-529	Excludes from the definition of a net metering system a plant for generation of electricity that primarily supplies electricity to electric vehicle supply equipment for the resale of electricity. Requires the Public Utility Commission to report on steps necessary to implement fees on plug-in electric vehicle charging and how to address net metering and net metering credits by December 15, 2019. Establishes the vehicle incentive and emissions repair programs, which, among other things, provide point-of-sale vouchers for the purchase or lease of new plug-in electric vehicles. Permits State agencies that own or control electric vehicle supply equipment (EVSE) to establish, set, and adjust fees for the use of EVSE available to the public for three years starting on July 1, 2019. Specifies that the PUC does not have jurisdiction over persons otherwise not regulated by the PUC that engage in the siting, construction, ownership, operation, or control of a facility that sells or supplies electricity to the public exclusively for charging a plug-in electric vehicle. Requires the Commissioner of Buildings and General Services, to the maximum extent practicable, to purchase and lease hybrid or plug-in electric vehicles for the State fleet with a minimum of 50%, bumped to 75% on July 1, 2021, of newly purchased and leased vehicles being hybrid or plug-in electric vehicles.
	S 19-30	Establishes a schedule between 2020 and 2024 for when certain products must be manufactured without HFCs.
Washington	HB 19-1112	Establishes a schedule between 2020 and 2024 for when certain products must be manufactured without HFCs.
	HB 19-1257	Requires the State Building Code Council to develop rules that require and regulate electric vehicle charging capability at all new buildings that provide on-site parking. Requires the Department of Commerce to create a State Energy Performance Standard by November 1, 2020 to reduce energy use and GHG emissions associated with large commercial buildings. Requires gas companies to identify and acquire all conservation measures that are available and cost-effective. The cost-effectiveness analysis must include the societal costs of GHG emissions. The targets must be based on a conservation potential assessment prepared by an independent third party and approved by the UTC. A gas company may propose a renewable natural gas program under which the company would supply renewable natural gas for a portion of the natural gas sold or delivered to its retail customers. Each gas company must offer by tariff a voluntary renewable natural gas service available to all customers to replace any portion of the natural gas that would otherwise be provided by the gas company. The UTC must monitor the GHG emissions resulting from natural gas and renewable natural gas delivered by each gas company to its customers, relative to the proportionate share of the state's GHG emissions goal.

	HB 19-1512	Allows municipal utilities to adopt transportation electrification plans. Regulated utilities may adopt plans that provide EV charging equipment incentives and support for other transportation electrification programs. Utility Electric Transportation Plan Authorization: The governing authority of a utility or a regulated electric utility, with the approval of the UTC, may adopt an electric transportation plan that proves that utility outreach and investment in the electrification of transportation infrastructure does not increase net costs to ratepayers in excess of 0.25%. The governing authority or the UTC may consider items such as the impact of electrification on the utility's load, demand response and load management opportunities, system reliability and distribution system efficiencies, and interoperability concerns. Upon making this determination, electric utilities may offer incentive programs for customers.
	HB 19-2042	Extends and establishes tax credits for electric vehicles and electric vehicle supply equipment (EVSE). Establishes a grant program to assist transit authorities in fleet electrification and alternative fuel use; a car sharing pilot grant program to support car sharing for underserved communities; and extends an existing EV charging infrastructure grant program. Amends provisions authorizing investor-owned utilities' incentive rate of return on investments in EV supply equipment. Extends a technical assistance and education program on alternative fuel vehicles for public agencies within Washington State University's Extension Energy Program. Authorizes the Department of Commerce to conduct a study on reducing barriers to battery and hydrogen fuel cell electric vehicle adoption by lower income residents.
	SB 19-5116	Requires that by December 31, 2025, all electric utilities eliminate coal-fired resources from their allocation of electricity. For IOUs, the UTC is required to accelerate depreciation for any coal-fired resource owned by an IOU and is allowed to accelerate depreciation for any qualified transmission line to no later than December 31, 2025. The UTC must allow in rates prudently incurred undepreciated investments in a fossil-fuel generating resource that has been retired from service under specific conditions. By January 1, 2030, each electric utility must make all retail sales of electricity to Washington customers GHG neutral. An electric utility must achieve compliance with the GHG neutral standard for multiyear compliance periods beginning January 1, 2030, through December 31, 2044. By January 1, 2045, each electric utility must meet 100 percent of its retail electric load to Washington customers using non-emitting electric generation and electricity from renewable resources.

State Transportation Policies

State	Regional Transportation Collaborative	LEV Standards?[1]	ZEV Standards?[2]	Low Carbon Fuel Standard?	EV / ZEV Goals
California	Pacific Coast Collaborative	Yes	Yes	Goal: reduce carbon intensity of transportation fuel pool by at least 20% by 2030.	Goal (E.O. B.48-2018): 5 million ZEVs by 2030 and 250,000 ZEV chargers by 2025. Deploy over 100,000 zero emission freight vehicles and associated equipment by 2030. Transit agency requirements: all new bus purchases must be zero emission buses by 2029 (50% by 2026 for large agencies, 25% by 2026 for small agencies)
Colorado	REV West	Yes	Rulemaking in Progress		Goal (E.O. B2019-002): 940,000 EVs by 2030.
Connecticut	Transportation and Climate Initiative[3]	Yes	Yes	*	Goal: 500,000 ZEVs by 2030 (ZEV MOU)
Hawaii	N/A	No	No		
Maine	Transportation and Climate Initiative	Yes	Yes	*	
Maryland	Transportation and Climate Initiative	Yes	Yes	*	Goal: ~300,000 ZEVs by 2025 (ZEV MOU)
Massachusetts	Transportation and Climate Initiative	Yes	Yes	*	Goal: ~300,000 ZEVs by 2025 (ZEV MOU)
Nevada	REV West				

[1] States that have adopted LEV Standards not represented below: Delaware and Pennsylvania.
[2] All states that have adopted ZEV Standards are represented below.
[3] Other TCI members not captured here: Delaware, New Hampshire, Pennsylvania, and Virginia.

State	Regional Transportation Collaborative	LEV Standards?	ZEV Standards?	Low Carbon Fuel Standard?	EV / ZEV Goals
New Jersey	Transportation and Climate Initiative	Yes	Yes	*	Goal: 330,000 EVs by 2025.
New Mexico	REV West	Climate Change Task Force to evaluate adopting.	Climate Change Task Force to evaluate adopting.		Governor Grisham stated that she would like to see 20% of the state fleet electrified.
New York	Transportation and Climate Initiative	Yes	Yes	*	Goal: 800,000 ZEVs by 2025.
Oregon	Pacific Coast Collaborative	Yes	Yes	Requires fuel suppliers to reduce the carbon content of transportation fuels by 10% by 2025.	Goal (E.O. 2017-21): 50,000 EVs by 2020.
Rhode Island	Transportation and Climate Initiative	Yes	Yes	*	Goal: 43,000 ZEVs by 2025 (ZEV MOU)
Vermont	Transportation and Climate Initiative	Yes	Yes	*	Goal: ~50,000 EVs by 2025
Washington	Pacific Coast Collaborative	Yes			Goal: 50,000 EVs by 2020.

* Signatory: Low Carbon Fuel Standard MOU (2009) in which the states agreed to analyze low-carbon fuel supply options, determine the feasibility of achieving a range of carbon reduction goals – including a 10 percent reduction in carbon intensity of fuels – and develop a framework for a regional Low Carbon Fuel Standard (LCFS).

State EV and EV Supply Equipment Policies & Incentives

California

[EV Policies and Incentives]

Low Emission Truck and Bus Purchase Vouchers: fleet owners.

Light-duty PHEV and ZEV Rebates

HOV and High Occupancy Toll (HOT) Lane Exemption

The California Clean Truck, Bus, and Off-Road Vehicle and Equipment Technology Program: funding for development, demonstration, pre-commercial pilot, and early commercial implementation projects for zero and near-zero emission trucks, buses, and off-road vehicles and equipment.

Through the California Clean Miles Standard and Incentive Program, the California Air Resources Board (ARB) will establish annual emissions reduction targets for transportation network companies, including goals for increasing the number of miles traveled using zero emission vehicles.

Zero and Near-Zero Emission Vehicle Component Rebates

Vehicle Acquisition and Petroleum Reduction Requirements: beginning in fiscal year 2024, at least 50% of the light-duty vehicles purchased by the state must be ZEVs. At least 30% of the Department of General Service's fleet of new vehicles with a gross vehicle weight of 19,000 pounds or more must be ZEVs by 2030.

Freight Efficiency Action Plan: establishes targets to improve freight efficiency and transition to zero emission technologies.

[EV Supply Equipment (EVSE) Policies and Incentives]

EVSE Incentive Program Support: provides guidance and funding for local governments and organizations to develop and implement EVSE incentive programs.

EVSE Loan and Rebate Program: available to small businesses.

Emissions Reductions Grants

Residential PACE EVSE Financing Program

EVSE Policies for Residential and Commercial Renters: The lessor of a dwelling or commercial property must approve written requests from a lessee to install EVSE at a parking space allotted for the lessee on qualified properties. Certain exclusions apply to residential dwellings and commercial properties.

EVSE Policies for Multi-Unit Dwellings: A common interest development, including a community apartment, condominium, and cooperative development, may not prohibit or restrict the installation or use of EVSE or a PEV-dedicated TOU meter in a homeowner's designated parking space or unit. These entities may put reasonable restrictions on EVSE, but the policies may not significantly increase the cost of the EVSE or significantly decrease its efficiency or performance.

Mandatory EVSE Building Standards

EVSE Open Access Requirements: EVSE service providers may not charge a subscription fee or require membership for use of their public charging stations.

PEV Charging Access: Municipalities may not restrict the types of PEVs that may access a public PEV charging station that is intended for passenger vehicle use, and funded, at least in part, by the state or money from utility ratepayers.

EVSE Location Assessment: The State Energy Resources Conservation and Development Commission, in partnership with CARB, must assess whether EVSE in California is located disproportionately by population density, geographical area, or population income level. If EVSE has been disproportionately installed unreasonably, the agencies must proportionately install new EVSE, unless it is determined that the current locations of EVSE further California's policy goals.

EVSE Assessment: The California State Energy Resources Conservation and Development Commission, in partnership with CARB and the CPUC, must publish a statewide assessment of the EVSE infrastructure needed to support the levels of PEV adoption required for at least five million zero emission vehicles to operate in California by 2030. The assessment must consider the EVSE infrastructure needs for all vehicle categories, and must analyze the existing and future infrastructure needs across California, including in low-income communities. The assessment must be updated at least once every two years.

Public Utility Definition: A corporation or individual that owns, controls, operates, or manages public EVSE is not defined as a public utility.

State Agency EVSE Installation: California state agencies must actively identify and pursue opportunities to install EVSE, and accommodate future EVSE demand, at state employee parking facilities in new and existing agency buildings.

EVSE Local Permitting Policies: Cities and counties must adopt an ordinance that creates an expedited, streamlined permitting process for EVSE.

Colorado

EV Policies and Incentives

PEV Tax Credit: $5,000 - 20,000 in 2017-2019; $4,000 - 16,000 in 2020; $2,500 - 10,000 in 2021.

Alternative Fuel Vehicles and Infrastructure Grant Program: CEO, RAQC, and CDOT, have partnered to provide grants through the ALT Fuels Colorado program for new fleet purchases of EVs.

PEV and EVSE Grants: available to individual drivers and fleet owners.

High Occupancy Vehicle (HOV) Lane Exemption

EV Supply Equipment (EVSE) Policies and Incentives

Alternative Fuel Vehicles and Infrastructure Grant Program: Provides grants through the ALT Fuels Colorado program for new, publicly accessible co-located electric vehicle charging and propane station equipment at funded CNG stations, and EVs.

EVSE Multi-Unit Dwelling Installations and Access: A residential tenant may install Level 1 or Level 2 EVSE at their own expense on or in leased premises. The landlord may seek a fee or reimbursement for the actual cost of electricity as well as the cost of installation or upgrades to existing equipment. In addition, the tenant may request that the EVSE be accessible by other tenants, in which case the EVSE must be in compliance with all applicable requirements, and the landlord may seek a fee to reserve a specific parking space.

Alternative Fuel Resale and Generation Regulations: A corporation or individual that resells alternative fuel supplied by a public utility for use in an AFV is not subject to regulation as a public utility. Additionally, a corporation or individual that owns, controls, operates, or manages a facility that generates electricity exclusively for use in AFV charging or fueling facilities is not subject to regulation as a public utility provided that the electricity is generated on the property where the charging or fueling facilities are located and the electricity is generated from a renewable resource.

Connecticut

EV Policies and Incentives

Heavy-Duty Vehicle Emissions Reduction Grants: DEEP allocates a portion of its designated funds from the Volkswagen Environmental Mitigation Trust for the replacement or repower of eligible heavy-duty on-road vehicles through its Diesel Emissions Mitigation Program.

Hydrogen and PEV Rebate

Loans for PEVs and Residential Charging Infrastructure: The Connecticut Green Bank offers Smart-E low-interest loans of up to $30,000 for Connecticut residents to purchase a new or used PEV. The vehicle must be registered with the Connecticut Department of Motor Vehicles. Loans are also available for

Connecticut PEV drivers to purchase EVSE. To qualify, applicants must own or lease a model year 2012 or later PEV and occupy the residence at which the EVSE will be installed.

Reduced Registration Fee for Electric Vehicles

AFV Procurement Preference: In determining the lowest responsible qualified bidder for the award of state contracts, the Connecticut Department of Administrative Services may give a price preference of up to 10% for the purchase of AFVs or for the purchase of conventional vehicles plus the conversion equipment to convert the vehicles to dual or dedicated alternative fuel use.

EV Supply Equipment (EVSE) Policies and Incentives

EVSE Grants: available to municipalities, state agencies, and private businesses.

Public EVSE Requirements: Owners and operators of public EVSE that require payment must allow multiple payment options that allow access by the public. In addition, payment should not require users to pay a subscription fee or obtain a membership of any kind, however payment required may be based on price schedules for such memberships. Owners and operators can impose restrictions on the amount of time a vehicle can use the EVSE. In addition, owners and operators of a public EVSE must disclose the location and characteristics of each EVSE to the U.S. Department of Energy's Alternative Fuels Data Center.

Public Utility Definition: An owner of an EV charging station is not defined as a public utility.

Utility Company PEV Rates: By July 1, 2018, utility companies must evaluate if it is appropriate to implement PEV time of day rates for residential and commercial customers.

Hawaii

EV Policies and Incentives

PEV HOV Lane and Parking Fee Exemptions.

State and county agencies must purchase light-duty vehicles that reduce petroleum consumption and meet the needs of the agency. Exemptions may apply.

EV Supply Equipment (EVSE) Policies and Incentives

Public Utility Definition: An entity that owns, controls, operates, or manages a plant or facility primarily used to charge or discharge a vehicle battery that provides power for vehicle propulsion is not defined as a public utility.

All parking facilities that are available for use by the general public and include at least 100 parking spaces must designate at least one parking space specifically for PEVs, provided that no parking spaces required by the Americans with Disabilities Act Accessibility Guidelines are reduced or displaced.

A multi-family residential dwelling or townhouse owner may install EVSE on or near a parking stall at the dwelling as long as the EVSE is in compliance with applicable rules and specifications, the EVSE is registered with the private entity within 30 days of installation, and the homeowner receives consent from the private entity if the EVSE is placed in a common area. Private entities may adopt rules that restrict the placement and use of EVSE but may not charge a fee for the placement. The EVSE owner is responsible for any damages resulting from the installation, maintenance, repair, removal, or replacement of the EVSE.

Maine

EV Policies and Incentives

An insurer may credit or refund any portion of the premium charged for an insurance policy on a clean fuel vehicle in order to encourage its policyholders to use clean fuel vehicles, as long as insurance premiums on other vehicles are not increased to fund these credits or refunds.

EV Supply Equipment (EVSE) Policies and Incentives

EVSE Funding: Efficiency Maine Trust is accepting applications through July 10, 2019, for funding of public, workplace, and multi-unit dwelling Level 2 EVSE in strategic locations within Maine. EVSE along specific roads and at locations that will likely experience a high frequency of use will be prioritized.

PEV Charging Regulation Exemption: An entity that sells electricity for the sole purpose of charging the battery of a PEV is not defined or regulated as an electricity provider. An EVSE provider may charge a submetered user only for kilowatt-hours used.

Maryland

EV Policies and Incentives

PEV and Fuel Cell Electric Vehicle (FCEV) Tax Credit: up to $3,000.

PEV HOV Lane Exemption

AFV Voucher Program: for the purchase of new and converted AFVs registered in Maryland. Vehicles must be used by commercial, non-profit, or public entities.

Zero Emission School Bus Grant Program and Study: The Maryland Department of the Environment will administer a Zero Emission School Bus Transition Grant Program to purchase zero emission school buses, install charging infrastructure, and transition to zero emission school bus fleets.

ZEV State Fleet Goal: state agencies must increase the number of ZEV acquisitions in light-duty fleets to at least 25% of annual fleet purchases by 2025.

EV Supply Equipment (EVSE) Policies and Incentives

EVSE Rebate Program

Alternative Fuel Infrastructure Grants: The Maryland Energy Administration administers the Maryland Alternative Fuel Infrastructure Program (AFIP), which provides grants to plan, install, and operate public access alternative fueling and charging infrastructure.

EVSE Regulation Exemption: Owners and operators of EVSE are not subject to state regulation as electricity suppliers or public service companies. For the purpose of this regulation, owners and operators of EVSE are considered retail electric customers.

PEV Information Disclosure: The Maryland Motor Vehicle Administration is allowed to provide the address of a registered PEV owner and information about the vehicle to electric companies for their use. Electric companies may only use this information in planning for the electric power supply and may not use it for marketing or solicitation.

PEV Infrastructure Promotion: The Maryland EV Infrastructure Council promotes the use of PEVs in the state. Specific responsibilities of the Council include the following:

- developing an action plan to facilitate successful integration of PEVs into the Maryland transportation network;
- assisting in developing and coordinating statewide standards for streamlined permitting and installation of EVSE;
- recommending a statewide charging infrastructure plan and incentives to support investment in PEVs;
- developing targeted policies to support fleet purchases of PEVs; encouraging local and regional efforts to promote the use of PEVs; and
- developing model procurement practices.

Effective July 1, 2019, the Council will be renamed the Zero Emission Electric Vehicle Council and will incorporate fuel cell electric vehicles in all of the Council responsibilities.

Massachusetts

EV Policies and Incentives

Vehicle Emissions Reduction Grants: The (MassDEP) Volkswagen Open Solicitation Grant Program provides up to 80% of the cost of new diesel or alternative fuel replacements and repowers for eligible government entities.

PEV and EVSE Grants for Public Fleets: available to local governments, public universities and colleges, and state agencies.

Plug-In and ZEV Rebates

AFV and Infrastructure Grants: The Massachusetts Department of Energy Resources' Clean Vehicle Project offers grants for public and private fleets to purchase AFVs and infrastructure.

When purchasing new motor vehicles, the Commonwealth of Massachusetts must purchase hybrids or AFVs to the maximum extent feasible and consistent with the ability of such vehicles to perform their intended functions.

EV Supply Equipment (EVSE) Policies and Incentives

Public Access EVSE Grants: Qualified EVSE must be available to the public at least 12 hours per day.

Multi-Unit Dwelling (MUD) EVSE Grants: available to private, public, or non-profit MUDs with ten or more residential units.

Workplace EVSE Grants: available to private, public, or non-profit workplaces with 15 or more employees on site.

Public EVSE Requirements: Owners and operators of public EVSE that require payment must provide payment options that allow access by the public. In addition, payment should not require users to pay a subscription fee or obtain a membership of any kind; however, required fees may be conditional on such memberships. Owners and operators can impose reasonable restrictions on EVSE use, such as limiting access to visitors of the business. In addition, owners and operators of public EVSE must provide the location, hours of operation, payment, and characteristics of each EVSE to the U.S. Department of Energy's Alternative Fuels Data Center.

EVSE Building Standards: The Massachusetts State Board of Building Regulations and Standards and the Massachusetts Department of Energy Resources will develop building and electric code requirements for residential and appropriate commercial buildings for EVSE.

Public Utility Definition: An entity that owns, operates, leases, or controls EVSE is not defined as a public utility.

Nevada

EV Policies and Incentives

AFV and Infrastructure Grants Authorization: The Nevada Office of Energy will establish the Nevada Clean Energy Fund to fund qualified clean energy projects, including any program, technology, product, or service that supports the deployment of AFVs and related infrastructure.

Authorization for HOV Lane Exemption: The NDOT, in consultation with the Federal Highway Administration and U.S. EPA, may establish a program allowing federally certified low emission, energy-efficient, and alternative fuel vehicles to operate in HOV lanes regardless of the number of passengers.

AFV Acquisition Requirement: Fleets containing 50 or more vehicles that are owned, leased, or operated by the state, a state agency, or a political subdivision of the state in a county with a population of 100,000 or more must acquire AFVs or U.S. EPA certified Ultra Low Emission Vehicles (ULEVs). Covered fleets are required to purchase either AFVs or certified ULEVs for 20% of new vehicles obtained. A fleet may meet the acquisition requirements by converting existing or newly acquired vehicles to operate on alternative fuels. An AFV acquired in compliance with this mandate must operate solely on the alternative fuel except when operating in an area where the appropriate alternative fuel is unavailable. Fleets with buses or heavy-duty vehicles are included.

SB 19-299: allows utilities to provide an incentive of 75% of the cost for school districts to develop charging infrastructure or purchase electric school buses.

EV Supply Equipment (EVSE) Policies and Incentives

EVSE Demonstration Program Requirements: The Electric Vehicle Infrastructure Demonstration Program requires Nevada utilities to promote and incentivize the deployment of EVSE. Utilities must submit an annual plan for implementing the Program in their service areas to the PUCN. Plans may include, but are not limited to, the following measures:

- payment of incentives to customers that install EVSE;
- time-of-use rates for electricity used to charge plug-in electric vehicles;
- EVSE education and awareness programs for customers; and
- technical assistance programs for government fleets and private organizations.

Utilities may request to recover the costs associated with carrying out the program, including customer incentives, by filing an application with the PUCN.

The Nevada Electric Highway initiative, a partnership created between the state and NV Energy in 2015, seeks to build a complete electric highway system along the I-95 corridor by 2020. 15% of the Nevada's $25 million allocation from the VW settlement agreement will be used to support electric highway projects.

New Jersey

EV Policies and Incentives

ZEV Tax Exemption: does not apply to partial ZEVs, including hybrid electric vehicles.

High Occupancy Vehicle (HOV) Lane Exemption

PEV Toll Discount Program

Low Emission or Alternative Fuel Bus Acquisition Requirement: All buses purchased by the New Jersey Transit Corporation must be: 1) equipped with improved pollution controls that reduce particulate emissions; or 2) powered by a fuel other than conventional diesel.

EV Supply Equipment (EVSE) Policies and Incentives

EVSE Grants: offered on a first-come, first-served basis for the cost of installation of eligible EVSE at workplaces, government and educational facilities, non-profits, parking facilities, and multi-unit dwellings.

State Interagency EV Partnership: Announced June 3, 2019, will be co-led by the BPU, DEP, and the EDA to develop and implement a statewide charging deployment initiative.

New Mexico

EV Policies and Incentives

Alternative Fuel and Advanced Vehicle System Manufacturing Incentive: The Alternative Energy Product Manufacturers Tax Credit provides credit against combined reporting taxes (gross receipts, compensating, and withholding) for qualified manufacturers of alternative energy products, including hydrogen and fuel cell vehicle systems, and electric and hybrid electric vehicles.

AFV Loans: available to state agencies, political subdivisions, and educational institutions for AFV acquisitions. Funds must be used for the purchase of vehicles that operate on natural gas, propane, electricity, or hydrogen.

Government fleets may finance alternative fuel vehicles or related infrastructure through guaranteed utility savings contracts where vehicle operational and fuel cost savings pay for the capital investment.

AFV and HEV Acquisition Requirements: A minimum of 75% of state government and educational institution fleet light-duty vehicles purchased must be HEVs, bi-fuel, or dedicated AFVs.

The New Mexico General Services Department (GSD) launched plans to electrify state vehicles, devoting $2.5 million to public fleet electrification, $1.2 million of which will be used for solar-powered charging stations in Santa Fe. In a statement, Governor Grisham noted she would like to see 20% of the state fleet electrified.

EV Supply Equipment (EVSE) Policies and Incentives

Public Utility Definition: An entity that is not a regulated utility that resells natural gas or electricity as motor fuel is not defined as a public utility.

New York

EV Policies and Incentives

PEV Rebate Program

Heavy-Duty Alternative Fuel and Advanced Vehicle Purchase Vouchers

ZEV and Fueling Infrastructure Rebates for Municipalities: available to cities, towns, villages, counties, and New York City boroughs.

Workplace EVSE and PEV Incentives: NYSERDA is offering employers in the greater New York City region an $8,000 rebate per dual-connector EVSE installed. Employees of organizations that receive the rebate are eligible for a $500 rebate toward the purchase or lease of a qualified PEV.

HOV Lane Exemption

PEV Toll Discount Program

HEV Taxicabs: By February 3, 2019, the New York City Taxi and Limousine Commission must approve one or more HEV models for immediate use as a taxicab by medallion owners.

EV Supply Equipment (EVSE) Policies and Incentives

EVSE Rebate: available to public and private entities for installations at public parking facilities, workplaces, and multi-unit dwellings.

Alternative Fueling Infrastructure Tax Credit:
PEV and Charging Infrastructure Support: The New York Power Authority's EVolve NY program has allocated up to $250 million to support PEVs and address charging infrastructure gaps throughout the state.

PEV Charging Tariff: Each investor-owned utility selling electricity was required to file a tariff with the NYPSC by April 1, 2018, to allow a customer to purchase electricity solely for the purpose of charging a PEV. The utility must make the tariff available to customers within 60 days of PSC approval.

Electric Corporation Definition: PEV charging stations are not defined as electric plants and owners and operators of charging stations are not defined as electric corporations. The PSC does not have jurisdiction over publicly available PEV charging stations, the owners and operators of the stations, or the transactions between the owners and operators of the stations, as long as the owners and operators do not fall within the definition of an electric corporation.

Governor Andrew M. Cuomo announced in February 2019 that New York is making up to $31.6 million available to ramp-up the expansion of electric vehicle fast charging stations. The plan was approved by the NYPSC and will leverage existing NYSERDA and NYPA funds.

Oregon

EV Policies and Incentives

Support for PEV Adoption: In order to support the state goal of at least 50,000 PEVs registered and operating in Oregon by 2020, the ZEV Working Group will develop goals and progress metrics for PEV adoption. The Working Group will aim to remove barriers to PEVs and PEV charging stations, and establish a website to share information about their efforts with the public.

PEV Rebate: available to residents, businesses, non-profit organizations, and government agencies.

Establishment of Recognition Programs for PEV Adoption: The ODOE must design and establish Governor's Awards for automobile dealerships to encourage sales of PEVs. ODOE must also design and establish Governor's Awards for businesses and organizations that support PEV adoption through installing charging infrastructure and using PEVs in their fleets.

Support for Zero-Emission Buses: ODOE, with ODOT, the PUC, the DEQ, and the Department of Education, must develop tools and provide assistance to school districts and transit agencies about using zero-emission bus options.

AFV Acquisition, Fuel Use, and Emissions Reductions Requirements: All state agencies and transit districts must purchase AFVs and use alternative fuels to operate those vehicles to the maximum extent possible, except in regions where it is not economically or logistically possible to fuel an AFV. DAS and ODO) must improve the PEV bulk procurement process to reduce costs for state agency PEV purchases. DAS must develop a “LEV First" policy to encourage state employees to use PEVs or other LEVs in the state fleet. DAS and ODOE must also develop a tool to calculate the long-term return on investment and life-cycle costs of PEVs to inform agencies of potential cost savings. In addition, DAS must inform and support legislative changes that enable increased charging infrastructure and state agency PEV purchases.

EV Supply Equipment (EVSE) Policies and Incentives

Mandatory EVSE Building Standards: The Oregon Department of Business and Consumer Services, Building Code Division, must amend the state building code to require that all newly constructed residential and commercial building parking structures can support the installation of at least one level 2 EVSE by October 1, 2022.

State Agency EVSE Installation: State agencies may install publicly-accessible EVSE on their premises or contract with a vendor to do so. The Oregon Department of Administrative Services (DAS) will establish criteria to determine the appropriate number of locations for EVSE at each agency. DAS must add PEV charging capacity for employee and public visitor parking lots, develop contracts to procure and install charging infrastructure, and incorporate PEV charging as a tenant improvement for state-leased buildings.

Electricity Provider and PEV Charging Rate Regulations: Regulated electric utility tariffs must explicitly permit customers to resell electricity for use as a motor fuel, as long as the entity is not considered a public utility as defined in Oregon Revised Statutes 757.005 and does not provide any utility service. Additionally, each regulated electric utility must provide customers with a choice of flat rate or time of use electricity rates specific to PEV owners. Finally, an investor-owned utility can own and operate PEV charging equipment using its own funds or petition the OPUC for rate recovery.

Rented Commercial Property EVSE Installations: The tenant of a commercial space may submit an application to install EVSE for the use of the tenant, employees of the tenant, and customers of the tenant. Unless the premises does not have at least one parking space per rental unit, the landlord must approve a completed application no more than 60 days after the tenant submits the application. In the absence of a different tenant-landlord agreement, the EVSE will be personal property of the tenant.

Planned Community and Condominium EVSE Installations: The owner of a lot in a planned community or unit in a condominium may submit an application to install EVSE for their personal use in a parking space subject to the exclusive use of the owner. The HOA must approve a complete application within 60 days. The owner is responsible for all costs associated with the EVSE installation and use, must disclose the existence of the EVSE and related responsibilities to a prospective buyer, and must ensure that the infrastructure meets insurance and safety requirements. EVSE installed under these regulations on or before June 4, 2015, is considered to be the personal property of the lot or unit owner with which the EVSE is associated, unless the owner and HOA have negotiated a different outcome.

Rhode Island

EV Policies and Incentives

AFV and ZEV Acquisition Requirements: at least 75% of state motor vehicle acquisitions must be AFVs, and the remaining 25% must be HEVs to the greatest extent possible. By 2025, 25% of state motor vehicle acquisitions must be ZEVs.

EV Supply Equipment (EVSE) Policies and Incentives

EVSE and PEV Rebates: The Charge Up! program provides rebates to state and municipal agencies for the purchase and installation of publicly accessible Level 2 or DC fast chargers. Agencies that install EVSE also qualify for up to $15,000 to support the purchase or lease of a new PEV acquired on or after July 1, 2016, as part of their public sector fleet.

Vermont

EV Policies and Incentives

PEV Incentive: provides financial incentives to low- and moderate-income residents for the purchase or lease of a new PEV.

Heavy-Duty Vehicle Emissions Reduction Grants: Through the Vermont Diesel Emissions Reduction Grants Program, the Vermont Department of Environmental Conservation provides funding to local, state and regional agencies or departments, businesses, institutions, and nonprofit organizations for projects focused on reducing emissions from diesel engines and vehicles. Qualifying heavy-duty vehicles include buses and Class 5-8 trucks. Projects eligible for funding include alternative fuel conversions and certified vehicle or equipment replacements.

HEV and PEV Acquisition Requirements: Effective July 1, 2019, the Vermont Department of Buildings and General Services must, to the extent possible, purchase or lease HEVs or PEVs for state use. At least 50% of the vehicles purchased or leased annually must be HEVs or PEVs. Beginning July 1, 2021, at least 75% of the vehicles purchased or leased annually must be HEVs or PEVs.

PEV Analysis: The PUC must evaluate PEVs and PEV charging in the state. The Commission must provide public notice, opportunity for submission of written comments, and one or more workshops on PEVs during the course of its evaluation.

EV Supply Equipment (EVSE) Policies and Incentives

EVSE Grants: available to governments, businesses, non-profit organizations, homeowner associations, electric utilities, and EVSE providers.

Alternative Fueling Infrastructure Incentive: The Vermont State Infrastructure Bank (SIB) offers loan assistance to municipalities, regional development corporations, political subdivisions of the state, and private companies working for the state to finance public electric vehicle charging and natural gas fueling stations.

Public Utility Definition: An entity that supplies electricity to the public exclusively to charge plug-in electric vehicles is not defined as a public utility and may charge for this electricity by the kilowatt-hour.

EVSE Fee Authorization: Effective July 1, 2019, any Vermont agency or department that owns or controls EVSE may establish and set user fees.

EVSE Code Reporting: On or before December 1, 2019, the Vermont Agency of Agriculture, Food and Markets (Agency) must submit a report to the legislature that provides an update on the National Institute of Standards and Technology's (NIST) progress toward adopting a code on EVSE and makes a recommendation for an annual licensing fee for EVSE available to the public. If NIST has not adopted a code on EVSE by December 1, 2020, the Agency must submit an additional report on or before that date which provides an update on NIST's progress toward adopting a code.

Washington

EV Policies and Incentives

Alternative Fuel Commercial Vehicle and Fueling Infrastructure Tax Credit: Businesses are eligible to receive tax credits for purchasing new alternative fuel commercial vehicles and installing alternative fueling infrastructure.

PEV and Fuel Cell Electric Vehicle (FCEV) Infrastructure and Battery Tax: Public lands used for installing, maintaining, and operating PEV infrastructure are exempt from leasehold excise taxes until January 1, 2020. Additionally, the state sales and use taxes do not apply through July 1, 2025 to PEV and FCEV batteries or fuel cells; labor and services for installing, repairing, altering, or improving PEV and FCEV batteries or fuel cells and PEV and hydrogen fueling infrastructure; the sale of property used for PEV and hydrogen fueling infrastructure, and the sale of zero emission buses.

AFV and EV Retail Sales Tax Exemption

PEV Promotion and Infrastructure Development: Any regional transportation planning organization containing a county with a population greater than one million must collaborate with state and local governments to promote PEV use, invest in PEV charging infrastructure, and seek federal or private funding for these efforts.

AFV Car Share Pilot Program: WSDOT will develop a pilot program to provide AFV use opportunities to underserved and low-income communities and to those without easy access to transportation corridors.

AFV Technical Assistance and Education Program: The Washington State University Energy Program will establish and administer a technical assistance and education program on the use of AFVs for public agencies, including state and local governments.

EV and FCEV Low Income Opportunity Study: The Washington State Department of Commerce must conduct a study to identify opportunities to reduce barriers to EV and FCEV adoption by lower income residents through the use of vehicle and infrastructure financing assistance.

Alternative Fuel Use Requirement: All state agencies must, to the extent practicable, use 100% biofuels or electricity to operate all publicly owned vehicles. Agencies must prioritize EVs when leasing or purchasing new vehicles, and all trips that may feasibly use EVs must employ them.

EV Supply Equipment (EVSE) Policies and Incentives

Alternative Fueling Infrastructure Funding Program: WSDOT has developed a pilot funding program to strengthen and expand the West Coast Electric Highway network by deploying DC fast charging infrastructure along highway corridors in Washington.

Utility EVSE ROI Incentive: Utilities may petition the UTC for a rate of return on EVSE installed for the benefit of ratepayers through 2030.

Green Transportation Grant Program: WSDOT will establish a grant program to fund projects including fleet electrification, modification or replacement of facilities to facilitate fleet electrification and hydrogen fueling, upgrades to electrical transmission and distribution systems, and construction of charging and fueling infrastructure. In order to receive funding for a project, a transit authority must provide matching funding that is at least equal to 20% of the total cost of the project.

PEV Charging Regulation Exemption: The UTC may not regulate the rates, services, or facilities of an entity that offers charging facilities to the public for hire. The exemption does not apply if the entity is otherwise subject to UTC jurisdiction as an electrical company, or if an entity's battery charging facilities and services are subsidized by any regulated service. A utility may offer charging facilities as a regulated service, subject to UTC approval.

PEV Charging Infrastructure Availability: Publicly and privately owned PEVs may charge at state office locations if the vehicles are used for state business, conducting business with the state, or as commuter vehicles. Additionally, contingent upon funding, the state must install electrical outlets suitable for charging PEVs in each of the state's fleet parking and maintenance facilities as well as every state-operated highway rest stop.

Local Government PEV Infrastructure Requirements: Jurisdictions must develop regulations to allow the use of PEV infrastructure in all areas except critical areas or areas zoned for residential or resource use.

EVSE and Battery Exchange Station Regulations: State and local governments may lease land for installing, maintaining, and operating EVSE or electric vehicle battery exchange stations for up to 50 years for at least $1 per year. Additionally, the installation of battery charging and exchange stations is categorically exempt from the Washington Environmental Policy Act.

HB 19-1512: Allows municipal utilities to adopt transportation electrification plans. Regulated utilities may adopt plans that provide EV charging equipment incentives and support for other transportation electrification programs. Utility Electric Transportation Plan Authorization: The governing authority of a utility or a regulated electric utility, with the approval of the UTC, may adopt an electric transportation plan that proves that utility outreach and investment in the electrification of transportation infrastructure does not increase net costs to ratepayers in excess of 0.25%. The governing authority or the UTC may consider items such as the impact of electrification on the utility's load, demand response and load management opportunities, system reliability and distribution system efficiencies, and interoperability concerns. Upon making this determination, electric utilities may offer incentive programs for customers.

From: Michael Northrop
Sent: Friday, July 19, 2019 10:11 PM EDT
To: kate.gordon mary.nichols
zach.pierce will.toor ; katie.dykes
; leo.r.asuncion Hannah.Pingree
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; dale.bryk ; nik.blosser
; janet.coit peter.walke
>; chris.davis reed.schuler
; Deborah Burke ; Ritter Jr,Bill ; Cummins,Patrick
>; jcorvidae
cfrisch katie.mccormack ;
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; pamalloy < >; Barbara.Panebianco
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jennifer.j.andrew <jennifer.j.andrew ; Suzanne.Amerault
; Hartzell,Wendy ; eda.lee
Subject: Pocantico States Meeting: A Big Thank You and some very Summary Notes

I'm still absorbing the conversation, but suffice it to say, it was great!
I'll be offline for the next week, and before I vanish I wanted to say a huge thank you for your time this week at Pocantico
It was a privilege to be with you. What an impressive group of smart dedicated people you are.
THANK YOU!!
Thanks also to Bill and Patrick and Carla and Jacob and Joe for all the organizing and facilitating you did before and during the meeting.
THANK YOU!!
Some of you, including Katie McCormack, Carla Frisch, and Patrick Cummins took excellent notes. Patrick is going to share a merged version so we are sure to capture all the nuance of the conversation.
THANK YOU!!

My own, top line, incomplete notes are attached, if only to keep the conversation top of mind until the complete notes get circulated. Apologies in advance for everything I've glossed over and misrepresented.

Please let me know how I can help with next steps.

Have a great weekend.

Here are the nuggets that pop out of my notes:

Climate Policy
**States would benefit from an guiding climate act like the U.K. has, like California has (AB 32)

Transportation
** States want a vision for transportation policymaking that includes land use, transit, biking, walking, EV's and technology
** States are looking forward to a next steps proposal on vehicle standards they can subscribe to
** States should jointly demand Uber and Lyft data to guide policymaking
** The NGA offers a good opportunity for constructive bipartisan conversation on transportation; Gov. Hogan is eager to lead
** TCI is advancing
** PCC (CA, OR, WA, BC) cooperation along west coast is a regional model for EV deployment

Natural Gas
** States need a road map for how to get off natural gas (Katie Dykes)
** There's an opportunity to understand all the rules and incentives that preference gas and unwind them
** Buildings may be the best first target for moving beyond gas

Oil and Gas Methane Rule
** CO, NM, CA are blazing the trail on methane regs for the 10 oil states; these could become virtual or actual national policy
** Producer states need continuous monitoring of methane leakage
** Certifying no-methane-leak natural gas could be useful
**On the customer side of the pipes, states need programs to plug methane leakage; one estimate has Boston's system leaks 6%

Buildings
** States could adopt net zero codes for new construction; CA's net zero building codes are a model
** States need mandatory disclosure rules to design rules for building efficiency
** WA state's recent legislated retrofit rules for large building are a model way forward; NYC has taken a similar, more aggressive approach
** A benefits analysis like what RMI did for NYC helps make the case for retrofit policies: investment, jobs, $$ savings, and GHG savings numbers are Yuge
** Rules to require low carbon materials for all new buildings and infrastructure, including for steel, cement, wood and glass are good economics, good politics, and great climate policy
** States can adopt existing appliance standards
** Air Source Heat Pumps are a critical appliance states could collaborate on; cities have started this conversation; a big impact on gas in buildings

Working Lands Sequestration
** Climate Alliance has made strides in this area; Rhode Island excited about their approach; CA prioritizing this: resilience and fire are drivers
** State approaches to natural lands carbon sequestration that offer economic benefits to farmers and forest owners will improve climate politics

HFCs
** Adopting the SNAP rules is easy to do says Reed Schuler: corporate support, low or no opposition, big climate benefit

Working with Cities
** Cities have made progress on many of these issues: leadership cities and leadership states could help each other

NGOs and Donors
** There is a gap between NGO/Donor interests and the needs of states; making the case and communicating it is required

Federal Policy
** We have 18 months to be shovel ready for 2021; States can help create model approaches for federal action

Global
** States have an important role as influencer in multilateral climate negotiations over the next 18 months: Georgetown and the Climate Registry are ready to assist states that want to participate at COP 25 and COP 26 in Santiago and London

From: Michael Northrop
Sent: Monday, July 15,
mary.nichols
zach.pierce ; will.toor ; katie.dykes
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>; ben.grumbles
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bcrowell ; kathleen.frangione
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; dale.bryk ; nik.blosser
anet.coit peter.walke
; chris.davis ; reed.
; Michael Northrop ; Deborah Burke ; Ritter Jr,Bill
Cummins,Patrick ; jk2128
jcorvidae < ; cfrisch <
katie.mccormack ; asteer
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; nancey.steinheimer
Carmen.Colon shanell.k.feliciano
kathy.bishop victoria.s.grimes
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Hartzell,Wendy eda.lee <
Subject: Pocantico States Meeting July 17-18: 1 Background Note, 2 Leading Edge State Policy Options, 3 Summary of Existing State Policies, 4 Transportation and EV Policy Table; List of Attendees
Attachment(s): "1 Background Note for July 17-18.docx","2 Leading Edge State Policy Options.docx","3 Summary of Existing State Policies.docx","4 Transportation and EV Policy Table.docx","List of Attendees.pdf"

Attached are 1) a revised background paper, 2) a "map" of high ambition policies being enacted broadly by subnational jurisdictions (prepared by Rocky Mountain Institute), and then two documents: 3) and 4) on the policies that participating states have enacted. #4 is just transportation policies (these last two documents were prepared by Colorado State).
Please review them and bring questions and comments. (You may want to print these out and review them as you are traveling to Pocantico.)
It's a lot and won't all be discussed at this meeting; These are meant as a resource to be mined for good ideas and updated going forward.
We anticipate a quick conversation Thursday morning about the three policy documents (#2, #3, and #4).
Then we will dive into two particularly challenging areas -- transportation and natural gas -- for most of the morning.
We're going to insert a conversation about buildings too before lunch.
At lunch we'll have 3-4 table discussions with report backs to the group.
After lunch we'll have 2 hours of discussion about ways states can help each other, joint approaches, and next steps.
We know it's a jammed agenda.
Please bring your best ideas. We want the cream to rise to the top of each part of the conversation, and will be asking each of you to weigh in with specific ideas and lessons where you have them. Let us know in advance if there is something you want to be sure gets presented in the transport, natural gas and buildings sections of the agenda. If you know you are going to be part of one of the table conversations, please bring handouts, links, etc. if you can gather them up in time for the discussion.
We know each of these conversations will continue in a variety of fora going forward. We have three excellent state-focused groups in the room that will be future resources to you. There are other critical organizations like the Climate Alliance, who want to help push these discussions forward too.
We'll send around a next draft of the agenda on Tuesday.
Thanks again for being part of this discussion.

MEMORANDUM

To: **Pocantico Participants**
Subject: **Accelerating State Action on Climate Change**
July 17-18, 2019

The 2018 elections brought forward a new group of state leaders – governors, legislators, policy makers, and agency officials – committed to reducing greenhouse gas emissions in their states. This new group of state leaders joins those of you who have been leading the charge for a decade or more. We are thrilled that so many of you are able to join us for this event where we will discuss ways to accelerate state action and ensure that the progress being made by U.S. leadership states is recognized and understood across the U.S. and at a global level.

While our time together at Pocantico is short, we hope to address each of the following topics:

- What are the leading edge clean energy policies and GHG reduction programs being enacted and implemented by U.S. states? Our discussion will focus especially on transportation, natural gas, and buildings.

- How can this group of state leaders support each other and also work together to bring other states into the fold? Can states do more to drive bipartisan approaches to climate actions?

- Can states working together accelerate market creation for cleaner vehicles, non-gas solutions like air source heat pumps, and other appliances?

- What steps can states be taking over the next 18 months to show the way forward for a next federal administration that supports clean energy and climate action?

- How can we ensure that leadership state voices (alongside other subnational leaders) offer encouragement to multilateral climate negotiations in the run-up to COP 26 in December 2020?

With these questions in mind, we will kick things off on Wednesday night with a discussion of the state of play in the international climate negotiations. Dr. Andrew Steer, President and CEO of the World Resources Institute will join us for that conversation. We want to understand where the U.S. needs to be in order to play a constructive role in international discussions.

This has bearing on what level of ambition states must aim for. Kathleen Frangione, Chief Policy Advisor to New Jersey Governor, Phil Murphy, will describe the ambitious Paris-aligned approach her state has taken since Governor Murphy took office last year, how it has been framed, and how it has gathered momentum. We then want each of the participating states to weigh in on how they are thinking about

this. We want to get lessons, good ideas, and questions on the table to help frame our conversation on Thursday. A core concern is how to get the politics right in order to maintain forward momentum.

Thursday morning, we will start with a rapid-fire review of the high ambition policies states are implementing to get to net zero carbon. *(Prior to the meeting, we will send two sets of background material. One set, prepared by Colorado State University, will lay out the specific policies each state in the room has enacted, and another document, prepared by the Rocky Mountain Institute, describes leading edge policies being enacted even more broadly sector-by-sector.)*

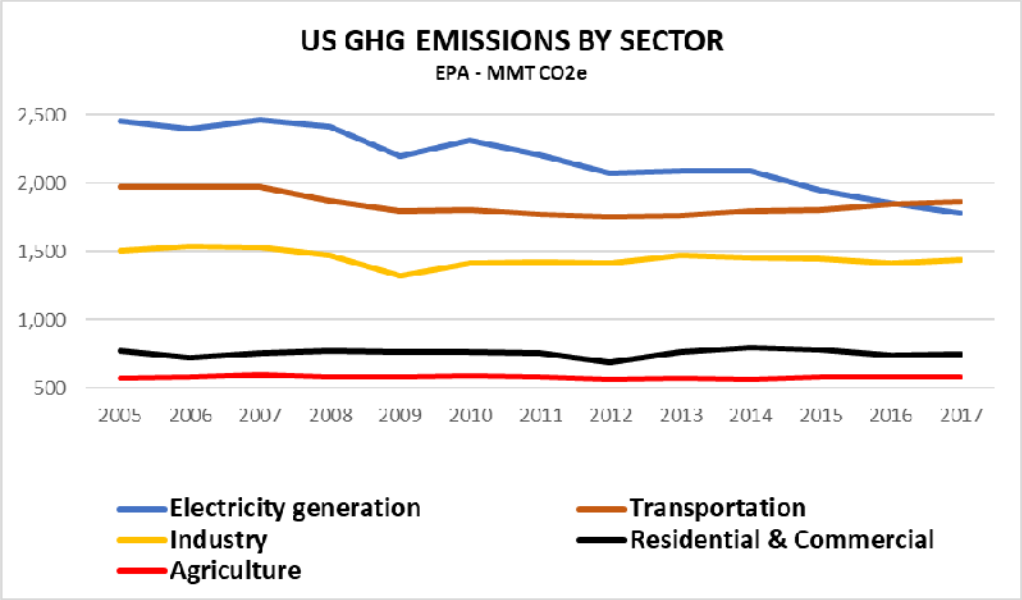
Rather than reviewing the full suite of leading-edge policies in detail, we plan to spend the morning before lunch focusing in on a few key policy challenges: transportation, natural gas, and buildings.

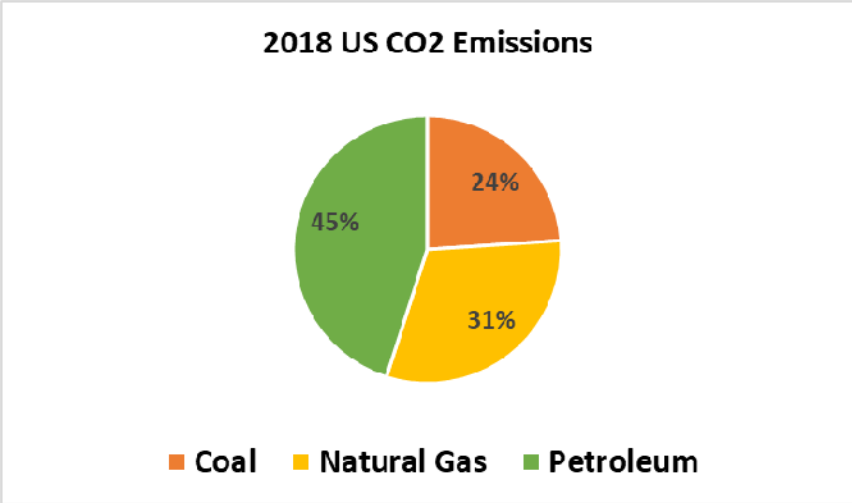
Over lunch we plan 3-4 table discussions and report outs to the group.

In the afternoon, we will tackle several questions, including how best to encourage other states to enact leadership policies, how states can work together with cities and business, how to use state action to lay the groundwork for ambitious federal policy as soon as 2021, and how to make state, and other subnational, voices present during a string of important upcoming international climate meetings in 2019 and 2020.

Below is some context to help us frame the policy conversations on Thursday.

Transportation. We will begin with a conversation on how to meet the challenge posed by emissions from the transportation sector. As we all know by now, the transportation sector has surpassed the electricity sector as the largest source of GHG emissions in the US. In 2018, emissions from the combustion of petroleum products were almost twice that of coal. Moreover, while emissions from coal continue to decline, emissions from the transportation sector have increased each year since 2012.





Vehicle Standards. Front and center in the discussion of how to reduce emissions from the transportation sector is the pending rollback of federal standards and the potential revocation of California's waiver, which would impact many of your states. We are fortunate that Mary Nichols will be with us to lead this discussion and help all the states in attendance figure out how you can work together to protect the progress you've made in this area.

Other Transportation Strategies. While each state in the room has some policies and programs in place to incentivize electric vehicle purchases and charging infrastructure, some states are going farther. A group of Northeast states is evaluating a market-based approach to reducing emissions from the transportation sector (Transportation Climate Initiative), while California and Oregon both have a low-carbon fuel standard. Pacific Coast Collaborative states have also been working on linking charging infrastructure along the west coast. Strategies to reduce VMT, invest in transit, and manage land use are also relevant to this discussion. We will ask participating states to share their ideas for additional policies and programs to drive down emissions from the transportation sector.

Electricity. To date, states have had the greatest success in reducing emissions from the electric power sector. This is an area where states have a number of effective policy options, like renewable portfolio standards/clean energy standards, and you have used these policies to achieve substantial CO2 emissions reductions from the electric power sector over the last 10 years (-30% nationwide). Building on this success, you are moving to achieve even more progress with many states and utilities setting aggressive near-term targets for renewable energy, along with the long-term goal of 100% clean energy. What challenges are emerging and how can states successfully implement these bold electricity goals?

Natural Gas. One of the primary challenges to deep de-carbonization of the electric power sector is the reliance on natural gas as the replacement for coal. On the Eastern grid, coal generation has fallen by almost half over the last ten years, but 75% of that has been replaced by natural gas generation. Sixty percent of electricity power in California is natural gas. We will review the current landscape of state policies for clean and renewable electricity, share ideas for next steps, and then discuss how you can work together – and with other states/regions – to make continued progress on the transition to a clean electric power sector.

Buildings. Residential and commercial buildings and industry are source categories where emissions have leveled off even as square footage has increased, but where steep reductions have not yet begun.

We will discuss what states are currently doing to transition buildings to clean energy, and then identify what options exist for states to expand their policies and programs in areas like net zero building codes, mandatory disclosure, mandatory retrofits, and electrification of heating and cooling (much of which is currently powered by gas).

Industrial Sector. Reducing emissions from the industrial sector poses a set of challenges similar to those associated with buildings, including continued reliance on natural gas as a primary energy source.

Methane and HFC's. Some states are also dealing with very significant methane emissions problems associated with oil and gas production, and from industrial livestock operations. States also have a chance to reduce methane leaks from aging residential heating infrastructure. Some states have also taken action on eliminating HFC's, and since methane and HFC's are super greenhouse gases, progress in the near-term can be extremely meaningful.

Land Use based sequestration and resilience is an additional category we hope to make some time for over lunch. Climate Alliance states have taken some actions here that we can learn from. California is wrestling with land-based resilience as emissions from fires become a major hazard as well as emissions source.

If there is demand, we will check in on **Carbon pricing** programs over lunch as well. The U.S. Chamber of Commerce and the oil sector have said they are open to carbon pricing. Recent state attempts to enact carbon pricing in Washington, Oregon, and Virginia offer lessons we should consider as well.

BACKGROUND MEMORANDUM

To: **Pocantico Participants**
Subject: **Leading Edge Policy Priorities**
July 17-18, 2019

This memo includes examples of sector-specific states policies that will significantly reduce, or put states on a path to significantly reduce, greenhouse gas emissions. In particular, the policy priorities listed here are can be addressed by states through collective action.

Several of these topics are covered in existing US Climate Alliance working groups. This list and the Pocantio meeting are meant to support those and other existing workstreams, in particular by providing an opportunity to think about how to amplify ambition. The state examples included in this document are by no means exhaustive, rather they are intended as a sampling to spur ideas. For additional examples, see the Carbon-free Regions Handbook or the Fulfilling America's Pledge report.

Context:
Overall, natural gas now emits more greenhouse gases than coal in the United States and emissions from petroleum combustion are almost twice that of coal. At the same time, new estimates of methane leakage from natural gas systems indicate the impact may be larger than previously understood, especially considering that most inventories are based on the 100-year global warming potential of natural gas at 25X, not the 20-year potential of 84X. *The top line Challenge-Opportunity is to move away from the use of natural gas in buildings as a first priority, then electricity, and industry, while simultaneously moving quickly to move transportation systems off petroleum.*

We are well past the point of using natural gas as a transition fuel, and new policies and programs should explicitly avoid further "lock-in" investments like natural gas fueled municipal buses or energy efficiency funding for natural gas equipment. Biogas or "renewable" natural gas have the potential to replace a small portion of existing natural gas demand and should be reserved for high value uses, in particular uses that cannot be electrified. In this memo, policy opportunities to reduce and eliminate petroleum and natural gas are embedded under sector headings.

Transportation: electrification and efficiency, including through standards

- Establish a top-level transportation goal and work with key stakeholders to develop an inclusive, sustainable transportation roadmap that aligns with the state's (or region's) climate action goals and includes best practices, implementation strategies, and a clear path forward. Be sure to include medium- and heavy-duty vehicles.
    - For example, the 12 northeastern states in the Transportation and Climate Initiative (TCI) are exploring regional solutions to accelerate EV deployment.
    - Hawaii, Colorado, Minnesota, and Tennessee have recently adopted electrification roadmaps that identify implementation strategies for increased EV adoption in 5 to 10 years.
- Enable smart mobility by integrating transportation policy with land-use policy.
    - Minneapolis banned single-family zoning across the entire city, enabling more compact and mixed-use development to be built.
    - Denver's Transit Oriented Development Strategic Plan outlines implementation steps, policy recommendations, and a monitoring system for development around city rail stations. New Jersey's Transit Village Initiative offers logistical and financial incentives for municipalities that revitalize areas around transit stations using principles of Transit Oriented Development.
    - New York City and Los Angeles are investigating the implementation of congestion pricing for high-traffic urban areas, building on schemes underway in London and Stockholm. Los Angeles has made a massive, multi-year commitment to building transit: Measure M.
    - California's SB375 uses a regional transportation planning process; California recently replaced "level-of-service" with "vehicle miles traveled" as the environmental impact evaluation metric for transportation plans and projects.
- Establish statewide electric vehicle adoption requirements with near-term benchmarks and implement market enablers that drive adoption.
    - Set zero-emission vehicle (ZEV) targets that increase over time, providing directional guidance to automakers, bus, and truck manufacturers. 9 states (CA, CT, ME, MD, OR, NJ, NY, RI, and VT), representing one-third of the US automobile market, have adopted ZEV mandates.
    - Connecticut and Vermont offer significantly reduced EV registration fees.
    - Seattle, Los Angeles, New York City, and Washington DC have committed to fully electrified bus fleets (by 2020, 2030, 2040, and 2045 respectively).
- Provide incentives or programs to support low-income electric vehicle adoption.
    - Washington and Oregon offer tax credits for used EV purchases. Los Angeles, CA offers low-income residents the ability to participate in a zero-emission carshare program.
- Continue to support clean car standards that enable increased efficiency, and in the longer term, advocate for standards that require electrification.
    - 14 states have adopted California's aggressive vehicle emissions standards.
- Build on and update existing low carbon (CA, OR) and alternative fuels standards (WA, MN, MO, LA, PA, HI, OR) where they exist. For new policies, work towards the next generation of clean

fuel standards that prioritize clean electricity as a fuel source while aggressively decreasing the carbon intensity of difficult-to-electrify heavy-duty transport, shipping, and aviation.

- Remove barriers to building out charging infrastructure and work with public utility commissions to reassess regulatory approaches to pricing and vehicle-grid integration.
    - Vermont and Washington's new building codes require EV make-ready infrastructure and parking spaces.
    - California's SB 350 provides guidance and direction towards utilities on participating in electrifying transportation.
    - Pacific Gas & Electric and Southern California Edison offer lower rate pricing for non-residential EV charging customers that charge during off-peak hours.
- Continue to cooperate on education and awareness.
    - "Drive Change. Drive Electric" is a joint effort by NY, CT, MA, NH, RI, VT, and NJ and 16 global automakers to promote the benefits of driving EVs, incentives available for purchasing, fuel cost savings, and charging locations.

Electricity

- For those that have not yet done so, set 100% clean energy goals through a Renewable Portfolio Standard or Integrated Resource Planning requirements, and work with the state legislature to allocate resources to support achieving the goal.
    - Hawaii, California, New Mexico, Washington, Puerto Rico and the District of Columbia have all enacted a legally binding 100% clean electricity standard. Nevada enacted a non-binding 100% clean electricity goal, and the Colorado legislature has passed a 100% goal applicable to Xcel Energy.
- Retire coal plants and reject plans for new coal plants, including through using securitization to deal with any remaining debt for plants.
    - Xcel Energy, a utility serving Colorado, Michigan, Minnesota, New Mexico, North Dakota, South Dakota, Texas, and Wisconsin, has committed to going 80% carbon-free by 2030 and 100% carbon-free by 2050. Part of this initiative includes accelerating the retirement of its last two coal plants in MN to conclude by 2030.
- Retire natural gas plants and, where possible, reject plans for new natural gas plants as well as pipeline infrastructure. Require carbon capture and sequestration on natural gas plants.
- Support responsive grid planning that puts distributed energy resources on an equal footing with other generation sources.
- Support utility and rural coops as they work on clean electricity deployment, e.g. https://beneficialelectrification.com/
- Reduce barriers to deploying small and medium-scale solar PV by replacing the existing permitting system with an automatic online registration system.
- For states that have not done so already, join wholesale utility markets to take advantage of market efficiencies as well as trade electricity more seamlessly with other locations.

Buildings: Electrification (reduce/eliminate the direct use of fossil fuels in buildings) and efficiency

- As a minimum, adopt or encourage localities to adopt the 2018 international building codes. As a next step, consider more advanced options including stretch codes and net zero codes (see below).
- Implement aggressive appliance efficiency standards which help save consumers money. Where possible, focus on enabling fuel switching from gas to electric appliances (e.g. for heating and cooling).
- Engage with key stakeholders to build a strong, inclusive and durable vision and plan for decarbonizing both public and private buildings, including setting clear timelines that align with state's climate goals.
    - New York state policy directs its utility regulator to pursue decarbonization and Massachusetts state energy plan acknowledges the need to increase electricity use in home heating.
    - California set a goal to reduce emissions from buildings by 40% and double energy efficiency by 2030.
- Ensure new buildings are all-electric through building codes or other authorities. All-electric new construction is already more cost-effective than construction with natural gas.
    - Arcata, CA and some small towns in upstate New York have all-electric policies. Berkeley, CA and Alameda, CA are in progress on all electric.
    - Rhode Island released a new Executive Order to transform the heating sector.
    - Oregon and Colorado are discussing net zero building codes. California has zero net energy codes and goals: all new residential construction will be net zero by 2020, and all new commercial by 2030. California also offers some incentives to make homes all electric.
    - The Architecture 2030 Challenge has a strategy for all new construction and renovations to be built to a zero net carbon standard starting in 2030 and a roadmap for 100% of buildings to achieve zero emissions by 2050.
- Begin orderly retrofit of existing buildings, starting with aligning incentives and programs with climate goals and focusing on existing replacement schedules.
    - Led by the rural coops, Minnesota is working through energy efficiency resource standards (EERS) redesign to allow fuel switching.
    - New York State has established a requirement that utilities achieve a portion of their required energy efficiency savings through deployment of heat pumps in over 80,000 homes. Massachusetts set a non-binding target for 500,000 homes to adopt heat pumps by 2030.
    - Vermont has an RPS that includes moving away from direct use of fossil fuels.
    - 50% of California's commercial buildings will be retrofit to zero net energy by 2030, and 50% state building renovations will be zero net energy by 2025.
- Stop expanding the gas distribution system and start planning for a staged transition.
    - California PUC has opened a proceeding to begin crafting a policy framework surrounding decarbonization of buildings.
- Assess the medical and other costs associated with burning of gas and other fossil fuels in our buildings, including the indoor and outdoor air quality impacts, and implement programs to eliminate such burdens.

- Australian researchers estimated that gas stoves were responsible for 12.8% of that country's heavy asthma burden.
- John Hopkins researchers recommend replacing gas stoves in homes where there are asthmatic children.
- Burning fossil fuels in California's buildings emits 3-4 times more NOx than the state's power plants.

Industry

- Establish emissions standards that require the installation of carbon capture and sequestration on high-emitting industrial facilities, while deploying financial incentives and support for industry to adopt electrified technology for processes where feasible and commercially available, and defray capital costs related to fuel-switching.
- Direct public utility commissions to work with state utilities to: implement or update energy efficiency resource standards (EERS) to specifically target energy-intensive facilities, develop new rate designs for industrial customers, and engage in long-term energy planning that considers increased transmission and distribution infrastructure for electrifying industries.
- Allocate R&D investments in support of industrial process/product redesign, identifying electric/low-carbon alternative manufacturing processes, and enhanced material efficiency.
- Consider applying carbon pricing schemes to industrial facilities to incentivize continuous improvement and investment in efficiency and lower-emitting technologies, while accounting for the heterogeneity of industrial actors.
    - California's cap and trade program includes high-emitting (>25,000 tons CO2e/year) industrial facilities and allocates part of the program revenues towards a utility bill credit for proactive facilities that have reduced their energy and emissions intensities.
    - States can encourage companies to adopt internal carbon prices for planning purposes, a practice which has helped update the operations of several companies.

Super-polluting Methane and Hydrofluorocarbons (HFCs)

- In the short term, work on stopping methane leaks throughout the supply chain, primarily through enhanced leak detection and monitoring technologies. Over time, while moving toward electrification, eliminate downstream gas distribution pipelines.
    - State-level standards like Colorado's and California's standards go beyond federal standards by covering not only new and upgraded equipment, but also existing, high-emitting sources. They require operators to conduct periodic reviews of equipment to catch and repair methane leaks (America's Pledge (AP) 2018). Several other states have taken action.
    - California's AB 1496 requires the identification and monitoring of methane hot spots. California and other states meet these requirements through satellite remote sensing, flyovers, ground verification, and regional inventory analysis. These observations inform the development of methane control programs.
- Promote methane capture from livestock waste in the agricultural sector as well as from wastewater treatment facilities.

    - California's SB 1383, which, along with HFC targets, established a target to cut methane emissions by 40%, including methane from manure management, and direct funds to programs that support installation of dairy digesters and other methane reduction tools and strategies. CA also credits methane abatement as an offset under its cap-and-trade program. (AP 2018)
    - Washington, D.C., installed biodigesters at its Blue Plains water treatment facility and used the captured methane to supply 50 megawatts of power. (AP 2018)
    - Biomethane can be used to meet California and Oregon's LCFS.
- Reduce fugitive methane emissions from landfills by promoting policies that divert waste from landfills and incentivize biomethane capture
    - Rhode Island, New York, Massachusetts, California, Vermont, and Connecticut have set statewide goals to divert solid waste from landfills.
- Adopt state SNAP standards to reduce HFCs.
    - California adopted regulations requiring a 40% reduction in HFC emissions below 2013 levels by 2030, consistent with the EPA's original vacated rules. Connecticut, Maryland, and New York announced their intent to regulate. Vermont passed legislation calling on executive agencies to develop regulations, and Delaware announced they would do the same. (AP 2018)
- Begin to address existing sources of HFCs, for example by partnering with businesses and manufacturers that are already transitioning away from HFCs or incentivizing businesses and residences to switch to HFC alternatives.
    - For example, in EPA's GreenChill program supermarket chains have committed to reducing their HFC emissions.

Land Use

Land use solutions are unique to each state but follow the principle of sequestering as much carbon as possible. Those listed here are from Fulfilling America's Pledge 2018:

- Establish state-level programs that engage state and local governments, businesses, and communities in improving forest management, tree cover expansion, and soil health.
    - For example, Pennsylvania's Working Woodlands program accelerates large-scale forest protection and sustainable management by offering a new value proposition to forest landowners through forest certification and carbon markets. This model has been implemented in Tennessee, Michigan, and New York.
- Preserve forestland by increasing conservation designations and pursuing smart-growth development policies aimed at addressing development pressure.
- Invest in natural and working lands' GHG inventories and other measuring and monitoring programs, including remote sensing, to track progress.
- Collaborate with city officials and residents to preserve and expand urban forests through planting and tree-retention ordinances.
- Enhance opportunities for land-use and natural resources management at the landscape and watershed level by enabling multi-jurisdictional planning and regulation.

- Work with farmers by providing incentives and education to promote emissions reductions and sequestration through fertilizer management, crop changes, conservation tillage, and waste reduction.

Summary of Existing State Policies:

State Climate / Carbon Policies

State	Emissions / GHG Goals	Other Carbon / Climate Activities and Policies
California	Adopted in 2006 (AB 05-32): 1990 levels by 2020; amended in 2016 (SB 15-32): 40% below 1990 levels by 2030. E.O. S-03 in 2005: 80% below 1990 levels by 2050.	Cap & Trade Program EO B-55-2018: achieve carbon-neutrality by 2045 and net-negative emissions thereafter. AB 17-398: extends cap-and-trade through 2030. SB 15-350: directs CARB to adopt rules removing disincentives for utilities' emissions reductions programs.
Colorado	Adopted 2019 (HB 19-1261): more than 26% from 2005 levels by 2025, 50% below 2005 levels by 2030, and 90% below 2005 levels by 2050.	HB 19-1261: in addition to expanding GHG reduction goals, provides for possibility of joining other jurisdictions in regional abatement schemes. SB 19-096: directs the Air Quality Control Commission to track long-term emissions data and publish an inventory. SB 19-236: utilities must include emissions reductions plans in their IRPs, and PUC must consider social cost of carbon.
Connecticut	Originally adopted 2004 (SB 04-595), last amended 2018 (SB 18-7): 10% below 1990 levels by 2020, 45% below 2001 levels by 2030, and 80% below 2001 levels by 2050.	The 2018 amendment to the GHG targets (SB 7) also requires publication of seal level rise scenarios. In 2018, the Governor's Council on Climate Change put forward several policy recommendations for reducing emissions.
Hawaii	Adopted 2018 (HB 18-2182): carbon neutral by 2045.	HB 18-2182 also creates the Greenhouse Gas Sequestration Task Force to examine incentives and policies that will help the state further reduce emissions. Hawaii is on track to reduce GHG emissions to 1990 levels by 2020. The legislature set this target in 2007 (HB 226).
Maine	Adopted 2019 (LD 19-1679): 45% below 1990 levels by 2030, 80% below 1990 levels by 2050.	LD 19-1679: establishes the Maine Climate Council, tasked with developing a climate action plan and clean energy economy transition plan.
Maryland	Adopted 2009, reauthorized and amended in 2016 (SB 16-323): 25% below 2006 levels by 2020, and 40% below 2006 levels by 2030.	HB 19-277: Authorizes Governor to include the state as full participant in regional initiatives (TCI) to reduce emissions from transportation. SB 19-516: Among other provisions, increases the state's RPS to 50% by 2030. Requires study of a 100% renewable energy goal.

State	Emissions / GHG Goals	Other Carbon / Climate Activities and Policies
Massachusetts	Adopted 2008 (the Global Warming Solutions Act): 25% below 1990 levels by 2020, and 80% below 1990 levels by 2050.	E.O. 2016-569: requires the Secretary of Energy and Environmental Affairs to consult the GWSA Implementation Advisory Committee to establish statewide limits for 2030 and 2040, achieve further reductions from government operations, work to develop regional transportation policies, and lead reform on capacity and wholesale markets to achieve state mandates. DEP must also consider limits on sources such as natural gas pipelines and the transportation sector. The state's 2015 update to its Clean Energy and Climate Plan provides a comprehensive suite of policies to reduce statewide emissions.
Nevada	Adopted 2019 (SB 19-254): 28% below 2005 levels by 2025, 45% below 2005 levels by 2030, and "zero or near-zero" by 2050.	SB 19-254: requires DCNR to submit a report on whether existing/pending state policies can ensure that the state achieves zero carbon emissions by 2050.
New Jersey	Adopted 2007 (AB 07-3301): 1990 levels by 2020, and 80% below 2006 levels by 2050.	The Draft 2019 New Jersey Energy Master Plan outlines multiple strategies for emissions reductions in the energy, transportation, and building sectors.
New Mexico	Adopted 2019 (E.O 003): 45% below 2005 levels by 2030.	Governor Grisham's executive order on climate also created the interagency Climate Change Task Force to evaluate and report on mitigation and adaptation policies, including a market-based program to reduce carbon emissions. SB 19-489 requires that the Environmental Improvement Board (EIB) promulgate a rule limiting CO_2 emissions from coal fired generating plants to an emissions standard of 1,100 lbs-CO_2/MWh on or after January 1, 2023.
New York	Adopted by Executive Order 24 in 2009, reaffirmed as a goal of the Reforming the Energy Vision initiative: 40% below 1990 levels by 2030, and 80% below 1990 levels by 2050. Senate Bill 19-6599 will create GHG emissions targets of 40% below 1990 levels by 2030 and 85% below 1990 levels by 2050, with the remaining 15% offset. The bill also requires the PSC to create a clean energy standard of 70% renewable energy by 2030 and 100% zero emissions by 2040.	The state Soil & Water Conservation Committee administers a Climate Resilient Farming Program to reduce agricultural emissions. Governor Cuomo's REV initiative is a series of smaller initiatives to achieve carbon emissions reductions from multiple sectors, including transportation and buildings.
Oregon	Adopted 2007 (HB 07-3543): 10% below 1990 levels by 2020 and 75% below 1990 levels by 2050.	HB 19-2020 (second reading in Senate on 6/19) would create a GHG emissions standard of 45% below 1990 levels by 2035

State	Emissions / GHG Goals	Other Carbon / Climate Activities and Policies
Rhode Island	Adopted 2014 (the Resilient Rhode Island Act): 10% below 1990 levels by 2020, 45% below 1990 levels by 2035, and 80% below 1990 levels by 2050.	Governor Raimondo's executive order 2017-10 required the development of a statewide Climate Resilience Action Strategy by June 2018.
Vermont	Adopted 2006 (S 06-259): 50% below 1990 levels by 2028, and if feasible, 75% below 1990 levels by 2050.	Executive Order 2017-12 created the Vermont Climate Action Committee. The Committee's 2018 report recommends using market-based mechanisms, sequestration measures, and carbon offset projects to address emissions.
Washington	Adopted 2008 (HB 08-2815): 1990 levels by 2020, 25% below 1990 levels by 2035, and 50% below 1990 levels by 2050 or 70% below the state's expected emissions in 2050.	SB 19-5116: Requires utilities to use emissions-free resources by 2045. Social cost of carbon must factor into IRP process.

State Energy Policies and Utility Goals

State	Renewable / Clean Energy Targets	EERS	Utility Commitments / Goals
California	Adopted 2002, last amended 2018: 33% by 2020, 60% by 2030, with a target of 100% carbon-free by 2045.	Electric: Long-term goals average about 1.15% of retail sales through 2024. Average incremental savings targets average about 1.3% of retail sales electricity from 2020-2025. Natural Gas: Incremental savings target of 0.56% through 2024. SB 15-350 requires state agencies and utilities to double cumulative efficiency savings achieved by 2030. Work to develop specific utility targets is ongoing.	Pacific Gas & Electric: Member of the WeAreStill in coalition. Goal to avoid one million tons of cumulative greenhouse gas emissions from 2018 through 2022, compared to a 2016 baseline. SMUD: 33% renewable energy by 2020, 60% by 2030, and reduce retail load GHG emissions to net zero by 2040. Sempra Energy: 35% below 2010 emissions by 2021, SDG&E is on track to meet CA's 50% by RE target.
Colorado	Adopted 2004: 30% by 2020 (IOUs), 10% or 20% by 2020 for municipalities and electric cooperatives depending on size. Polis Administration's Roadmap to 100% Renewable Energy by 2040.	Electric: Flat target of 500 GWh or roughly 1.7% of sales per year. Black Hills follows Xcel's targets. HB 17-1227 extended electric efficiency programs to 2028 and required the commission to set goals of at least 5% peak demand reduction and 5% energy savings (as compared to 2018) by 2028 for demand-side management programs implemented during 2019 through 2028. Natural Gas: Savings targets commensurate with spending targets (at least 0.5% of prior year's revenue).	Xcel Energy: 55% RE by 2026, 80% GHG reduction by 2030, carbon-free by 2050. Platte River Power Authority: Zero carbon emissions by 2030. Holy Cross Energy: 70% emissions reduction by 2030. Poudre Valley Rural Electric Association: increase carbon-free energy from 33% to 80% by 2030. Colorado Springs Utilities: 20% renewable energy by 2020.

State	Renewable / Clean Energy Targets	EERS	Utility Commitments / Goals
Connecticut	Adopted 1998, last amended 2018: Class 1: 21% by 2020, 30% by 2025, 40% by 2030 (plus 4% class 1 or 2 by 2018, 4% class 3 by 2010).	Electric: Average incremental savings of 1.11% of sales from 2019 through 2021.The state's renewable portfolio standard (RPS), established in 1998 and revised thereafter, requires that electricity providers and wholesale suppliers obtain 27% of their retail load from renewable energy and energy efficiency by 2020. Natural Gas: Average incremental savings of 0.59% per year from 2019 through 2021.	AVANGRID (the United Illuminating Company is a subsidiary): increase installed renewable capacity by 2GW, reduce emissions intensity 25% below 2015 levels by 2020, 100% carbon neutral by 2035.
Hawaii	Adopted 2015 (HB 15-623): 40% by 2030, 70% by 2040, and 100% by 2045.	Electric: reduce electricity consumption by 4,300 GWh by 2030 (equal to approximately 30% of forecast electricity sales or 1.4% annual savings). Natural Gas: N/A (Natural gas plays a limited role in the state's energy generation mix.)	Hawaiian Electric Company: reduce GHG emissions more than 16% below 2010 levels by 2020. Achieved: 2014. Committed to meeting the 100% renewable energy target. Kaua'i Island Cooperative: 70% renewable by 2030.
Maine	Adopted 2019 (LD 19-1494): 80% by 2030, 100% by 2050.	Electric: Savings of 20% by 2020, with incremental savings targets of ~ 1.6% per year for 2014-2016 and ~2.4% per year for 2017-2019. While Efficiency Maine operates under an all cost-effective mandate, the agency has fallen short of targets in recent years due to budget cuts. Natural Gas: Incremental savings of ~0.2% per year for 2017-2019.	AVANGRID (Central Maine Power is a subsidiary): increase installed renewable capacity by 2GW, reduce emissions intensity 25% below 2015 levels by 2020, 100% carbon neutral by 2035.
Maryland	Adopted 2004, last amended 2019 (SB 19-516): 28% by 2020, 40% by 2025, and 50% by 2030.	Electric: 2% incremental energy savings goal through 2023. Utilities must also file an energy efficiency program plan every 3 years to be approved by the PSC. Natural Gas: goals and limited income goals are being developed.	FirstEnergy (Potomac Edison Company is subsidiary in MD): 90% below 2005 emission levels by 2045.

State	Renewable / Clean Energy Targets	EERS	Utility Commitments / Goals
Massachusetts	Adopted 1997, last amended 2018 (Clean Energy Standard): 20% by 2020, 40% by 2030, 60% by 2040, and 80% by 2050. RPS: 13% by 2018, 55% by 2050.	Electric: Net annual savings of 3.45 million MWh (not including fuel switching) for 2019-2021, equivalent to savings of ~2.7% of retail sales per year. Natural Gas: 1.25% of retail sales. Net savings of 95.89 MMTherms for 2019-2021. Additional goal of 261.9 million net lifetime MMBtu for 2019-2021.	NationalGrid: 45% below 1990 emission levels by 2020, 70% below 1990 levels by 2030, and 80% below 1990 levels by 2050.
Nevada	Adopted 1997, last amended 2019: 24% by 2021, 50% by 2030, with 100% by 2050 goal (up to 10% of the standard can be met using energy efficiency from 2020-2024.	SB 17-150 set baseline targets for electricity suppliers: 1% in 2018, 1.5% for 2021-2025.	NV Energy: seeks to double renewable generation by 2023. The utility included $2 billion in renewable projects in its 2018 IRP, and expects to retire or divest 100% of its coal generation by the end of 2025.
New Jersey	Adopted 1999, last amended 2018: 35% by 2025, 50% by 2030.	Electric: 2% electric savings (as a percent of average annual usage from the prior three years) within five years of the initial implementation of a utility's plan. In April, consultants presented the New Jersey Board of Public Utilities with the draft strategic plan for 2019-2022 for the statewide Clean Energy Program, including an energy efficiency portfolio achieving a 56% increase in savings by 2022. Natural Gas: 0.75% savings (as a percent of average annual usage from the prior three years) within five years of the initial implementation of a utility's plan.	FirstEnergy (Jersey Central Power & Light is a subsidiary): 90% below 2005 emission levels by 2045. Public Service Electric and Gas: eliminate 13 million metric tons of CO2 equivalent by 2030 (from 2005 levels).

State	Renewable / Clean Energy Targets	EERS	Utility Commitments / Goals
New Mexico	Adopted 2004, last amended 2019 (Carbon-free Resource Standard): Distribution cooperatives: 10% by 2020, 40% by 2025, 50% by 2030, and zero-carbon (at least 80% RE) by 2050. IOUs: 20% by 2020, 40% by 2025, 50% by 2030, 80% by 2040, and carbon-free by 2045.	Electric: The state's three public utilities must achieve 5% savings of 2020 retail sales by 2025. HB 19-291 directs the Public Regulation Commission to set additional targets through 2030.	Xcel Energy: 55% RE by 2026, 80% GHG reduction by 2030, and carbon-free by 2050. PNM: carbon-free by 2040 (5 years ahead of the deadline established by SB 19-489). PNM plans to retire San Juan by 2022.
New York	Adopted 2016 (Clean Energy Standard): 50% by 2030.	Statewide all-fuels target of 185 TBtu cumulative annual savings for 2015-2025, or approximately 3% of incremental electric sales. Electric: detailed proposals are to be submitted by the utilities to the PSC. The PSC assumes that these plans will account for 2% of the statewide goal, with the remainder accounted for by NYSERDA, codes and standards, and other state activities. Natural Gas: no specific targets, but savings will count toward statewide goal.	Long Island Power Authority: add 800 MW of clean energy by 2030. AVANGRID (New York State Electric & Gas Corporation and Rochester Gas & Electric Corporation are subsidiaries): increase installed renewable capacity by 2GW, reduce emissions intensity 25% below 2015 levels by 2020, and 100% carbon neutral by 2035. NationalGrid: 45% below 1990 emission levels by 2020, 70% below 1990 levels by 2030, and 80% below 1990 levels by 2050.
Oregon	Adopted 2007, last amended 2016: Large IOUs (3% or more of state's load): 50% by 2040 Large COUs: 25% by 2025 Small Utilities (1.5 to <3% of state's load): 10% by 2025 Smallest Utilities (<1.5% of	Electric: Incremental targets average ~1.3% of sales annually for the period 2015-2019. Natural Gas: Incremental savings of 0.3% of sales annually for the period 2015-	Portland General Electric and Pacific Power will be nearly coal free by 2030, entirely coal free by 2035. Avista: carbon-neutral electricity supply by 2027; 100% clean by 2045.

	state's load): 5% by 2025 Total coal phase out by 2035.[1]	2019.	
State	**Renewable / Clean Energy Targets**	**EERS**	**Utility Commitments / Goals**
Rhode Island	Adopted 2004, last amended 2016: 16% by 2020, 31% by 2030, 38.5% by 2036.	Electric: Average incremental savings of 2.5% for 2018-2020. Natural Gas: Average incremental savings of 0.97% for 2018-2020.	NationalGrid: 45% below 1990 emission levels by 2020, 70% below 1990 levels by 2030, 80% below 1990 levels by 2050.
Vermont	Adopted 2015: 55% by 2017, 75% by 2032, and 12% energy transformation projects (EE, EVs, storage) by 2032.	Vermont law requires Energy Efficiency Utility budgets to be set at a level that would realize "all reasonably available, cost-effective energy efficiency" and set specific energy and peak demand savings targets. Average incremental electricity savings totaling 357,400 MWh over 2018-2020, or approximately 2.4% of annual sales. Natural Gas: Three-year annual incremental savings of 192,599 Mcf spanning 2018-2020 or 0.5% of sales.	Green Mountain Power, 2018 Goal: partner with customers to drive down costs and eliminate more than 8,000 metric tons of carbon emissions per year using clean energy for the next two decades.
Washington	Adopted 2006, amended 2019: 15% by 2020, coal phased out by 2025, carbon neutral by 2030, 100% carbon-free by 2045.	Electric: average around 1.4% incremental savings per year. Natural Gas: in 2014, all four IOUs committed to a voluntary pilot program with the potential to save over 280 million therms annually.	Avista: carbon-neutral electricity supply by 2027, 100% clean by 2045. Seattle City Light: carbon neutral since 2005. Puget Sound Energy: reduce carbon emissions 50% by 2040, 100% coal-free generation by the early 2030s.

[1] Utilities that buy into a new coal plant or sign a new contract specifically for new coal power and publicly-owned utilities that annex investor-owned utility territory without consent (aside from municipal utilities under certain conditions) are subject to the “large utility” standards.

State Appliance and Building Efficiency Policies

State	Appliance Standards Opposing Federal Rollback[2]	Building Efficiency Codes
California	In December 2008, California adopted a 45 lumen per watt standard for general service lamps (GSLs) as defined in the 2007 Energy Independence and Security Act (EISA). California's Title 20 Appliance Efficiency Regulations have existing provisions that backstop all other federal appliance standards in case of repeal or rollback.	Commercial: meets or exceeds ASHRAE 90.1-2013 Residential: meets or exceeds IECC 2015 Solar: The California Energy Commission adopted revisions to the Energy code in May 2018. The most noteworthy new provision is a requirement for all new low-rise homes to install PV equipment with an annual output greater than or equal to the home's annual electric consumption. The proposed amended standards, which still need to be approved by the California Building Standards Commission would go into effect on January 1, 2020.
Colorado	HB 19-1231 updates and adopts standards for water efficiency and energy efficiency that apply to a list of 15 consumer and commercial appliances and other products. The bill also includes a provision to adopt current federal standards to backstop all other federal appliance standards in case of repeal or rollback.	No mandatory statewide code, but any county or municipality that had a building code in place was required to adopt 2003 IECC or 2006 IECC as the minimum energy code standard by July 1, 2008. Solar: Builders of single-family homes are required to offer solar energy as a standard feature to all prospective homebuyers. Builders are required to give the buyer the option to have either a PV system or a solar water heating system installed on their new home or to have all the necessary wiring and plumbing installed so that they can easily add a solar system later.
Connecticut	N/A	Residential and commercial building codes are based on the 2012 IECC, with weakening amendments.
Hawaii	HB 19-556 requires the Department of Business, Economic Development and Tourism to adopt minimum appliance efficiency standards for certain products sold or installed in the State that are substantially equivalent to existing appliance efficiency standards established in California and by the federal government.	Residential and commercial building codes are based on the 2015 IECC, with weakening amendments. Solar: As of January 1, 2010, building permits may not be issued for new single-family homes that do not include a solar water-heating system.

[2] In May 2019, 36 utility companies opposed the DOE proposal to roll back lightbulb efficiency stating that "The 2020 standard for lightbulbs should remain applicable to all common household lightbulbs, and efficiency standards for other products should not be delayed."

State	Appliance Standards Opposing Federal Rollback	Building Efficiency Codes
Maine	N/A	Commercial: based on the 2009 IECC and ASHRAE 90.1-2007 Residential: based on the 2009 IECC
Maryland	N/A	Residential and commercial building codes are based on the 2015 IECC.
Massachusetts	N/A	Commercial: based on the 2015 IECC and ASHRAE 90.1-2013 Residential: based on the 2015 IECC
Nevada	AB 19-54 adopted the federal light bulb standards.	Commercial: 2012 IECC, with amendments or ASHRAE 90.1-2010 Residential: 2012 IECC, with amendments
New Jersey	N/A	Commercial: based on ASHRAE 90.1-2013 Residential: based on 2015 IECC Solar: Developers of residential developments with 25 or more dwelling units must "offer to install, or to provide for installation of, a solar energy system" when technically feasible. The law took effect immediately upon enactment; however, the Department of Community Affairs (DCA), in cooperation with the New Jersey Board of Public Utilities (BPU), must develop rules and standards for its implementation. The law does not provide a time frame for the adoption of regulations and it does not appear that such rules have been established.
New Mexico	N/A	Commercial and residential are based on the 2009 IECC, with amendments
New York	N/A	Commercial: based on the 2015 IECC and ASHRAE 90.1-2013, as modified by the 2016 supplement Residential: based on the 2015 IECC, as modified by the 2016 supplement
Oregon	N/A	Commercial: based on ASHRAE 90.1-2010 Residential: more stringent than the 2009 IECC
Rhode Island	SB 19-552, which has been "held for further study", would establish minimum appliance energy efficiency standards.	Commercial: based on the 2012 IECC and ASHRAE 90.1-2010 Residential: based on the 2012 IECC, with amendments

State	Appliance Standards Opposing Federal Rollback	Building Efficiency Codes
Vermont	H 17-411 provides that the state will enforce federal standards if they are "withdrawn, repealed or otherwise voided" at the federal level. Efficiency measures protected by the new Vermont law include all standards on the federal books as of January 17, 2017, including ones that have yet to take effect, including the light bulb standards slated for implementation in 2020.	Commercial: based on the 2015 IECC and ASHRAE 90.1-2013, with amendments Residential: based on the 2015 IECC
Washington	HB 19-1444 adopts federal light bulb standards, providing a backstop to a potential federal rollback.	Commercial and Residential: based on the 2015 IECC, with amendments HB 19-1257: Department of Commerce is to create a State Energy Performance Standard by November 1, 2020 to reduce energy use and GHG emissions associated with large commercial buildings.

State Methane and HFC Emissions Policies

State	Methane Emissions Policy	HFC Emissions Policy
California	CARB adopted stringent methane regulations for monitoring and repairing pipeline leaks in 2017 (required by SB 16-1383). The CPUC ordered utilities to file methane abatement compliance plans by March 2019 (pursuant to SB 14-1371).	SB 18-1013 creates the Fluorinated Gases Emission Reduction Incentive Program to promote the adoption of low-global warming potential refrigerants. The schedule to ban products made with HFCs begins 2022.
Colorado	SB 19-181 directs the Air Quality Control Commission to bolster methane regulations by promulgating rules for all points in the natural gas supply chain (processing, gathering & boosting, storage, and transmission). The legislation also affirms local authority over oil and gas siting and sets objectives to protect public health.	SB19-096 requires the development of a GHG inventory, which will include HFCs.
Connecticut	N/A. Connecticut's omnibus energy bill, HB 19-5002, did not include regulations for methane emissions. Studies of CT pipelines reveal the need to modernize gas infrastructure.	Governor Malloy directed DEEP to develop HFC controls modelled after CARB's that would fit within the state's air quality regulatory framework. New regulations are expected in 2020.
Hawaii	N/A	N/A
Maine	Maine's policy establishes a classification system for pipeline leaks, and sets detection and repair requirements for pipeline operators. Governor Mills joined 15 other attorneys general in suing the Trump administration for halting enforcement of federal methane rules.	N/A
Maryland	The Greenhouse Gas Emissions Reductions Act requires the maintenance of GHG emissions inventories. The Maryland Department of Environment (MDE) publishes data on methane from wastewater, landfills, and oil and gas operations. MDE is in the process of developing proposed methane regulations - Methane Emissions Minimization Plans (MEMPs) - for curbing leaks across the natural gas supply chain.	MDE is in the process of developing HFC regulations for foam and refrigerant products pursuant to SB 16-323 (the Greenhouse Gas Emissions Reduction Act).

State	Methane Emissions Policy	HFC Emissions Policy
Massachusetts	To meet state emissions reductions goals, the DEP adopted rules in 2017 to require natural gas operators to reduce methane emissions annually (specified by utility), keep inventories, and repair pipeline leaks. The DPU adopted rules in March 2019 that establish methods for identifying high-priority leaks. The rules also require that gas operators accelerate repairs when leaks are located in 'environmentally sensitive areas'.	Massachusetts published its Comprehensive Energy Plan in late 2018. HFC regulations have not been announced, but the state's Attorney General joined 10 other states to sue the EPA for its HFC rule rollback in 2018.
Nevada	N/A	N/A
New Jersey	S 19-3207, if enacted, would bolster the state's GHG emissions reporting requirements and require the development of a comprehensive statewide strategy for mitigating 'short-lived' GHGs, including methane. As of May 2019, the bill had been passed by both chambers of the legislature.	S 19-3207 includes a provision requiring the development of a comprehensive strategy to reduce emissions of short-lived climate pollutants in the State. This requirement is based on legislation adopted and implemented in California.
New Mexico	Governor Grisham's EO 2019-003 directs EMNRD and NMED to develop a regulatory framework to reduce oil and gas sector methane emissions. The NMED maintains an interactive map of oil and gas site emissions.	N/A
New York	Governor Cuomo's Methane Reduction Plan (2017) outlines multiple policies to achieve emissions reductions targets, including monitoring and repair of natural gas pipelines.	The New York State Department of Environmental Conservation is developing regulations to phase out HFCs between 2020 and 2024, a draft proposal was released in September of 2018.
Oregon	HB 19-2020 would have directed the Environmental Quality Commission to develop rules regulating methane emissions from landfills, agriculture, and forestry. No legislation or regulations are in place for pipeline leaks.	N/A
Rhode Island	The Rhode Island Energy 2035 Plan (2015) recommended reviewing the state's natural gas replacement and repair policy, suggesting an update to National Grid's Gas Infrastructure, Safety, and Reliability Plan for detecting and repairing pipeline leaks.	N/A
Vermont	Gas utilities must 'routinely' inspect for leaks. No comprehensive program for pipeline emissions reductions is in place.	S 19-0030 establishes a schedule between 2020 and 2024 for when certain products must be manufactured without HFCs.
Washington	State law establishes a classification system for pipeline leaks and requires utilities to maintain permanent leak records and conduct a self-audit every five years.	HB 19-1112 establishes a regulatory framework for phasing out HFCs in the state, banning specific products beginning in 2020.

State	Bill Number	Summary
California	SB 18-1013	Codifies the prohibitions on certain ozone depleting substances and HFC) adopted by the U.S. EPA as part of the Significant New Alternatives Policy (SNAP) Program.
Colorado	HB 19-1261	Sets statewide GHG emissions reduction goals to more than 26% from 2005 levels by 2025, 50% below 2005 levels by 2030, and 90% below 2005 levels by 2050.
	SB 19-096	Requires the AQCC to collect greenhouse gas emissions data from greenhouse gas-emitting entities, report on the data, develop a forecast of future emissions, and propose a draft rule to address the emissions by July 1, 2020.
	SB 19-181	Modifies the composition of the COGCC, requires that the COGCC review and, if necessary, amend existing rules related to methane emissions and oil and gas operations, removes the state preemption of oil and gas regulation, and expands the authority of local governments to regulate oil and gas development.
	SB 19-236	Among other provisions, the bill supplements existing state renewable energy standard laws by establishing targets for the reduction of CO_2 emissions by Xcel Energy (80% below 2005 levels by 2030, 100% by 2050 and thereafter, if practicable). Other utilities may opt in to submitting clean energy plans. The bill also allows utilities to apply to the PUC for approval of a financing order to issue securitized utility ratepayer-backed bonds when retiring an electric generating facility. Bonds are to be used by the utility to purchase, build, or invest in electric generating resources or electricity storage, and repaid through a distinct charge on ratepayers. The bill requires the PUC to promulgate rules that require each wholesale electric cooperative to submit an application for approval of an integrated or electric resource plan. The PUC must evaluate the plans using rules adopted that are applicable to these cooperatives. The bill also requires the PUC to promulgate rules establishing requirements for IOUs to file electric distribution plans; requires IOUs to include a workforce transition plan when proposing the retirement of an electric generating facility; directs the PUC to require electric public utilities to consider the cost of carbon dioxide emissions in certain proceedings; requires the PUC to conduct an investigation of financial performance-based incentives and performance-based metric tracking; and directs the PUC to open an investigatory proceeding to evaluate the costs and benefits associated with regional transmission organizations, energy imbalance markets, joint tariffs, and power pools.
Connecticut		
Hawaii		
Maine	LD 19-1679	Updates the state's GHG emissions reduction targets to 45% below 1990 levels by 2030, and 80% below 1990 levels by 2050. Establishes the Maine Climate Council, comprised of state agencies and stakeholders tasked with developing a climate action plan and a clean energy economy transition plan.

State	Bill Number	Summary

Maryland	HB 19-277	Authorizes the Governor to include the state in any regional governmental initiative, agreement, or compact that limits or reduces greenhouse gas emissions from the transportation sector; requires the Department of the Environment and the Department of Transportation to submit a report on the status of any regional initiative before November 1, 2019.
	SB 19-516	Among other provisions, increases the state's RPS to 50% by 2030. Requires study of a 100% renewable energy goal.
Massachusetts	H 18-4857	Establishes an energy storage target of 1,000 MWh by 2025. Requires electric suppliers to provide a minimum percentage, as determined by the Department of Energy Resources (DER), of kWh sales from clean peak resources. Also provides for EDCs to submit distribution system resiliency reports to the DER. Allows EDCs to hold competitive solicitations for procurement of non-wires alternatives from third party developers. Establishes reporting requirements for lost and unaccounted for gas for gas companies for the purpose of reducing GHG emissions. Requires the DER to study the costs and benefits of requiring EDCs to issue competitive bids for up to 1,600 MW of additional offshore wind.
Nevada	SB 19-254	Sets GHG emissions reduction targets: 28% below 2005 levels by 2025, 45% below 2005 levels by 2030, and "zero or near-zero" by 2050. Also requires DCNR to submit an emissions report, and provide analysis of whether existing/pending state policies can ensure that the state achieves zero carbon emissions by 2050.
	SB 19-358	Increases the state's clean energy standard to 50% by 2030. Includes a zero carbon by 2050 goal.
New Jersey	AB 18-3723	Requires the BPU to conduct an energy storage analysis, make changes to the solar renewable energy certificate program, adopt energy efficiency and peak demand reduction programs, adopt a "Community Solar Energy Pilot Program," and provide tax credits for certain offshore wind energy projects. The bill also requires the Department of Labor and Workforce Development to establish job training programs for those who work in manufacturing and servicing of offshore wind energy equipment.
	SB 19-3207	If enacted, the bill will establish new timeframes for the implementation of certain requirements in the "Global Warming Response Act" (GWRA), and require the Department of Environmental Protection (DEP) to adopt a strategy to reduce short-lived climate pollutants.
New Mexico	SB 19-489	Increases the state's RPS as follows: Distribution cooperatives: 10% by 2020, 40% by 2025, 50% by 2030, zero-carbon (at least 80% RE) by 2050. IOUs: 20% by 2020, 40% by 2025, 50% by 2030, 80% by 2040, and resources must be carbon-free by 2045. Also authorizes an alternative mechanism ("energy transition bonds" or "securitization") for financing the retirement of coal-fired power plants. The mechanism has been designed to accommodate the retirement in 2022 of units 1 and 4 of the San Juan Generation Station (SJGS) and to anticipate the closure of the Four Corners Power Plant in 2031. The bill also requires that the Environmental Improvement Board (EIB) promulgate a rule limiting carbon dioxide emissions from coal fired generating plants to an emissions standard of 1,100 lbs-CO2/MWh on or after January 1, 2023.

State	**Bill Number**	**Summary**

New York	SB 19-6599	If enacted, will create GHG emissions targets of 40% below 1990 levels by 2030 and 85% below 1990 levels by 2050, with the remaining 15% offset. The bill also requires that the PSC creates a clean energy standard of 70% renewable energy by 2030 and 100% zero emissions by 2040.
Oregon		
Rhode Island		
Vermont	HB 19-529	Excludes from the definition of a net metering system a plant for generation of electricity that primarily supplies electricity to electric vehicle supply equipment for the resale of electricity. Requires the Public Utility Commission to report on steps necessary to implement fees on plug-in electric vehicle charging and how to address net metering and net metering credits by December 15, 2019. Establishes the vehicle incentive and emissions repair programs, which, among other things, provide point-of-sale vouchers for the purchase or lease of new plug-in electric vehicles. Permits State agencies that own or control electric vehicle supply equipment (EVSE) to establish, set, and adjust fees for the use of EVSE available to the public for three years starting on July 1, 2019. Specifies that the PUC does not have jurisdiction over persons otherwise not regulated by the PUC that engage in the siting, construction, ownership, operation, or control of a facility that sells or supplies electricity to the public exclusively for charging a plug-in electric vehicle. Requires the Commissioner of Buildings and General Services, to the maximum extent practicable, to purchase and lease hybrid or plug-in electric vehicles for the State fleet with a minimum of 50%, bumped to 75% on July 1, 2021, of newly purchased and leased vehicles being hybrid or plug-in electric vehicles.
	S 19-30	Establishes a schedule between 2020 and 2024 for when certain products must be manufactured without HFCs.
Washington	HB 19-1112	Establishes a schedule between 2020 and 2024 for when certain products must be manufactured without HFCs.
	HB 19-1257	Requires the State Building Code Council to develop rules that require and regulate electric vehicle charging capability at all new buildings that provide on-site parking. Requires the Department of Commerce to create a State Energy Performance Standard by November 1, 2020 to reduce energy use and GHG emissions associated with large commercial buildings. Requires gas companies to identify and acquire all conservation measures that are available and cost-effective. The cost-effectiveness analysis must include the societal costs of GHG emissions. The targets must be based on a conservation potential assessment prepared by an independent third party and approved by the UTC. A gas company may propose a renewable natural gas program under which the company would supply renewable natural gas for a portion of the natural gas sold or delivered to its retail customers. Each gas company must offer by tariff a voluntary renewable natural gas service available to all customers to replace any portion of the natural gas that would otherwise be provided by the gas company. The UTC must monitor the GHG emissions resulting from natural gas and renewable natural gas delivered by each gas company to its customers, relative to the proportionate share of the state's GHG emissions goal.
	HB 19-1512	Allows municipal utilities to adopt transportation electrification plans. Regulated utilities may adopt plans that provide EV charging equipment incentives and support for other transportation electrification programs. Utility Electric Transportation Plan Authorization: The governing authority of a utility or a regulated electric utility, with the approval of the UTC, may adopt an electric transportation plan that proves that utility outreach and

		investment in the electrification of transportation infrastructure does not increase net costs to ratepayers in excess of 0.25%. The governing authority or the UTC may consider items such as the impact of electrification on the utility's load, demand response and load management opportunities, system reliability and distribution system efficiencies, and interoperability concerns. Upon making this determination, electric utilities may offer incentive programs for customers.
	HB 19-2042	Extends and establishes tax credits for electric vehicles and electric vehicle supply equipment (EVSE). Establishes a grant program to assist transit authorities in fleet electrification and alternative fuel use; a car sharing pilot grant program to support car sharing for underserved communities; and extends an existing EV charging infrastructure grant program. Amends provisions authorizing investor-owned utilities' incentive rate of return on investments in EV supply equipment. Extends a technical assistance and education program on alternative fuel vehicles for public agencies within Washington State University's Extension Energy Program. Authorizes the Department of Commerce to conduct a study on reducing barriers to battery and hydrogen fuel cell electric vehicle adoption by lower income residents.
	SB 19-5116	Requires that by December 31, 2025, all electric utilities eliminate coal-fired resources from their allocation of electricity. For IOUs, the UTC is required to accelerate depreciation for any coal-fired resource owned by an IOU and is allowed to accelerate depreciation for any qualified transmission line to no later than December 31, 2025. The UTC must allow in rates prudently incurred undepreciated investments in a fossil-fuel generating resource that has been retired from service under specific conditions. By January 1, 2030, each electric utility must make all retail sales of electricity to Washington customers GHG neutral. An electric utility must achieve compliance with the GHG neutral standard for multiyear compliance periods beginning January 1, 2030, through December 31, 2044. By January 1, 2045, each electric utility must meet 100 percent of its retail electric load to Washington customers using non-emitting electric generation and electricity from renewable resources.

State Transportation Policies

State	Regional Transportation Collaborative	LEV Standards? [1]	ZEV Standards? [2]	Low Carbon Fuel Standard?	EV / ZEV Goals
California	Pacific Coast Collaborative	Yes	Yes	Goal: reduce carbon intensity of transportation fuel pool by at least 20% by 2030.	Goal (E.O. B.48-2018): 5 million ZEVs by 2030 and 250,000 ZEV chargers by 2025. Deploy over 100,000 zero emission freight vehicles and associated equipment by 2030. Transit agency requirements: all new bus purchases must be zero emission buses by 2029 (50% by 2026 for large agencies, 25% by 2026 for small agencies)
Colorado	REV West	Yes	Rulemaking in Progress		Goal (E.O. B2019-002): 940,000 EVs by 2030.
Connecticut	Transportation and Climate Initiative[3]	Yes	Yes	*	Goal: 500,000 ZEVs by 2030 (ZEV MOU)
Hawaii	N/A	No	No		
Maine	Transportation and Climate Initiative	Yes	Yes	*	
Maryland	Transportation and Climate Initiative	Yes	Yes	*	Goal: ~300,000 ZEVs by 2025 (ZEV MOU)
Massachusetts	Transportation and Climate Initiative	Yes	Yes	*	Goal: ~300,000 ZEVs by 2025 (ZEV MOU)

[1] States that have adopted LEV Standards not represented below: Delaware and Pennsylvania.
[2] All states that have adopted ZEV Standards are represented below.
[3] Other TCI members not captured here: Delaware, New Hampshire, Pennsylvania, and Virginia.

Nevada	REV West				

State	Regional Transportation Collaborative	LEV Standards?	ZEV Standards?	Low Carbon Fuel Standard?	EV / ZEV Goals
New Jersey	Transportation and Climate Initiative	Yes	Yes	*	Goal: 330,000 EVs by 2025.
New Mexico	REV West	Climate Change Task Force to evaluate adopting.	Climate Change Task Force to evaluate adopting.		Governor Grisham stated that she would like to see 20% of the state fleet electrified.
New York	Transportation and Climate Initiative	Yes	Yes	*	Goal: 800,000 ZEVs by 2025.
Oregon	Pacific Coast Collaborative	Yes	Yes	Requires fuel suppliers to reduce the carbon content of transportation fuels by 10% by 2025.	Goal (E.O. 2017-21): 50,000 EVs by 2020.
Rhode Island	Transportation and Climate Initiative	Yes	Yes	*	Goal: 43,000 ZEVs by 2025 (ZEV MOU)
Vermont	Transportation and Climate Initiative	Yes	Yes	*	Goal: ~50,000 EVs by 2025
Washington	Pacific Coast Collaborative	Yes			Goal: 50,000 EVs by 2020.

* Signatory: Low Carbon Fuel Standard MOU (2009) in which the states agreed to analyze low-carbon fuel supply options, determine the feasibility of achieving a range of carbon reduction goals – including a 10 percent reduction in carbon intensity of fuels – and develop a framework for a regional Low Carbon Fuel Standard (LCFS).

State EV and EV Supply Equipment Policies & Incentives

California

EV Policies and Incentives

Low Emission Truck and Bus Purchase Vouchers: fleet owners.

Light-duty PHEV and ZEV Rebates

HOV and High Occupancy Toll (HOT) Lane Exemption

The California Clean Truck, Bus, and Off-Road Vehicle and Equipment Technology Program: funding for development, demonstration, pre-commercial pilot, and early commercial implementation projects for zero and near-zero emission trucks, buses, and off-road vehicles and equipment.

Through the California Clean Miles Standard and Incentive Program, the California Air Resources Board (ARB) will establish annual emissions reduction targets for transportation network companies, including goals for increasing the number of miles traveled using zero emission vehicles.

Zero and Near-Zero Emission Vehicle Component Rebates

Vehicle Acquisition and Petroleum Reduction Requirements: beginning in fiscal year 2024, at least 50% of the light-duty vehicles purchased by the state must be ZEVs. At least 30% of the Department of General Service's fleet of new vehicles with a gross vehicle weight of 19,000 pounds or more must be ZEVs by 2030.

Freight Efficiency Action Plan: establishes targets to improve freight efficiency and transition to zero emission technologies.

EV Supply Equipment (EVSE) Policies and Incentives

EVSE Incentive Program Support: provides guidance and funding for local governments and organizations to develop and implement EVSE incentive programs.

EVSE Loan and Rebate Program: available to small businesses.

Emissions Reductions Grants

Residential PACE EVSE Financing Program

EVSE Policies for Residential and Commercial Renters: The lessor of a dwelling or commercial property must approve written requests from a lessee to install EVSE at a parking space allotted for the lessee on qualified properties. Certain exclusions apply to residential dwellings and commercial properties.

EVSE Policies for Multi-Unit Dwellings: A common interest development, including a community apartment, condominium, and cooperative development, may not prohibit or restrict the installation or use of EVSE or a PEV-dedicated TOU meter in a homeowner's designated parking space or unit. These entities may put reasonable restrictions on EVSE, but the policies may not significantly increase the cost of the EVSE or significantly decrease its efficiency or performance.

Mandatory EVSE Building Standards

EVSE Open Access Requirements: EVSE service providers may not charge a subscription fee or require membership for use of their public charging stations.

PEV Charging Access: Municipalities may not restrict the types of PEVs that may access a public PEV charging station that is intended for passenger vehicle use, and funded, at least in part, by the state or money from utility ratepayers.

EVSE Location Assessment: The State Energy Resources Conservation and Development Commission, in partnership with CARB, must assess whether EVSE in California is located disproportionately by population density, geographical area, or population income level. If EVSE has been disproportionately installed unreasonably, the agencies must proportionately install new EVSE, unless it is determined that the current locations of EVSE further California’s policy goals.

EVSE Assessment: The California State Energy Resources Conservation and Development Commission, in partnership with CARB and the CPUC, must publish a statewide assessment of the EVSE infrastructure needed to support the levels of PEV adoption required for at least five million zero emission vehicles to operate in California by 2030. The assessment must consider the EVSE infrastructure needs for all vehicle categories, and must analyze the existing and future infrastructure needs across California, including in low-income communities. The assessment must be updated at least once every two years.

Public Utility Definition: A corporation or individual that owns, controls, operates, or manages public EVSE is not defined as a public utility.

State Agency EVSE Installation: California state agencies must actively identify and pursue opportunities to install EVSE, and accommodate future EVSE demand, at state employee parking facilities in new and existing agency buildings.

EVSE Local Permitting Policies: Cities and counties must adopt an ordinance that creates an expedited, streamlined permitting process for EVSE.

Colorado

EV Policies and Incentives

PEV Tax Credit: $5,000 - 20,000 in 2017-2019; $4,000 - 16,000 in 2020; $2,500 - 10,000 in 2021.

Alternative Fuel Vehicles and Infrastructure Grant Program: CEO, RAQC, and CDOT, have partnered to provide grants through the ALT Fuels Colorado program for new fleet purchases of EVs.

PEV and EVSE Grants: available to individual drivers and fleet owners.

High Occupancy Vehicle (HOV) Lane Exemption

EV Supply Equipment (EVSE) Policies and Incentives

Alternative Fuel Vehicles and Infrastructure Grant Program: Provides grants through the ALT Fuels Colorado program for new, publicly accessible co-located electric vehicle charging and propane station equipment at funded CNG stations, and EVs.

EVSE Multi-Unit Dwelling Installations and Access: A residential tenant may install Level 1 or Level 2 EVSE at their own expense on or in leased premises. The landlord may seek a fee or reimbursement for the actual cost of electricity as well as the cost of installation or upgrades to existing equipment. In addition, the tenant may request that the EVSE be accessible by other tenants, in which case the EVSE must be in compliance with all applicable requirements, and the landlord may seek a fee to reserve a specific parking space.

Alternative Fuel Resale and Generation Regulations: A corporation or individual that resells alternative fuel supplied by a public utility for use in an AFV is not subject to regulation as a public utility. Additionally, a corporation or individual that owns, controls, operates, or manages a facility that generates electricity exclusively for use in AFV charging or fueling facilities is not subject to regulation as a public utility provided that the electricity is generated on the property where the charging or fueling facilities are located and the electricity is generated from a renewable resource.

Connecticut

EV Policies and Incentives

Heavy-Duty Vehicle Emissions Reduction Grants: DEEP allocates a portion of its designated funds from the Volkswagen Environmental Mitigation Trust for the replacement or repower of eligible heavy-duty on-road vehicles through its Diesel Emissions Mitigation Program.

Hydrogen and PEV Rebate

Loans for PEVs and Residential Charging Infrastructure: The Connecticut Green Bank offers Smart-E low-interest loans of up to $30,000 for Connecticut residents to purchase a new or used PEV. The vehicle must be registered with the Connecticut Department of Motor Vehicles. Loans are also available for Connecticut PEV drivers to purchase EVSE. To qualify, applicants must own or lease a model year 2012 or later PEV and occupy the residence at which the EVSE will be installed.

Reduced Registration Fee for Electric Vehicles

AFV Procurement Preference: In determining the lowest responsible qualified bidder for the award of state contracts, the Connecticut Department of Administrative Services may give a price preference of up to 10% for the purchase of AFVs or for the purchase of conventional vehicles plus the conversion equipment to convert the vehicles to dual or dedicated alternative fuel use.

EV Supply Equipment (EVSE) Policies and Incentives

EVSE Grants: available to municipalities, state agencies, and private businesses.

Public EVSE Requirements: Owners and operators of public EVSE that require payment must allow multiple payment options that allow access by the public. In addition, payment should not require users to pay a subscription fee or obtain a membership of any kind, however payment required may be based on price schedules for such memberships. Owners and operators can impose restrictions on the amount of time a vehicle can use the EVSE. In addition, owners and operators of a public EVSE must disclose the location and characteristics of each EVSE to the U.S. Department of Energy's Alternative Fuels Data Center.

Public Utility Definition: An owner of an EV charging station is not defined as a public utility.

Utility Company PEV Rates: By July 1, 2018, utility companies must evaluate if it is appropriate to implement PEV time of day rates for residential and commercial customers.

Hawaii

EV Policies and Incentives

PEV HOV Lane and Parking Fee Exemptions.

State and county agencies must purchase light-duty vehicles that reduce petroleum consumption and meet the needs of the agency. Exemptions may apply.

EV Supply Equipment (EVSE) Policies and Incentives

Public Utility Definition: An entity that owns, controls, operates, or manages a plant or facility primarily used to charge or discharge a vehicle battery that provides power for vehicle propulsion is not defined as a public utility.

All parking facilities that are available for use by the general public and include at least 100 parking spaces must designate at least one parking space specifically for PEVs, provided that no parking spaces required by the Americans with Disabilities Act Accessibility Guidelines are reduced or displaced.

A multi-family residential dwelling or townhouse owner may install EVSE on or near a parking stall at the dwelling as long as the EVSE is in compliance with applicable rules and specifications, the EVSE is registered with the private entity within 30 days of installation, and the homeowner receives consent from the private entity if the EVSE is placed in a common area. Private entities may adopt rules that restrict the

placement and use of EVSE but may not charge a fee for the placement. The EVSE owner is responsible for any damages resulting from the installation, maintenance, repair, removal, or replacement of the EVSE.

Maine

EV Policies and Incentives

An insurer may credit or refund any portion of the premium charged for an insurance policy on a clean fuel vehicle in order to encourage its policyholders to use clean fuel vehicles, as long as insurance premiums on other vehicles are not increased to fund these credits or refunds.

EV Supply Equipment (EVSE) Policies and Incentives

EVSE Funding: Efficiency Maine Trust is accepting applications through July 10, 2019, for funding of public, workplace, and multi-unit dwelling Level 2 EVSE in strategic locations within Maine. EVSE along specific roads and at locations that will likely experience a high frequency of use will be prioritized.

PEV Charging Regulation Exemption: An entity that sells electricity for the sole purpose of charging the battery of a PEV is not defined or regulated as an electricity provider. An EVSE provider may charge a submetered user only for kilowatt-hours used.

Maryland

EV Policies and Incentives

PEV and Fuel Cell Electric Vehicle (FCEV) Tax Credit: up to $3,000.

PEV HOV Lane Exemption

AFV Voucher Program: for the purchase of new and converted AFVs registered in Maryland. Vehicles must be used by commercial, non-profit, or public entities.

Zero Emission School Bus Grant Program and Study: The Maryland Department of the Environment will administer a Zero Emission School Bus Transition Grant Program to purchase zero emission school buses, install charging infrastructure, and transition to zero emission school bus fleets.

ZEV State Fleet Goal: state agencies must increase the number of ZEV acquisitions in light-duty fleets to at least 25% of annual fleet purchases by 2025.

EV Supply Equipment (EVSE) Policies and Incentives

EVSE Rebate Program

Alternative Fuel Infrastructure Grants: The Maryland Energy Administration administers the Maryland Alternative Fuel Infrastructure Program (AFIP), which provides grants to plan, install, and operate public access alternative fueling and charging infrastructure.

EVSE Regulation Exemption: Owners and operators of EVSE are not subject to state regulation as electricity suppliers or public service companies. For the purpose of this regulation, owners and operators of EVSE are considered retail electric customers.

PEV Information Disclosure: The Maryland Motor Vehicle Administration is allowed to provide the address of a registered PEV owner and information about the vehicle to electric companies for their use. Electric companies may only use this information in planning for the electric power supply and may not use it for marketing or solicitation.

PEV Infrastructure Promotion: The Maryland EV Infrastructure Council promotes the use of PEVs in the state. Specific responsibilities of the Council include the following:

- developing an action plan to facilitate successful integration of PEVs into the Maryland transportation network;
- assisting in developing and coordinating statewide standards for streamlined permitting and installation of EVSE;
- recommending a statewide charging infrastructure plan and incentives to support investment in PEVs;
- developing targeted policies to support fleet purchases of PEVs; encouraging local and regional efforts to promote the use of PEVs; and
- developing model procurement practices.

Effective July 1, 2019, the Council will be renamed the Zero Emission Electric Vehicle Council and will incorporate fuel cell electric vehicles in all of the Council responsibilities.

Massachusetts

EV Policies and Incentives

Vehicle Emissions Reduction Grants: The (MassDEP) Volkswagen Open Solicitation Grant Program provides up to 80% of the cost of new diesel or alternative fuel replacements and repowers for eligible government entities.

PEV and EVSE Grants for Public Fleets: available to local governments, public universities and colleges, and state agencies.

Plug-In and ZEV Rebates

AFV and Infrastructure Grants: The Massachusetts Department of Energy Resources' Clean Vehicle Project offers grants for public and private fleets to purchase AFVs and infrastructure.

When purchasing new motor vehicles, the Commonwealth of Massachusetts must purchase hybrids or AFVs to the maximum extent feasible and consistent with the ability of such vehicles to perform their intended functions.

EV Supply Equipment (EVSE) Policies and Incentives

Public Access EVSE Grants: Qualified EVSE must be available to the public at least 12 hours per day.

Multi-Unit Dwelling (MUD) EVSE Grants: available to private, public, or non-profit MUDs with ten or more residential units.

Workplace EVSE Grants: available to private, public, or non-profit workplaces with 15 or more employees on site.

Public EVSE Requirements: Owners and operators of public EVSE that require payment must provide payment options that allow access by the public. In addition, payment should not require users to pay a subscription fee or obtain a membership of any kind; however, required fees may be conditional on such memberships. Owners and operators can impose reasonable restrictions on EVSE use, such as limiting access to visitors of the business. In addition, owners and operators of public EVSE must provide the location, hours of operation, payment, and characteristics of each EVSE to the U.S. Department of Energy's Alternative Fuels Data Center.

EVSE Building Standards: The Massachusetts State Board of Building Regulations and Standards and the Massachusetts Department of Energy Resources will develop building and electric code requirements for residential and appropriate commercial buildings for EVSE.

Public Utility Definition: An entity that owns, operates, leases, or controls EVSE is not defined as a public utility.

Nevada

EV Policies and Incentives

AFV and Infrastructure Grants Authorization: The Nevada Office of Energy will establish the Nevada Clean Energy Fund to fund qualified clean energy projects, including any program, technology, product, or service that supports the deployment of AFVs and related infrastructure.

Authorization for HOV Lane Exemption: The NDOT, in consultation with the Federal Highway Administration and U.S. EPA, may establish a program allowing federally certified low emission, energy-efficient, and alternative fuel vehicles to operate in HOV lanes regardless of the number of passengers.

AFV Acquisition Requirement: Fleets containing 50 or more vehicles that are owned, leased, or operated by the state, a state agency, or a political subdivision of the state in a county with a population of 100,000 or more must acquire AFVs or U.S. EPA certified Ultra Low Emission Vehicles (ULEVs). Covered fleets are required to purchase either AFVs or certified ULEVs for 20% of new vehicles obtained. A fleet may meet the acquisition requirements by converting existing or newly acquired vehicles to operate on alternative fuels. An AFV acquired in compliance with this mandate must operate solely on the alternative fuel except when operating in an area where the appropriate alternative fuel is unavailable. Fleets with buses or heavy-duty vehicles are included.

SB 19-299: allows utilities to provide an incentive of 75% of the cost for school districts to develop charging infrastructure or purchase electric school buses.

EV Supply Equipment (EVSE) Policies and Incentives

EVSE Demonstration Program Requirements: The Electric Vehicle Infrastructure Demonstration Program requires Nevada utilities to promote and incentivize the deployment of EVSE. Utilities must submit an annual plan for implementing the Program in their service areas to the PUCN. Plans may include, but are not limited to, the following measures:

- payment of incentives to customers that install EVSE;
- time-of-use rates for electricity used to charge plug-in electric vehicles;
- EVSE education and awareness programs for customers; and
- technical assistance programs for government fleets and private organizations.

Utilities may request to recover the costs associated with carrying out the program, including customer incentives, by filing an application with the PUCN.

The Nevada Electric Highway initiative, a partnership created between the state and NV Energy in 2015, seeks to build a complete electric highway system along the I-95 corridor by 2020. 15% of the Nevada's $25 million allocation from the VW settlement agreement will be used to support electric highway projects.

New Jersey

EV Policies and Incentives

ZEV Tax Exemption: does not apply to partial ZEVs, including hybrid electric vehicles.

High Occupancy Vehicle (HOV) Lane Exemption

PEV Toll Discount Program

Low Emission or Alternative Fuel Bus Acquisition Requirement: All buses purchased by the New Jersey Transit Corporation must be: 1) equipped with improved pollution controls that reduce particulate emissions; or 2) powered by a fuel other than conventional diesel.

EV Supply Equipment (EVSE) Policies and Incentives

EVSE Grants: offered on a first-come, first-served basis for the cost of installation of eligible EVSE at workplaces, government and educational facilities, non-profits, parking facilities, and multi-unit dwellings.

State Interagency EV Partnership: Announced June 3, 2019, will be co-led by the BPU, DEP, and the EDA to develop and implement a statewide charging deployment initiative.

New Mexico

EV Policies and Incentives

Alternative Fuel and Advanced Vehicle System Manufacturing Incentive: The Alternative Energy Product Manufacturers Tax Credit provides credit against combined reporting taxes (gross receipts, compensating, and withholding) for qualified manufacturers of alternative energy products, including hydrogen and fuel cell vehicle systems, and electric and hybrid electric vehicles.

AFV Loans: available to state agencies, political subdivisions, and educational institutions for AFV acquisitions. Funds must be used for the purchase of vehicles that operate on natural gas, propane, electricity, or hydrogen.

Government fleets may finance alternative fuel vehicles or related infrastructure through guaranteed utility savings contracts where vehicle operational and fuel cost savings pay for the capital investment.

AFV and HEV Acquisition Requirements: A minimum of 75% of state government and educational institution fleet light-duty vehicles purchased must be HEVs, bi-fuel, or dedicated AFVs.

The New Mexico General Services Department (GSD) launched plans to electrify state vehicles, devoting $2.5 million to public fleet electrification, $1.2 million of which will be used for solar-powered charging stations in Santa Fe. In a statement, Governor Grisham noted she would like to see 20% of the state fleet electrified.

EV Supply Equipment (EVSE) Policies and Incentives

Public Utility Definition: An entity that is not a regulated utility that resells natural gas or electricity as motor fuel is not defined as a public utility.

New York

EV Policies and Incentives

PEV Rebate Program

Heavy-Duty Alternative Fuel and Advanced Vehicle Purchase Vouchers

ZEV and Fueling Infrastructure Rebates for Municipalities: available to cities, towns, villages, counties, and New York City boroughs.

Workplace EVSE and PEV Incentives: NYSERDA is offering employers in the greater New York City region an $8,000 rebate per dual-connector EVSE installed. Employees of organizations that receive the rebate are eligible for a $500 rebate toward the purchase or lease of a qualified PEV.

HOV Lane Exemption

PEV Toll Discount Program

HEV Taxicabs: By February 3, 2019, the New York City Taxi and Limousine Commission must approve one or more HEV models for immediate use as a taxicab by medallion owners.

EV Supply Equipment (EVSE) Policies and Incentives

EVSE Rebate: available to public and private entities for installations at public parking facilities, workplaces, and multi-unit dwellings.

Alternative Fueling Infrastructure Tax Credit:
PEV and Charging Infrastructure Support: The New York Power Authority's EVolve NY program has allocated up to $250 million to support PEVs and address charging infrastructure gaps throughout the state.

PEV Charging Tariff: Each investor-owned utility selling electricity was required to file a tariff with the NYPSC by April 1, 2018, to allow a customer to purchase electricity solely for the purpose of charging a PEV. The utility must make the tariff available to customers within 60 days of PSC approval.

Electric Corporation Definition: PEV charging stations are not defined as electric plants and owners and operators of charging stations are not defined as electric corporations. The PSC does not have jurisdiction over publicly available PEV charging stations, the owners and operators of the stations, or the transactions between the owners and operators of the stations, as long as the owners and operators do not fall within the definition of an electric corporation.

Governor Andrew M. Cuomo announced in February 2019 that New York is making up to $31.6 million available to ramp-up the expansion of electric vehicle fast charging stations. The plan was approved by the NYPSC and will leverage existing NYSERDA and NYPA funds.

Oregon

EV Policies and Incentives

Support for PEV Adoption: In order to support the state goal of at least 50,000 PEVs registered and operating in Oregon by 2020, the ZEV Working Group will develop goals and progress metrics for PEV adoption. The Working Group will aim to remove barriers to PEVs and PEV charging stations, and establish a website to share information about their efforts with the public.

PEV Rebate: available to residents, businesses, non-profit organizations, and government agencies.

Establishment of Recognition Programs for PEV Adoption: The ODOE must design and establish Governor's Awards for automobile dealerships to encourage sales of PEVs. ODOE must also design and establish Governor's Awards for businesses and organizations that support PEV adoption through installing charging infrastructure and using PEVs in their fleets.

Support for Zero-Emission Buses: ODOE, with ODOT, the PUC, the DEQ, and the Department of Education, must develop tools and provide assistance to school districts and transit agencies about using zero-emission bus options.

AFV Acquisition, Fuel Use, and Emissions Reductions Requirements: All state agencies and transit districts must purchase AFVs and use alternative fuels to operate those vehicles to the maximum extent possible, except in regions where it is not economically or logistically possible to fuel an AFV. DAS and ODO) must improve the PEV bulk procurement process to reduce costs for state agency PEV purchases.

DAS must develop a “LEV First" policy to encourage state employees to use PEVs or other LEVs in the state fleet. DAS and ODOE must also develop a tool to calculate the long-term return on investment and life-cycle costs of PEVs to inform agencies of potential cost savings. In addition, DAS must inform and support legislative changes that enable increased charging infrastructure and state agency PEV purchases.

EV Supply Equipment (EVSE) Policies and Incentives

Mandatory EVSE Building Standards: The Oregon Department of Business and Consumer Services, Building Code Division, must amend the state building code to require that all newly constructed residential and commercial building parking structures can support the installation of at least one level 2 EVSE by October 1, 2022.

State Agency EVSE Installation: State agencies may install publicly-accessible EVSE on their premises or contract with a vendor to do so. The Oregon Department of Administrative Services (DAS) will establish criteria to determine the appropriate number of locations for EVSE at each agency. DAS must add PEV charging capacity for employee and public visitor parking lots, develop contracts to procure and install charging infrastructure, and incorporate PEV charging as a tenant improvement for state-leased buildings.

Electricity Provider and PEV Charging Rate Regulations: Regulated electric utility tariffs must explicitly permit customers to resell electricity for use as a motor fuel, as long as the entity is not considered a public utility as defined in Oregon Revised Statutes 757.005 and does not provide any utility service. Additionally, each regulated electric utility must provide customers with a choice of flat rate or time of use electricity rates specific to PEV owners. Finally, an investor-owned utility can own and operate PEV charging equipment using its own funds or petition the OPUC for rate recovery.

Rented Commercial Property EVSE Installations: The tenant of a commercial space may submit an application to install EVSE for the use of the tenant, employees of the tenant, and customers of the tenant. Unless the premises does not have at least one parking space per rental unit, the landlord must approve a completed application no more than 60 days after the tenant submits the application. In the absence of a different tenant-landlord agreement, the EVSE will be personal property of the tenant.

Planned Community and Condominium EVSE Installations: The owner of a lot in a planned community or unit in a condominium may submit an application to install EVSE for their personal use in a parking space subject to the exclusive use of the owner. The HOA must approve a complete application within 60 days. The owner is responsible for all costs associated with the EVSE installation and use, must disclose the existence of the EVSE and related responsibilities to a prospective buyer, and must ensure that the infrastructure meets insurance and safety requirements. EVSE installed under these regulations on or before June 4, 2015, is considered to be the personal property of the lot or unit owner with which the EVSE is associated, unless the owner and HOA have negotiated a different outcome.

Rhode Island

EV Policies and Incentives

AFV and ZEV Acquisition Requirements: at least 75% of state motor vehicle acquisitions must be AFVs, and the remaining 25% must be HEVs to the greatest extent possible. By 2025, 25% of state motor vehicle acquisitions must be ZEVs.

EV Supply Equipment (EVSE) Policies and Incentives

EVSE and PEV Rebates: The Charge Up! program provides rebates to state and municipal agencies for the purchase and installation of publicly accessible Level 2 or DC fast chargers. Agencies that install EVSE also qualify for up to $15,000 to support the purchase or lease of a new PEV acquired on or after July 1, 2016, as part of their public sector fleet.

Vermont

EV Policies and Incentives

PEV Incentive: provides financial incentives to low- and moderate-income residents for the purchase or lease of a new PEV.

Heavy-Duty Vehicle Emissions Reduction Grants: Through the Vermont Diesel Emissions Reduction Grants Program, the Vermont Department of Environmental Conservation provides funding to local, state and regional agencies or departments, businesses, institutions, and nonprofit organizations for projects focused on reducing emissions from diesel engines and vehicles. Qualifying heavy-duty vehicles include buses and Class 5-8 trucks. Projects eligible for funding include alternative fuel conversions and certified vehicle or equipment replacements.

HEV and PEV Acquisition Requirements: Effective July 1, 2019, the Vermont Department of Buildings and General Services must, to the extent possible, purchase or lease HEVs or PEVs for state use. At least 50% of the vehicles purchased or leased annually must be HEVs or PEVs. Beginning July 1, 2021, at least 75% of the vehicles purchased or leased annually must be HEVs or PEVs.

PEV Analysis: The PUC must evaluate PEVs and PEV charging in the state. The Commission must provide public notice, opportunity for submission of written comments, and one or more workshops on PEVs during the course of its evaluation.

EV Supply Equipment (EVSE) Policies and Incentives

EVSE Grants: available to governments, businesses, non-profit organizations, homeowner associations, electric utilities, and EVSE providers.

Alternative Fueling Infrastructure Incentive: The Vermont State Infrastructure Bank (SIB) offers loan assistance to municipalities, regional development corporations, political subdivisions of the state, and private companies working for the state to finance public electric vehicle charging and natural gas fueling stations.

Public Utility Definition: An entity that supplies electricity to the public exclusively to charge plug-in electric vehicles is not defined as a public utility and may charge for this electricity by the kilowatt-hour.

EVSE Fee Authorization: Effective July 1, 2019, any Vermont agency or department that owns or controls EVSE may establish and set user fees.

EVSE Code Reporting: On or before December 1, 2019, the Vermont Agency of Agriculture, Food and Markets (Agency) must submit a report to the legislature that provides an update on the National Institute of Standards and Technology's (NIST) progress toward adopting a code on EVSE and makes a recommendation for an annual licensing fee for EVSE available to the public. If NIST has not adopted a code on EVSE by

December 1, 2020, the Agency must submit an additional report on or before that date which provides an update on NIST's progress toward adopting a code.

Washington

EV Policies and Incentives

Alternative Fuel Commercial Vehicle and Fueling Infrastructure Tax Credit: Businesses are eligible to receive tax credits for purchasing new alternative fuel commercial vehicles and installing alternative fueling infrastructure.

PEV and Fuel Cell Electric Vehicle (FCEV) Infrastructure and Battery Tax: Public lands used for installing, maintaining, and operating PEV infrastructure are exempt from leasehold excise taxes until January 1, 2020. Additionally, the state sales and use taxes do not apply through July 1, 2025 to PEV and FCEV batteries or fuel cells; labor and services for installing, repairing, altering, or improving PEV and FCEV batteries or fuel cells and PEV and hydrogen fueling infrastructure; the sale of property used for PEV and hydrogen fueling infrastructure, and the sale of zero emission buses.

AFV and EV Retail Sales Tax Exemption

PEV Promotion and Infrastructure Development: Any regional transportation planning organization containing a county with a population greater than one million must collaborate with state and local governments to promote PEV use, invest in PEV charging infrastructure, and seek federal or private funding for these efforts.

AFV Car Share Pilot Program: WSDOT will develop a pilot program to provide AFV use opportunities to underserved and low-income communities and to those without easy access to transportation corridors.

AFV Technical Assistance and Education Program: The Washington State University Energy Program will establish and administer a technical assistance and education program on the use of AFVs for public agencies, including state and local governments.

EV and FCEV Low Income Opportunity Study: The Washington State Department of Commerce must conduct a study to identify opportunities to reduce barriers to EV and FCEV adoption by lower income residents through the use of vehicle and infrastructure financing assistance.

Alternative Fuel Use Requirement: All state agencies must, to the extent practicable, use 100% biofuels or electricity to operate all publicly owned vehicles. Agencies must prioritize EVs when leasing or purchasing new vehicles, and all trips that may feasibly use EVs must employ them.

EV Supply Equipment (EVSE) Policies and Incentives

Alternative Fueling Infrastructure Funding Program: WSDOT has developed a pilot funding program to strengthen and expand the West Coast Electric Highway network by deploying DC fast charging infrastructure along highway corridors in Washington.

Utility EVSE ROI Incentive: Utilities may petition the UTC for a rate of return on EVSE installed for the benefit of ratepayers through 2030.

Green Transportation Grant Program: WSDOT will establish a grant program to fund projects including fleet electrification, modification or replacement of facilities to facilitate fleet electrification and hydrogen fueling, upgrades to electrical transmission and distribution systems, and construction of charging and fueling infrastructure. In order to receive funding for a project, a transit authority must provide matching funding that is at least equal to 20% of the total cost of the project.

PEV Charging Regulation Exemption: The UTC may not regulate the rates, services, or facilities of an entity that offers charging facilities to the public for hire. The exemption does not apply if the entity is otherwise subject to UTC jurisdiction as an electrical company, or if an entity's battery charging facilities and services are subsidized by any regulated service. A utility may offer charging facilities as a regulated service, subject to UTC approval.

PEV Charging Infrastructure Availability: Publicly and privately owned PEVs may charge at state office locations if the vehicles are used for state business, conducting business with the state, or as commuter vehicles. Additionally, contingent upon funding, the state must install electrical outlets suitable for charging PEVs in each of the state's fleet parking and maintenance facilities as well as every state-operated highway rest stop.

Local Government PEV Infrastructure Requirements: Jurisdictions must develop regulations to allow the use of PEV infrastructure in all areas except critical areas or areas zoned for residential or resource use.

EVSE and Battery Exchange Station Regulations: State and local governments may lease land for installing, maintaining, and operating EVSE or electric vehicle battery exchange stations for up to 50 years for at least $1 per year. Additionally, the installation of battery charging and exchange stations is categorically exempt from the Washington Environmental Policy Act.

HB 19-1512: Allows municipal utilities to adopt transportation electrification plans. Regulated utilities may adopt plans that provide EV charging equipment incentives and support for other transportation electrification programs. Utility Electric Transportation Plan Authorization: The governing authority of a utility or a regulated electric utility, with the approval of the UTC, may adopt an electric transportation plan that proves that utility outreach and investment in the electrification of transportation infrastructure does not increase net costs to ratepayers in excess of 0.25%. The governing authority or the UTC may consider items such as the impact of electrification on the utility’s load, demand response and load management opportunities, system reliability and distribution system efficiencies, and interoperability concerns. Upon making this determination, electric utilities may offer incentive programs for customers.

LIST OF ATTENDEES - ACCELERATING STATE ACTION ON CLIMATE CHANGE - JULY 17-18, 2019 AT THE POCANTICO CENTER

First Name:	Last Name:	Job Title:	Organization:
Leo	Asuncion	Commissioner	Hawaii Public Utilities Commisson
Nik	Blosser	Chief of Staff	Office of the Governor, Oregon
David	Bobzien	Director	Nevada Governor's Office of Energy
Dale	Bryk	Dep. Sec. for Energy & Environment	Office of the Governor, New York
Deborah	Burke	Program Associate	Rockefeller Brothers Fund
Janet	Coit	Director	Rhode Island Department of Environmental Management
Jacob	Corvidae	Principal	Rocky Mountain Institute
Sarah	Cottrell Propst	Cabinet Secretary	New Mexico Energy, Minerals, and Natural Resources Dept.
Bradley	Crowell	Director	Nevada Department of Conservation and Natural Resources
Patrick	Cummins	Senior Policy Advisor	Center for the New Energy Economy
Chris	Davis	Senior Advisor	Office of Washington Governor Jay Inslee
Katie	Dykes	Commissioner	Connecticut Dept. of Energy & Environmental Protection
Sandra	Ely	Director	New Mexico Environmental Protection Division
Kathleen	Frangione	Chief Policy Advisor	Office of the Governor, New Jersey
Carla	Frisch	Principal	Rocky Mountain Institute
Kate	Gordon	Director	California Governor's Office of Planning and Research
Ben	Grumbles	Secretary	Maryland Department of the Environment
Joe	Kruger	Director for Research & Strategy	Georgetown Climate Center
Katie	McCormack	Program Director, West Policy	Energy Foundation
Mary	Nichols	Chair	California Air Resources Board
Michael	Northrop	Program Director	Rockefeller Brothers Fund
Zach	Pierce	Senior Policy Advisor	Colorado Governor's Office
Hannah	Pingree	Director	Maine Office of Innovation and the Future
Bill	Ritter, Jr.	Director	Center for the New Energy Economy
Reed	Schuler	Senior Advisor	Office of Washington Governor Jay Inslee
Andrew	Steer	President and CEO	World Resources Institute
Kathleen	Theoharides	Secretary	Massachusetts Exec. Office of Energy & Environmental Affairs
Will	Toor	Executive Director	Colorado Energy Office
Peter	Walke	Deputy Secretary	Vermont Agency of Natural Resources

From: Propst, Sarah, EMNRD
Sent: Monday, August 05, 2019 11:58 AM EDT
To: Michael Northrop Cummins,Patrick <
Subject: Public records requests

Just a heads up that we received a public records requests for all correspondence to/from me that includes wri.org, including as a cc, which pulled in some of the Pocantico documents.

Sarah Cottrell Propst
Cabinet Secretary | Energy, Minerals & Natural Resource Department

www.emnrd.state.nm.us

From: Cummins,Patrick on behalf of Cummins,Patrick <
Sent: Saturday, July 13, 2019 2:06 PM EDT
To: Eda Lee
CC: Courtney McComber
Subject: RE: Can we arrange time to talk by phone to prep for your July 17th dinner remarks?

Eda –

No additional steps necessary. Pocantico is a private conference center run by the Rockefeller Brothers Fund, so it's a little different than other venues. I can assure you his accomodations for the night of July 17 are all set.

Patrick Cummins
Senior Policy Advisor
Colorado State University
Center for the New Energy Economy

From: Eda Lee
Sent: Friday, July 12, 2019 2:31 PM
To: Cummins,Patrick
Cc: Courtney McComber
Subject: RE: Can we arrange time to talk by phone to prep for your July 17th dinner remarks?

Dear Patrick,

I hope this finds you well. I'm writing again to double check whether there are any additional steps I need to take in order to confirm Andrew Steer's accommodations for the night of July 17th for the meeting next week. We would like to include a confirmation document for his travel briefing packet if possible.

Many thanks for your patience and assistance on this—

Eda

Eda Lee
Assistant to the President & CEO
World Resources Institute
WRI.org

From: Eda Lee
Sent: Monday, July 8, 2019 3:23 PM
To: Michael Northrop >; Andrew Steer
Cc: Cummins,Patrick ; Fiona McRaith <
Subject: RE: Can we arrange time to talk by phone to prep for your July 17th dinner remarks?
Importance: High

Dear Mr. Northrop,

I hope you had a great weekend, thank you for your email! Andrew is currently on holiday with family--please excuse me for writing on his behalf in the interim. He'll be back this weekend.

For the call regarding his remarks, might you be able to speak on Monday morning at 9am Eastern? Fiona will likely need to join as well, so I can set up a conference line.

I have registered Andrew for the event, and we are waiting to finalize his travel logistics. Are there any additional steps to confirming Andrew's accommodations? I understand attendees will be at Coach Barn (Conference Center) or Kykuit, but please let me know if there is any further information I need to provide for Andrew's overnight stay.

Many thanks for your patience and assistance,
Eda

Eda Lee
Assistant to the President & CEO
World Resources Institute
WRI.org

WRI is a global research organization that turns big ideas into action at the nexus of environment, economic opportunity and human well-being.

Offices:
Brazil | China | Africa | India | Indonesia | Mexico | Europe | Turkey | United States

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From: Michael Northrop <
Sent: Monday, July 8, 2019 1:08 PM
To: Andrew Steer ; Eda Lee
Cc: Cummins,Patrick
Subject: Can we arrange time to talk by phone to prep for your July 17th dinner remarks?
Importance: High

Dear Andrew and Eda,
Two quick things.
-Can you please fill in the registration material below?
-Could we arrange time for a call to prep for your dinner remarks July 17th?
Many thanks,
Michael

From: Cummins,Patrick
Sent: Monday, July 8, 2019 11:00 AM
To: Michael Northrop ; leo.r.asuncion Hannah.Pingree ; dale.bryk chris.davis ; Deborah Burke <dburke ; jcorvidae cfrisch asteer
Cc: shanell.k.felicianc ; Minerva.Canc eda.lee Regina Creegan
Subject: Please Register: July 17-18
Importance: High

Resending this to those who have recently been invited and also to who have not yet registered:

So that we can confirm your attendance, and to provide our Pocantico hosts with some information for your stay, please click here to complete a short registration form.
http://events.constantcontact.com/register/event?llr=fji8qakab&oeidk=a07ege9eh81b217f8f4

Patrick Cummins
Senior Policy Advisor
Colorado State University
Center for the New Energy Economy

From: Cummins,Patrick on behalf of Cummins,Patrick
Sent: Tuesday, July 16, 2019 5:16 PM EDT
To: Eda Lee
CC: Courtney McComber <
Subject: RE: Can we arrange time to talk by phone to prep for your July 17th dinner remarks?

Wow, do I feel stupid! Pocantico sent me a rooming list with Andrew on it, but it included a coding system that I obviously did not understand. Very sorry, but now he is definitely, completely, absolutely positively confirmed…..

Patrick Cummins
Senior Policy Advisor
Colorado State University
Center for the New Energy Economy

From: Cummins,Patrick
Sent: Saturday, July 13, 2019 12:06 PM
To: Eda Lee
Cc: Courtney McComber
Subject: RE: Can we arrange time to talk by phone to prep for your July 17th dinner remarks?

Eda –

No additional steps necessary. Pocantico is a private conference center run by the Rockefeller Brothers Fund, so it's a little different than other venues. I can assure you his accomodations for the night of July 17 are all set.

Patrick Cummins
Senior Policy Advisor
Colorado State University
Center for the New Energy Economy

From: Eda Lee
Sent: Friday, July 12, 2019 2:31 PM
To: Cummins,Patrick >
Cc: Courtney McComber <
Subject: RE: Can we arrange time to talk by phone to prep for your July 17th dinner remarks?

Dear Patrick,

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Many thanks for your patience and assistance on this—

Eda

Eda Lee
Assistant to the President & CEO
World Resources Institute
WRI.org

From: Eda Lee
Sent: Monday, July 8, 2019 3:23 PM
To: Michael Northrop ; Andrew Steer <
Cc: Cummins,Patrick >; Fiona McRaith <
Subject: RE: Can we arrange time to talk by phone to prep for your July 17th dinner remarks?
Importance: High

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Many thanks for your patience and assistance,
Eda

Eda Lee
Assistant to the President & CEO
World Resources Institute
WRI.org

From: Michael Northrop
Sent: Monday, July 8, 2019 1:08 PM
To: Andrew Steer Eda Lee
Cc: Cummins,Patrick
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Importance: High

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-Could we arrange time for a call to prep for your dinner remarks July 17th?
Many thanks,
Michael

From: Cummins,Patrick <
Sent: Monday, July 8, 2019 11:00 AM
To: Michael Northrop <; leo.r.asuncion Hannah.Pingree ; dale.bryk chris.davis ; Deborah Burke <dburke >; jcorvidae cfrisch asteer
Cc: shanell.k.felicianc Minerva.Canc ; eda.lee Regina Creegan
Subject: Please Register: July 17-18
Importance: High

Resending this to those who have recently been invited and also to who have not yet registered:

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http://events.constantcontact.com/register/event?llr=fji8qakab&oeidk=a07ege9eh81b217f8f4

Patrick Cummins
Senior Policy Advisor
Colorado State University
Center for the New Energy Economy

From: Cummins,Patrick on behalf of Cummins,Patrick
Sent: Sunday, July 14, 2019 10:14 AM EDT
To: Eda Lee
CC: Courtney McComber <
Subject: Re: Can we arrange time to talk by phone to prep for your July 17th dinner remarks?

No, I don't think we are expecting him to stay on Thursday

Sent from my iPhone

On Jul 14, 2019, at 8:01 AM, Eda Lee wrote:

> Thank you, Peter!
>
> On a related note—is Andrew expected to attend the full meeting on Thursday? There is now a strong chance that Andrew will need to be in the city for a high-level meeting at the UN (it takes place from 3-5pm).
>
> Many thanks,
> Eda
>
> ---
>
> **From:** Cummins,Patrick >
> **Sent:** Saturday, July 13, 2019 2:06 PM
> **To:** Eda Lee >
> **Cc:** Courtney McComber < >
> **Subject:** RE: Can we arrange time to talk by phone to prep for your July 17th dinner remarks?
>
> Eda –
>
> No additional steps necessary. Pocantico is a private conference center run by the Rockefeller Brothers Fund, so it's a little different than other venues. I can assure you his accomodations for the night of July 17 are all set.
>
> *Patrick Cummins*
> *Senior Policy Advisor*
> *Colorado State University*
> *Center for the New Energy Economy*
>
> ---
>
> **From:** Eda Lee >
> **Sent:** Friday, July 12, 2019 2:31 PM
> **To:** Cummins,Patrick
> **Cc:** Courtney McComber
> **Subject:** RE: Can we arrange time to talk by phone to prep for your July 17th dinner remarks?
>
> Dear Patrick,
>
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>
> Many thanks for your patience and assistance on this—
>
> Eda
>
> **Eda Lee**
> *Assistant to the President & CEO*
> **World Resources Institute**
> WRI.org
>
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>
> ---
>
> **From:** Eda Lee
> **Sent:** Monday, July 8, 2019 3:23 PM
> **To:** Michael Northrop >; Andrew Steer >
> **Cc:** Cummins,Patrick >; Fiona McRaith >
> **Subject:** RE: Can we arrange time to talk by phone to prep for your July 17th dinner remarks?
> **Importance:** High

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For the call regarding his remarks, might you be able to speak on Monday morning at 9am Eastern? Fiona will likely need to join as well, so I can set up a conference line.

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Many thanks for your patience and assistance,
Eda

Eda Lee
Assistant to the President & CEO
World Resources Institute
WRI.org

From: Michael Northrop
Sent: Monday, July 8, 2019 1:08 PM
To: Andrew Steer ; Eda Lee <
Cc: Cummins,Patrick >
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Importance: High

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Many thanks,
Michael

From: Cummins,Patrick <>
Sent: Monday, July 8, 2019 11:00 AM
To: Michael Northrop ; leo.r.asuncion ; Hannah.Pingree dale.bryk ; chris.davis Deborah Burke <dburke jcorvidae cfrisch ; asteer
Cc: shanell.k.feliciano Minerva.Canc ; eda.lee Regina Creegan <rcreegan
Subject: Please Register: July 17-18
Importance: High

Resending this to those who have recently been invited and also to who have not yet registered:

So that we can confirm your attendance, and to provide our Pocantico hosts with some information for your stay, please click here to complete a short registration form.
http://events.constantcontact.com/register/event?llr=fji8qakab&oeidk=a07ege9eh81b217f8f4

Patrick Cummins
Senior Policy Advisor
Colorado State University
Center for the New Energy Economy

From: Cummins,Patrick on behalf of Cummins,Patrick < >
Sent: Sunday, July 14, 2019 11:38 AM EDT
To: Carla Frisch < >; Joseph Kruger <
CC: Michael Northrop ; Jacob Corvidae
Subject: RE: Draft State Policy Options Pre Read July 11 2019
Attachment(s): "Working Draft State Policy Options Pre Read July 14 2019 pc edits tracked changes.docx"

This looks great. My suggested edits in tracked changes.

Patrick Cummins
Senior Policy Advisor
Colorado State University
Center for the New Energy Economy

From: Carla Frisch >
Sent: Sunday, July 14, 2019 8:26 AM
To: Cummins,Patrick >
Cc: Michael Northrop ; Jacob Corvidae
Subject: Re: Draft State Policy Options Pre Read July 11 2019

Attached is an updated version, with the more substantive updates (addressing Michael's comments) in track changes.

Patrick - if you have additions/changes, please work from this version.

Thanks,
Carla

From: Cummins,Patrick
Sent: Friday, 12 July 2019 2:58 PM
To: Carla Frisch
Cc: Michael Northrop; Jacob Corvidae
Subject: Re: Draft State Policy Options Pre Read July 11 2019

That sounds good. I am flying home now but will get something to both of you over the weekend

Sent from my iPhone

On Jul 12, 2019, at 12:39 PM, Carla Frisch wrote:

> Michael,
>
> Thanks for the very helpful feedback. Will work on making these edits and get it back to you in time for it to be sent out Monday morning.
>
> Patrick,
>
> We definitely welcome any input/suggestions. We could also add a bit at the top referencing your spreadsheet and how the two resources complement each other, as needed.
>
> Best,
> Carla
>
> ---
>
> **From:** Michael Northrop
> **Sent:** Friday, 12 July 2019 1:47 PM
> **To:** Carla Frisch
> **Cc:** Cummins,Patrick; Michael Northrop
> **Subject:** Draft State Policy Options Pre Read July 11 2019
>
> Carla,
> Thanks so much. I think this is extremely helpful and a welcome resource for all the states. It's something that can be updated too, which is terrific.
> I added a few modest notes. I made a small number of tiny edits along the way too that I didn't highlight in yellow because they were no brainers. See the highlights in yellow.
>
> This in combination with the document CSU has prepared on the relevant actions taken in each of the participant states will be a great pair of resources for the group.
>
> Your opening statement on natural gas is the framing for much of the memo. I added a label to it. If you want to

add an intro sentence also that explains why this is put at the top of the memo it might help the reader too.

I am copying Patrick Cummins, who may have additional thoughts.

You really are a hero Carla for doing this during such a difficult week.

Best,
Michael

BACKGROUND MEMORANDUM

To: _____Pocantico Participants
Subject: _____Leading Edge Policy Priorities
July 17-18, 2019

This memo includes examples of sector-specific states policies that will significantly reduce, or put states on a path to significantly reduce, greenhouse gas emissions. In particular, the policy priorities listed here are can be addressed by states through collective action.

Several of these topics are covered in existing US Climate Alliance working groups. This list and the Pocantio meeting ~~event~~ are meant to support those and other existing workstreams, in particular by providing an opportunity to think about how to amplify ambition. The state examples included in this document are by no means exhaustive, rather are intended as a sampling to spur ideas. For additional examples, see the Carbon-free Regions Handbook or the Fulfilling America's Pledge report.

Context:
Overall, natural gas now emits more greenhouse gases than coal in the United States and emissions from petroleum combustion are almost twice that of coal. At the same time, ~~and~~ new estimates of methane leakage from natural gas systems indicate th~~e~~at impact may be larger than previously understood, especially considering that most inventories are based on the 100-year global warming potential of natural gas at 25X, not the 20-year potential of 84X. The top line opportunity is to move away from the use of natural gas in buildings as a first priority, then electricity, ~~transportation,~~ and industry, while simultaneously moving quickly to move transportation systems off petroleum.

We are well past the point of using natural gas as a transition fuel, and new policies and programs should explicitly avoid further "lock-in" investments like ~~, for example,~~ natural gas fueled municipal buses or energy efficiency funding for natural gas equipment. Biogas or "renewable" natural gas ha~~s~~ves the potential to replace a small portion of existing natural gas demand and should be reserved for high value uses, in particular uses that cannot be electrified. In this memo, policy opportunities to reduce and eliminate natural gas are embedded under sector headings.

Transportation: electrification and efficiency, including through standards

- Establish a top-level transportation goal and work with key stakeholders to develop an inclusive, sustainable transportation roadmap that aligns with the state's (or region's) climate action goals and includes best practices, implementation strategies, and a clear path forward. Be sure to include medium- and heavy-duty vehicles.
    - For example, the 12 northeastern states in the Transportation and Climate Initiative (TCI) are exploring regional solutions to accelerate EV deployment.
    - Hawaii, Colorado, Minnesota, and Tennessee have recently adopted electrification roadmaps that identify implementation strategies for increased EV adoption in 5 to 10 years.
- Enable smart mobility by integrating transportation policy with land-use policy.
    - Minneapolis banned single-family zoning across the entire city, enabling more compact and mixed-use development to be built.
    - Denver's Transit Oriented Development Strategic Plan outlines implementation steps, policy recommendations, and a monitoring system for development around city rail stations. New Jersey's Transit Village Initiative offers logistical and financial incentives for municipalities that revitalize areas around transit stations using principles of Transit Oriented Development.
    - New York City and Los Angeles are investigating the implementation of congestion pricing for high-traffic urban areas, building off schemes underway in London and Stockholm. Los Angeles made a massive, multi-year commitment to building transit: Measure M.
    - California's SB375 uses the regional transportation planning process; California recently replaced "level-of-service" with "vehicle miles traveled" as the environmental impact evaluation metric for transportation plans and projects.
- Establish statewide electric vehicle adoption requirements with near-term benchmarks and implement market enablers that drive adoption.
    - Set zero-emission vehicle (ZEV) targets that increase over time, providing directional guidance to automakers, bus, and truck manufacturers. 9 states (CA, CT, ME, MD, OR, NJ, NY, RI, and VT), representing one-third of the US automobile market, have adopted ZEV mandates.
    - Connecticut and Vermont offer significantly reduced EV registration fees.
    - Seattle, Los Angeles, New York City, and Washington DC have committed to fully electrified bus fleets (by 2020, 2030, 2040, and 2045 respectively).
- Provide incentives or programs to support low-income electric vehicle adoption.
    - Washington and Oregon offer tax credits for used EV purchases. Los Angeles, CA offers low-income residents the ability to participate in a zero-emission carshare program.
- Continue to support clean car standards that enable increased efficiency, and in the longer term, advocate for standards that require electrification.
    - 14 states have adopted California's aggressive vehicle emissions standards.
- Build on and update existing low carbon (CA, OR) and alternative fuels standards (WA, MN, MO, LA, PA, HI, OR) where they exist. For new policies, work towards the next generation of clean

fuel standards that prioritize clean electricity as a fuel source while aggressively decreasing the carbon intensity of difficult-to-electrify heavy-duty transport, shipping, and aviation.

- Remove barriers to building out charging infrastructure and work with public utility commissions to reassess regulatory approaches to pricing and vehicle-grid integration.
    - Vermont and Washington's new building codes require EV make-ready infrastructure and parking spaces.
    - California's SB 350 provides guidance and direction towards utilities on participating in electrifying transportation.
    - Pacific Gas & Electric and Southern California Edison offer lower rate pricing for non-residential EV charging customers that charge during off-peak hours.
- Continue to cooperate on education and awareness.
    - "Drive Change. Drive Electric" is a joint effort by NY, CT, MA, NH, RI, VT, and NJ and 16 global automakers to promote the benefits of driving EVs, incentives available for purchasing, fuel cost savings, and charging locations.

Electricity

- For those that have not yet done so, set 100% clean energy goals through a Renewable Portfolio Standard or Integrated Resource Planning requirements, and work with the state legislature to allocate resources to support achieving the goal.
    - Hawaii, California, New Mexico, Washington, Puerto Rico and the District of Columbia have all enacted a legally binding 100% clean electricity standard. Nevada enacted a non-binding 100% clean electricity goal, and the Colorado legislature has passed a 100% goal applicable to Xcel Energy.
- Retire coal plants and reject plans for new coal plants, including through using securitization to deal with any remaining debt for plants.
    - Xcel Energy, a utility serving Colorado, Michigan, Minnesota, New Mexico, North Dakota, South Dakota, Texas, and Wisconsin, has committed to going 80% carbon-free by 2030 and 100% carbon-free by 2050. Part of this initiative includes accelerating the retirement of its last two coal plants in MN to conclude by 2030.
- Retire natural gas plants and, where possible, reject plans for new natural gas plants as well as pipeline infrastructure. Require carbon capture and sequestration on natural gas plants.
- Support responsive grid planning that puts distributed energy resources on an equal footing with other generation sources.
- Support utility and rural coops as they work on clean electricity deployment, e.g. https://beneficialelectrification.com/
- Reduce barriers to deploying small and medium-scale solar PV by replacing the existing permitting system with an automatic online registration system.
- For states that have not done so already, join wholesale utility markets to take advantage of market efficiencies as well as trade electricity more seamlessly with other locations.

Buildings: electrification (reduce/eliminate the direct use of fossil fuels in buildings) and efficiency

- As a minimum, adopt or encourage localities to adopt the 2018 international building codes.

- Implement aggressive appliance efficiency standards which help save consumers money. Where possible, focus on enabling fuel switching from gas to electric appliances.
- Engage with key stakeholders to build a strong, inclusive and durable vision and plan for decarbonizing both public and private buildings, including setting clear timelines that align with state's climate goals.
    - New York state policy directs its utility regulator to pursue decarbonization and Massachusetts state energy plan acknowledges the need to increase electricity use in home heating.
    - California set a goal to reduce emissions from buildings by 40% and double energy efficiency by 2030.
- Ensure new buildings are all-electric through building codes or other authorities. All-electric new construction is already more cost-effective than construction with natural gas.
    - Arcata, CA and some small towns in upstate New York have all-electric policies. Berkeley, CA and Alameda, CA are in progress on all electric.
    - Rhode Island released a new Executive Order to transform the heating sector.
    - Oregon and Colorado are discussing net zero building codes. Oakland, CA has a net zero code. California has a residential code that is net zero electricity with some incentives to make homes all electric.
- Begin orderly retrofit of existing buildings, starting with aligning incentives and programs with climate goals and focusing on existing replacement schedules.
    - Led by the rural coops, Minnesota is working through energy efficiency resource standards (EERS) redesign to allow fuel switching.
    - New York State has established a requirement that utilities achieve a portion of their required energy efficiency savings through deployment of heat pumps in over 80,000 homes. Massachusetts set a non-binding target for 500,000 homes to adopt heat pumps by 2030.
    - Vermont has an RPS that includes moving away from direct use of fossil fuels.
- Stop expanding the gas distribution system and start planning for a staged transition.
    - California PUC has opened a proceeding to begin crafting a policy framework surrounding decarbonization of buildings.
- Assess the medical and other costs associated with burning of gas and other fossil fuels in our buildings, including the indoor and outdoor air quality impacts, and implement programs to eliminate such burdens.
    - Australian researchers estimated that gas stoves were responsible for 12.8% of that country's heavy asthma burden.
    - John Hopkins researchers recommend replacing gas stoves in homes with asthmatic children.
    - Burning fossil fuels in California's buildings emits 3-4 times more NOx than the state's power plants.

Industry

- Establish emissions standards that require the installation of carbon capture and sequestration on high-emitting industrial facilities, while deploying financial incentives and support for

industry to adopt electrified technology for processes where feasible and commercially available, and defray capital costs related to fuel-switching.

- Direct public utility commissions to work with state utilities to: implement or update energy efficiency resource standards (EERS) to specifically target energy-intensive facilities, develop new rate designs for industrial customers, and engage in long-term energy planning that considers increased transmission and distribution infrastructure for electrifying industries.
- Allocate R&D investments in support of industrial process/product redesign, identifying electric/low-carbon alternative manufacturing processes, and enhanced material efficiency.
- Consider applying carbon pricing schemes to industrial facilities to incentivize continuous improvement and investment in efficiency and lower-emitting technologies, while accounting for the heterogeneity of industrial actors.
    - California's cap and trade program includes high-emitting (>25,000 tons CO2e/year) industrial facilities and allocates part of the program revenues towards a utility bill credit for proactive facilities that have reduced their energy and emissions intensities.
    - States can encourage companies to adopt internal carbon prices for planning purposes, a practice which has helped update the operations of several companies.

Super-polluting Methane and Hydrofluorocarbons (HFCs)

- In the short term, work on stopping methane leaks throughout the supply chain, primarily through enhanced leak detection and monitoring technologies. Over time, while moving toward electrification, eliminate downstream gas distribution pipelines.
    - State-level standards like Colorado's and California's standards go beyond federal standards by covering not only new and upgraded equipment, but also existing, high-emitting sources. They require operators to conduct periodic reviews of equipment to catch and repair methane leaks (America's Pledge (AP) 2018). Several other states have taken action.
    - California's AB 1496 requires the identification and monitoring of methane hot spots. California and other states meet these requirements through satellite remote sensing, flyovers, ground verification, and regional inventory analysis. These observations inform the development of methane control programs.
- Promote methane capture from livestock waste in the agricultural sector as well as from wastewater treatment facilities.
    - California's SB 1383, which, along with HFC targets, established a target to cut methane emissions by 40%, including methane from manure management, and direct funds to programs that support installation of dairy digesters and other methane reduction tools and strategies. CA also credits methane abatement as an offset under its cap-and-trade program. (AP 2018)
    - Washington, D.C., installed biodigesters at its Blue Plains water treatment facility and used the captured methane to supply 50 megawatts of power. (AP 2018)
    - Biomethane can be used to meet California and Oregon's LCFS.
- Reduce fugitive methane emissions from landfills by promoting policies that divert waste from landfills and incentivize biomethane capture

    - Rhode Island, New York, Massachusetts, California, Vermont, and Connecticut have set statewide goals to divert solid waste from landfills.
- Adopt state SNAP standards to reduce HFCs.
    - California adopted regulations requiring a 40% reduction in HFC emissions below 2013 levels by 2030, consistent with the EPA's original vacated rules. Connecticut, Maryland, and New York announced their intent to regulate. Vermont passed legislation calling on executive agencies to develop regulations, and Delaware announced they would do the same. (AP 2018)
- Begin to address existing sources of HFCs, for example by partnering with businesses and manufacturers that are already transitioning away from HFCs or incentivizing businesses and residences to switch to HFC alternatives.
    - For example, in EPA's GreenChill program supermarket chains have committed to reducing their HFC emissions.

Land Use

Land use solutions are unique to each state but follow the principle of sequestering as much carbon as possible. Those listed here are from Fulfilling America's Pledge 2018:

- Establish state-level programs that engage state and local governments, businesses, and communities in improving forest management, tree cover expansion, and soil health.
    - For example, Pennsylvania's Working Woodlands program accelerates large-scale forest protection and sustainable management by offering a new value proposition to forest landowners through forest certification and carbon markets. This model has been implemented in Tennessee, Michigan, and New York.
- Preserve forestland by increasing conservation designations and pursuing smart-growth development policies aimed at addressing development pressure.
- Invest in natural and working lands' GHG inventories and other measuring and monitoring programs, including remote sensing, to track progress.
- Collaborate with city officials and residents to preserve and expand urban forests through planting and tree-retention ordinances.
- Enhance opportunities for land-use and natural resources management at the landscape and watershed level by enabling multi-jurisdictional planning and regulation.
- Work with farmers by providing incentives and education to promote emissions reductions and sequestration through fertilizer management, crop changes, conservation tillage, and waste reduction.

From: Cummins,Patrick on behalf of Cummins,Patrick < >
Sent: Tuesday, July 16, 2019 3:03 PM EDT
To: Jacob Corvidae ; Michael Northrop Ritter Jr,Bill
Carla Frisch ; Joseph.Kruger
Subject: RE: Draft States Agenda - A start at a facilitator's agenda

Looks good. I think "State Elections" should be "2020 State Legislative Proposals" and should be third on the list

Patrick Cummins
Senior Policy Advisor
Colorado State University
Center for the New Energy Economy

From: Jacob Corvidae
Sent: Tuesday, July 16, 2019 1:00 PM
To: Michael Northrop >; Ritter Jr,Bill >; Cummins,Patrick
; Carla Frisch Joseph.Kruger
Subject: Re: Draft States Agenda - A start at a facilitator's agenda

Hello crew,

Below are categories for our collected output sheets, as well as a few other opening talking points that may be useful for Bill to emphasize. Feedback, additions, and revisions are all welcome.

Collected Output:
These sheets will capture top ideas for each category, to help inform action and opportunities over the next 18 months. Longer time frames are acceptable but should include a focus on near-term starts.

- Multi-state collaboration
- Engaging states not present
- Driving federal action
- Driving international action
- State elections

Suggested additional talking points for opening:

- We acknowledge that there are existing state efforts underway, including the US Climate Alliance
- There is no intention of duplicating efforts or creating multiple structures that states need to be part of
- This gathering at Pocantico is intended to provide state leaders with the face time that you really need and say is so valuable to you

- And it is about providing you with the opportunity to be unabashedly ambitious and brainstorm with peers who are really ready to move forward fast. Take this rare time away from the day to day to think really big.

- We will capture top ideas to carry this work forward.

From: Michael Northrop
Sent: Tuesday, July 16, 2019 11:00 AM
To: Ritter Jr,Bill; Cummins,Patrick; Jacob Corvidae; Carla Frisch; Joseph.Kruger
Cc: Michael Northrop
Subject: Draft States Agenda - A start at a facilitator's agenda

Lets use this to guide the call at 11:30MT.
Think about who else we should be tapping for what…

From: Cummins,Patrick on behalf of Cummins,Patrick
Sent: Tuesday, July 16, 2019 12:54 PM EDT
To: Grimes, Victoria S (ENV)
Subject: RE: Hotel for Secretary Theoharides
Attachment(s): "List of Attendees.pdf"

Here it is…

Patrick Cummins
Senior Policy Advisor
Colorado State University
Center for the New Energy Economy

From: Grimes, Victoria S (ENV)
Sent: Tuesday, July 16, 2019 10:50 AM
To: Cummins,Patrick >
Subject: RE: Hotel for Secretary Theoharides

Hi Patrick,

Wondering if you might have a confirmed list of attendees for Thursday's meeting?

Best,

Victoria Grimes
Executive Assistant to Secretary Kathleen Theoharides
Executive Office of Energy & Environmental Affairs
100 Cambridge Street, Suite 900, Boston, MA 02114

From: Cummins,Patrick
Sent: Tuesday, June 18, 2019 1:20 PM
To: Grimes, Victoria S (EEA)
Subject: RE: Hotel for Secretary Theoharides

We are expecting senior energy and environmental officials from agencies and gov's offices from 14 states – 8 eastern and 6 western. They are:
MD, NY, NJ, MA, CT, RI, ME, and VT
WA, OR, CA, NV, NM, and CO

Patrick Cummins
Senior Policy Advisor
Colorado State University
Center for the New Energy Economy

From: Grimes, Victoria S (ENV)
Sent: Monday, June 17, 2019 8:49 AM
To: Cummins,Patrick >; Megan Burnett < >
Subject: RE: Hotel for Secretary Theoharides

Great. Might you be able to share which other states are confirmed to participate?

From: Cummins,Patrick
Sent: Monday, June 17, 2019 10:28 AM
To: Grimes, Victoria S (EEA) ; Megan Burnett >
Subject: RE: Hotel for Secretary Theoharides

No worries. That's correct. No cost for registration. Also meals will be provided (dinner Wed night, breakfast and lunch Thurs)

Patrick Cummins
Senior Policy Advisor
Colorado State University
Center for the New Energy Economy

From: Grimes, Victoria S (ENV) >
Sent: Monday, June 17, 2019 8:26 AM
To: Cummins,Patrick < >; Megan Burnett
Subject: RE: Hotel for Secretary Theoharides

Apologies for all the questions – is there also no cost associated with registration?

From: Cummins,Patrick
Sent: Monday, June 17, 2019 10:22 AM
To: Grimes, Victoria S (EEA) < Megan Burnett <
Subject: RE: Hotel for Secretary Theoharides

Victoria - That's correct. PC

Patrick Cummins
Senior Policy Advisor
Colorado State University
Center for the New Energy Economy

From: Grimes, Victoria S (ENV) <
Sent: Monday, June 17, 2019 8:19 AM
To: Cummins,Patrick >; Megan Burnett >
Subject: RE: Hotel for Secretary Theoharides

Hi Patrick,

To confirm, there is no cost associated with lodging?

Thanks,

Victoria Grimes
Executive Assistant to Secretary Kathleen Theoharides
Executive Office of Energy & Environmental Affairs
100 Cambridge Street, Suite 900, Boston, MA 02114

From: Cummins,Patrick
Sent: Monday, June 17, 2019 10:10 AM
To: Megan Burnett >; Grimes, Victoria S (EEA)
Subject: RE: Hotel for Secretary Theoharides

Victoria – No need to do anything on lodging. Pocantico is a private conference center and they are providing lodging for all the meeting participants. Please let me know if you have any other questions. PC

Patrick Cummins
Senior Policy Advisor
Colorado State University
Center for the New Energy Economy

From: Megan Burnett
Sent: Monday, June 17, 2019 8:04 AM
To: Grimes, Victoria S (ENV) < >; Cummins,Patrick >
Subject: Re: Hotel for Secretary Theoharides

Hello Victoria,

I have looped in Patrick Cummins who can share information with you regarding lodging.

Best,
Megan

Megan Burnett
Georgetown University Law Center
Centers & Institutes Assistant

On Mon, Jun 17, 2019 at 9:41 AM Grimes, Victoria S (ENV) > wrote:

> Hi Megan,

Who should I work with to secure lodging for Katie Theoharides on July 17th in Pocantico, New York for the State Action on Climate Change meeting?

Victoria Grimes
Executive Assistant to Secretary Kathleen Theoharides
Executive Office of Energy & Environmental Affairs
100 Cambridge Street, Suite 900, Boston, MA 02114

LIST OF ATTENDEES - ACCELERATING STATE ACTION ON CLIMATE CHANGE - JULY 17-18, 2019 AT THE POCANTICO CENTER

First Name:	Last Name:	Job Title:	Organization:
Leo	Asuncion	Commissioner	Hawaii Public Utilities Commisson
Nik	Blosser	Chief of Staff	Office of the Governor, Oregon
David	Bobzien	Director	Nevada Governor's Office of Energy
Dale	Bryk	Dep. Sec. for Energy & Environment	Office of the Governor, New York
Deborah	Burke	Program Associate	Rockefeller Brothers Fund
Janet	Coit	Director	Rhode Island Department of Environmental Management
Jacob	Corvidae	Principal	Rocky Mountain Institute
Sarah	Cottrell Propst	Cabinet Secretary	New Mexico Energy, Minerals, and Natural Resources Dept.
Bradley	Crowell	Director	Nevada Department of Conservation and Natural Resources
Patrick	Cummins	Senior Policy Advisor	Center for the New Energy Economy
Chris	Davis	Senior Advisor	Office of Washington Governor Jay Inslee
Katie	Dykes	Commissioner	Connecticut Dept. of Energy & Environmental Protection
Sandra	Ely	Director	New Mexico Environmental Protection Division
Kathleen	Frangione	Chief Policy Advisor	Office of the Governor, New Jersey
Carla	Frisch	Principal	Rocky Mountain Institute
Kate	Gordon	Director	California Governor's Office of Planning and Research
Ben	Grumbles	Secretary	Maryland Department of the Environment
Joe	Kruger	Director for Research & Strategy	Georgetown Climate Center
Katie	McCormack	Program Director, West Policy	Energy Foundation
Mary	Nichols	Chair	California Air Resources Board
Michael	Northrop	Program Director	Rockefeller Brothers Fund
Zach	Pierce	Senior Policy Advisor	Colorado Governor's Office
Hannah	Pingree	Director	Maine Office of Innovation and the Future
Bill	Ritter, Jr.	Director	Center for the New Energy Economy
Reed	Schuler	Senior Advisor	Office of Washington Governor Jay Inslee
Andrew	Steer	President and CEO	World Resources Institute
Kathleen	Theoharides	Secretary	Massachusetts Exec. Office of Energy & Environmental Affairs
Will	Toor	Executive Director	Colorado Energy Office
Peter	Walke	Deputy Secretary	Vermont Agency of Natural Resources

From: Cummins,Patrick on behalf of Cummins,Patrick
Sent: Monday, July 15, 2019 10:16 AM EDT
To: Michael Northrop
Subject: RE: July 17-18 Pocantico Leadership States Meeting: Background Note, Agenda, Participant List, and Pocantico Center Information

Unfortunately, that is the one time today that I am unavailable. See below for some thoughts in response to the CA suggestions

> We truly appreciate all the work you've put in here. That said, we're thinking that given the mix of states in the room, many of which are at different levels of ambition/action than California, it would be great to focus in on just a few areas that we know from our USCA and other bilateral conversations are top of mind for these states.
>
> Certainly comparing any other state to CA is tough, but this group of states is ambitious. At a high level, we still want this to be a strategic meeting and not a technical one.
>
> From our perspective, transportation and climate resilience are key issues. The former is on the agenda, though we'd like to see that expended and including more of a land use focus, not just technology. The latter isn't on the agenda but is clearly the major way for most states that climate is engaging people and politicians across political lines -- witness the fact that here in CA we've spent 6 months talking about wildfires, which has led to a much more focused discussion on climate risk and the impact of fires on our overall utility structure/ability to meet our climate goals.
>
> I assume she means land use in the context of urban planning and transportation planning. That could fit easily into the transportation agenda item. I'm assuming they could lead that conversation.
>
> Maybe we make resilience the lunchtime conversation? Keeping in mind we might not have the exact right people for that topic.

From: Michael Northrop
Sent: Wednesday, August 21, 2019 2:59 AM EDT
To: Cummins,Patrick <
Subject: RE: meeting highlights

Good question.
I wonder if Vicki Arroyo would have an answer to that question. I'll ask her.
Thanks for doing all this..

From: Cummins,Patrick
Sent: Tuesday, August 20, 2019 9:03 AM
To: Michael Northrop
Subject: meeting highlights

Michael –

Slightly edited versions of the highlighted items you captured (which is a really good list) and Jacob's white board capture are combined in the attached doc. Not really practical to translate the notes that Carla (hand written) and Katie provided, though I have attached them here FYI.

I'm off to our Leg Academy this week in Breckenridge and we have a new initiative to help Tri State G&T develop a clean energy plan. Those things along with assisting the govs teams in NM and MT have me hopping these days.

Enjoy the rest of your summer and let's touch base soon. All the best, PC

p.s. – Snail mail is probably subject to open records too, no?

From: Hoffer,Trina < >
Sent: Monday, July 22, 2019 1:50 PM EDT
To: Cummins,Patrick
Subject: RE: MLG...
Attachment(s): "Pocantico States Policy Table.pdf","Pocantico States Policy Table.docx"

It's done, attached if you need it.

From: Cummins,Patrick >
Sent: Monday, July 22, 2019 11:45 AM
To: Hoffer,Trina
Subject: RE: MLG...

That's all for now…

Patrick Cummins
Senior Policy Advisor
Colorado State University
Center for the New Energy Economy

From: Hoffer,Trina
Sent: Monday, July 22, 2019 11:44 AM
To: Cummins,Patrick
Subject: RE: MLG...

Bill told me about this. I knew that about her and still missed it. Sorry. It's fixed in the Word document, I'll re PDF it now unless there are other changes…

From: Cummins,Patrick <
Sent: Monday, July 22, 2019 11:42 AM
To: Hoffer,Trina
Subject: MLG...

…..as they like to call her…

NM would like us to change references in the Pocantico Policy Tables from Gov. Grisham to Gov. Lujan Grisham…

Thanks, PC

Patrick Cummins
Senior Policy Advisor
Colorado State University
Center for the New Energy Economy

State Climate / Carbon Policies

State	Emissions / GHG Goals	Other Carbon / Climate Activities and Policies
California	Adopted in 2006 (AB 05-32): 1990 levels by 2020; amended in 2016 (SB 15-32): 40% below 1990 levels by 2030. E.O. S-03 in 2005: 80% below 1990 levels by 2050.	Cap & Trade Program EO B-55-2018: achieve carbon-neutrality by 2045 and net-negative emissions thereafter. AB 17-398: extends cap-and-trade through 2030. SB 15-350: directs CARB to adopt rules removing disincentives for utilities' emissions reductions programs.
Colorado	Adopted 2019 (HB 19-1261): more than 26% from 2005 levels by 2025, 50% below 2005 levels by 2030, and 90% below 2005 levels by 2050.	HB 19-1261: in addition to expanding GHG reduction goals, provides for possibility of joining other jurisdictions in regional abatement schemes. SB 19-096: directs the Air Quality Control Commission to track long-term emissions data and publish an inventory. SB 19-236: utilities must include emissions reductions plans in their IRPs, and PUC must consider social cost of carbon.
Connecticut	Originally adopted 2004 (SB 04-595), last amended 2018 (SB 18-7): 10% below 1990 levels by 2020, 45% below 2001 levels by 2030, and 80% below 2001 levels by 2050.	The 2018 amendment to the GHG targets (SB 7) also requires publication of seal level rise scenarios. In 2018, the Governor's Council on Climate Change put forward several policy recommendations for reducing emissions.
Hawaii	Adopted 2018 (HB 18-2182): carbon neutral by 2045.	HB 18-2182 also creates the Greenhouse Gas Sequestration Task Force to examine incentives and policies that will help the state further reduce emissions. Hawaii is on track to reduce GHG emissions to 1990 levels by 2020. The legislature set this target in 2007 (HB 226).
Maine	Adopted 2019 (LD 19-1679): 45% below 1990 levels by 2030, 80% below 1990 levels by 2050.	LD 19-1679: establishes the Maine Climate Council, tasked with developing a climate action plan and clean energy economy transition plan.
Maryland	Adopted 2009, reauthorized and amended in 2016 (SB 16-323): 25% below 2006 levels by 2020, and 40% below 2006 levels by 2030.	HB 19-277: Authorizes Governor to include the state as full participant in regional initiatives (TCI) to reduce emissions from transportation. SB 19-516: Among other provisions, increases the state's RPS to 50% by 2030. Requires study of a 100% renewable energy goal.

State	Emissions / GHG Goals	Other Carbon / Climate Activities and Policies
Massachusetts	Adopted 2008 (the Global Warming Solutions Act): 25% below 1990 levels by 2020, and 80% below 1990 levels by 2050.	E.O. 2016-569: requires the Secretary of Energy and Environmental Affairs to consult the GWSA Implementation Advisory Committee to establish statewide limits for 2030 and 2040, achieve further reductions from government operations, work to develop regional transportation policies, and lead reform on capacity and wholesale markets to achieve state mandates. DEP must also consider limits on sources such as natural gas pipelines and the transportation sector. The state's 2015 update to its Clean Energy and Climate Plan provides a comprehensive suite of policies to reduce statewide emissions.
Nevada	Adopted 2019 (SB 19-254): 28% below 2005 levels by 2025, 45% below 2005 levels by 2030, and "zero or near-zero" by 2050.	SB 19-254: requires DCNR to submit a report on whether existing/pending state policies can ensure that the state achieves zero carbon emissions by 2050.
New Jersey	Adopted 2007 (AB 07-3301): 1990 levels by 2020, and 80% below 2006 levels by 2050.	The Draft 2019 New Jersey Energy Master Plan outlines multiple strategies for emissions reductions in the energy, transportation, and building sectors.
New Mexico	Adopted 2019 (E.O 003): 45% below 2005 levels by 2030.	Governor Lujan Grisham's executive order on climate also created the interagency Climate Change Task Force to evaluate and report on mitigation and adaptation policies, including a market-based program to reduce carbon emissions. SB 19-489 requires that the Environmental Improvement Board (EIB) promulgate a rule limiting CO_2 emissions from coal fired generating plants to an emissions standard of 1,100 lbs-CO_2/MWh on or after January 1, 2023.
New York	Adopted by Executive Order 24 in 2009, reaffirmed as a goal of the Reforming the Energy Vision initiative: 40% below 1990 levels by 2030, and 80% below 1990 levels by 2050. Senate Bill 19-6599 will create GHG emissions targets of 40% below 1990 levels by 2030 and 85% below 1990 levels by 2050, with the remaining 15% offset. The bill also requires the PSC to create a clean energy standard of 70% renewable energy by 2030 and 100% zero emissions by 2040.	The state Soil & Water Conservation Committee administers a Climate Resilient Farming Program to reduce agricultural emissions. Governor Cuomo's REV initiative is a series of smaller initiatives to achieve carbon emissions reductions from multiple sectors, including transportation and buildings.
Oregon	Adopted 2007 (HB 07-3543): 10% below 1990 levels by 2020 and 75% below 1990 levels by 2050.	HB 19-2020 (second reading in Senate on 6/19) would create a GHG emissions standard of 45% below 1990 levels by 2035

State	Emissions / GHG Goals	Other Carbon / Climate Activities and Policies
Rhode Island	Adopted 2014 (the Resilient Rhode Island Act): 10% below 1990 levels by 2020, 45% below 1990 levels by 2035, and 80% below 1990 levels by 2050.	Governor Raimondo's executive order 2017-10 required the development of a statewide Climate Resilience Action Strategy by June 2018.
Vermont	Adopted 2006 (S 06-259): 50% below 1990 levels by 2028, and if feasible, 75% below 1990 levels by 2050.	Executive Order 2017-12 created the Vermont Climate Action Committee. The Committee's 2018 report recommends using market-based mechanisms, sequestration measures, and carbon offset projects to address emissions.
Washington	Adopted 2008 (HB 08-2815): 1990 levels by 2020, 25% below 1990 levels by 2035, and 50% below 1990 levels by 2050 or 70% below the state's expected emissions in 2050.	SB 19-5116: Requires utilities to use emissions-free resources by 2045. Social cost of carbon must factor into IRP process.

State Energy Policies and Utility Goals

State	Renewable / Clean Energy Targets	EERS	Utility Commitments / Goals
California	Adopted 2002, last amended 2018: 33% by 2020, 60% by 2030, with a target of 100% carbon-free by 2045.	Electric: Long-term goals average about 1.15% of retail sales through 2024. Average incremental savings targets average about 1.3% of retail sales electricity from 2020-2025. Natural Gas: Incremental savings target of 0.56% through 2024. SB 15-350 requires state agencies and utilities to double cumulative efficiency savings achieved by 2030. Work to develop specific utility targets is ongoing.	Pacific Gas & Electric: Member of the WeAreStill in coalition. Goal to avoid one million tons of cumulative greenhouse gas emissions from 2018 through 2022, compared to a 2016 baseline. SMUD: 33% renewable energy by 2020, 60% by 2030, and reduce retail load GHG emissions to net zero by 2040. Sempra Energy: 35% below 2010 emissions by 2021, SDG&E is on track to meet CA's 50% by RE target.
Colorado	Adopted 2004: 30% by 2020 (IOUs), 10% or 20% by 2020 for municipalities and electric cooperatives depending on size. Polis Administration's Roadmap to 100% Renewable Energy by 2040.	Electric: Flat target of 500 GWh or roughly 1.7% of sales per year. Black Hills follows Xcel's targets. HB 17-1227 extended electric efficiency programs to 2028 and required the commission to set goals of at least 5% peak demand reduction and 5% energy savings (as compared to 2018) by 2028 for demand-side management programs implemented during 2019 through 2028. Natural Gas: Savings targets commensurate with spending targets (at least 0.5% of prior year's revenue).	Xcel Energy: 55% RE by 2026, 80% GHG reduction by 2030, carbon-free by 2050. Platte River Power Authority: Zero carbon emissions by 2030. Holy Cross Energy: 70% emissions reduction by 2030. Poudre Valley Rural Electric Association: increase carbon-free energy from 33% to 80% by 2030. Colorado Springs Utilities: 20% renewable energy by 2020.

State	Renewable / Clean Energy Targets	EERS	Utility Commitments / Goals
Connecticut	Adopted 1998, last amended 2018: Class 1: 21% by 2020, 30% by 2025, 40% by 2030 (plus 4% class 1 or 2 by 2018, 4% class 3 by 2010).	Electric: Average incremental savings of 1.11% of sales from 2019 through 2021.The state's renewable portfolio standard (RPS), established in 1998 and revised thereafter, requires that electricity providers and wholesale suppliers obtain 27% of their retail load from renewable energy and energy efficiency by 2020. Natural Gas: Average incremental savings of 0.59% per year from 2019 through 2021.	AVANGRID (the United Illuminating Company is a subsidiary): increase installed renewable capacity by 2GW, reduce emissions intensity 25% below 2015 levels by 2020, 100% carbon neutral by 2035.
Hawaii	Adopted 2015 (HB 15-623): 40% by 2030, 70% by 2040, and 100% by 2045.	Electric: reduce electricity consumption by 4,300 GWh by 2030 (equal to approximately 30% of forecast electricity sales or 1.4% annual savings). Natural Gas: N/A (Natural gas plays a limited role in the state's energy generation mix.)	Hawaiian Electric Company: reduce GHG emissions more than 16% below 2010 levels by 2020. Achieved: 2014. Committed to meeting the 100% renewable energy target. Kaua'i Island Cooperative: 70% renewable by 2030.
Maine	Adopted 2019 (LD 19-1494): 80% by 2030, 100% by 2050.	Electric: Savings of 20% by 2020, with incremental savings targets of ~ 1.6% per year for 2014-2016 and ~2.4% per year for 2017-2019. While Efficiency Maine operates under an all cost-effective mandate, the agency has fallen short of targets in recent years due to budget cuts. Natural Gas: Incremental savings of ~0.2% per year for 2017-2019.	AVANGRID (Central Maine Power is a subsidiary): increase installed renewable capacity by 2GW, reduce emissions intensity 25% below 2015 levels by 2020, 100% carbon neutral by 2035.
Maryland	Adopted 2004, last amended 2019 (SB 19-516): 28% by 2020, 40% by 2025, and 50% by 2030.	Electric: 2% incremental energy savings goal through 2023. Utilities must also file an energy efficiency program plan every 3 years to be approved by the PSC. Natural Gas: goals and limited income goals are being developed.	FirstEnergy (Potomac Edison Company is subsidiary in MD): 90% below 2005 emission levels by 2045.

State	Renewable / Clean Energy Targets	EERS	Utility Commitments / Goals
Massachusetts	Adopted 1997, last amended 2018 (Clean Energy Standard): 20% by 2020, 40% by 2030, 60% by 2040, and 80% by 2050. RPS: 13% by 2018, 55% by 2050.	Electric: Net annual savings of 3.45 million MWh (not including fuel switching) for 2019-2021, equivalent to savings of ~2.7% of retail sales per year. Natural Gas: 1.25% of retail sales. Net savings of 95.89 MMTherms for 2019-2021. Additional goal of 261.9 million net lifetime MMBtu for 2019-2021.	NationalGrid: 45% below 1990 emission levels by 2020, 70% below 1990 levels by 2030, and 80% below 1990 levels by 2050.
Nevada	Adopted 1997, last amended 2019: 24% by 2021, 50% by 2030, with 100% by 2050 goal (up to 10% of the standard can be met using energy efficiency from 2020-2024.	SB 17-150 set baseline targets for electricity suppliers: 1% in 2018, 1.5% for 2021-2025.	NV Energy: seeks to double renewable generation by 2023. The utility included $2 billion in renewable projects in its 2018 IRP, and expects to retire or divest 100% of its coal generation by the end of 2025.
New Jersey	Adopted 1999, last amended 2018: 35% by 2025, 50% by 2030.	Electric: 2% electric savings (as a percent of average annual usage from the prior three years) within five years of the initial implementation of a utility's plan. In April, consultants presented the New Jersey Board of Public Utilities with the draft strategic plan for 2019-2022 for the statewide Clean Energy Program, including an energy efficiency portfolio achieving a 56% increase in savings by 2022. Natural Gas: 0.75% savings (as a percent of average annual usage from the prior three years) within five years of the initial implementation of a utility's plan.	FirstEnergy (Jersey Central Power & Light is a subsidiary): 90% below 2005 emission levels by 2045. Public Service Electric and Gas: eliminate 13 million metric tons of CO2 equivalent by 2030 (from 2005 levels).

State	Renewable / Clean Energy Targets	EERS	Utility Commitments / Goals
New Mexico	Adopted 2004, last amended 2019 (Carbon-free Resource Standard): Distribution cooperatives: 10% by 2020, 40% by 2025, 50% by 2030, and zero-carbon (at least 80% RE) by 2050. IOUs: 20% by 2020, 40% by 2025, 50% by 2030, 80% by 2040, and carbon-free by 2045.	Electric: The state's three public utilities must achieve 5% savings of 2020 retail sales by 2025. HB 19-291 directs the Public Regulation Commission to set additional targets through 2030.	Xcel Energy: 55% RE by 2026, 80% GHG reduction by 2030, and carbon-free by 2050. PNM: carbon-free by 2040 (5 years ahead of the deadline established by SB 19-489). PNM plans to retire San Juan by 2022.
New York	Adopted 2016 (Clean Energy Standard): 50% by 2030.	Statewide all-fuels target of 185 TBtu cumulative annual savings for 2015-2025, or approximately 3% of incremental electric sales. Electric: detailed proposals are to be submitted by the utilities to the PSC. The PSC assumes that these plans will account for 2% of the statewide goal, with the remainder accounted for by NYSERDA, codes and standards, and other state activities. Natural Gas: no specific targets, but savings will count toward statewide goal.	Long Island Power Authority: add 800 MW of clean energy by 2030. AVANGRID (New York State Electric & Gas Corporation and Rochester Gas & Electric Corporation are subsidiaries): increase installed renewable capacity by 2GW, reduce emissions intensity 25% below 2015 levels by 2020, and 100% carbon neutral by 2035. NationalGrid: 45% below 1990 emission levels by 2020, 70% below 1990 levels by 2030, and 80% below 1990 levels by 2050.
Oregon	Adopted 2007, last amended 2016: Large IOUs (3% or more of state's load): 50% by 2040 Large COUs: 25% by 2025 Small Utilities (1.5 to <3% of state's load): 10% by 2025 Smallest Utilities (<1.5% of	Electric: Incremental targets average ~1.3% of sales annually for the period 2015-2019. Natural Gas: Incremental savings of 0.3% of sales annually for the period 2015-	Portland General Electric and Pacific Power will be nearly coal free by 2030, entirely coal free by 2035. Avista: carbon-neutral electricity supply by 2027; 100% clean by 2045.

	state's load): 5% by 2025 Total coal phase out by 2035.[1]	2019.	
State	**Renewable / Clean Energy Targets**	**EERS**	**Utility Commitments / Goals**
Rhode Island	Adopted 2004, last amended 2016: 16% by 2020, 31% by 2030, 38.5% by 2036.	Electric: Average incremental savings of 2.5% for 2018-2020. Natural Gas: Average incremental savings of 0.97% for 2018-2020.	NationalGrid: 45% below 1990 emission levels by 2020, 70% below 1990 levels by 2030, 80% below 1990 levels by 2050.
Vermont	Adopted 2015: 55% by 2017, 75% by 2032, and 12% energy transformation projects (EE, EVs, storage) by 2032.	Vermont law requires Energy Efficiency Utility budgets to be set at a level that would realize "all reasonably available, cost-effective energy efficiency" and set specific energy and peak demand savings targets. Average incremental electricity savings totaling 357,400 MWh over 2018-2020, or approximately 2.4% of annual sales. Natural Gas: Three-year annual incremental savings of 192,599 Mcf spanning 2018-2020 or 0.5% of sales.	Green Mountain Power, 2018 Goal: partner with customers to drive down costs and eliminate more than 8,000 metric tons of carbon emissions per year using clean energy for the next two decades.
Washington	Adopted 2006, amended 2019: 15% by 2020, coal phased out by 2025, carbon neutral by 2030, 100% carbon-free by 2045.	Electric: average around 1.4% incremental savings per year. Natural Gas: in 2014, all four IOUs committed to a voluntary pilot program with the potential to save over 280 million therms annually.	Avista: carbon-neutral electricity supply by 2027, 100% clean by 2045. Seattle City Light: carbon neutral since 2005. Puget Sound Energy: reduce carbon emissions 50% by 2040, 100% coal-free generation by the early 2030s.

[1] Utilities that buy into a new coal plant or sign a new contract specifically for new coal power and publicly-owned utilities that annex investor-owned utility territory without consent (aside from municipal utilities under certain conditions) are subject to the “large utility” standards.

State Transportation Policies

State	Regional Transportation Collaborative	LEV Standards? [2]	ZEV Standards? [3]	Low Carbon Fuel Standard?	EV / ZEV Goals
California	Pacific Coast Collaborative	Yes	Yes	Goal: reduce carbon intensity of transportation fuel pool by at least 20% by 2030.	Goal (E.O. B.48-2018): 5 million ZEVs by 2030 and 250,000 ZEV chargers by 2025. Deploy over 100,000 zero emission freight vehicles and associated equipment by 2030. Transit agency requirements: all new bus purchases must be zero emission buses by 2029 (50% by 2026 for large agencies, 25% by 2026 for small agencies)
Colorado	REV West	Yes	Rulemaking in Progress		Goal (E.O. B2019-002): 940,000 EVs by 2030.
Connecticut	Transportation and Climate Initiative[4]	Yes	Yes	*	Goal: 500,000 ZEVs by 2030 (ZEV MOU)
Hawaii	N/A	No	No		
Maine	Transportation and Climate Initiative	Yes	Yes	*	
Maryland	Transportation and Climate Initiative	Yes	Yes	*	Goal: ~300,000 ZEVs by 2025 (ZEV MOU)
Massachusetts	Transportation and Climate Initiative	Yes	Yes	*	Goal: ~300,000 ZEVs by 2025 (ZEV MOU)

[2] States that have adopted LEV Standards not represented below: Delaware and Pennsylvania.
[3] All states that have adopted ZEV Standards are represented below.
[4] Other TCI members not captured here: Delaware, New Hampshire, Pennsylvania, and Virginia.

Nevada	REV West				

State	Regional Transportation Collaborative	LEV Standards?	ZEV Standards?	Low Carbon Fuel Standard?	EV / ZEV Goals
New Jersey	Transportation and Climate Initiative	Yes	Yes	*	Goal: 330,000 EVs by 2025.
New Mexico	REV West	Climate Change Task Force to evaluate adopting.	Climate Change Task Force to evaluate adopting.		Governor Lujan Grisham stated that she would like to see 20% of the state fleet electrified.
New York	Transportation and Climate Initiative	Yes	Yes	*	Goal: 800,000 ZEVs by 2025.
Oregon	Pacific Coast Collaborative	Yes	Yes	Requires fuel suppliers to reduce the carbon content of transportation fuels by 10% by 2025.	Goal (E.O. 2017-21): 50,000 EVs by 2020.
Rhode Island	Transportation and Climate Initiative	Yes	Yes	*	Goal: 43,000 ZEVs by 2025 (ZEV MOU)
Vermont	Transportation and Climate Initiative	Yes	Yes	*	Goal: ~50,000 EVs by 2025
Washington	Pacific Coast Collaborative	Yes			Goal: 50,000 EVs by 2020.

* Signatory: Low Carbon Fuel Standard MOU (2009) in which the states agreed to analyze low-carbon fuel supply options, determine the feasibility of achieving a range of carbon reduction goals – including a 10 percent reduction in carbon intensity of fuels – and develop a framework for a regional Low Carbon Fuel Standard (LCFS).

State Appliance and Building Efficiency Policies

State	Appliance Standards Opposing Federal Rollback[5]	Building Efficiency Codes
California	In December 2008, California adopted a 45 lumen per watt standard for general service lamps (GSLs) as defined in the 2007 Energy Independence and Security Act (EISA). California's Title 20 Appliance Efficiency Regulations have existing provisions that backstop all other federal appliance standards in case of repeal or rollback.	Commercial: meets or exceeds ASHRAE 90.1-2013 Residential: meets or exceeds IECC 2015 Solar: The California Energy Commission adopted revisions to the Energy code in May 2018. The most noteworthy new provision is a requirement for all new low-rise homes to install PV equipment with an annual output greater than or equal to the home's annual electric consumption. The proposed amended standards, which still need to be approved by the California Building Standards Commission would go into effect on January 1, 2020.
Colorado	HB 19-1231 updates and adopts standards for water efficiency and energy efficiency that apply to a list of 15 consumer and commercial appliances and other products. The bill also includes a provision to adopt current federal standards to backstop all other federal appliance standards in case of repeal or rollback.	No mandatory statewide code, but any county or municipality that had a building code in place was required to adopt 2003 IECC or 2006 IECC as the minimum energy code standard by July 1, 2008. Solar: Builders of single-family homes are required to offer solar energy as a standard feature to all prospective homebuyers. Builders are required to give the buyer the option to have either a PV system or a solar water heating system installed on their new home or to have all the necessary wiring and plumbing installed so that they can easily add a solar system later.
Connecticut	N/A	Residential and commercial building codes are based on the 2012 IECC, with weakening amendments.
Hawaii	HB 19-556 requires the Department of Business, Economic Development and Tourism to adopt minimum appliance efficiency standards for certain products sold or installed in the State that are substantially equivalent to existing appliance efficiency standards established in California and by the federal government.	Residential and commercial building codes are based on the 2015 IECC, with weakening amendments. Solar: As of January 1, 2010, building permits may not be issued for new single-family homes that do not include a solar water-heating system.

[5] In May 2019, 36 utility companies opposed the DOE proposal to roll back lightbulb efficiency stating that "The 2020 standard for lightbulbs should remain applicable to all common household lightbulbs, and efficiency standards for other products should not be delayed."

State	Appliance Standards Opposing Federal Rollback	Building Efficiency Codes
Maine	N/A	Commercial: based on the 2009 IECC and ASHRAE 90.1-2007 Residential: based on the 2009 IECC
Maryland	N/A	Residential and commercial building codes are based on the 2015 IECC.
Massachusetts	N/A	Commercial: based on the 2015 IECC and ASHRAE 90.1-2013 Residential: based on the 2015 IECC
Nevada	AB 19-54 adopted the federal light bulb standards.	Commercial: 2012 IECC, with amendments or ASHRAE 90.1-2010 Residential: 2012 IECC, with amendments
New Jersey	N/A	Commercial: based on ASHRAE 90.1-2013 Residential: based on 2015 IECC Solar: Developers of residential developments with 25 or more dwelling units must "offer to install, or to provide for installation of, a solar energy system" when technically feasible. The law took effect immediately upon enactment; however, the Department of Community Affairs (DCA), in cooperation with the New Jersey Board of Public Utilities (BPU), must develop rules and standards for its implementation. The law does not provide a time frame for the adoption of regulations and it does not appear that such rules have been established.
New Mexico	N/A	Commercial and residential are based on the 2009 IECC, with amendments
New York	N/A	Commercial: based on the 2015 IECC and ASHRAE 90.1-2013, as modified by the 2016 supplement Residential: based on the 2015 IECC, as modified by the 2016 supplement
Oregon	N/A	Commercial: based on ASHRAE 90.1-2010 Residential: more stringent than the 2009 IECC
Rhode Island	SB 19-552, which has been "held for further study", would establish minimum appliance energy efficiency standards.	Commercial: based on the 2012 IECC and ASHRAE 90.1-2010 Residential: based on the 2012 IECC, with amendments

State	Appliance Standards Opposing Federal Rollback	Building Efficiency Codes
Vermont	H 17-411 provides that the state will enforce federal standards if they are "withdrawn, repealed or otherwise voided" at the federal level. Efficiency measures protected by the new Vermont law include all standards on the federal books as of January 17, 2017, including ones that have yet to take effect, including the light bulb standards slated for implementation in 2020.	Commercial: based on the 2015 IECC and ASHRAE 90.1-2013, with amendments Residential: based on the 2015 IECC
Washington	HB 19-1444 adopts federal light bulb standards, providing a backstop to a potential federal rollback.	Commercial and Residential: based on the 2015 IECC, with amendments HB 19-1257: Department of Commerce is to create a State Energy Performance Standard by November 1, 2020 to reduce energy use and GHG emissions associated with large commercial buildings.

State Methane and HFC Emissions Policies

State	Methane Emissions Policy	HFC Emissions Policy
California	CARB adopted stringent methane regulations for monitoring and repairing pipeline leaks in 2017 (required by SB 16-1383). The CPUC ordered utilities to file methane abatement compliance plans by March 2019 (pursuant to SB 14-1371).	SB 18-1013 creates the Fluorinated Gases Emission Reduction Incentive Program to promote the adoption of low-global warming potential refrigerants. The schedule to ban products made with HFCs begins 2022.
Colorado	SB 19-181 directs the Air Quality Control Commission to bolster methane regulations by promulgating rules for all points in the natural gas supply chain (processing, gathering & boosting, storage, and transmission). The legislation also affirms local authority over oil and gas siting and sets objectives to protect public health.	SB19-096 requires the development of a GHG inventory, which will include HFCs.
Connecticut	N/A. Connecticut's omnibus energy bill, HB 19-5002, did not include regulations for methane emissions. Studies of CT pipelines reveal the need to modernize gas infrastructure.	Governor Malloy directed DEEP to develop HFC controls modelled after CARB's that would fit within the state's air quality regulatory framework. New regulations are expected in 2020.
Hawaii	N/A	N/A
Maine	Maine's policy establishes a classification system for pipeline leaks, and sets detection and repair requirements for pipeline operators. Governor Mills joined 15 other attorneys general in suing the Trump administration for halting enforcement of federal methane rules.	N/A
Maryland	The Greenhouse Gas Emissions Reductions Act requires the maintenance of GHG emissions inventories. The Maryland Department of Environment (MDE) publishes data on methane from wastewater, landfills, and oil and gas operations. MDE is in the process of developing proposed methane regulations - Methane Emissions Minimization Plans (MEMPs) - for curbing leaks across the natural gas supply chain.	MDE is in the process of developing HFC regulations for foam and refrigerant products pursuant to SB 16-323 (the Greenhouse Gas Emissions Reduction Act).

State	Methane Emissions Policy	HFC Emissions Policy
Massachusetts	To meet state emissions reductions goals, the DEP adopted rules in 2017 to require natural gas operators to reduce methane emissions annually (specified by utility), keep inventories, and repair pipeline leaks. The DPU adopted rules in March 2019 that establish methods for identifying high-priority leaks. The rules also require that gas operators accelerate repairs when leaks are located in 'environmentally sensitive areas'.	Massachusetts published its Comprehensive Energy Plan in late 2018. HFC regulations have not been announced, but the state's Attorney General joined 10 other states to sue the EPA for its HFC rule rollback in 2018.
Nevada	N/A	N/A
New Jersey	S 19-3207, if enacted, would bolster the state's GHG emissions reporting requirements and require the development of a comprehensive statewide strategy for mitigating 'short-lived' GHGs, including methane. As of May 2019, the bill had been passed by both chambers of the legislature.	S 19-3207 includes a provision requiring the development of a comprehensive strategy to reduce emissions of short-lived climate pollutants in the State. This requirement is based on legislation adopted and implemented in California.
New Mexico	Governor Lujan Grisham's EO 2019-003 directs EMNRD and NMED to develop a regulatory framework to reduce oil and gas sector methane emissions. The NMED maintains an interactive map of oil and gas site emissions.	N/A
New York	Governor Cuomo's Methane Reduction Plan (2017) outlines multiple policies to achieve emissions reductions targets, including monitoring and repair of natural gas pipelines.	The New York State Department of Environmental Conservation is developing regulations to phase out HFCs between 2020 and 2024, a draft proposal was released in September of 2018.
Oregon	HB 19-2020 would have directed the Environmental Quality Commission to develop rules regulating methane emissions from landfills, agriculture, and forestry. No legislation or regulations are in place for pipeline leaks.	N/A
Rhode Island	The Rhode Island Energy 2035 Plan (2015) recommended reviewing the state's natural gas replacement and repair policy, suggesting an update to National Grid's Gas Infrastructure, Safety, and Reliability Plan for detecting and repairing pipeline leaks.	N/A
Vermont	Gas utilities must 'routinely' inspect for leaks. No comprehensive program for pipeline emissions reductions is in place.	S 19-0030 establishes a schedule between 2020 and 2024 for when certain products must be manufactured without HFCs.
Washington	State law establishes a classification system for pipeline leaks and requires utilities to maintain permanent leak records and conduct a self-audit every five years.	HB 19-1112 establishes a regulatory framework for phasing out HFCs in the state, banning specific products beginning in 2020.

State	Bill Number	Summary
California	SB 18-1013	Codifies the prohibitions on certain ozone depleting substances and HFC) adopted by the U.S. EPA as part of the Significant New Alternatives Policy (SNAP) Program.
Colorado	HB 19-1261	Sets statewide GHG emissions reduction goals to more than 26% from 2005 levels by 2025, 50% below 2005 levels by 2030, and 90% below 2005 levels by 2050.
	SB 19-096	Requires the AQCC to collect greenhouse gas emissions data from greenhouse gas-emitting entities, report on the data, develop a forecast of future emissions, and propose a draft rule to address the emissions by July 1, 2020.
	SB 19-181	Modifies the composition of the COGCC, requires that the COGCC review and, if necessary, amend existing rules related to methane emissions and oil and gas operations, removes the state preemption of oil and gas regulation, and expands the authority of local governments to regulate oil and gas development.
	SB 19-236	Among other provisions, the bill supplements existing state renewable energy standard laws by establishing targets for the reduction of CO_2 emissions by Xcel Energy (80% below 2005 levels by 2030, 100% by 2050 and thereafter, if practicable). Other utilities may opt in to submitting clean energy plans. The bill also allows utilities to apply to the PUC for approval of a financing order to issue securitized utility ratepayer-backed bonds when retiring an electric generating facility. Bonds are to be used by the utility to purchase, build, or invest in electric generating resources or electricity storage, and repaid through a distinct charge on ratepayers. The bill requires the PUC to promulgate rules that require each wholesale electric cooperative to submit an application for approval of an integrated or electric resource plan. The PUC must evaluate the plans using rules adopted that are applicable to these cooperatives. The bill also requires the PUC to promulgate rules establishing requirements for IOUs to file electric distribution plans; requires IOUs to include a workforce transition plan when proposing the retirement of an electric generating facility; directs the PUC to require electric public utilities to consider the cost of carbon dioxide emissions in certain proceedings; requires the PUC to conduct an investigation of financial performance-based incentives and performance-based metric tracking; and directs the PUC to open an investigatory proceeding to evaluate the costs and benefits associated with regional transmission organizations, energy imbalance markets, joint tariffs, and power pools.
Connecticut		
Hawaii		
Maine	LD 19-1679	Updates the state's GHG emissions reduction targets to 45% below 1990 levels by 2030, and 80% below 1990 levels by 2050. Establishes the Maine Climate Council, comprised of state agencies and stakeholders tasked with developing a climate action plan and a clean energy economy transition plan.

State	Bill Number	Summary

Maryland	HB 19-277	Authorizes the Governor to include the state in any regional governmental initiative, agreement, or compact that limits or reduces greenhouse gas emissions from the transportation sector; requires the Department of the Environment and the Department of Transportation to submit a report on the status of any regional initiative before November 1, 2019.
	SB 19-516	Among other provisions, increases the state's RPS to 50% by 2030. Requires study of a 100% renewable energy goal.
Massachusetts	H 18-4857	Establishes an energy storage target of 1,000 MWh by 2025. Requires electric suppliers to provide a minimum percentage, as determined by the Department of Energy Resources (DER), of kWh sales from clean peak resources. Also provides for EDCs to submit distribution system resiliency reports to the DER. Allows EDCs to hold competitive solicitations for procurement of non-wires alternatives from third party developers. Establishes reporting requirements for lost and unaccounted for gas for gas companies for the purpose of reducing GHG emissions. Requires the DER to study the costs and benefits of requiring EDCs to issue competitive bids for up to 1,600 MW of additional offshore wind.
Nevada	SB 19-254	Sets GHG emissions reduction targets: 28% below 2005 levels by 2025, 45% below 2005 levels by 2030, and "zero or near-zero" by 2050. Also requires DCNR to submit an emissions report, and provide analysis of whether existing/pending state policies can ensure that the state achieves zero carbon emissions by 2050.
	SB 19-358	Increases the state's clean energy standard to 50% by 2030. Includes a zero carbon by 2050 goal.
New Jersey	AB 18-3723	Requires the BPU to conduct an energy storage analysis, make changes to the solar renewable energy certificate program, adopt energy efficiency and peak demand reduction programs, adopt a "Community Solar Energy Pilot Program," and provide tax credits for certain offshore wind energy projects. The bill also requires the Department of Labor and Workforce Development to establish job training programs for those who work in manufacturing and servicing of offshore wind energy equipment.
	SB 19-3207	If enacted, the bill will establish new timeframes for the implementation of certain requirements in the "Global Warming Response Act" (GWRA), and require the Department of Environmental Protection (DEP) to adopt a strategy to reduce short-lived climate pollutants.
New Mexico	SB 19-489	Increases the state's RPS as follows: Distribution cooperatives: 10% by 2020, 40% by 2025, 50% by 2030, zero-carbon (at least 80% RE) by 2050. IOUs: 20% by 2020, 40% by 2025, 50% by 2030, 80% by 2040, and resources must be carbon-free by 2045. Also authorizes an alternative mechanism ("energy transition bonds" or "securitization") for financing the retirement of coal-fired power plants. The mechanism has been designed to accommodate the retirement in 2022 of units 1 and 4 of the San Juan Generation Station (SJGS) and to anticipate the closure of the Four Corners Power Plant in 2031. The bill also requires that the Environmental Improvement Board (EIB) promulgate a rule limiting carbon dioxide emissions from coal fired generating plants to an emissions standard of 1,100 lbs-CO2/MWh on or after January 1, 2023.

State	**Bill Number**	**Summary**

New York	SB 19-6599	If enacted, will create GHG emissions targets of 40% below 1990 levels by 2030 and 85% below 1990 levels by 2050, with the remaining 15% offset. The bill also requires that the PSC creates a clean energy standard of 70% renewable energy by 2030 and 100% zero emissions by 2040.
Oregon		
Rhode Island		
Vermont	HB 19-529	Excludes from the definition of a net metering system a plant for generation of electricity that primarily supplies electricity to electric vehicle supply equipment for the resale of electricity. Requires the Public Utility Commission to report on steps necessary to implement fees on plug-in electric vehicle charging and how to address net metering and net metering credits by December 15, 2019. Establishes the vehicle incentive and emissions repair programs, which, among other things, provide point-of-sale vouchers for the purchase or lease of new plug-in electric vehicles. Permits State agencies that own or control electric vehicle supply equipment (EVSE) to establish, set, and adjust fees for the use of EVSE available to the public for three years starting on July 1, 2019. Specifies that the PUC does not have jurisdiction over persons otherwise not regulated by the PUC that engage in the siting, construction, ownership, operation, or control of a facility that sells or supplies electricity to the public exclusively for charging a plug-in electric vehicle. Requires the Commissioner of Buildings and General Services, to the maximum extent practicable, to purchase and lease hybrid or plug-in electric vehicles for the State fleet with a minimum of 50%, bumped to 75% on July 1, 2021, of newly purchased and leased vehicles being hybrid or plug-in electric vehicles.
	S 19-30	Establishes a schedule between 2020 and 2024 for when certain products must be manufactured without HFCs.
Washington	HB 19-1112	Establishes a schedule between 2020 and 2024 for when certain products must be manufactured without HFCs.
	HB 19-1257	Requires the State Building Code Council to develop rules that require and regulate electric vehicle charging capability at all new buildings that provide on-site parking. Requires the Department of Commerce to create a State Energy Performance Standard by November 1, 2020 to reduce energy use and GHG emissions associated with large commercial buildings. Requires gas companies to identify and acquire all conservation measures that are available and cost-effective. The cost-effectiveness analysis must include the societal costs of GHG emissions. The targets must be based on a conservation potential assessment prepared by an independent third party and approved by the UTC. A gas company may propose a renewable natural gas program under which the company would supply renewable natural gas for a portion of the natural gas sold or delivered to its retail customers. Each gas company must offer by tariff a voluntary renewable natural gas service available to all customers to replace any portion of the natural gas that would otherwise be provided by the gas company. The UTC must monitor the GHG emissions resulting from natural gas and renewable natural gas delivered by each gas company to its customers, relative to the proportionate share of the state's GHG emissions goal.
	HB 19-1512	Allows municipal utilities to adopt transportation electrification plans. Regulated utilities may adopt plans that provide EV charging equipment incentives and support for other transportation electrification programs. Utility Electric Transportation Plan Authorization: The governing authority of a utility or a regulated electric utility, with the approval of the UTC, may adopt an electric transportation plan that proves that utility outreach and

		investment in the electrification of transportation infrastructure does not increase net costs to ratepayers in excess of 0.25%. The governing authority or the UTC may consider items such as the impact of electrification on the utility's load, demand response and load management opportunities, system reliability and distribution system efficiencies, and interoperability concerns. Upon making this determination, electric utilities may offer incentive programs for customers.
	HB 19-2042	Extends and establishes tax credits for electric vehicles and electric vehicle supply equipment (EVSE). Establishes a grant program to assist transit authorities in fleet electrification and alternative fuel use; a car sharing pilot grant program to support car sharing for underserved communities; and extends an existing EV charging infrastructure grant program. Amends provisions authorizing investor-owned utilities' incentive rate of return on investments in EV supply equipment. Extends a technical assistance and education program on alternative fuel vehicles for public agencies within Washington State University's Extension Energy Program. Authorizes the Department of Commerce to conduct a study on reducing barriers to battery and hydrogen fuel cell electric vehicle adoption by lower income residents.
	SB 19-5116	Requires that by December 31, 2025, all electric utilities eliminate coal-fired resources from their allocation of electricity. For IOUs, the UTC is required to accelerate depreciation for any coal-fired resource owned by an IOU and is allowed to accelerate depreciation for any qualified transmission line to no later than December 31, 2025. The UTC must allow in rates prudently incurred undepreciated investments in a fossil-fuel generating resource that has been retired from service under specific conditions. By January 1, 2030, each electric utility must make all retail sales of electricity to Washington customers GHG neutral. An electric utility must achieve compliance with the GHG neutral standard for multiyear compliance periods beginning January 1, 2030, through December 31, 2044. By January 1, 2045, each electric utility must meet 100 percent of its retail electric load to Washington customers using non-emitting electric generation and electricity from renewable resources.

State EV and EVSE Policies and Incentives

California

EV Policies and Incentives

Low Emission Truck and Bus Purchase Vouchers: fleet owners.

Light-duty PHEV and ZEV Rebates

HOV and High Occupancy Toll (HOT) Lane Exemption

The California Clean Truck, Bus, and Off-Road Vehicle and Equipment Technology Program: funding for development, demonstration, pre-commercial pilot, and early commercial implementation projects for zero and near-zero emission trucks, buses, and off-road vehicles and equipment.

Through the California Clean Miles Standard and Incentive Program, the California Air Resources Board (ARB) will establish annual emissions reduction targets for transportation network companies, including goals for increasing the number of miles traveled using zero emission vehicles.

Zero and Near-Zero Emission Vehicle Component Rebates

Vehicle Acquisition and Petroleum Reduction Requirements: beginning in fiscal year 2024, at least 50% of the light-duty vehicles purchased by the state must be ZEVs. At least 30% of the Department of General Service's fleet of new vehicles with a gross vehicle weight of 19,000 pounds or more must be ZEVs by 2030.

Freight Efficiency Action Plan: establishes targets to improve freight efficiency and transition to zero emission technologies.

EV Supply Equipment (EVSE) Policies and Incentives

EVSE Incentive Program Support: provides guidance and funding for local governments and organizations to develop and implement EVSE incentive programs.

EVSE Loan and Rebate Program: available to small businesses.

Emissions Reductions Grants

Residential PACE EVSE Financing Program

EVSE Policies for Residential and Commercial Renters: The lessor of a dwelling or commercial property must approve written requests from a

lessee to install EVSE at a parking space allotted for the lessee on qualified properties. Certain exclusions apply to residential dwellings and commercial properties.

EVSE Policies for Multi-Unit Dwellings: A common interest development, including a community apartment, condominium, and cooperative development, may not prohibit or restrict the installation or use of EVSE or a PEV-dedicated TOU meter in a homeowner's designated parking space or unit. These entities may put reasonable restrictions on EVSE, but the policies may not significantly increase the cost of the EVSE or significantly decrease its efficiency or performance.

Mandatory EVSE Building Standards

EVSE Open Access Requirements: EVSE service providers may not charge a subscription fee or require membership for use of their public charging stations.

PEV Charging Access: Municipalities may not restrict the types of PEVs that may access a public PEV charging station that is intended for passenger vehicle use, and funded, at least in part, by the state or money from utility ratepayers.

EVSE Location Assessment: The State Energy Resources Conservation and Development Commission, in partnership with CARB, must assess whether EVSE in California is located disproportionately by population density, geographical area, or population income level. If EVSE has been disproportionately installed unreasonably, the agencies must proportionately install new EVSE, unless it is determined that the current locations of EVSE further California's policy goals.

EVSE Assessment: The California State Energy Resources Conservation and Development Commission, in partnership with CARB and the CPUC, must publish a statewide assessment of the EVSE infrastructure needed to support the levels of PEV adoption required for at least five million zero emission vehicles to operate in California by 2030. The assessment must consider the EVSE infrastructure needs for all vehicle categories, and must analyze the existing and future infrastructure needs across California, including in low-income communities. The assessment must be updated at least once every two years.

Public Utility Definition: A corporation or individual that owns, controls, operates, or manages public EVSE is not defined as a public utility.

State Agency EVSE Installation: California state agencies must actively identify and pursue opportunities to install EVSE, and accommodate future EVSE demand, at state employee parking facilities in new and existing agency buildings.

EVSE Local Permitting Policies: Cities and counties must adopt an ordinance that creates an expedited, streamlined permitting process for EVSE.

Colorado

EV Policies and Incentives

PEV Tax Credit: $5,000 - 20,000 in 2017-2019; $4,000 - 16,000 in 2020; $2,500 - 10,000 in 2021.

Alternative Fuel Vehicles and Infrastructure Grant Program: CEO, RAQC, and CDOT, have partnered to provide grants through the ALT Fuels Colorado program for new fleet purchases of EVs.

PEV and EVSE Grants: available to individual drivers and fleet owners.

High Occupancy Vehicle (HOV) Lane Exemption

EV Supply Equipment (EVSE) Policies and Incentives

Alternative Fuel Vehicles and Infrastructure Grant Program: Provides grants through the ALT Fuels Colorado program for new, publicly accessible co-located electric vehicle charging and propane station equipment at funded CNG stations, and EVs.

EVSE Multi-Unit Dwelling Installations and Access: A residential tenant may install Level 1 or Level 2 EVSE at their own expense on or in leased premises. The landlord may seek a fee or reimbursement for the actual cost of electricity as well as the cost of installation or upgrades to existing equipment. In addition, the tenant may request that the EVSE be accessible by other tenants, in which case the EVSE must be in compliance with all applicable requirements, and the landlord may seek a fee to reserve a specific parking space.

Alternative Fuel Resale and Generation Regulations: A corporation or individual that resells alternative fuel supplied by a public utility for use in an AFV is not subject to regulation as a public utility. Additionally, a corporation or individual that owns, controls, operates, or manages a facility that generates electricity exclusively for use in AFV charging or fueling facilities is not subject to regulation as a public utility provided that the electricity is generated on the property where the charging or fueling facilities are located and the electricity is generated from a renewable resource.

Connecticut

EV Policies and Incentives

Heavy-Duty Vehicle Emissions Reduction Grants: DEEP allocates a portion of its designated funds from the Volkswagen Environmental Mitigation Trust for the replacement or repower of eligible heavy-duty on-road vehicles through its Diesel Emissions Mitigation Program.

Hydrogen and PEV Rebate

Loans for PEVs and Residential Charging Infrastructure: The Connecticut Green Bank offers Smart-E low-interest loans of up to $30,000 for Connecticut residents to purchase a new or used PEV. The vehicle must be registered with the Connecticut Department of Motor Vehicles. Loans are also available for Connecticut PEV drivers to purchase EVSE. To qualify, applicants must own or lease a model year 2012 or later PEV and occupy the residence at which the EVSE will be installed.

Reduced Registration Fee for Electric Vehicles

AFV Procurement Preference: In determining the lowest responsible qualified bidder for the award of state contracts, the Connecticut Department of Administrative Services may give a price preference of up to 10% for the purchase of AFVs or for the purchase of conventional vehicles plus the conversion equipment to convert the vehicles to dual or dedicated alternative fuel use.

EV Supply Equipment (EVSE) Policies and Incentives

EVSE Grants: available to municipalities, state agencies, and private businesses.

Public EVSE Requirements: Owners and operators of public EVSE that require payment must allow multiple payment options that allow access by the public. In addition, payment should not require users to pay a subscription fee or obtain a membership of any kind, however payment required may be based on price schedules for such memberships. Owners and operators can impose restrictions on the amount of time a vehicle can use the EVSE. In addition, owners and operators of a public EVSE must disclose the location and characteristics of each EVSE to the U.S. Department of Energy's Alternative Fuels Data Center.

Public Utility Definition: An owner of an EV charging station is not defined as a public utility.

Utility Company PEV Rates: By July 1, 2018, utility companies must evaluate if it is appropriate to implement PEV time of day rates for residential and commercial customers.

Hawaii

EV Policies and Incentives

PEV HOV Lane and Parking Fee Exemptions.

State and county agencies must purchase light-duty vehicles that reduce petroleum consumption and meet the needs of the agency. Exemptions may apply.

EV Supply Equipment (EVSE) Policies and Incentives

Public Utility Definition: An entity that owns, controls, operates, or manages a plant or facility primarily used to charge or discharge a vehicle battery that provides power for vehicle propulsion is not defined as a public utility.

All parking facilities that are available for use by the general public and include at least 100 parking spaces must designate at least one parking space specifically for PEVs, provided that no parking spaces required by the Americans with Disabilities Act Accessibility Guidelines are reduced or displaced.

A multi-family residential dwelling or townhouse owner may install EVSE on or near a parking stall at the dwelling as long as the EVSE is in compliance with applicable rules and specifications, the EVSE is registered with the private entity within 30 days of installation, and the homeowner receives consent from the private entity if the EVSE is placed in a common area. Private entities may adopt rules that restrict the placement and use of EVSE but may not charge a fee for the placement. The EVSE owner is responsible for any damages resulting from the installation, maintenance, repair, removal, or replacement of the EVSE.

Maine

EV Policies and Incentives

An insurer may credit or refund any portion of the premium charged for an insurance policy on a clean fuel vehicle in order to encourage its policyholders to use clean fuel vehicles, as long as insurance premiums on other vehicles are not increased to fund these credits or refunds.

EV Supply Equipment (EVSE) Policies and Incentives

EVSE Funding: Efficiency Maine Trust is accepting applications through July 10, 2019, for funding of public, workplace, and multi-unit dwelling Level 2 EVSE in strategic locations within Maine. EVSE along specific roads and at locations that will likely experience a high frequency of use will be prioritized.

PEV Charging Regulation Exemption: An entity that sells electricity for the sole purpose of charging the battery of a PEV is not defined or regulated as an electricity provider. An EVSE provider may charge a submetered user only for kilowatt-hours used.

Maryland

EV Policies and Incentives

PEV and Fuel Cell Electric Vehicle (FCEV) Tax Credit: up to $3,000.

PEV HOV Lane Exemption

AFV Voucher Program: for the purchase of new and converted AFVs registered in Maryland. Vehicles must be used by commercial, non-profit, or public entities.

Zero Emission School Bus Grant Program and Study: The Maryland Department of the Environment will administer a Zero Emission School Bus Transition Grant Program to purchase zero emission school buses, install charging infrastructure, and transition to zero emission school bus fleets.

ZEV State Fleet Goal: state agencies must increase the number of ZEV acquisitions in light-duty fleets to at least 25% of annual fleet purchases by 2025.

EV Supply Equipment (EVSE) Policies and Incentives

EVSE Rebate Program

Alternative Fuel Infrastructure Grants: The Maryland Energy Administration administers the Maryland Alternative Fuel Infrastructure Program (AFIP), which provides grants to plan, install, and operate public access alternative fueling and charging infrastructure.

EVSE Regulation Exemption: Owners and operators of EVSE are not subject to state regulation as electricity suppliers or public service companies. For the purpose of this regulation, owners and operators of EVSE are considered retail electric customers.

PEV Information Disclosure: The Maryland Motor Vehicle Administration is allowed to provide the address of a registered PEV owner and information about the vehicle to electric companies for their use. Electric companies may only use this information in planning for the electric power supply and may not use it for marketing or solicitation.

PEV Infrastructure Promotion: The Maryland EV Infrastructure Council promotes the use of PEVs in the state. Specific responsibilities of the Council include the following:

- developing an action plan to facilitate successful integration of PEVs into the Maryland transportation network;
- assisting in developing and coordinating statewide standards for streamlined permitting and installation of EVSE;
- recommending a statewide charging infrastructure plan and incentives to support investment in PEVs;
- developing targeted policies to support fleet purchases of PEVs; encouraging local and regional efforts to promote the use of PEVs; and
- developing model procurement practices.

Effective July 1, 2019, the Council will be renamed the Zero Emission Electric Vehicle Council and will incorporate fuel cell electric vehicles in all of the Council responsibilities.

Massachusetts

EV Policies and Incentives

Vehicle Emissions Reduction Grants: The (MassDEP) Volkswagen Open Solicitation Grant Program provides up to 80% of the cost of new diesel or alternative fuel replacements and repowers for eligible government entities.

PEV and EVSE Grants for Public Fleets: available to local governments, public universities and colleges, and state agencies.

Plug-In and ZEV Rebates
AFV and Infrastructure Grants: The Massachusetts Department of Energy Resources' Clean Vehicle Project offers grants for public and private fleets to purchase AFVs and infrastructure.

When purchasing new motor vehicles, the Commonwealth of Massachusetts must purchase hybrids or AFVs to the maximum extent feasible and consistent with the ability of such vehicles to perform their intended functions.

EV Supply Equipment (EVSE) Policies and Incentives

Public Access EVSE Grants: Qualified EVSE must be available to the public at least 12 hours per day.

Multi-Unit Dwelling (MUD) EVSE Grants: available to private, public, or non-profit MUDs with ten or more residential units.

Workplace EVSE Grants: available to private, public, or non-profit workplaces with 15 or more employees on site.

Public EVSE Requirements: Owners and operators of public EVSE that require payment must provide payment options that allow access by the public. In addition, payment should not require users to pay a subscription fee or obtain a membership of any kind; however, required fees may be conditional on such memberships. Owners and operators can impose reasonable restrictions on EVSE use, such as limiting access to visitors of the business. In addition, owners and operators of public EVSE must provide the location, hours of operation, payment, and characteristics of each EVSE to the U.S. Department of Energy's Alternative Fuels Data Center.

EVSE Building Standards: The Massachusetts State Board of Building Regulations and Standards and the Massachusetts Department of Energy Resources will develop building and electric code requirements for residential and appropriate commercial buildings for EVSE.

Public Utility Definition: An entity that owns, operates, leases, or controls EVSE is not defined as a public utility.

Nevada

EV Policies and Incentives

AFV and Infrastructure Grants Authorization: The Nevada Office of Energy will establish the Nevada Clean Energy Fund to fund qualified clean energy projects, including any program, technology, product, or service that supports the deployment of AFVs and related infrastructure.

Authorization for HOV Lane Exemption: The NDOT, in consultation with the Federal Highway Administration and U.S. EPA, may establish a program allowing federally certified low emission, energy-efficient, and alternative fuel vehicles to operate in HOV lanes regardless of the number of passengers.

AFV Acquisition Requirement: Fleets containing 50 or more vehicles that are owned, leased, or operated by the state, a state agency, or a political subdivision of the state in a county with a population of 100,000 or more must acquire AFVs or U.S. EPA certified Ultra Low Emission Vehicles (ULEVs). Covered fleets are required to purchase either AFVs or certified ULEVs for 20% of new vehicles obtained. A fleet may meet the acquisition requirements by converting existing or newly acquired vehicles to operate on alternative fuels. An AFV acquired in compliance with this mandate must operate solely on the alternative fuel except when operating in an area where the appropriate alternative fuel is unavailable. Fleets with buses or heavy-duty vehicles are included.

SB 19-299: allows utilities to provide an incentive of 75% of the cost for school districts to develop charging infrastructure or purchase electric school buses.

EV Supply Equipment (EVSE) Policies and Incentives

EVSE Demonstration Program Requirements: The Electric Vehicle Infrastructure Demonstration Program requires Nevada utilities to promote and incentivize the deployment of EVSE. Utilities must submit an annual plan for implementing the Program in their service areas to the PUCN. Plans may include, but are not limited to, the following measures:

- payment of incentives to customers that install EVSE;
- time-of-use rates for electricity used to charge plug-in electric vehicles;
- EVSE education and awareness programs for customers; and
- technical assistance programs for government fleets and private organizations.

Utilities may request to recover the costs associated with carrying out the program, including customer incentives, by filing an application with the PUCN.

The Nevada Electric Highway initiative, a partnership created between the state and NV Energy in 2015, seeks to build a complete electric highway system along the I-95 corridor by 2020. 15% of the Nevada's $25 million allocation from the VW settlement agreement will be used to support electric highway projects.

New Jersey

EV Policies and Incentives

ZEV Tax Exemption: does not apply to partial ZEVs, including hybrid electric vehicles.

High Occupancy Vehicle (HOV) Lane Exemption

PEV Toll Discount Program

Low Emission or Alternative Fuel Bus Acquisition Requirement: All buses purchased by the New Jersey Transit Corporation must be: 1) equipped with improved pollution controls that reduce particulate emissions; or 2) powered by a fuel other than conventional diesel.

EV Supply Equipment (EVSE) Policies and Incentives

EVSE Grants: offered on a first-come, first-served basis for the cost of installation of eligible EVSE at workplaces, government and educational facilities, non-profits, parking facilities, and multi-unit dwellings.

State Interagency EV Partnership: Announced June 3, 2019, will be co-led by the BPU, DEP, and the EDA to develop and implement a statewide charging deployment initiative.

New Mexico

EV Policies and Incentives

Alternative Fuel and Advanced Vehicle System Manufacturing Incentive: The Alternative Energy Product Manufacturers Tax Credit provides credit against combined reporting taxes (gross receipts, compensating, and withholding) for qualified manufacturers of alternative energy products, including hydrogen and fuel cell vehicle systems, and electric and hybrid electric vehicles.

AFV Loans: available to state agencies, political subdivisions, and educational institutions for AFV acquisitions. Funds must be used for the purchase of vehicles that operate on natural gas, propane, electricity, or hydrogen.

Government fleets may finance alternative fuel vehicles or related infrastructure through guaranteed utility savings contracts where vehicle operational and fuel cost savings pay for the capital investment.

AFV and HEV Acquisition Requirements: A minimum of 75% of state government and educational institution fleet light-duty vehicles purchased must be HEVs, bi-fuel, or dedicated AFVs.

The New Mexico General Services Department (GSD) launched plans to electrify state vehicles, devoting $2.5 million to public fleet electrification, $1.2 million of which will be used for solar-powered charging stations in Santa Fe. In a statement, Governor Lujan Grisham noted she would like to see 20% of the state fleet electrified.

EV Supply Equipment (EVSE) Policies and Incentives

Public Utility Definition: An entity that is not a regulated utility that resells natural gas or electricity as motor fuel is not defined as a public utility.

New York

EV Policies and Incentives

PEV Rebate Program

Heavy-Duty Alternative Fuel and Advanced Vehicle Purchase Vouchers

ZEV and Fueling Infrastructure Rebates for Municipalities: available to cities, towns, villages, counties, and New York City boroughs.

Workplace EVSE and PEV Incentives: NYSERDA is offering employers in the greater New York City region an $8,000 rebate per dual-connector EVSE installed. Employees of organizations that receive the rebate are eligible for a $500 rebate toward the purchase or lease of a qualified PEV.

HOV Lane Exemption

PEV Toll Discount Program

HEV Taxicabs: By February 3, 2019, the New York City Taxi and Limousine Commission must approve one or more HEV models for immediate use as a taxicab by medallion owners.

EV Supply Equipment (EVSE) Policies and Incentives

EVSE Rebate: available to public and private entities for installations at public parking facilities, workplaces, and multi-unit dwellings.

Alternative Fueling Infrastructure Tax Credit:
PEV and Charging Infrastructure Support: The New York Power Authority's EVolve NY program has allocated up to $250 million to support PEVs and address charging infrastructure gaps throughout the state.

PEV Charging Tariff: Each investor-owned utility selling electricity was required to file a tariff with the NYPSC by April 1, 2018, to allow a customer to purchase electricity solely for the purpose of charging a PEV. The utility must make the tariff available to customers within 60 days of PSC approval.

Electric Corporation Definition: PEV charging stations are not defined as electric plants and owners and operators of charging stations are not defined as electric corporations. The PSC does not have jurisdiction over publicly available PEV charging stations, the owners and operators of the stations, or the transactions between the owners and operators of the stations, as long as the owners and operators do not fall within the definition of an electric corporation.

Governor Andrew M. Cuomo announced in February 2019 that New York is making up to $31.6 million available to ramp-up the expansion of electric vehicle fast charging stations. The plan was approved by the NYPSC and will leverage existing NYSERDA and NYPA funds.

Oregon

EV Policies and Incentives

Support for PEV Adoption: In order to support the state goal of at least 50,000 PEVs registered and operating in Oregon by 2020, the ZEV Working Group will develop goals and progress metrics for PEV adoption. The Working Group will aim to remove barriers to PEVs and PEV charging stations, and establish a website to share information about their efforts with the public.

PEV Rebate: available to residents, businesses, non-profit organizations, and government agencies.

Establishment of Recognition Programs for PEV Adoption: The ODOE must design and establish Governor's Awards for automobile dealerships to encourage sales of PEVs. ODOE must also design and establish Governor's Awards for businesses and organizations that support PEV adoption through installing charging infrastructure and using PEVs in their fleets.

Support for Zero-Emission Buses: ODOE, with ODOT, the PUC, the DEQ, and the Department of Education, must develop tools and provide assistance to school districts and transit agencies about using zero-emission bus options.

AFV Acquisition, Fuel Use, and Emissions Reductions Requirements: All state agencies and transit districts must purchase AFVs and use alternative fuels to operate those vehicles to the maximum extent possible, except in regions where it is not economically or logistically possible to fuel an AFV. DAS and ODO) must improve the PEV bulk procurement process to reduce costs for state agency PEV purchases. DAS must develop a “LEV First" policy to encourage state employees to use PEVs or other LEVs in the state fleet. DAS and ODOE must also develop a tool to calculate the long-term return on investment and life-cycle costs of PEVs to inform agencies of potential cost savings. In addition, DAS must inform and support legislative changes that enable increased charging infrastructure and state agency PEV purchases.

EV Supply Equipment (EVSE) Policies and Incentives

Mandatory EVSE Building Standards: The Oregon Department of Business and Consumer Services, Building Code Division, must amend the state building code to require that all newly constructed residential and commercial building parking structures can support the installation of at least one level 2 EVSE by October 1, 2022.

State Agency EVSE Installation: State agencies may install publicly-accessible EVSE on their premises or contract with a vendor to do so. The Oregon Department of Administrative Services (DAS) will establish criteria to determine the appropriate number of locations for EVSE at each agency. DAS must add PEV charging capacity for employee and public visitor parking lots, develop contracts to procure and install charging infrastructure, and incorporate PEV charging as a tenant improvement for state-leased buildings.

Electricity Provider and PEV Charging Rate Regulations: Regulated electric utility tariffs must explicitly permit customers to resell electricity for use as a motor fuel, as long as the entity is not considered a public utility as defined in Oregon Revised Statutes 757.005 and does not provide any utility service. Additionally, each regulated electric utility must provide customers with a choice of flat rate or time of use electricity rates specific to PEV owners. Finally, an investor-owned utility can own and operate PEV charging equipment using its own funds or petition the OPUC for rate recovery.

Rented Commercial Property EVSE Installations: The tenant of a commercial space may submit an application to install EVSE for the use of the tenant, employees of the tenant, and customers of the tenant. Unless the premises does not have at least one parking space per rental unit, the landlord must approve a completed application no more than 60 days after the tenant submits the application. In the absence of a different tenant-landlord agreement, the EVSE will be personal property of the tenant.

Planned Community and Condominium EVSE Installations: The owner of a lot in a planned community or unit in a condominium may submit an application to install EVSE for their personal use in a parking space subject to the exclusive use of the owner. The HOA must approve a complete application within 60 days. The owner is responsible for all costs associated with the EVSE installation and use, must disclose the existence of the EVSE and related responsibilities to a prospective buyer, and must ensure that the infrastructure meets insurance and safety

requirements. EVSE installed under these regulations on or before June 4, 2015, is considered to be the personal property of the lot or unit owner with which the EVSE is associated, unless the owner and HOA have negotiated a different outcome.

Rhode Island

EV Policies and Incentives

AFV and ZEV Acquisition Requirements: at least 75% of state motor vehicle acquisitions must be AFVs, and the remaining 25% must be HEVs to the greatest extent possible. By 2025, 25% of state motor vehicle acquisitions must be ZEVs.

EV Supply Equipment (EVSE) Policies and Incentives

EVSE and PEV Rebates: The Charge Up! program provides rebates to state and municipal agencies for the purchase and installation of publicly accessible Level 2 or DC fast chargers. Agencies that install EVSE also qualify for up to $15,000 to support the purchase or lease of a new PEV acquired on or after July 1, 2016, as part of their public sector fleet.

Vermont

EV Policies and Incentives

PEV Incentive: provides financial incentives to low- and moderate-income residents for the purchase or lease of a new PEV.

Heavy-Duty Vehicle Emissions Reduction Grants: Through the Vermont Diesel Emissions Reduction Grants Program, the Vermont Department of Environmental Conservation provides funding to local, state and regional agencies or departments, businesses, institutions, and nonprofit organizations for projects focused on reducing emissions from diesel engines and vehicles. Qualifying heavy-duty vehicles include buses and Class 5-8 trucks. Projects eligible for funding include alternative fuel conversions and certified vehicle or equipment replacements.

HEV and PEV Acquisition Requirements: Effective July 1, 2019, the Vermont Department of Buildings and General Services must, to the extent possible, purchase or lease HEVs or PEVs for state use. At least 50% of the vehicles purchased or leased annually must be HEVs or PEVs. Beginning July 1, 2021, at least 75% of the vehicles purchased or leased annually must be HEVs or PEVs.

PEV Analysis: The PUC must evaluate PEVs and PEV charging in the state. The Commission must provide public notice, opportunity for submission of written comments, and one or more workshops on PEVs during the course of its evaluation.

EV Supply Equipment (EVSE) Policies and Incentives

EVSE Grants: available to governments, businesses, non-profit organizations, homeowner associations, electric utilities, and EVSE providers.

Alternative Fueling Infrastructure Incentive: The Vermont State Infrastructure Bank (SIB) offers loan assistance to municipalities, regional development corporations, political subdivisions of the state, and private companies working for the state to finance public electric vehicle charging and natural gas fueling stations.

Public Utility Definition: An entity that supplies electricity to the public exclusively to charge plug-in electric vehicles is not defined as a public utility and may charge for this electricity by the kilowatt-hour.

EVSE Fee Authorization: Effective July 1, 2019, any Vermont agency or department that owns or controls EVSE may establish and set user fees.

EVSE Code Reporting: On or before December 1, 2019, the Vermont Agency of Agriculture, Food and Markets (Agency) must submit a report to the legislature that provides an update on the National Institute of Standards and Technology's (NIST) progress toward adopting a code on EVSE and makes a recommendation for an annual licensing fee for EVSE available to the public. If NIST has not adopted a code on EVSE by December 1, 2020, the Agency must submit an additional report on or before that date which provides an update on NIST's progress toward adopting a code.

Washington

EV Policies and Incentives

Alternative Fuel Commercial Vehicle and Fueling Infrastructure Tax Credit: Businesses are eligible to receive tax credits for purchasing new alternative fuel commercial vehicles and installing alternative fueling infrastructure.

PEV and Fuel Cell Electric Vehicle (FCEV) Infrastructure and Battery Tax: Public lands used for installing, maintaining, and operating PEV infrastructure are exempt from leasehold excise taxes until January 1, 2020. Additionally, the state sales and use taxes do not apply through July 1, 2025 to PEV and FCEV batteries or fuel cells; labor and services for installing, repairing, altering, or improving PEV and FCEV batteries or fuel cells and PEV and hydrogen fueling infrastructure; the sale of property used for PEV and hydrogen fueling infrastructure, and the sale of zero emission buses.

AFV and EV Retail Sales Tax Exemption

PEV Promotion and Infrastructure Development: Any regional transportation planning organization containing a county with a population greater than one million must collaborate with state and local governments to promote PEV use, invest in PEV charging infrastructure, and seek federal or private funding for these efforts.

AFV Car Share Pilot Program: WSDOT will develop a pilot program to provide AFV use opportunities to underserved and low-income communities and to those without easy access to transportation corridors.

AFV Technical Assistance and Education Program: The Washington State University Energy Program will establish and administer a technical assistance and education program on the use of AFVs for public agencies, including state and local governments.

EV and FCEV Low Income Opportunity Study: The Washington State Department of Commerce must conduct a study to identify opportunities to reduce barriers to EV and FCEV adoption by lower income residents through the use of vehicle and infrastructure financing assistance.

Alternative Fuel Use Requirement: All state agencies must, to the extent practicable, use 100% biofuels or electricity to operate all publicly owned vehicles. Agencies must prioritize EVs when leasing or purchasing new vehicles, and all trips that may feasibly use EVs must employ them.

EV Supply Equipment (EVSE) Policies and Incentives

Alternative Fueling Infrastructure Funding Program: WSDOT has developed a pilot funding program to strengthen and expand the West Coast Electric Highway network by deploying DC fast charging infrastructure along highway corridors in Washington.

Utility EVSE ROI Incentive: Utilities may petition the UTC for a rate of return on EVSE installed for the benefit of ratepayers through 2030.

Green Transportation Grant Program: WSDOT will establish a grant program to fund projects including fleet electrification, modification or replacement of facilities to facilitate fleet electrification and hydrogen fueling, upgrades to electrical transmission and distribution systems, and construction of charging and fueling infrastructure. In order to receive funding for a project, a transit authority must provide matching funding that is at least equal to 20% of the total cost of the project.

PEV Charging Regulation Exemption: The UTC may not regulate the rates, services, or facilities of an entity that offers charging facilities to the public for hire. The exemption does not apply if the entity is otherwise subject to UTC jurisdiction as an electrical company, or if an entity's battery charging facilities and services are subsidized by any regulated service. A utility may offer charging facilities as a regulated service, subject to UTC approval.

PEV Charging Infrastructure Availability: Publicly and privately owned PEVs may charge at state office locations if the vehicles are used for state business, conducting business with the state, or as commuter vehicles. Additionally, contingent upon funding, the state must install electrical outlets suitable for charging PEVs in each of the state's fleet parking and maintenance facilities as well as every state-operated highway rest stop.

Local Government PEV Infrastructure Requirements: Jurisdictions must develop regulations to allow the use of PEV infrastructure in all areas except critical areas or areas zoned for residential or resource use.

EVSE and Battery Exchange Station Regulations: State and local governments may lease land for installing, maintaining, and operating EVSE or electric vehicle battery exchange stations for up to 50 years for at least $1 per year. Additionally, the installation of battery charging and exchange stations is categorically exempt from the Washington Environmental Policy Act.

HB 19-1512: Allows municipal utilities to adopt transportation electrification plans. Regulated utilities may adopt plans that provide EV charging equipment incentives and support for other transportation electrification programs. Utility Electric Transportation Plan Authorization: The governing authority of a utility or a regulated electric utility, with the approval of the UTC, may adopt an electric transportation plan that proves that utility outreach and investment in the electrification of transportation infrastructure does not increase net costs to ratepayers in excess of 0.25%. The governing authority or the UTC may consider items such as the impact of electrification on the utility’s load, demand response and load management opportunities, system reliability and distribution system efficiencies, and interoperability concerns. Upon making this determination, electric utilities may offer incentive programs for customers.

State Climate / Carbon Policies

State	Emissions / GHG Goals	Other Carbon / Climate Activities and Policies
California	Adopted in 2006 (AB 05-32): 1990 levels by 2020; amended in 2016 (SB 15-32): 40% below 1990 levels by 2030. E.O. S-03 in 2005: 80% below 1990 levels by 2050.	Cap & Trade Program EO B-55-2018: achieve carbon-neutrality by 2045 and net-negative emissions thereafter. AB 17-398: extends cap-and-trade through 2030. SB 15-350: directs CARB to adopt rules removing disincentives for utilities' emissions reductions programs.
Colorado	Adopted 2019 (HB 19-1261): more than 26% from 2005 levels by 2025, 50% below 2005 levels by 2030, and 90% below 2005 levels by 2050.	HB 19-1261: in addition to expanding GHG reduction goals, provides for possibility of joining other jurisdictions in regional abatement schemes. SB 19-096: directs the Air Quality Control Commission to track long-term emissions data and publish an inventory. SB 19-236: utilities must include emissions reductions plans in their IRPs, and PUC must consider social cost of carbon.
Connecticut	Originally adopted 2004 (SB 04-595), last amended 2018 (SB 18-7): 10% below 1990 levels by 2020, 45% below 2001 levels by 2030, and 80% below 2001 levels by 2050.	The 2018 amendment to the GHG targets (SB 7) also requires publication of seal level rise scenarios. In 2018, the Governor's Council on Climate Change put forward several policy recommendations for reducing emissions.
Hawaii	Adopted 2018 (HB 18-2182): carbon neutral by 2045.	HB 18-2182 also creates the Greenhouse Gas Sequestration Task Force to examine incentives and policies that will help the state further reduce emissions. Hawaii is on track to reduce GHG emissions to 1990 levels by 2020. The legislature set this target in 2007 (HB 226).
Maine	Adopted 2019 (LD 19-1679): 45% below 1990 levels by 2030, 80% below 1990 levels by 2050.	LD 19-1679: establishes the Maine Climate Council, tasked with developing a climate action plan and clean energy economy transition plan.
Maryland	Adopted 2009, reauthorized and amended in 2016 (SB 16-323): 25% below 2006 levels by 2020, and 40% below 2006 levels by 2030.	HB 19-277: Authorizes Governor to include the state as full participant in regional initiatives (TCI) to reduce emissions from transportation. SB 19-516: Among other provisions, increases the state's RPS to 50% by 2030. Requires study of a 100% renewable energy goal.

State	Emissions / GHG Goals	Other Carbon / Climate Activities and Policies
Massachusetts	Adopted 2008 (the Global Warming Solutions Act): 25% below 1990 levels by 2020, and 80% below 1990 levels by 2050.	E.O. 2016-569: requires the Secretary of Energy and Environmental Affairs to consult the GWSA Implementation Advisory Committee to establish statewide limits for 2030 and 2040, achieve further reductions from government operations, work to develop regional transportation policies, and lead reform on capacity and wholesale markets to achieve state mandates. DEP must also consider limits on sources such as natural gas pipelines and the transportation sector. The state's 2015 update to its Clean Energy and Climate Plan provides a comprehensive suite of policies to reduce statewide emissions.
Nevada	Adopted 2019 (SB 19-254): 28% below 2005 levels by 2025, 45% below 2005 levels by 2030, and "zero or near-zero" by 2050.	SB 19-254: requires DCNR to submit a report on whether existing/pending state policies can ensure that the state achieves zero carbon emissions by 2050.
New Jersey	Adopted 2007 (AB 07-3301): 1990 levels by 2020, and 80% below 2006 levels by 2050.	The Draft 2019 New Jersey Energy Master Plan outlines multiple strategies for emissions reductions in the energy, transportation, and building sectors.
New Mexico	Adopted 2019 (E.O 003): 45% below 2005 levels by 2030.	Governor Lujan Grisham's executive order on climate also created the interagency Climate Change Task Force to evaluate and report on mitigation and adaptation policies, including a market-based program to reduce carbon emissions. SB 19-489 requires that the Environmental Improvement Board (EIB) promulgate a rule limiting CO_2 emissions from coal fired generating plants to an emissions standard of 1,100 lbs-CO_2/MWh on or after January 1, 2023.
New York	Adopted by Executive Order 24 in 2009, reaffirmed as a goal of the Reforming the Energy Vision initiative: 40% below 1990 levels by 2030, and 80% below 1990 levels by 2050. Senate Bill 19-6599 will create GHG emissions targets of 40% below 1990 levels by 2030 and 85% below 1990 levels by 2050, with the remaining 15% offset. The bill also requires the PSC to create a clean energy standard of 70% renewable energy by 2030 and 100% zero emissions by 2040.	The state Soil & Water Conservation Committee administers a Climate Resilient Farming Program to reduce agricultural emissions. Governor Cuomo's REV initiative is a series of smaller initiatives to achieve carbon emissions reductions from multiple sectors, including transportation and buildings.
Oregon	Adopted 2007 (HB 07-3543): 10% below 1990 levels by 2020 and 75% below 1990 levels by 2050.	HB 19-2020 (second reading in Senate on 6/19) would create a GHG emissions standard of 45% below 1990 levels by 2035 and 80% below 1990 levels by 2050 and achieve those reductions through a cap and trade program.

State	Emissions / GHG Goals	Other Carbon / Climate Activities and Policies
Rhode Island	Adopted 2014 (the Resilient Rhode Island Act): 10% below 1990 levels by 2020, 45% below 1990 levels by 2035, and 80% below 1990 levels by 2050.	Governor Rainmondo's executive order 2017-10 required the development of a statewide Climate Resilience Action Strategy by June 2018.
Vermont	Adopted 2006 (S 06-259): 50% below 1990 levels by 2028, and if feasible, 75% below 1990 levels by 2050.	Executive Order 2017-12 created the Vermont Climate Action Committee. The Committee's 2018 report recommends using market-based mechanisms, sequestration measures, and carbon offset projects to address emissions.
Washington	Adopted 2008 (HB 08-2815): 1990 levels by 2020, 25% below 1990 levels by 2035, and 50% below 1990 levels by 2050 or 70% below the state's expected emissions in 2050.	SB 19-5116: Requires utilities to use emissions-free resources by 2045. Social cost of carbon must factor into IRP process.

State Energy Policies and Utility Goals

State	Renewable / Clean Energy Targets	EERS	Utility Commitments / Goals
California	Adopted 2002, last amended 2018: 33% by 2020, 60% by 2030, with a target of 100% carbon-free by 2045.	Electric: Long-term goals average about 1.15% of retail sales through 2024. Average incremental savings targets average about 1.3% of retail sales electricity from 2020-2025. Natural Gas: Incremental savings target of 0.56% through 2024. SB 15-350 requires state agencies and utilities to double cumulative efficiency savings achieved by 2030. Work to develop specific utility targets is ongoing.	Pacific Gas & Electric: Member of the WeAreStill in coalition. Goal to avoid one million tons of cumulative greenhouse gas emissions from 2018 through 2022, compared to a 2016 baseline. SMUD: 33% renewable energy by 2020, 60% by 2030, and reduce retail load GHG emissions to net zero by 2040. Sempra Energy: 35% below 2010 emissions by 2021, SDG&E is on track to meet CA's 50% by RE target.
Colorado	Adopted 2004: 30% by 2020 (IOUs), 10% or 20% by 2020 for municipalities and electric cooperatives depending on size. Polis Administration's Roadmap to 100% Renewable Energy by 2040.	Electric: Flat target of 500 GWh or roughly 1.7% of sales per year. Black Hills follows Xcel's targets. HB 17-1227 extended electric efficiency programs to 2028 and required the commission to set goals of at least 5% peak demand reduction and 5% energy savings (as compared to 2018) by 2028 for demand-side management programs implemented during 2019 through 2028. Natural Gas: Savings targets commensurate with spending targets (at least 0.5% of prior year's revenue).	Xcel Energy: 55% RE by 2026, 80% GHG reduction by 2030, carbon-free by 2050. Platte River Power Authority: Zero carbon emissions by 2030. Holy Cross Energy: 70% emissions reduction by 2030. Poudre Valley Rural Electric Association: increase carbon-free energy from 33% to 80% by 2030. Colorado Springs Utilities: 20% renewable energy by 2020.

State	Renewable / Clean Energy Targets	EERS	Utility Commitments / Goals
Connecticut	Adopted 1998, last amended 2018: Class 1: 21% by 2020, 30% by 2025, 40% by 2030 (plus 4% class 1 or 2 by 2018, 4% class 3 by 2010).	Electric: Average incremental savings of 1.11% of sales from 2019 through 2021.The state's renewable portfolio standard (RPS), established in 1998 and revised thereafter, requires that electricity providers and wholesale suppliers obtain 27% of their retail load from renewable energy and energy efficiency by 2020. Natural Gas: Average incremental savings of 0.59% per year from 2019 through 2021.	AVANGRID (the United Illuminating Company is a subsidiary): increase installed renewable capacity by 2GW, reduce emissions intensity 25% below 2015 levels by 2020, 100% carbon neutral by 2035.
Hawaii	Adopted 2015 (HB 15-623): 40% by 2030, 70% by 2040, and 100% by 2045.	Electric: reduce electricity consumption by 4,300 GWh by 2030 (equal to approximately 30% of forecast electricity sales or 1.4% annual savings). Natural Gas: N/A (Natural gas plays a limited role in the state's energy generation mix.)	Hawaiian Electric Company: reduce GHG emissions more than 16% below 2010 levels by 2020. Achieved: 2014. Committed to meeting the 100% renewable energy target. Kaua'i Island Cooperative: 70% renewable by 2030.
Maine	Adopted 2019 (LD 19-1494): 80% by 2030, 100% by 2050.	Electric: Savings of 20% by 2020, with incremental savings targets of ~ 1.6% per year for 2014-2016 and ~2.4% per year for 2017-2019. While Efficiency Maine operates under an all cost-effective mandate, the agency has fallen short of targets in recent years due to budget cuts. Natural Gas: Incremental savings of ~0.2% per year for 2017-2019.	AVANGRID (Central Maine Power is a subsidiary): increase installed renewable capacity by 2GW, reduce emissions intensity 25% below 2015 levels by 2020, 100% carbon neutral by 2035.
Maryland	Adopted 2004, last amended 2019 (SB 19-516): 28% by 2020, 40% by 2025, and 50% by 2030.	Electric: 2% incremental energy savings goal through 2023. Utilities must also file an energy efficiency program plan every 3 years to be approved by the PSC. Natural Gas: goals and limited income goals are being developed.	FirstEnergy (Potomac Edison Company is subsidiary in MD): 90% below 2005 emission levels by 2045.

State	Renewable / Clean Energy Targets	EERS	Utility Commitments / Goals
Massachusetts	Adopted 1997, last amended 2018 (Clean Energy Standard): 20% by 2020, 40% by 2030, 60% by 2040, and 80% by 2050. RPS: 13% by 2018, 55% by 2050.	Electric: Net annual savings of 3.45 million MWh (not including fuel switching) for 2019-2021, equivalent to savings of ~2.7% of retail sales per year. Natural Gas: 1.25% of retail sales. Net savings of 95.89 MMTherms for 2019-2021. Additional goal of 261.9 million net lifetime MMBtu for 2019-2021.	NationalGrid: 45% below 1990 emission levels by 2020, 70% below 1990 levels by 2030, and 80% below 1990 levels by 2050.
Nevada	Adopted 1997, last amended 2019: 24% by 2021, 50% by 2030, with 100% by 2050 goal (up to 10% of the standard can be met using energy efficiency from 2020-2024.	SB 17-150 set baseline targets for electricity suppliers: 1% in 2018, 1.5% for 2021-2025.	NV Energy: seeks to double renewable generation by 2023. The utility included $2 billion in renewable projects in its 2018 IRP, and expects to retire or divest 100% of its coal generation by the end of 2025.
New Jersey	Adopted 1999, last amended 2018: 35% by 2025, 50% by 2030.	Electric: 2% electric savings (as a percent of average annual usage from the prior three years) within five years of the initial implementation of a utility's plan. In April, consultants presented the New Jersey Board of Public Utilities with the draft strategic plan for 2019-2022 for the statewide Clean Energy Program, including an energy efficiency portfolio achieving a 56% increase in savings by 2022. Natural Gas: 0.75% savings (as a percent of average annual usage from the prior three years) within five years of the initial implementation of a utility's plan.	FirstEnergy (Jersey Central Power & Light is a subsidiary): 90% below 2005 emission levels by 2045. Public Service Electric and Gas: eliminate 13 million metric tons of CO2 equivalent by 2030 (from 2005 levels).

State	Renewable / Clean Energy Targets	EERS	Utility Commitments / Goals
New Mexico	Adopted 2004, last amended 2019 (Carbon-free Resource Standard): Distribution cooperatives: 10% by 2020, 40% by 2025, 50% by 2030, and zero-carbon (at least 80% RE) by 2050. IOUs: 20% by 2020, 40% by 2025, 50% by 2030, 80% by 2040, and carbon-free by 2045.	Electric: The state's three public utilities must achieve 5% savings of 2020 retail sales by 2025. HB 19-291 directs the Public Regulation Commission to set additional targets through 2030.	Xcel Energy: 55% RE by 2026, 80% GHG reduction by 2030, and carbon-free by 2050. PNM: carbon-free by 2040 (5 years ahead of the deadline established by SB 19-489). PNM plans to retire San Juan by 2022.
New York	Adopted 2016 (Clean Energy Standard): 50% by 2030.	Statewide all-fuels target of 185 TBtu cumulative annual savings for 2015-2025, or approximately 3% of incremental electric sales. Electric: detailed proposals are to be submitted by the utilities to the PSC. The PSC assumes that these plans will account for 2% of the statewide goal, with the remainder accounted for by NYSERDA, codes and standards, and other state activities. Natural Gas: no specific targets, but savings will count toward statewide goal.	Long Island Power Authority: add 800 MW of clean energy by 2030. AVANGRID (New York State Electric & Gas Corporation and Rochester Gas & Electric Corporation are subsidiaries): increase installed renewable capacity by 2GW, reduce emissions intensity 25% below 2015 levels by 2020, and 100% carbon neutral by 2035. NationalGrid: 45% below 1990 emission levels by 2020, 70% below 1990 levels by 2030, and 80% below 1990 levels by 2050.
Oregon	Adopted 2007, last amended 2016: Large IOUs (3% or more of state's load): 50% by 2040 Large COUs: 25% by 2025 Small Utilities (1.5 to <3% of state's load): 10% by 2025 Smallest Utilities (<1.5% of state's load): 5% by 2025 Total coal phase out by 2035.[1]	Electric: Incremental targets average ~1.3% of sales annually for the period 2015-2019. Natural Gas: Incremental savings of 0.3% of sales annually for the period 2015-2019.	Portland General Electric and Pacific Power will be nearly coal free by 2030, entirely coal free by 2035. Avista: carbon-neutral electricity supply by 2027; 100% clean by 2045.

[1] Utilities that buy into a new coal plant or sign a new contract specifically for new coal power and publicly-owned utilities that annex investor-owned utility territory without consent (aside from municipal utilities under certain conditions) are subject to the "large utility" standards.

State	Renewable / Clean Energy Targets	EERS	Utility Commitments / Goals
Rhode Island	Adopted 2004, last amended 2016: 16% by 2020, 31% by 2030, 38.5% by 2036.	Electric: Average incremental savings of 2.5% for 2018-2020. Natural Gas: Average incremental savings of 0.97% for 2018-2020.	NationalGrid: 45% below 1990 emission levels by 2020, 70% below 1990 levels by 2030, 80% below 1990 levels by 2050.
Vermont	Adopted 2015: 55% by 2017, 75% by 2032, and 12% energy transformation projects (EE, EVs, storage) by 2032.	Vermont law requires Energy Efficiency Utility budgets to be set at a level that would realize "all reasonably available, cost-effective energy efficiency" and set specific energy and peak demand savings targets. Average incremental electricity savings totaling 357,400 MWh over 2018-2020, or approximately 2.4% of annual sales. Natural Gas: Three-year annual incremental savings of 192,599 Mcf spanning 2018-2020 or 0.5% of sales.	Green Mountain Power, 2018 Goal: partner with customers to drive down costs and eliminate more than 8,000 metric tons of carbon emissions per year using clean energy for the next two decades.
Washington	Adopted 2006, amended 2019: 15% by 2020, coal phased out by 2025, carbon neutral by 2030, 100% carbon-free by 2045.	Electric: average around 1.4% incremental savings per year. Natural Gas: in 2014, all four IOUs committed to a voluntary pilot program with the potential to save over 280 million therms annually.	Avista: carbon-neutral electricity supply by 2027, 100% clean by 2045. Seattle City Light: carbon neutral since 2005. Puget Sound Energy: reduce carbon emissions 50% by 2040, 100% coal-free generation by the early 2030s.

State Transportation Policies

State	Regional Transportation Collaborative	LEV Standards?[2]	ZEV Standards?[3]	Low Carbon Fuel Standard?	EV / ZEV Goals
California	Pacific Coast Collaborative	Yes	Yes	Goal: reduce carbon intensity of transportation fuel pool by at least 20% by 2030.	Goal (E.O. B.48-2018): 5 million ZEVs by 2030 and 250,000 ZEV chargers by 2025. Deploy over 100,000 zero emission freight vehicles and associated equipment by 2030. Transit agency requirements: all new bus purchases must be zero emission buses by 2029 (50% by 2026 for large agencies, 25% by 2026 for small agencies)
Colorado	REV West	Yes	Rulemaking in Progress		Goal (E.O. B2019-002): 940,000 EVs by 2030.
Connecticut	Transportation and Climate Initiative[4]	Yes	Yes	*	Goal: 500,000 ZEVs by 2030 (ZEV MOU)
Hawaii	N/A	No	No		
Maine	Transportation and Climate Initiative	Yes	Yes	*	
Maryland	Transportation and Climate Initiative	Yes	Yes	*	Goal: ~300,000 ZEVs by 2025 (ZEV MOU)
Massachusetts	Transportation and Climate Initiative	Yes	Yes	*	Goal: ~300,000 ZEVs by 2025 (ZEV MOU)
Nevada	REV West				

[2] States that have adopted LEV Standards not represented below: Delaware and Pennsylvania.
[3] All states that have adopted ZEV Standards are represented below.
[4] Other TCI members not captured here: Delaware, New Hampshire, Pennsylvania, and Virginia.

State	Regional Transportation Collaborative	LEV Standards?	ZEV Standards?	Low Carbon Fuel Standard?	EV / ZEV Goals
New Jersey	Transportation and Climate Initiative	Yes	Yes	*	Goal: 330,000 EVs by 2025.
New Mexico	REV West	Climate Change Task Force to evaluate adopting.	Climate Change Task Force to evaluate adopting.		Governor Lujan Grisham stated that she would like to see 20% of the state fleet electrified.
New York	Transportation and Climate Initiative	Yes	Yes	*	Goal: 800,000 ZEVs by 2025.
Oregon	Pacific Coast Collaborative	Yes	Yes	Requires fuel suppliers to reduce the carbon content of transportation fuels by 10% by 2025.	Goal (E.O. 2017-21): 50,000 EVs by 2020.
Rhode Island	Transportation and Climate Initiative	Yes	Yes	*	Goal: 43,000 ZEVs by 2025 (ZEV MOU)
Vermont	Transportation and Climate Initiative	Yes	Yes	*	Goal: ~50,000 EVs by 2025
Washington	Pacific Coast Collaborative	Yes			Goal: 50,000 EVs by 2020.

* Signatory: Low Carbon Fuel Standard MOU (2009) in which the states agreed to analyze low-carbon fuel supply options, determine the feasibility of achieving a range of carbon reduction goals – including a 10 percent reduction in carbon intensity of fuels – and develop a framework for a regional Low Carbon Fuel Standard (LCFS).

State Appliance and Building Efficiency Policies

State	Appliance Standards Opposing Federal Rollback[5]	Building Efficiency Codes
California	In December 2008, California adopted a 45 lumen per watt standard for general service lamps (GSLs) as defined in the 2007 Energy Independence and Security Act (EISA). California's Title 20 Appliance Efficiency Regulations have existing provisions that backstop all other federal appliance standards in case of repeal or rollback.	Commercial: meets or exceeds ASHRAE 90.1-2013 Residential: meets or exceeds IECC 2015 Solar: The California Energy Commission adopted revisions to the Energy code in May 2018. The most noteworthy new provision is a requirement for all new low-rise homes to install PV equipment with an annual output greater than or equal to the home's annual electric consumption. The proposed amended standards, which still need to be approved by the California Building Standards Commission would go into effect on January 1, 2020.
Colorado	HB 19-1231 updates and adopts standards for water efficiency and energy efficiency that apply to a list of 15 consumer and commercial appliances and other products. The bill also includes a provision to adopt current federal standards to backstop all other federal appliance standards in case of repeal or rollback.	No mandatory statewide code, but any county or municipality that had a building code in place was required to adopt 2003 IECC or 2006 IECC as the minimum energy code standard by July 1, 2008. Solar: Builders of single-family homes are required to offer solar energy as a standard feature to all prospective homebuyers. Builders are required to give the buyer the option to have either a PV system or a solar water heating system installed on their new home or to have all the necessary wiring and plumbing installed so that they can easily add a solar system later.
Connecticut	N/A	Residential and commercial building codes are based on the 2012 IECC, with weakening amendments.
Hawaii	HB 19-556 requires the Department of Business, Economic Development and Tourism to adopt minimum appliance efficiency standards for certain products sold or installed in the State that are substantially equivalent to existing appliance efficiency standards established in California and by the federal government.	Residential and commercial building codes are based on the 2015 IECC, with weakening amendments. Solar: As of January 1, 2010, building permits may not be issued for new single-family homes that do not include a solar water-heating system.

[5] In May 2019, 36 utility companies opposed the DOE proposal to roll back lightbulb efficiency stating that "The 2020 standard for lightbulbs should remain applicable to all common household lightbulbs, and efficiency standards for other products should not be delayed."

State	Appliance Standards Opposing Federal Rollback	Building Efficiency Codes
Maine	N/A	Commercial: based on the 2009 IECC and ASHRAE 90.1-2007 Residential: based on the 2009 IECC
Maryland	N/A	Residential and commercial building codes are based on the 2015 IECC.
Massachusetts	N/A	Commercial: based on the 2015 IECC and ASHRAE 90.1-2013 Residential: based on the 2015 IECC
Nevada	AB 19-54 adopted the federal light bulb standards.	Commercial: 2012 IECC, with amendments or ASHRAE 90.1-2010 Residential: 2012 IECC, with amendments
New Jersey	N/A	Commercial: based on ASHRAE 90.1-2013 Residential: based on 2015 IECC Solar: Developers of residential developments with 25 or more dwelling units must "offer to install, or to provide for installation of, a solar energy system" when technically feasible. The law took effect immediately upon enactment; however, the Department of Community Affairs (DCA), in cooperation with the New Jersey Board of Public Utilities (BPU), must develop rules and standards for its implementation. The law does not provide a time frame for the adoption of regulations and it does not appear that such rules have been established.
New Mexico	N/A	Commercial and residential are based on the 2009 IECC, with amendments
New York	N/A	Commercial: based on the 2015 IECC and ASHRAE 90.1-2013, as modified by the 2016 supplement Residential: based on the 2015 IECC, as modified by the 2016 supplement
Oregon	N/A	Commercial: based on ASHRAE 90.1-2010 Residential: more stringent than the 2009 IECC
Rhode Island	SB 19-552, which has been "held for further study", would establish minimum appliance energy efficiency standards.	Commercial: based on the 2012 IECC and ASHRAE 90.1-2010 Residential: based on the 2012 IECC, with amendments

State	Appliance Standards Opposing Federal Rollback	Building Efficiency Codes
Vermont	H 17-411 provides that the state will enforce federal standards if they are "withdrawn, repealed or otherwise voided" at the federal level. Efficiency measures protected by the new Vermont law include all standards on the federal books as of January 17, 2017, including ones that have yet to take effect, including the light bulb standards slated for implementation in 2020.	Commercial: based on the 2015 IECC and ASHRAE 90.1-2013, with amendments Residential: based on the 2015 IECC
Washington	HB 19-1444 adopts federal light bulb standards, providing a backstop to a potential federal rollback.	Commercial and Residential: based on the 2015 IECC, with amendments HB 19-1257: Department of Commerce is to create a State Energy Performance Standard by November 1, 2020 to reduce energy use and GHG emissions associated with large commercial buildings.

State Methane and HFC Emissions Policies

State	Methane Emissions Policy	HFC Emissions Policy
California	CARB adopted stringent methane regulations for monitoring and repairing pipeline leaks in 2017 (required by SB 16-1383). The CPUC ordered utilities to file methane abatement compliance plans by March 2019 (pursuant to SB 14-1371).	SB 18-1013 creates the Fluorinated Gases Emission Reduction Incentive Program to promote the adoption of low-global warming potential refrigerants. The schedule to ban products made with HFCs begins 2022.
Colorado	SB 19-181 directs the Air Quality Control Commission to bolster methane regulations by promulgating rules for all points in the natural gas supply chain (processing, gathering & boosting, storage, and transmission). The legislation also affirms local authority over oil and gas siting and sets objectives to protect public health.	SB19-096 requires the development of a GHG inventory, which will include HFCs.
Connecticut	N/A. Connecticut's omnibus energy bill, HB 19-5002, did not include regulations for methane emissions. Studies of CT pipelines reveal the need to modernize gas infrastructure.	Governor Malloy directed DEEP to develop HFC controls modelled after CARB's that would fit within the state's air quality regulatory framework. New regulations are expected in 2020.
Hawaii	N/A	N/A
Maine	Maine's policy establishes a classification system for pipeline leaks, and sets detection and repair requirements for pipeline operators. Governor Mills joined 15 other attorneys general in suing the Trump administration for halting enforcement of federal methane rules.	N/A
Maryland	The Greenhouse Gas Emissions Reductions Act requires the maintenance of GHG emissions inventories. The Maryland Department of Environment (MDE) publishes data on methane from wastewater, landfills, and oil and gas operations. MDE is in the process of developing proposed methane regulations - Methane Emissions Minimization Plans (MEMPs) - for curbing leaks across the natural gas supply chain.	MDE is in the process of developing HFC regulations for foam and refrigerant products pursuant to SB 16-323 (the Greenhouse Gas Emissions Reduction Act).

State	Methane Emissions Policy	HFC Emissions Policy
Massachusetts	To meet state emissions reductions goals, the DEP adopted rules in 2017 to require natural gas operators to reduce methane emissions annually (specified by utility), keep inventories, and repair pipeline leaks. The DPU adopted rules in March 2019 that establish methods for identifying high-priority leaks. The rules also require that gas operators accelerate repairs when leaks are located in 'environmentally sensitive areas'.	Massachusetts published its Comprehensive Energy Plan in late 2018. HFC regulations have not been announced, but the state's Attorney General joined 10 other states to sue the EPA for its HFC rule rollback in 2018.
Nevada	N/A	N/A
New Jersey	S 19-3207, if enacted, would bolster the state's GHG emissions reporting requirements and require the development of a comprehensive statewide strategy for mitigating 'short-lived' GHGs, including methane. As of May 2019, the bill had been passed by both chambers of the legislature.	S 19-3207 includes a provision requiring the development of a comprehensive strategy to reduce emissions of short-lived climate pollutants in the State. This requirement is based on legislation adopted and implemented in California.
New Mexico	Governor Lujan Grisham's EO 2019-003 directs EMNRD and NMED to develop a regulatory framework to reduce oil and gas sector methane emissions. The NMED maintains an interactive map of oil and gas site emissions.	N/A
New York	Governor Cuomo's Methane Reduction Plan (2017) outlines multiple policies to achieve emissions reductions targets, including monitoring and repair of natural gas pipelines.	The New York State Department of Environmental Conservation is developing regulations to phase out HFCs between 2020 and 2024, a draft proposal was released in September of 2018.
Oregon	HB 19-2020 would have directed the Environmental Quality Commission to develop rules regulating methane emissions from landfills, agriculture, and forestry. No legislation or regulations are in place for pipeline leaks.	N/A
Rhode Island	The Rhode Island Energy 2035 Plan (2015) recommended reviewing the state's natural gas replacement and repair policy, suggesting an update to National Grid's Gas Infrastructure, Safety, and Reliability Plan for detecting and repairing pipeline leaks.	N/A
Vermont	Gas utilities must 'routinely' inspect for leaks. No comprehensive program for pipeline emissions reductions is in place.	S 19-0030 establishes a schedule between 2020 and 2024 for when certain products must be manufactured without HFCs.
Washington	State law establishes a classification system for pipeline leaks and requires utilities to maintain permanent leak records and conduct a self-audit every five years.	HB 19-1112 establishes a regulatory framework for phasing out HFCs in the state, banning specific products beginning in 2020.

New and Noteworthy Legislation

State	Bill Number	Summary
California	SB 18-1013	Codifies the prohibitions on certain ozone depleting substances and HFC) adopted by the U.S. EPA as part of the Significant New Alternatives Policy (SNAP) Program.
Colorado	HB 19-1261	Sets statewide GHG emissions reduction goals to more than 26% from 2005 levels by 2025, 50% below 2005 levels by 2030, and 90% below 2005 levels by 2050.
	SB 19-096	Requires the AQCC to collect greenhouse gas emissions data from greenhouse gas-emitting entities, report on the data, develop a forecast of future emissions, and propose a draft rule to address the emissions by July 1, 2020.
	SB 19-181	Modifies the composition of the COGCC, requires that the COGCC review and, if necessary, amend existing rules related to methane emissions and oil and gas operations, removes the state preemption of oil and gas regulation, and expands the authority of local governments to regulate oil and gas development.
	SB 19-236	Among other provisions, the bill supplements existing state renewable energy standard laws by establishing targets for the reduction of CO_2 emissions by Xcel Energy (80% below 2005 levels by 2030, 100% by 2050 and thereafter, if practicable). Other utilities may opt in to submitting clean energy plans. The bill also allows utilities to apply to the PUC for approval of a financing order to issue securitized utility ratepayer-backed bonds when retiring an electric generating facility. Bonds are to be used by the utility to purchase, build, or invest in electric generating resources or electricity storage, and repaid through a distinct charge on ratepayers. The bill requires the PUC to promulgate rules that require each wholesale electric cooperative to submit an application for approval of an integrated or electric resource plan. The PUC must evaluate the plans using rules adopted that are applicable to these cooperatives. The bill also requires the PUC to promulgate rules establishing requirements for IOUs to file electric distribution plans; requires IOUs to include a workforce transition plan when proposing the retirement of an electric generating facility; directs the PUC to require electric public utilities to consider the cost of carbon dioxide emissions in certain proceedings; requires the PUC to conduct an investigation of financial performance-based incentives and performance-based metric tracking; and directs the PUC to open an investigatory proceeding to evaluate the costs and benefits associated with regional transmission organizations, energy imbalance markets, joint tariffs, and power pools.
Connecticut		
Hawaii		
Maine	LD 19-1679	Updates the state's GHG emissions reduction targets to 45% below 1990 levels by 2030, and 80% below 1990 levels by 2050. Establishes the Maine Climate Council, comprised of state agencies and stakeholders tasked with developing a climate action plan and a clean energy economy transition plan.

State	Bill Number	Summary
Maryland	HB 19-277	Authorizes the Governor to include the state in any regional governmental initiative, agreement, or compact that limits or reduces greenhouse gas emissions from the transportation sector; requires the Department of the Environment and the Department of Transportation to submit a report on the status of any regional initiative before November 1, 2019.
	SB 19-516	Among other provisions, increases the state's RPS to 50% by 2030. Requires study of a 100% renewable energy goal.
Massachusetts	H 18-4857	Establishes an energy storage target of 1,000 MWh by 2025. Requires electric suppliers to provide a minimum percentage, as determined by the Department of Energy Resources (DER), of kWh sales from clean peak resources. Also provides for EDCs to submit distribution system resiliency reports to the DER. Allows EDCs to hold competitive solicitations for procurement of non-wires alternatives from third party developers. Establishes reporting requirements for lost and unaccounted for gas for gas companies for the purpose of reducing GHG emissions. Requires the DER to study the costs and benefits of requiring EDCs to issue competitive bids for up to 1,600 MW of additional offshore wind.
Nevada	SB 19-254	Sets GHG emissions reduction targets: 28% below 2005 levels by 2025, 45% below 2005 levels by 2030, and "zero or near-zero" by 2050. Also requires DCNR to submit an emissions report, and provide analysis of whether existing/pending state policies can ensure that the state achieves zero carbon emissions by 2050.
	SB 19-358	Increases the state's clean energy standard to 50% by 2030. Includes a zero carbon by 2050 goal.
New Jersey	AB 18-3723	Requires the BPU to conduct an energy storage analysis, make changes to the solar renewable energy certificate program, adopt energy efficiency and peak demand reduction programs, adopt a "Community Solar Energy Pilot Program," and provide tax credits for certain offshore wind energy projects. The bill also requires the Department of Labor and Workforce Development to establish job training programs for those who work in manufacturing and servicing of offshore wind energy equipment.
	SB 19-3207	If enacted, the bill will establish new timeframes for the implementation of certain requirements in the "Global Warming Response Act" (GWRA), and require the Department of Environmental Protection (DEP) to adopt a strategy to reduce short-lived climate pollutants.
New Mexico	SB 19-489	Increases the state's RPS as follows: Distribution cooperatives: 10% by 2020, 40% by 2025, 50% by 2030, zero-carbon (at least 80% RE) by 2050. IOUs: 20% by 2020, 40% by 2025, 50% by 2030, 80% by 2040, and resources must be carbon-free by 2045. Also authorizes an alternative mechanism ("energy transition bonds" or "securitization") for financing the retirement of coal-fired power plants. The mechanism has been designed to accommodate the retirement in 2022 of units 1 and 4 of the San Juan Generation Station (SJGS) and to anticipate the closure of the Four Corners Power Plant in 2031. The bill also requires that the Environmental Improvement Board (EIB) promulgate a rule limiting carbon dioxide emissions from coal fired generating plants to an emissions standard of 1,100 lbs-CO2/MWh on or after January 1, 2023.

State	Bill Number	Summary
New York	SB 19-6599	If enacted, will create GHG emissions targets of 40% below 1990 levels by 2030 and 85% below 1990 levels by 2050, with the remaining 15% offset. The bill also requires that the PSC creates a clean energy standard of 70% renewable energy by 2030 and 100% zero emissions by 2040.
Oregon		
Rhode Island		
Vermont	HB 19-529	Excludes from the definition of a net metering system a plant for generation of electricity that primarily supplies electricity to electric vehicle supply equipment for the resale of electricity. Requires the Public Utility Commission to report on steps necessary to implement fees on plug-in electric vehicle charging and how to address net metering and net metering credits by December 15, 2019. Establishes the vehicle incentive and emissions repair programs, which, among other things, provide point-of-sale vouchers for the purchase or lease of new plug-in electric vehicles. Permits State agencies that own or control electric vehicle supply equipment (EVSE) to establish, set, and adjust fees for the use of EVSE available to the public for three years starting on July 1, 2019. Specifies that the PUC does not have jurisdiction over persons otherwise not regulated by the PUC that engage in the siting, construction, ownership, operation, or control of a facility that sells or supplies electricity to the public exclusively for charging a plug-in electric vehicle. Requires the Commissioner of Buildings and General Services, to the maximum extent practicable, to purchase and lease hybrid or plug-in electric vehicles for the State fleet with a minimum of 50%, bumped to 75% on July 1, 2021, of newly purchased and leased vehicles being hybrid or plug-in electric vehicles.
	S 19-30	Establishes a schedule between 2020 and 2024 for when certain products must be manufactured without HFCs.
Washington	HB 19-1112	Establishes a schedule between 2020 and 2024 for when certain products must be manufactured without HFCs.
	HB 19-1257	Requires the State Building Code Council to develop rules that require and regulate electric vehicle charging capability at all new buildings that provide on-site parking. Requires the Department of Commerce to create a State Energy Performance Standard by November 1, 2020 to reduce energy use and GHG emissions associated with large commercial buildings. Requires gas companies to identify and acquire all conservation measures that are available and cost-effective. The cost-effectiveness analysis must include the societal costs of GHG emissions. The targets must be based on a conservation potential assessment prepared by an independent third party and approved by the UTC. A gas company may propose a renewable natural gas program under which the company would supply renewable natural gas for a portion of the natural gas sold or delivered to its retail customers. Each gas company must offer by tariff a voluntary renewable natural gas service available to all customers to replace any portion of the natural gas that would otherwise be provided by the gas company. The UTC must monitor the GHG emissions resulting from natural gas and renewable natural gas delivered by each gas company to its customers, relative to the proportionate share of the state's GHG emissions goal.

	HB 19-1512	Allows municipal utilities to adopt transportation electrification plans. Regulated utilities may adopt plans that provide EV charging equipment incentives and support for other transportation electrification programs. Utility Electric Transportation Plan Authorization: The governing authority of a utility or a regulated electric utility, with the approval of the UTC, may adopt an electric transportation plan that proves that utility outreach and investment in the electrification of transportation infrastructure does not increase net costs to ratepayers in excess of 0.25%. The governing authority or the UTC may consider items such as the impact of electrification on the utility's load, demand response and load management opportunities, system reliability and distribution system efficiencies, and interoperability concerns. Upon making this determination, electric utilities may offer incentive programs for customers.
	HB 19-2042	Extends and establishes tax credits for electric vehicles and electric vehicle supply equipment (EVSE). Establishes a grant program to assist transit authorities in fleet electrification and alternative fuel use; a car sharing pilot grant program to support car sharing for underserved communities; and extends an existing EV charging infrastructure grant program. Amends provisions authorizing investor-owned utilities' incentive rate of return on investments in EV supply equipment. Extends a technical assistance and education program on alternative fuel vehicles for public agencies within Washington State University's Extension Energy Program. Authorizes the Department of Commerce to conduct a study on reducing barriers to battery and hydrogen fuel cell electric vehicle adoption by lower income residents.
	SB 19-5116	Requires that by December 31, 2025, all electric utilities eliminate coal-fired resources from their allocation of electricity. For IOUs, the UTC is required to accelerate depreciation for any coal-fired resource owned by an IOU and is allowed to accelerate depreciation for any qualified transmission line to no later than December 31, 2025. The UTC must allow in rates prudently incurred undepreciated investments in a fossil-fuel generating resource that has been retired from service under specific conditions. By January 1, 2030, each electric utility must make all retail sales of electricity to Washington customers GHG neutral. An electric utility must achieve compliance with the GHG neutral standard for multiyear compliance periods beginning January 1, 2030, through December 31, 2044. By January 1, 2045, each electric utility must meet 100 percent of its retail electric load to Washington customers using non-emitting electric generation and electricity from renewable resources.

State EV and EVSE Policies and Incentives

California

EV Policies and Incentives

Low Emission Truck and Bus Purchase Vouchers: fleet owners.

Light-duty PHEV and ZEV Rebates

HOV and High Occupancy Toll (HOT) Lane Exemption

The California Clean Truck, Bus, and Off-Road Vehicle and Equipment Technology Program: funding for development, demonstration, pre-commercial pilot, and early commercial implementation projects for zero and near-zero emission trucks, buses, and off-road vehicles and equipment.

Through the California Clean Miles Standard and Incentive Program, the California Air Resources Board (ARB) will establish annual emissions reduction targets for transportation network companies, including goals for increasing the number of miles traveled using zero emission vehicles.

Zero and Near-Zero Emission Vehicle Component Rebates

Vehicle Acquisition and Petroleum Reduction Requirements: beginning in fiscal year 2024, at least 50% of the light-duty vehicles purchased by the state must be ZEVs. At least 30% of the Department of General Service's fleet of new vehicles with a gross vehicle weight of 19,000 pounds or more must be ZEVs by 2030.

Freight Efficiency Action Plan: establishes targets to improve freight efficiency and transition to zero emission technologies.

EV Supply Equipment (EVSE) Policies and Incentives

EVSE Incentive Program Support: provides guidance and funding for local governments and organizations to develop and implement EVSE incentive programs.

EVSE Loan and Rebate Program: available to small businesses.

Emissions Reductions Grants

Residential PACE EVSE Financing Program

EVSE Policies for Residential and Commercial Renters: The lessor of a dwelling or commercial property must approve written requests from a lessee to install EVSE at a parking space allotted for the lessee on qualified properties. Certain exclusions apply to residential dwellings and commercial properties.

EVSE Policies for Multi-Unit Dwellings: A common interest development, including a community apartment, condominium, and cooperative development, may not prohibit or restrict the installation or use of EVSE or a PEV-dedicated TOU meter in a homeowner's designated parking space or unit. These entities may put reasonable restrictions on EVSE, but the policies may not significantly increase the cost of the EVSE or significantly decrease its efficiency or performance.

Mandatory EVSE Building Standards

EVSE Open Access Requirements: EVSE service providers may not charge a subscription fee or require membership for use of their public charging stations.

PEV Charging Access: Municipalities may not restrict the types of PEVs that may access a public PEV charging station that is intended for passenger vehicle use, and funded, at least in part, by the state or money from utility ratepayers.

EVSE Location Assessment: The State Energy Resources Conservation and Development Commission, in partnership with CARB, must assess whether EVSE in California is located disproportionately by population density, geographical area, or population income level. If EVSE has been disproportionately installed unreasonably, the agencies must proportionately install new EVSE, unless it is determined that the current locations of EVSE further California's policy goals.

EVSE Assessment: The California State Energy Resources Conservation and Development Commission, in partnership with CARB and the CPUC, must publish a statewide assessment of the EVSE infrastructure needed to support the levels of PEV adoption required for at least five million zero emission vehicles to operate in California by 2030. The assessment must consider the EVSE infrastructure needs for all vehicle categories, and must analyze the existing and future infrastructure needs across California, including in low-income communities. The assessment must be updated at least once every two years.

Public Utility Definition: A corporation or individual that owns, controls, operates, or manages public EVSE is not defined as a public utility.

State Agency EVSE Installation: California state agencies must actively identify and pursue opportunities to install EVSE, and accommodate future EVSE demand, at state employee parking facilities in new and existing agency buildings.

EVSE Local Permitting Policies: Cities and counties must adopt an ordinance that creates an expedited, streamlined permitting process for EVSE.

Colorado

EV Policies and Incentives

PEV Tax Credit: $5,000 - 20,000 in 2017-2019; $4,000 - 16,000 in 2020; $2,500 - 10,000 in 2021.

Alternative Fuel Vehicles and Infrastructure Grant Program: CEO, RAQC, and CDOT, have partnered to provide grants through the ALT Fuels Colorado program for new fleet purchases of EVs.

PEV and EVSE Grants: available to individual drivers and fleet owners.

High Occupancy Vehicle (HOV) Lane Exemption

EV Supply Equipment (EVSE) Policies and Incentives

Alternative Fuel Vehicles and Infrastructure Grant Program: Provides grants through the ALT Fuels Colorado program for new, publicly accessible co-located electric vehicle charging and propane station equipment at funded CNG stations, and EVs.

EVSE Multi-Unit Dwelling Installations and Access: A residential tenant may install Level 1 or Level 2 EVSE at their own expense on or in leased premises. The landlord may seek a fee or reimbursement for the actual cost of electricity as well as the cost of installation or upgrades to existing equipment. In addition, the tenant may request that the EVSE be accessible by other tenants, in which case the EVSE must be in compliance with all applicable requirements, and the landlord may seek a fee to reserve a specific parking space.

Alternative Fuel Resale and Generation Regulations: A corporation or individual that resells alternative fuel supplied by a public utility for use in an AFV is not subject to regulation as a public utility. Additionally, a corporation or individual that owns, controls, operates, or manages a facility that generates electricity exclusively for use in AFV charging or fueling facilities is not subject to regulation as a public utility provided that the electricity is generated on the property where the charging or fueling facilities are located and the electricity is generated from a renewable resource.

Connecticut

EV Policies and Incentives

Heavy-Duty Vehicle Emissions Reduction Grants: DEEP allocates a portion of its designated funds from the Volkswagen Environmental Mitigation Trust for the replacement or repower of eligible heavy-duty on-road vehicles through its Diesel Emissions Mitigation Program.

Hydrogen and PEV Rebate

Loans for PEVs and Residential Charging Infrastructure: The Connecticut Green Bank offers Smart-E low-interest loans of up to $30,000 for Connecticut residents to purchase a new or used PEV. The vehicle must be registered with the Connecticut Department of Motor Vehicles. Loans are also available for Connecticut PEV drivers to purchase EVSE. To qualify, applicants must own or lease a model year 2012 or later PEV and occupy the residence at which the EVSE will be installed.

Reduced Registration Fee for Electric Vehicles

AFV Procurement Preference: In determining the lowest responsible qualified bidder for the award of state contracts, the Connecticut Department of Administrative Services may give a price preference of up to 10% for the purchase of AFVs or for the purchase of conventional vehicles plus the conversion equipment to convert the vehicles to dual or dedicated alternative fuel use.

EV Supply Equipment (EVSE) Policies and Incentives

EVSE Grants: available to municipalities, state agencies, and private businesses.

Public EVSE Requirements: Owners and operators of public EVSE that require payment must allow multiple payment options that allow access by the public. In addition, payment should not require users to pay a subscription fee or obtain a membership of any kind, however payment required may be based on price schedules for such memberships. Owners and operators can impose restrictions on the amount of time a vehicle can use the EVSE. In addition, owners and operators of a public EVSE must disclose the location and characteristics of each EVSE to the U.S. Department of Energy's Alternative Fuels Data Center.

Public Utility Definition: An owner of an EV charging station is not defined as a public utility.

Utility Company PEV Rates: By July 1, 2018, utility companies must evaluate if it is appropriate to implement PEV time of day rates for residential and commercial customers.

Hawaii

EV Policies and Incentives

PEV HOV Lane and Parking Fee Exemptions.

State and county agencies must purchase light-duty vehicles that reduce petroleum consumption and meet the needs of the agency. Exemptions may apply.

EV Supply Equipment (EVSE) Policies and Incentives

Public Utility Definition: An entity that owns, controls, operates, or manages a plant or facility primarily used to charge or discharge a vehicle battery that provides power for vehicle propulsion is not defined as a public utility.

All parking facilities that are available for use by the general public and include at least 100 parking spaces must designate at least one parking space specifically for PEVs, provided that no parking spaces required by the Americans with Disabilities Act Accessibility Guidelines are reduced or displaced.

A multi-family residential dwelling or townhouse owner may install EVSE on or near a parking stall at the dwelling as long as the EVSE is in compliance with applicable rules and specifications, the EVSE is registered with the private entity within 30 days of installation, and the homeowner receives consent from the private entity if the EVSE is placed in a common area. Private entities may adopt rules that restrict the placement and use of EVSE but may not charge a fee for the placement. The EVSE owner is responsible for any damages resulting from the installation, maintenance, repair, removal, or replacement of the EVSE.

Maine

EV Policies and Incentives

An insurer may credit or refund any portion of the premium charged for an insurance policy on a clean fuel vehicle in order to encourage its policyholders to use clean fuel vehicles, as long as insurance premiums on other vehicles are not increased to fund these credits or refunds.

EV Supply Equipment (EVSE) Policies and Incentives

EVSE Funding: Efficiency Maine Trust is accepting applications through July 10, 2019, for funding of public, workplace, and multi-unit dwelling Level 2 EVSE in strategic locations within Maine. EVSE along specific roads and at locations that will likely experience a high frequency of use will be prioritized.

PEV Charging Regulation Exemption: An entity that sells electricity for the sole purpose of charging the battery of a PEV is not defined or regulated as an electricity provider. An EVSE provider may charge a submetered user only for kilowatt-hours used.

Maryland

EV Policies and Incentives

PEV and Fuel Cell Electric Vehicle (FCEV) Tax Credit: up to $3,000.

PEV HOV Lane Exemption

AFV Voucher Program: for the purchase of new and converted AFVs registered in Maryland. Vehicles must be used by commercial, non-profit, or public entities.

Zero Emission School Bus Grant Program and Study: The Maryland Department of the Environment will administer a Zero Emission School Bus Transition Grant Program to purchase zero emission school buses, install charging infrastructure, and transition to zero emission school bus fleets.

ZEV State Fleet Goal: state agencies must increase the number of ZEV acquisitions in light-duty fleets to at least 25% of annual fleet purchases by 2025.

EV Supply Equipment (EVSE) Policies and Incentives

EVSE Rebate Program

Alternative Fuel Infrastructure Grants: The Maryland Energy Administration administers the Maryland Alternative Fuel Infrastructure Program (AFIP), which provides grants to plan, install, and operate public access alternative fueling and charging infrastructure.

EVSE Regulation Exemption: Owners and operators of EVSE are not subject to state regulation as electricity suppliers or public service companies. For the purpose of this regulation, owners and operators of EVSE are considered retail electric customers.

PEV Information Disclosure: The Maryland Motor Vehicle Administration is allowed to provide the address of a registered PEV owner and information about the vehicle to electric companies for their use. Electric companies may only use this information in planning for the electric power supply and may not use it for marketing or solicitation.

PEV Infrastructure Promotion: The Maryland EV Infrastructure Council promotes the use of PEVs in the state. Specific responsibilities of the Council include the following:

- developing an action plan to facilitate successful integration of PEVs into the Maryland transportation network;
- assisting in developing and coordinating statewide standards for streamlined permitting and installation of EVSE;
- recommending a statewide charging infrastructure plan and incentives to support investment in PEVs;
- developing targeted policies to support fleet purchases of PEVs; encouraging local and regional efforts to promote the use of PEVs; and
- developing model procurement practices.

Effective July 1, 2019, the Council will be renamed the Zero Emission Electric Vehicle Council and will incorporate fuel cell electric vehicles in all of the Council responsibilities.

Massachusetts

EV Policies and Incentives

Vehicle Emissions Reduction Grants: The (MassDEP) Volkswagen Open Solicitation Grant Program provides up to 80% of the cost of new diesel or alternative fuel replacements and repowers for eligible government entities.

PEV and EVSE Grants for Public Fleets: available to local governments, public universities and colleges, and state agencies.

Plug-In and ZEV Rebates
AFV and Infrastructure Grants: The Massachusetts Department of Energy Resources' Clean Vehicle Project offers grants for public and private fleets to purchase AFVs and infrastructure.

When purchasing new motor vehicles, the Commonwealth of Massachusetts must purchase hybrids or AFVs to the maximum extent feasible and consistent with the ability of such vehicles to perform their intended functions.

EV Supply Equipment (EVSE) Policies and Incentives

Public Access EVSE Grants: Qualified EVSE must be available to the public at least 12 hours per day.

Multi-Unit Dwelling (MUD) EVSE Grants: available to private, public, or non-profit MUDs with ten or more residential units.

Workplace EVSE Grants: available to private, public, or non-profit workplaces with 15 or more employees on site.

Public EVSE Requirements: Owners and operators of public EVSE that require payment must provide payment options that allow access by the public. In addition, payment should not require users to pay a subscription fee or obtain a membership of any kind; however, required fees may be conditional on such memberships. Owners and operators can impose reasonable restrictions on EVSE use, such as limiting access to visitors of the business. In addition,

owners and operators of public EVSE must provide the location, hours of operation, payment, and characteristics of each EVSE to the U.S. Department of Energy's Alternative Fuels Data Center.

EVSE Building Standards: The Massachusetts State Board of Building Regulations and Standards and the Massachusetts Department of Energy Resources will develop building and electric code requirements for residential and appropriate commercial buildings for EVSE.

Public Utility Definition: An entity that owns, operates, leases, or controls EVSE is not defined as a public utility.

Nevada

EV Policies and Incentives

AFV and Infrastructure Grants Authorization: The Nevada Office of Energy will establish the Nevada Clean Energy Fund to fund qualified clean energy projects, including any program, technology, product, or service that supports the deployment of AFVs and related infrastructure.

Authorization for HOV Lane Exemption: The NDOT, in consultation with the Federal Highway Administration and U.S. EPA, may establish a program allowing federally certified low emission, energy-efficient, and alternative fuel vehicles to operate in HOV lanes regardless of the number of passengers.

AFV Acquisition Requirement: Fleets containing 50 or more vehicles that are owned, leased, or operated by the state, a state agency, or a political subdivision of the state in a county with a population of 100,000 or more must acquire AFVs or U.S. EPA certified Ultra Low Emission Vehicles (ULEVs). Covered fleets are required to purchase either AFVs or certified ULEVs for 20% of new vehicles obtained. A fleet may meet the acquisition requirements by converting existing or newly acquired vehicles to operate on alternative fuels. An AFV acquired in compliance with this mandate must operate solely on the alternative fuel except when operating in an area where the appropriate alternative fuel is unavailable. Fleets with buses or heavy-duty vehicles are included.

SB 19-299: allows utilities to provide an incentive of 75% of the cost for school districts to develop charging infrastructure or purchase electric school buses.

EV Supply Equipment (EVSE) Policies and Incentives

EVSE Demonstration Program Requirements: The Electric Vehicle Infrastructure Demonstration Program requires Nevada utilities to promote and incentivize the deployment of EVSE. Utilities must submit an annual plan for implementing the Program in their service areas to the PUCN. Plans may include, but are not limited to, the following measures:

- payment of incentives to customers that install EVSE;
- time-of-use rates for electricity used to charge plug-in electric vehicles;
- EVSE education and awareness programs for customers; and
- technical assistance programs for government fleets and private organizations.

Utilities may request to recover the costs associated with carrying out the program, including customer incentives, by filing an application with the PUCN.

The Nevada Electric Highway initiative, a partnership created between the state and NV Energy in 2015, seeks to build a complete electric highway system along the I-95 corridor by 2020. 15% of the Nevada's $25 million allocation from the VW settlement agreement will be used to support electric highway projects.

New Jersey

EV Policies and Incentives

ZEV Tax Exemption: does not apply to partial ZEVs, including hybrid electric vehicles.

High Occupancy Vehicle (HOV) Lane Exemption

PEV Toll Discount Program

Low Emission or Alternative Fuel Bus Acquisition Requirement: All buses purchased by the New Jersey Transit Corporation must be: 1) equipped with improved pollution controls that reduce particulate emissions; or 2) powered by a fuel other than conventional diesel.

EV Supply Equipment (EVSE) Policies and Incentives

EVSE Grants: offered on a first-come, first-served basis for the cost of installation of eligible EVSE at workplaces, government and educational facilities, non-profits, parking facilities, and multi-unit dwellings.

State Interagency EV Partnership: Announced June 3, 2019, will be co-led by the BPU, DEP, and the EDA to develop and implement a statewide charging deployment initiative.

New Mexico

EV Policies and Incentives

Alternative Fuel and Advanced Vehicle System Manufacturing Incentive: The Alternative Energy Product Manufacturers Tax Credit provides credit against combined reporting taxes (gross receipts, compensating, and withholding) for qualified manufacturers of alternative energy products, including hydrogen and fuel cell vehicle systems, and electric and hybrid electric vehicles.

AFV Loans: available to state agencies, political subdivisions, and educational institutions for AFV acquisitions. Funds must be used for the purchase of vehicles that operate on natural gas, propane, electricity, or hydrogen.

Government fleets may finance alternative fuel vehicles or related infrastructure through guaranteed utility savings contracts where vehicle operational and fuel cost savings pay for the capital investment.

AFV and HEV Acquisition Requirements: A minimum of 75% of state government and educational institution fleet light-duty vehicles purchased must be HEVs, bi-fuel, or dedicated AFVs.

The New Mexico General Services Department (GSD) launched plans to electrify state vehicles, devoting $2.5 million to public fleet electrification, $1.2 million of which will be used for solar-powered charging stations in Santa Fe. In a statement, Governor Lujan Grisham noted she would like to see 20% of the state fleet electrified.

EV Supply Equipment (EVSE) Policies and Incentives

Public Utility Definition: An entity that is not a regulated utility that resells natural gas or electricity as motor fuel is not defined as a public utility.

New York

EV Policies and Incentives

PEV Rebate Program

Heavy-Duty Alternative Fuel and Advanced Vehicle Purchase Vouchers

ZEV and Fueling Infrastructure Rebates for Municipalities: available to cities, towns, villages, counties, and New York City boroughs.

Workplace EVSE and PEV Incentives: NYSERDA is offering employers in the greater New York City region an $8,000 rebate per dual-connector EVSE installed. Employees of organizations that receive the rebate are eligible for a $500 rebate toward the purchase or lease of a qualified PEV.

HOV Lane Exemption

PEV Toll Discount Program

HEV Taxicabs: By February 3, 2019, the New York City Taxi and Limousine Commission must approve one or more HEV models for immediate use as a taxicab by medallion owners.

EV Supply Equipment (EVSE) Policies and Incentives

EVSE Rebate: available to public and private entities for installations at public parking facilities, workplaces, and multi-unit dwellings.

Alternative Fueling Infrastructure Tax Credit:
PEV and Charging Infrastructure Support: The New York Power Authority's EVolve NY program has allocated up to $250 million to support PEVs and address charging infrastructure gaps throughout the state.

PEV Charging Tariff: Each investor-owned utility selling electricity was required to file a tariff with the NYPSC by April 1, 2018, to allow a customer to purchase electricity solely for the purpose of charging a PEV. The utility must make the tariff available to customers within 60 days of PSC approval.

Electric Corporation Definition: PEV charging stations are not defined as electric plants and owners and operators of charging stations are not defined as electric corporations. The PSC does not have jurisdiction over publicly available PEV charging stations, the owners and operators of the stations, or the transactions between the owners and operators of the stations, as long as the owners and operators do not fall within the definition of an electric corporation.

Governor Andrew M. Cuomo announced in February 2019 that New York is making up to $31.6 million available to ramp-up the expansion of electric vehicle fast charging stations. The plan was approved by the NYPSC and will leverage existing NYSERDA and NYPA funds.

Oregon

EV Policies and Incentives

Support for PEV Adoption: In order to support the state goal of at least 50,000 PEVs registered and operating in Oregon by 2020, the ZEV Working Group will develop goals and progress metrics for PEV adoption. The Working Group will aim to remove barriers to PEVs and PEV charging stations, and establish a website to share information about their efforts with the public.

PEV Rebate: available to residents, businesses, non-profit organizations, and government agencies.

Establishment of Recognition Programs for PEV Adoption: The ODOE must design and establish Governor's Awards for automobile dealerships to encourage sales of PEVs. ODOE must also design and establish Governor's Awards for businesses and organizations that support PEV adoption through installing charging infrastructure and using PEVs in their fleets.

Support for Zero-Emission Buses: ODOE, with ODOT, the PUC, the DEQ, and the Department of Education, must develop tools and provide assistance to school districts and transit agencies about using zero-emission bus options.

AFV Acquisition, Fuel Use, and Emissions Reductions Requirements: All state agencies and transit districts must purchase AFVs and use alternative fuels to operate those vehicles to the maximum extent possible, except in regions where it is not economically or logistically possible to fuel an AFV. DAS and ODO) must improve the PEV bulk procurement process to reduce costs for state agency PEV purchases. DAS must develop a “LEV First" policy to encourage state employees to use PEVs or other LEVs in the state fleet. DAS and ODOE must also develop a tool to calculate the long-term return on investment and life-cycle costs of PEVs to inform agencies of potential cost savings. In addition, DAS must inform and support legislative changes that enable increased charging infrastructure and state agency PEV purchases.

EV Supply Equipment (EVSE) Policies and Incentives

Mandatory EVSE Building Standards: The Oregon Department of Business and Consumer Services, Building Code Division, must amend the state building code to require that all newly constructed residential and commercial building parking structures can support the installation of at least one level 2 EVSE by October 1, 2022.

State Agency EVSE Installation: State agencies may install publicly-accessible EVSE on their premises or contract with a vendor to do so. The Oregon Department of Administrative Services (DAS) will establish criteria to determine the appropriate number of locations for EVSE at each agency. DAS must add PEV charging capacity for employee and public visitor parking lots, develop contracts to procure and install charging infrastructure, and incorporate PEV charging as a tenant improvement for state-leased buildings.

Electricity Provider and PEV Charging Rate Regulations: Regulated electric utility tariffs must explicitly permit customers to resell electricity for use as a motor fuel, as long as the entity is not considered a public utility as defined in Oregon Revised Statutes 757.005 and does not provide any utility service. Additionally, each regulated electric utility must provide customers with a choice of flat rate or time of use electricity rates specific to PEV owners. Finally, an investor-owned utility can own and operate PEV charging equipment using its own funds or petition the OPUC for rate recovery.

Rented Commercial Property EVSE Installations: The tenant of a commercial space may submit an application to install EVSE for the use of the tenant, employees of the tenant, and customers of the tenant. Unless the premises does not have at least one parking space per rental unit, the landlord must approve a completed application no more than 60 days after the tenant submits the application. In the absence of a different tenant-landlord agreement, the EVSE will be personal property of the tenant.

Planned Community and Condominium EVSE Installations: The owner of a lot in a planned community or unit in a condominium may submit an application to install EVSE for their personal use in a parking space subject to the exclusive use of the owner. The HOA must approve a complete application within 60 days. The owner is responsible for all costs associated with the EVSE installation and use, must disclose the existence of the EVSE and related responsibilities to a prospective buyer, and must ensure that the infrastructure meets insurance and safety requirements. EVSE installed under these regulations on or before June 4, 2015, is considered to be the personal property of the lot or unit owner with which the EVSE is associated, unless the owner and HOA have negotiated a different outcome.

Rhode Island

EV Policies and Incentives

AFV and ZEV Acquisition Requirements: at least 75% of state motor vehicle acquisitions must be AFVs, and the remaining 25% must be HEVs to the greatest extent possible. By 2025, 25% of state motor vehicle acquisitions must be ZEVs.

EV Supply Equipment (EVSE) Policies and Incentives

EVSE and PEV Rebates: The Charge Up! program provides rebates to state and municipal agencies for the purchase and installation of publicly accessible Level 2 or DC fast chargers. Agencies that install EVSE also qualify for up to $15,000 to support the purchase or lease of a new PEV acquired on or after July 1, 2016, as part of their public sector fleet.

Vermont

EV Policies and Incentives

PEV Incentive: provides financial incentives to low- and moderate-income residents for the purchase or lease of a new PEV.

Heavy-Duty Vehicle Emissions Reduction Grants: Through the Vermont Diesel Emissions Reduction Grants Program, the Vermont Department of Environmental Conservation provides funding to local, state and regional agencies or departments, businesses, institutions, and nonprofit organizations for projects focused on reducing emissions from diesel engines and vehicles. Qualifying heavy-duty vehicles include buses and Class 5-8 trucks. Projects eligible for funding include alternative fuel conversions and certified vehicle or equipment replacements.

HEV and PEV Acquisition Requirements: Effective July 1, 2019, the Vermont Department of Buildings and General Services must, to the extent possible, purchase or lease HEVs or PEVs for state use. At least 50% of the vehicles purchased or leased annually must be HEVs or PEVs. Beginning July 1, 2021, at least 75% of the vehicles purchased or leased annually must be HEVs or PEVs.

PEV Analysis: The PUC must evaluate PEVs and PEV charging in the state. The Commission must provide public notice, opportunity for submission of written comments, and one or more workshops on PEVs during the course of its evaluation.

EV Supply Equipment (EVSE) Policies and Incentives

EVSE Grants: available to governments, businesses, non-profit organizations, homeowner associations, electric utilities, and EVSE providers.

Alternative Fueling Infrastructure Incentive: The Vermont State Infrastructure Bank (SIB) offers loan assistance to municipalities, regional development corporations, political subdivisions of the state, and private companies working for the state to finance public electric vehicle charging and natural gas fueling stations.

Public Utility Definition: An entity that supplies electricity to the public exclusively to charge plug-in electric vehicles is not defined as a public utility and may charge for this electricity by the kilowatt-hour.

EVSE Fee Authorization: Effective July 1, 2019, any Vermont agency or department that owns or controls EVSE may establish and set user fees.

EVSE Code Reporting: On or before December 1, 2019, the Vermont Agency of Agriculture, Food and Markets (Agency) must submit a report to the legislature that provides an update on the National Institute of Standards and Technology's (NIST) progress toward adopting a code on EVSE and makes a recommendation for an annual licensing fee for EVSE available to the public. If NIST has not adopted a code on EVSE by December 1, 2020, the Agency must submit an additional report on or before that date which provides an update on NIST's progress toward adopting a code.

Washington

EV Policies and Incentives

Alternative Fuel Commercial Vehicle and Fueling Infrastructure Tax Credit: Businesses are eligible to receive tax credits for purchasing new alternative fuel commercial vehicles and installing alternative fueling infrastructure.

PEV and Fuel Cell Electric Vehicle (FCEV) Infrastructure and Battery Tax: Public lands used for installing, maintaining, and operating PEV infrastructure are exempt from leasehold excise taxes until January 1, 2020. Additionally, the state sales and use taxes do not apply through July 1, 2025 to PEV and FCEV batteries or fuel cells; labor and services for installing, repairing, altering, or improving PEV and FCEV batteries or fuel cells and PEV and hydrogen fueling infrastructure; the sale of property used for PEV and hydrogen fueling infrastructure, and the sale of zero emission buses.

AFV and EV Retail Sales Tax Exemption

PEV Promotion and Infrastructure Development: Any regional transportation planning organization containing a county with a population greater than one million must collaborate with state and local governments to promote PEV use, invest in PEV charging infrastructure, and seek federal or private funding for these efforts.

AFV Car Share Pilot Program: WSDOT will develop a pilot program to provide AFV use opportunities to underserved and low-income communities and to those without easy access to transportation corridors.

AFV Technical Assistance and Education Program: The Washington State University Energy Program will establish and administer a technical assistance and education program on the use of AFVs for public agencies, including state and local governments.

EV and FCEV Low Income Opportunity Study: The Washington State Department of Commerce must conduct a study to identify opportunities to reduce barriers to EV and FCEV adoption by lower income residents through the use of vehicle and infrastructure financing assistance.

Alternative Fuel Use Requirement: All state agencies must, to the extent practicable, use 100% biofuels or electricity to operate all publicly owned vehicles. Agencies must prioritize EVs when leasing or purchasing new vehicles, and all trips that may feasibly use EVs must employ them.

EV Supply Equipment (EVSE) Policies and Incentives

Alternative Fueling Infrastructure Funding Program: WSDOT has developed a pilot funding program to strengthen and expand the West Coast Electric Highway network by deploying DC fast charging infrastructure along highway corridors in Washington.

Utility EVSE ROI Incentive: Utilities may petition the UTC for a rate of return on EVSE installed for the benefit of ratepayers through 2030.

Green Transportation Grant Program: WSDOT will establish a grant program to fund projects including fleet electrification, modification or replacement of facilities to facilitate fleet electrification and hydrogen fueling, upgrades to electrical transmission and distribution systems, and construction of charging and fueling infrastructure. In order to receive funding for a project, a transit authority must provide matching funding that is at least equal to 20% of the total cost of the project.

PEV Charging Regulation Exemption: The UTC may not regulate the rates, services, or facilities of an entity that offers charging facilities to the public for hire. The exemption does not apply if the entity is otherwise subject to UTC jurisdiction as an electrical company, or if an entity's battery charging facilities and services are subsidized by any regulated service. A utility may offer charging facilities as a regulated service, subject to UTC approval.

PEV Charging Infrastructure Availability: Publicly and privately owned PEVs may charge at state office locations if the vehicles are used for state business, conducting business with the state, or as commuter vehicles. Additionally, contingent upon funding, the state must install electrical outlets suitable for charging PEVs in each of the state's fleet parking and maintenance facilities as well as every state-operated highway rest stop.

Local Government PEV Infrastructure Requirements: Jurisdictions must develop regulations to allow the use of PEV infrastructure in all areas except critical areas or areas zoned for residential or resource use.

EVSE and Battery Exchange Station Regulations: State and local governments may lease land for installing, maintaining, and operating EVSE or electric vehicle battery exchange stations for up to 50 years for at least $1 per year. Additionally, the installation of battery charging and exchange stations is categorically exempt from the Washington Environmental Policy Act.

HB 19-1512: Allows municipal utilities to adopt transportation electrification plans. Regulated utilities may adopt plans that provide EV charging equipment incentives and support for other transportation electrification programs. Utility Electric Transportation Plan Authorization: The governing authority of a utility or a regulated electric utility, with the approval of the UTC, may adopt an electric transportation plan that proves that utility outreach

and investment in the electrification of transportation infrastructure does not increase net costs to ratepayers in excess of 0.25%. The governing authority or the UTC may consider items such as the impact of electrification on the utility's load, demand response and load management opportunities, system reliability and distribution system efficiencies, and interoperability concerns. Upon making this determination, electric utilities may offer incentive programs for customers.

From: Carla Frisch
Sent: Monday, July 15, 2019 11:27 AM EDT
To: Michael Northrop
CC: Cummins,Patrick ; Jacob Corvidae
Subject: Re: Pocantico Materials
Attachment(s): "2 Leading Edge State Policy Options July 15.docx"

Thanks, Michael. Made those changes in the attached - this should be ready to go.

Best,
Carla

From: Michael Northrop
Sent: Monday, 15 July 2019 10:26 AM
To: Carla Frisch
Cc: Cummins,Patrick
Subject: RE: Pocantico Materials

Thanks.
The one last question I have is about Net Zero and Zero Code building standards.
CA has a net zero code. All new commercial in 2030 and all new residential beginning in 2020 must be net zero. Such a big deal.
There is also the Zero Code that Arrchitecture 2030 is pushing out now.
Can we be more specific in that top line about building codes.
I think the CA thing is a done deal and should be described.
The Zero Code is still in process but might be worth a mention.
Thanks!

From: Carla Frisch
Sent: Monday, July 15, 2019 10:21 AM
To: Michael Northrop
Cc: Cummins,Patrick
Subject: Re: Pocantico Materials

Yes, it does. I think the materials look good.

We did use a lot of California examples in the memo, but then again, California has accomplished a lot.

Best,
Carla

From: Michael Northrop
Sent: Monday, 15 July 2019 10:15 AM
To: Carla Frisch
Cc: Cummins,Patrick
Subject: FW: Pocantico Materials

Carla,
Does this include the most up to date version of the RMI memo?

From: Cummins,Patrick >
Sent: Sunday, July 14, 2019 11:41 AM
To: Michael Northrop
Cc: Carla Frisch Jacob Corvidae ; Joseph Kruger

Subject: Pocantico Materials
Importance: High

Michael – Here are pdf versions of what I think are the final versions of all the background materials to be sent to meeting participants.

Patrick Cummins
Senior Policy Advisor
Colorado State University
Center for the New Energy Economy

BACKGROUND MEMORANDUM

To: **Pocantico Participants**
Subject: **Leading Edge Policy Priorities**
July 17-18, 2019

This memo includes examples of sector-specific states policies that will significantly reduce, or put states on a path to significantly reduce, greenhouse gas emissions. In particular, the policy priorities listed here are can be addressed by states through collective action.

Several of these topics are covered in existing US Climate Alliance working groups. This list and the Pocantio meeting are meant to support those and other existing workstreams, in particular by providing an opportunity to think about how to amplify ambition. The state examples included in this document are by no means exhaustive, rather are intended as a sampling to spur ideas. For additional examples, see the Carbon-free Regions Handbook or the Fulfilling America's Pledge report.

Context:
Overall, natural gas now emits more greenhouse gases than coal in the United States and emissions from petroleum combustion are almost twice that of coal. At the same time, new estimates of methane leakage from natural gas systems indicate the impact may be larger than previously understood, especially considering that most inventories are based on the 100-year global warming potential of natural gas at 25X, not the 20-year potential of 84X. The top line opportunity is to move away from the use of natural gas in buildings as a first priority, then electricity, and industry, while simultaneously moving quickly to move transportation systems off petroleum.

We are well past the point of using natural gas as a transition fuel, and new policies and programs should explicitly avoid further "lock-in" investments like natural gas fueled municipal buses or energy efficiency funding for natural gas equipment. Biogas or "renewable" natural gas have the potential to replace a small portion of existing natural gas demand and should be reserved for high value uses, in particular uses that cannot be electrified. In this memo, policy opportunities to reduce and eliminate natural gas are embedded under sector headings.

Transportation: electrification and efficiency, including through standards

- Establish a top-level transportation goal and work with key stakeholders to develop an inclusive, sustainable transportation roadmap that aligns with the state's (or region's) climate action goals and includes best practices, implementation strategies, and a clear path forward. Be sure to include medium- and heavy-duty vehicles.
    - For example, the 12 northeastern states in the Transportation and Climate Initiative (TCI) are exploring regional solutions to accelerate EV deployment.
    - Hawaii, Colorado, Minnesota, and Tennessee have recently adopted electrification roadmaps that identify implementation strategies for increased EV adoption in 5 to 10 years.
- Enable smart mobility by integrating transportation policy with land-use policy.
    - Minneapolis banned single-family zoning across the entire city, enabling more compact and mixed-use development to be built.
    - Denver's Transit Oriented Development Strategic Plan outlines implementation steps, policy recommendations, and a monitoring system for development around city rail stations. New Jersey's Transit Village Initiative offers logistical and financial incentives for municipalities that revitalize areas around transit stations using principles of Transit Oriented Development.
    - New York City and Los Angeles are investigating the implementation of congestion pricing for high-traffic urban areas, building off schemes underway in London and Stockholm. Los Angeles made a massive, multi-year commitment to building transit: Measure M.
    - California's SB375 uses the regional transportation planning process; California recently replaced "level-of-service" with "vehicle miles traveled" as the environmental impact evaluation metric for transportation plans and projects.
- Establish statewide electric vehicle adoption requirements with near-term benchmarks and implement market enablers that drive adoption.
    - Set zero-emission vehicle (ZEV) targets that increase over time, providing directional guidance to automakers, bus, and truck manufacturers. 9 states (CA, CT, ME, MD, OR, NJ, NY, RI, and VT), representing one-third of the US automobile market, have adopted ZEV mandates.
    - Connecticut and Vermont offer significantly reduced EV registration fees.
    - Seattle, Los Angeles, New York City, and Washington DC have committed to fully electrified bus fleets (by 2020, 2030, 2040, and 2045 respectively).
- Provide incentives or programs to support low-income electric vehicle adoption.
    - Washington and Oregon offer tax credits for used EV purchases. Los Angeles, CA offers low-income residents the ability to participate in a zero-emission carshare program.
- Continue to support clean car standards that enable increased efficiency, and in the longer term, advocate for standards that require electrification.
    - 14 states have adopted California's aggressive vehicle emissions standards.
- Build on and update existing low carbon (CA, OR) and alternative fuels standards (WA, MN, MO, LA, PA, HI, OR) where they exist. For new policies, work towards the next generation of clean

fuel standards that prioritize clean electricity as a fuel source while aggressively decreasing the carbon intensity of difficult-to-electrify heavy-duty transport, shipping, and aviation.

- Remove barriers to building out charging infrastructure and work with public utility commissions to reassess regulatory approaches to pricing and vehicle-grid integration.
    - Vermont and Washington's new building codes require EV make-ready infrastructure and parking spaces.
    - California's SB 350 provides guidance and direction towards utilities on participating in electrifying transportation.
    - Pacific Gas & Electric and Southern California Edison offer lower rate pricing for non-residential EV charging customers that charge during off-peak hours.
- Continue to cooperate on education and awareness.
    - "Drive Change. Drive Electric" is a joint effort by NY, CT, MA, NH, RI, VT, and NJ and 16 global automakers to promote the benefits of driving EVs, incentives available for purchasing, fuel cost savings, and charging locations.

Electricity

- For those that have not yet done so, set 100% clean energy goals through a Renewable Portfolio Standard or Integrated Resource Planning requirements, and work with the state legislature to allocate resources to support achieving the goal.
    - Hawaii, California, New Mexico, Washington, Puerto Rico and the District of Columbia have all enacted a legally binding 100% clean electricity standard. Nevada enacted a non-binding 100% clean electricity goal, and the Colorado legislature has passed a 100% goal applicable to Xcel Energy.
- Retire coal plants and reject plans for new coal plants, including through using securitization to deal with any remaining debt for plants.
    - Xcel Energy, a utility serving Colorado, Michigan, Minnesota, New Mexico, North Dakota, South Dakota, Texas, and Wisconsin, has committed to going 80% carbon-free by 2030 and 100% carbon-free by 2050. Part of this initiative includes accelerating the retirement of its last two coal plants in MN to conclude by 2030.
- Retire natural gas plants and, where possible, reject plans for new natural gas plants as well as pipeline infrastructure. Require carbon capture and sequestration on natural gas plants.
- Support responsive grid planning that puts distributed energy resources on an equal footing with other generation sources.
- Support utility and rural coops as they work on clean electricity deployment, e.g. https://beneficialelectrification.com/
- Reduce barriers to deploying small and medium-scale solar PV by replacing the existing permitting system with an automatic online registration system.
- For states that have not done so already, join wholesale utility markets to take advantage of market efficiencies as well as trade electricity more seamlessly with other locations.

Buildings: Electrification (reduce/eliminate the direct use of fossil fuels in buildings) and efficiency

- As a minimum, adopt or encourage localities to adopt the 2018 international building codes. As a next step, consider more advanced options including stretch codes and net zero (see below).
- Implement aggressive appliance efficiency standards which help save consumers money. Where possible, focus on enabling fuel switching from gas to electric appliances.
- Engage with key stakeholders to build a strong, inclusive and durable vision and plan for decarbonizing both public and private buildings, including setting clear timelines that align with state's climate goals.
    - New York state policy directs its utility regulator to pursue decarbonization and Massachusetts state energy plan acknowledges the need to increase electricity use in home heating.
    - California set a goal to reduce emissions from buildings by 40% and double energy efficiency by 2030.
- Ensure new buildings are all-electric through building codes or other authorities. All-electric new construction is already more cost-effective than construction with natural gas.
    - Arcata, CA and some small towns in upstate New York have all-electric policies. Berkeley, CA and Alameda, CA are in progress on all electric.
    - Rhode Island released a new Executive Order to transform the heating sector.
    - Oregon and Colorado are discussing net zero building codes. California has zero net energy codes and goals: all new residential construction will be net zero by 2020, and all new commercial by 2030. California also offers some incentives to make homes all electric.
    - The Architecture 2030 Challenge has a strategy for all new construction and renovations to be built to a zero net carbon standard starting in 2030 and a roadmap for 100% of buildings to achieve zero emissions by 2050.
- Begin orderly retrofit of existing buildings, starting with aligning incentives and programs with climate goals and focusing on existing replacement schedules.
    - Led by the rural coops, Minnesota is working through energy efficiency resource standards (EERS) redesign to allow fuel switching.
    - New York State has established a requirement that utilities achieve a portion of their required energy efficiency savings through deployment of heat pumps in over 80,000 homes. Massachusetts set a non-binding target for 500,000 homes to adopt heat pumps by 2030.
    - Vermont has an RPS that includes moving away from direct use of fossil fuels.
    - 50% of California's commercial buildings will be retrofit to zero net energy by 2030, and 50% state building renovations will be zero net energy by 2025.
- Stop expanding the gas distribution system and start planning for a staged transition.
    - California PUC has opened a proceeding to begin crafting a policy framework surrounding decarbonization of buildings.
- Assess the medical and other costs associated with burning of gas and other fossil fuels in our buildings, including the indoor and outdoor air quality impacts, and implement programs to eliminate such burdens.
    - Australian researchers estimated that gas stoves were responsible for 12.8% of that country's heavy asthma burden.

- John Hopkins researchers recommend replacing gas stoves in homes with asthmatic children.
- Burning fossil fuels in California's buildings emits 3-4 times more NOx than the state's power plants.

Industry

- Establish emissions standards that require the installation of carbon capture and sequestration on high-emitting industrial facilities, while deploying financial incentives and support for industry to adopt electrified technology for processes where feasible and commercially available, and defray capital costs related to fuel-switching.
- Direct public utility commissions to work with state utilities to: implement or update energy efficiency resource standards (EERS) to specifically target energy-intensive facilities, develop new rate designs for industrial customers, and engage in long-term energy planning that considers increased transmission and distribution infrastructure for electrifying industries.
- Allocate R&D investments in support of industrial process/product redesign, identifying electric/low-carbon alternative manufacturing processes, and enhanced material efficiency.
- Consider applying carbon pricing schemes to industrial facilities to incentivize continuous improvement and investment in efficiency and lower-emitting technologies, while accounting for the heterogeneity of industrial actors.
    - California's cap and trade program includes high-emitting (>25,000 tons CO2e/year) industrial facilities and allocates part of the program revenues towards a utility bill credit for proactive facilities that have reduced their energy and emissions intensities.
    - States can encourage companies to adopt internal carbon prices for planning purposes, a practice which has helped update the operations of several companies.

Super-polluting Methane and Hydrofluorocarbons (HFCs)

- In the short term, work on stopping methane leaks throughout the supply chain, primarily through enhanced leak detection and monitoring technologies. Over time, while moving toward electrification, eliminate downstream gas distribution pipelines.
    - State-level standards like Colorado's and California's standards go beyond federal standards by covering not only new and upgraded equipment, but also existing, high-emitting sources. They require operators to conduct periodic reviews of equipment to catch and repair methane leaks (America's Pledge (AP) 2018). Several other states have taken action.
    - California's AB 1496 requires the identification and monitoring of methane hot spots. California and other states meet these requirements through satellite remote sensing, flyovers, ground verification, and regional inventory analysis. These observations inform the development of methane control programs.
- Promote methane capture from livestock waste in the agricultural sector as well as from wastewater treatment facilities.
    - California's SB 1383, which, along with HFC targets, established a target to cut methane emissions by 40%, including methane from manure management, and direct funds to

programs that support installation of dairy digesters and other methane reduction tools and strategies. CA also credits methane abatement as an offset under its cap-and-trade program. (AP 2018)
    - Washington, D.C., installed biodigesters at its Blue Plains water treatment facility and used the captured methane to supply 50 megawatts of power. (AP 2018)
    - Biomethane can be used to meet California and Oregon's LCFS.
- Reduce fugitive methane emissions from landfills by promoting policies that divert waste from landfills and incentivize biomethane capture
    - Rhode Island, New York, Massachusetts, California, Vermont, and Connecticut have set statewide goals to divert solid waste from landfills.
- Adopt state SNAP standards to reduce HFCs.
    - California adopted regulations requiring a 40% reduction in HFC emissions below 2013 levels by 2030, consistent with the EPA's original vacated rules. Connecticut, Maryland, and New York announced their intent to regulate. Vermont passed legislation calling on executive agencies to develop regulations, and Delaware announced they would do the same. (AP 2018)
- Begin to address existing sources of HFCs, for example by partnering with businesses and manufacturers that are already transitioning away from HFCs or incentivizing businesses and residences to switch to HFC alternatives.
    - For example, in EPA's GreenChill program supermarket chains have committed to reducing their HFC emissions.

Land Use

Land use solutions are unique to each state but follow the principle of sequestering as much carbon as possible. Those listed here are from Fulfilling America's Pledge 2018:

- Establish state-level programs that engage state and local governments, businesses, and communities in improving forest management, tree cover expansion, and soil health.
    - For example, Pennsylvania's Working Woodlands program accelerates large-scale forest protection and sustainable management by offering a new value proposition to forest landowners through forest certification and carbon markets. This model has been implemented in Tennessee, Michigan, and New York.
- Preserve forestland by increasing conservation designations and pursuing smart-growth development policies aimed at addressing development pressure.
- Invest in natural and working lands' GHG inventories and other measuring and monitoring programs, including remote sensing, to track progress.
- Collaborate with city officials and residents to preserve and expand urban forests through planting and tree-retention ordinances.
- Enhance opportunities for land-use and natural resources management at the landscape and watershed level by enabling multi-jurisdictional planning and regulation.

- Work with farmers by providing incentives and education to promote emissions reductions and sequestration through fertilizer management, crop changes, conservation tillage, and waste reduction.

From: Cummins,Patrick on behalf of Cummins,Patrick
Sent: Tuesday, August 06, 2019 10:47 AM EDT
To: Michael Northrop
Subject: RE: Pocantico Notes

Sounds good. I will get it done.....

-----Original Message-----
From: Michael Northrop
Sent: Tuesday, August 6, 2019 8:00 AM
To: Cummins,Patrick
Subject: Re: Pocantico Notes

Oh man. I know it's tough to do this. Ughh. Really sorry to weigh you down with it. I don't think it needs to be perfect. I bet you could pick one set of notes that you think is the best and basically use that one. Give it a read and a very light edit. Maybe a few things get added to it, but that way your not weaving them together which would be a nightmare.
Given the records request NM got I'm thinking maybe it shouldn't be emailed out. I can get my office to snail mail it.

Sent from my iPhone

> On Aug 6, 2019, at 9:35 AM, Cummins,Patrick wrote:
>
> Michael – I gathered notes from Jacob and Carla (attached), adding to
> what you sent and what we got from Katie. I have not had time to sift
> through all this info and attempt a more detailed summary of the
> meeting. It's a bit of a daunting task with such a wide-ranging
> discussion, but I will put some time in on that over the next week and
> see what I can come up with. PC
> <Re: Notes _ Highlights.eml>
> <Re: Notes _ Highlights.eml>
> <Notes from Pocantico meeting -- attached.eml> <Pocantico States
> Meeting: A Big Thank You and some very Summary Notes.eml>

From: Cummins,Patrick on behalf of Cummins,Patrick
Sent: Thursday, July 18, 2019 10:05 AM EDT
To: Stewart, Shannon@ARB
CC: MEGAN.BURNETT
Subject: Re: Travel Support: Pocantico July 17-18

Shannon - we are arranging travel to the airports for everyone

Sent from my iPhone

On Jul 18, 2019, at 10:02 AM, Stewart, Shannon@ARB wrote:

> Good morning Patrick
>
> Does the Pocantico Center have shuttle service to JFK?
>
> From: Stewart, Shannon@ARB
> Sent: Monday, June 3, 8:04 AM
> Subject: FW: Travel Support: Pocantico July 17-18
> To:
>
> Good morning Patrick
>
> At your first convenience, can you send me information (or a link) on how to register Chair Nichols and also to book her accommodation? Thanks!
>
> If you need anything from our office, please let me know. Thanks!
>
> Shannon Stewart
> Administrative Assistant to the Chair
> California Air Resources Board
> 1001 I Street
> Sacramento, CA 95814
>
> **From:** Nichols, Mary D. @ARB
> **Sent:** Tuesday, May 28, 2019 11:40 AM
> **To:** Stewart, Shannon@ARB
> **Subject:** Fwd: Travel Support: Pocantico July 17-18
>
> Booking my travel
> Mary D Nichols, Chair
> California Air Resources Board
> **From:** Cummins,Patrick >
> **Sent:** Tuesday, May 28, 2019 8:21:54 PM
> **To:** Michael Northrop; dale.bryk ; 'Kathleen Frangione'; Kathleen Theoharides ; katie.dykes kristen.sheeran Nichols, Mary D. @ARB; kate.gordon ; Davis, Chris (GOV); Toor - CEO, Will; Brad Crowell David Bobzien; 'Janet Coit'; Burgess, Dan; sarah.propst james.kenney ; zach.pierce ben.grumbles ; peter.walke
> **Cc:** Ritter Jr,Bill; Vicki Arroyo; Joseph Kruger; Deborah Burke; Grimes, Victoria S (ENV); Steinheimer - CEO, Nancey; Kathy Bishop -MDE-; Panebianco, Barbara; Valerie.Moquinc mlb329
> **Subject:** Travel Support: Pocantico July 17-18
>
> **CAUTION:** This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.
>
> All –
>
> State officials requiring travel support to attend this meeting can have Travel Leaders Corporate book and pay for their flight/train ticket. You may contact TLC at
>
> When requesting travel from TLC, please copy Megan Burnett on the email.
>
> Thank you, PC
>
> *Patrick Cummins*
> *Senior Policy Advisor*
> *Colorado State University*

Center for the New Energy Economy

From: Michael Northrop
Sent: Monday, May 27, 2019 8:18 PM
Subject: Pocantico July 17-18 - Draft Agenda, Logistics, and Travel Reimbursement

We are moving ahead with the July 17-18 Pocantico Center meeting on Accelerating State Climate Action. We've heard from most of you and are looking forward to seeing you at Pocantico on July 17th. Please arrive by 5:00pm at the latest. Time is in short supply so we are planning a dinner and after dinner program and an early start on July 18th. We plan to adjourn by 4:00pm on the 18th.

Please see attached a draft agenda, directions to Pocantico, and travel reimbursement forms from the Georgetown Climate Center.

Please be in touch with Patrick Cummins if you want to talk about the agenda and/or logistics.

We look forward to seeing you in July for this important meeting.

Sincerely,

Bill Ritter, Jr.
Director, Center for the New Energy Economy
41st Governor of Colorado

Vicky Arroyo
Georgetown Climate Center
Georgetown Law School

Michael Northrop
Program Director
Rockefeller Brothers Fund

From: Cummins,Patrick on behalf of Cummins,Patrick <
Sent: Tuesday, July 16, 2019 6:08 PM EDT
To: Michael Northrop
Subject: RE: updates/ changes?

I knew he was staying but I just misunderstood the coding system on the guest list they sent….

Patrick Cummins
Senior Policy Advisor
Colorado State University
Center for the New Energy Economy

From: Michael Northrop
Sent: Tuesday, July 16, 2019 3:50 PM
To: Cummins,Patrick >
Cc: Jill Adams ; Regina Creegan
Subject: Re: updates/ changes?

So sorry. This is probably my fault. I knew he was staying.
Betsy is heading back to nyc after the hayloft..
Give Andrew the best you got left. It's great he's coming. He's a big cheese..

Sent from my iPhone

On Jul 16, 2019, at 5:05 PM, Cummins,Patrick > wrote:

> Yikes…. I saw him on the rooming list you sent but I obviously misinterpreted that information. Yes, we are aware that he is staying over. Sorry about that.
>
> Just so I don't botch twice, it looks like we aren't expecting Betsy Campbell to stay over? (If I now understand correctly that CC means no sleeping room…)
>
> *Patrick Cummins*
> *Senior Policy Advisor*
> *Colorado State University*
> *Center for the New Energy Economy*
>
> ---
>
> **From:** Jill Adams
> **Sent:** Tuesday, July 16, 2019 1:53 PM
> **To:** Cummins,Patrick <
> **Cc:** Regina Creegan
> **Subject:** RE: updates/ changes?
>
> Patrick, I just received a call from Andrew Steer's assistant. She was looking into a taxi for Thursday morning for him. I just want to make sure you know he is staying over which we were unaware of.
>
> Best,
> Jill
>
> ---
>
> **From:** Regina Creegan
> **Sent:** Tuesday, July 16, 2019 3:04 PM
> **To:** Cummins,Patrick >
> **Cc:** Jill Adams
> **Subject:** RE: updates/ changes?
>
> Okay thank you, I also don't have any dietary requests so I'm assuming there are none.
> See you tomorrow.
> Best,
> Regina
>
> ---
>
> **From:** Cummins,Patrick
> **Sent:** Tuesday, July 16, 2019 2:34 PM
> **To:** Regina Creegan
> **Cc:** Jill Adams
> **Subject:** RE: updates/ changes?
>
> As far as I know, no changes. Thanks for everything and I look forward to seeing you tomorrow.
>
> *Patrick Cummins*
> *Senior Policy Advisor*
> *Colorado State University*

Center for the New Energy Economy

From: Regina Creegan >
Sent: Tuesday, July 16, 2019 8:14 AM
To: Cummins,Patrick <
Cc: Jill Adams
Subject: updates/ changes?

Hi Patrick,
Hope all is well.
Do you have any updates or changes for us as far as guest list and arrival and departures goes?
Best,
Regina

Regina Creegan, Director, Conferences and Administration
The Pocantico Center

| www.rbf.org

Rockefeller Brothers Fund | Philanthropy for an Interdependent World

From: Cummins,Patrick >
Sent: Wednesday, June 12, 2019 9:17 AM EDT
To: Michael Northrop ; dale.bryk Kathleen Frangione ; Kathleen Theoharides >; katie.dykes Nichols, Mary D. @ARB kate.gordon >; Davis, Chris (GOV) ; Toor - CEO, Will Brad Crowell (>; David Bobzien ; Janet Coit Burgess, Dan >; sarah.propst james.kenney ; zach.pierce ben.grumbles ; peter.walke Katie McCormack ; Amy Fuerstenau Ritter Jr,Bill ; Joseph Kruger < ; Deborah Burke ; nik.blosser

CC: Grimes, Victoria S (ENV) ; Steinheimer - CEO, Nancey ; Kathy Bishop -MDE- Panebianco, Barbara >; Valerie.Moquino Shelby McMichael >; ANDREW Jennifer J * GOV <Jennifer.J.ANDREW@oregon.gov>; pamalloy Stewart, Shannon@ARB Carmen.Colon ; Hartzell,Wendy ; Vicki Arroyo

Subject: Pocantico, July 17-18: Accelerating State Action on Climate Change
Attachment(s): "Draft Agenda - Pocantico July 17-18.docx","PC Information Directions E-Mail Updated 0416.doc"

Dear Pocantico Participants:

So that we can confirm your attendance, and to provide our Pocantico hosts with some information for your stay, please click here to complete a short registration form.
http://events.constantcontact.com/register/event?llr=fji8qakab&oeidk=a07ege9eh81b217f8f4

We appreciate your participation in this timely gathering of state leaders for an action-oriented conversation on advancing clean energy and climate strategies across the country. Michael, Vicki, and I will touch base with each of you later this month to get further input on the agenda in order to ensure our time together is as productive as possible.

In the meantime, please do not hesitate to contact me with any questions about this event. All the best, PC

p.s. - State officials requiring travel support to attend this meeting can have Travel Leaders Corporate book and pay for their flight/train ticket. You may contact TLC at Georgetown@tlcorporate.com. When requesting travel from TLC, please copy Megan Burnett on the email.

Patrick Cummins
Senior Policy Advisor
Colorado State University
Center for the New Energy Economy

Draft Agenda

Accelerating State Action on Climate Change

The Pocantico Center

200 Lake Road

Tarrytown, New York

July 17-18, 2019

This meeting will provide an opportunity for officials from leadership states taking action on climate change to share information on recent developments in their states and to strategize together on the most promising ways to accelerate the pace of action in response to the increasingly ambitious climate goals being established by these states' governors and state legislatures. The group will also discuss how state action can influence federal action and how U.S. federal action needs to be positioned within the global climate negotiations.

Wednesday, July 17

6:00 pm Reception in Loggia area of the Coach Barn

7:00 Dinner

8:30 Hayloft conversation on the international climate negotiation, and on how states are setting science-based targets. Opening remarks:
Dr. Andrew Steer, President and CEO, World Resources Institute
Kathleen Frangione, Chief Policy Advisor to Governor Phil Murphy

Thursday, July 18

7:00 am Breakfast buffet available in Coach Barn

8:00 Agenda Review and Meeting Objectives, Governor Bill Ritter, CNEE

8:15 **100% Renewable and Clean Energy Standards**

- Overview of state policies and recent legislation
- Working together on implementation
  - Next steps for RGGI
  - Coordination on the Western grid
- What's needed now to hit long-term goal of 100% clean electricity?

9:15 **Meeting the Challenges Posed by the Transportation Sector**

- Update on federal vehicle standards and states' response
  - How can states work together to establish ambitious federal and state emission standards for new cars and trucks?
- Status of Transportation and Climate Initiative
  - What can other states learn from this effort?
- Discussion of other strategies to address CO2 emissions from transportation (e.g., Low-Carbon Fuel Standards; incentives for vehicle purchases and charging infrastructure, etc.)

10:30 Break

10:45 **Net Zero Buildings**

- Standard Setting and Retrofits
- Reducing the Use of Natural Gas in Buildings
- Electrification

12:00 pm Lunch

1:00 **Industrial Sources, Oil & Gas, Methane, and HFCs**

Moving industrial sources away from fossil fuels and onto clean energy sources poses a set of challenges similar to those associated with buildings in terms of efficiency, retrofits and electrification. In addition, some states face the issue of a rapidly expanding oil & gas sector and associated methane emissions.

- What are tools, policies and incentives states can use to make progress in these sectors?
- Examples of state action on HFCs and methane – model rule/legislation?

2:15 Break

2:30 **Carbon pricing strategies**

- Update on WCI and Oregon
- Opportunities to expand existing programs (RGGI, TCI, WCI) and enhance collaboration between programs
- Carbon tax

3:30 **Action items and follow up**

- Group actions by leadership states
- Outreach / support for opportunity states
- Opportunity to impact the national conversation
- Participation in upcoming COPs in Santiago and London
- Should we meet again?

4:00 Adjourn

THE POCANTICO CENTER OF THE ROCKEFELLER BROTHERS FUND

TRAVEL DIRECTIONS & CONFERENCE CENTER INFORMATION

THE POCANTICO CENTER of the Rockefeller Brothers Fund is located approximately one hour north of Manhattan in the Pocantico Historic Area, the heart of the Rockefeller family estate in Westchester County, New York. The Historic Area has been a property of the National Trust for Historic Preservation (www.nthp.org) since 1979, when it was willed to the National Trust by Governor Nelson A. Rockefeller. The Pocantico Center includes John D. Rockefeller's home, Kykuit; the surrounding gardens and sculpture collections; and the Coach Barn (Conference Center), which houses guests on the second floor and the family's carriages and vintage automobiles on the first floor. The lower floor has been transformed into a modern meeting facility. The Pocantico Center is maintained and administered by the Rockefeller Brothers Fund (www.rbf.org), a private foundation, which operates the site as an extension of its grantmaking activities under an agreement with the National Trust. The Conference Center provides a unique setting where the RBF brings together people of diverse backgrounds and perspectives from nonprofit organizations and public institutions to engage important issues related to the Fund's philanthropic programs. In addition to conferences, the RBF's Pocantico Programs include stewardship of the historic portion of the estate and oversight of a visitation program at Kykuit, operated on behalf of the Fund by Historic Hudson Valley (www.hudsonvalley.org).

The directions are provided to help direct you to the Conference Center. Please advise the conference organizer of your travel plans, so arrangements can be made to pick you up if needed. All travel plans, including the time of your arrival at Pocantico, must be confirmed. When you arrive at the Main Gate, announce yourself to the security personnel, who will provide you with further directions.

ACCOMMODATIONS

Guests are lodged on the second floor of the Coach Barn (Conference Center) and on the third and fourth floors of Kykuit. All accommodations have a private bath. Hair dryers are also provided in each bedroom and adapters for electric razors are available upon request. Electrical service is 115 volts/60 cycles.

DRESS

In keeping with the Fund's programmatic emphasis on global warming and the desire to mitigate RBF's carbon footprint, guests at Pocantico should dress comfortably according to the season.

SMOKING POLICY

Guests may not smoke indoors, either at Kykuit or in the Coach Barn (Conference Center).

RECREATION

Guests are welcome to stroll the Coach Barn (Conference Center) and Kykuit grounds, including Kykuit's lovely gardens, or may go jogging on the roads and trails outside the estate.

TELEPHONE, FACSIMILE & BUSINESS CENTER

Each bedroom at the Coach Barn (Conference Center) and Kykuit has a private telephone number with voice mail, and phone calls may be received 24 hours a day. During conference sessions messages will be taken by the center's staff at 914.524.6500. Facsimile messages may be sent during normal business hours from the Conference Center. Faxes are received 24 hours a day at 914.524.6550 and distributed as promptly as possible. Computers are available for the use of conferees in the business center of the Conference Center with IBM-compatible machines, as well as commonly used word-processing, presentation, spreadsheet programs and high speed Internet access. Please note, however, that computer assistance is not available. Wireless Internet access is available in the entire Coach Barn (Conference Center) building as well as on the bedroom floors at Kykuit.

SUSTAINABLE PRACTICES AT POCANTICO

The Pocantico staff is committed to incorporating responsible environmental practices in all aspects of its operation. Green initiatives at Pocantico to date include renewable energy, through the purchase of 100% wind-generated electricity; the use of green cleaning products; a recycling program; and the option for towel and linen reuse.

It is a goal to incorporate sustainable building practices in ongoing maintenance and capital improvement projects and we endeavor to serve sustainable seafood and locally grown food.

In addition, a portion of the conference fees are utilized to acquire Green Tags [Renewable Energy Certificates (RECs)] from *Native*Energy (www.nativeenergy.com) to offset greenhouse gas emissions associated with conference attendees' travel to/from the Pocantico Center. This purchase will be dedicated to help finance new wind farm projects in the United States.

WEATHER

Temperatures at the Pocantico Center vary considerably with the four seasons. Winter can be quite cold, with either rain or snowfall, while summers are often hot and humid. You may find the following chart of average temperatures in New York City useful. The weather at the Conference Center is usually a few degrees cooler.

January	32°	(0° C)
February	34°	(1° C)
March	41°	(5° C)
April	52°	(12° C)
May	62°	(17° C)
June	71°	(22° C)
July	76°	(25° C)
August	76°	(25° C)
September	69°	(21° C)
October	58°	(15° C)
November	47°	(8° C)
December	36°	(2° C)

THE POCANTICO CENTER OF
THE ROCKEFELLER BROTHERS FUND
200 Lake Road
Tarrytown, New York 10591
Tel: (914) 524-6500 Fax: (914) 524-6550

The Pocantico Center of the Rockefeller Brothers Fund is located in the village of Tarrytown, 25 miles north of New York City on the Hudson River. From New York City, it takes approximately one hour to reach Pocantico by car (up to two if traffic is heavy) or forty minutes by train.

TRAVEL BY AIR

From Westchester/White Plains (20 mins.): Travel south on I-684 to Route 287 West. From 287 West, take exit 3, Sprain Brook Parkway North. Exit at the first ramp (1.5 miles) to Eastview. Turn left at exit ramp traffic light onto Route 100C. Follow road approx. 2 miles, past reservoir on your left(becomes Old Saw Mill River Road). Make a right at the stop sign onto Lake Road. Drive uphill for 0.6 miles to the main entrance on the left.

From LaGuardia (40 mins. +): Travel west on Grand Central Pkwy to I-278 over Triborough Bridge. Follow signs to I-87 (Major Deegan). Stay on I-87 to exit 7-A (Saw Mill River Parkway – Taconic Parkway). Continue on the Saw Mill Parkway North to Exit 23 (Eastview). At the foot of the exit ramp, turn left onto an unmarked road and drive about 0.6 miles beside a reservoir to the first right turn (Lake Road). Drive uphill for 0.6 miles to the main entrance on the left.

From JFK (1 hour +): Take the Van Wyck Expressway to the Whitestone Bridge exit. From the Whitestone Bridge follow signs to the Hutchinson River Parkway. Continue on the Parkway to Interstate 287 West (White Plains Exit). Drive west on 287 (Cross Westchester Expressway) to Exit 3 - Sprain Brook Parkway. Drive north 1.5 miles to Route 100C-Eastview Exit and turn left at the top of the ramp onto Route 100 C. After 1 mile this road bears to the right and becomes Old Saw Mill River Road. Proceed straight 1.2 miles under the Union Carbide building, under the Saw Mill River Parkway and beside a reservoir. Turn right at Lake Road and drive uphill for 0.6 miles to the main entrance on the left.

TRAVEL BY TRAIN

From Grand Central Station in New York City (42nd Street at Madison Avenue), take the Metro-North train to Tarrytown, which is on the Hudson Line. Trains run quite frequently: on weekdays, approximately every half hour. Taxis are available at the train station.

TRAVEL BY CAR

FROM MANHATTAN, West Side: Take the West Side Highway north, which will turn into the Henry Hudson Parkway, and then into the Saw Mill River Parkway. Get off at the Saw Mill River Road - Eastview Exit 23. At the foot of the exit ramp, turn left onto an unmarked road and drive about 0.6 miles beside a reservoir to the first right turn (Lake Road). Drive uphill for 0.6 miles to the main entrance on the left.

FROM MANHATTAN, East Side: Take the F.D.R. Drive north to the Triborough Bridge (follow lanes marked "Bronx" and "Thruway") and onto the Major Deegan Expressway (Interstate 87). The Major Deegan will turn into the N.Y. Thruway. Get off the Thruway at Exit 7A (Saw Mill River Parkway - Taconic Parkway). Continue on the Saw Mill River Parkway to the Saw Mill River Road - Eastview Exit 23. At the foot of the exit ramp, turn left onto an unmarked road and drive about 0.6 miles beside a reservoir to the first right turn (Lake Road). Drive uphill for 0.6 miles to the main entrance on the left.

FROM NEW JERSEY AND UPPER NEW YORK STATE: Follow the N.Y. Thruway (Interstate 87-287) across the Tappan Zee Bridge to Exit 9, about 0.2 miles past the tollbooths. Follow U.S. 9 north 1.6 miles to Route 448 (Bedford Road) at North Tarrytown. Turn right and drive 1.5 miles on Bedford Road to a stop sign. Turn right to main entrance.

FROM UPPER WESTCHESTER AND NEW ENGLAND: Drive south on the Saw Mill River Parkway to the Saw Mill River Road - Eastview Exit 23. At the foot of the exit ramp, turn right onto an unmarked road and drive about 0.6 miles beside a reservoir to the first right turn (Lake Road). Drive uphill for 0.6 miles to the main entrance on the left.

FROM CONNECTICUT: From the Merritt Parkway or Connecticut Turnpike, turn right onto Interstate 287 (Cross Westchester Expressway) westbound to Exit 3- Sprain Brook Parkway. Drive north 1.5 miles to Route 100C-Eastview Exit and turn left at the top of the ramp onto Route 100 C. After 1 mile this road bears to the right and becomes Old Saw Mill River Road. Proceed straight 1.2 miles under the Union Carbide building, under the Saw Mill River Parkway and beside a reservoir. Turn right at Lake Road and drive uphill for 0.6 miles to the main entrance on the left.

FROM LONG ISLAND: From either the Bronx-Whitestone Bridge or the Throgs Neck Bridge, follow signs to the Hutchinson River Parkway. Continue on the Parkway to Interstate 287 West (White Plains Exit). Drive west on 287 (Cross Westchester Expressway) to Exit 3 - Sprain Brook Parkway. Drive north 1.5 miles to Route 100C-Eastview Exit and turn left at the top of the ramp onto Route 100 C. After 1 mile this road bears to the right and becomes Old Saw Mill River Road. Proceed straight 1.2 miles under the Union Carbide building, under the Saw Mill River Parkway and beside a reservoir. Turn right at Lake Road and drive uphill for 0.6 miles to the main entrance on the left.

From: Ortiz, Melayna, NMENV <
Sent: Tuesday, July 02, 2019 5:40 PM EDT
To: Cummins,Patrick <
Subject: Pocantico July 17-18: Travel from LaGuardia Airport to Pocantico
Attachment(s): "image001.png"

Good Afternoon Mr. Cummins,

New Mexico Environment Department – Environmental Protection Division Director Sandra Ely has a confirmed arrival time to La Guardia Airport on **July 17, 2019 at 3:29 PM**. Please assist with arrangements for pickup and travel to the Pocantico Center. I believe Sarah Propst of the New Mexico Energy, Minerals and Natural Resources Department will also arrive at the La Guardia Airport about 3:00 PM, if this helps you to coordinate a shuttle or travel to the Center. Please let me know if you can assist with this request.

Kind regards,

Melayna Ortiz
Executive Secretary & Administrative Assistant
New Mexico Environment Department
1190 St. Francis Drive |Santa Fe, New Mexico 87505

www.env.nm.gov

From: Hartzell,Wendy
Sent: Wednesday, June 05, 2019 6:21 PM EDT
To: Cummins,Patrick
CC: Hartzell,Wendy <
Subject: Pocantico Registration Form RE: Accelerating U.S. State Action on Climate Change on Wednesday, July 17 – Thursday, July 18, 2019

Hi! – here's a start: http://events.constantcontact.com/register/event?llr=fji8qakab&oeidk=a07egdt3fgaea265e6c

Wendy

From: Cummins,Patrick
Sent: Wednesday, June 5, 2019 10:00 AM
To: Hartzell,Wendy <
Subject: FW: Accelerating U.S. State Action on Climate Change on Wednesday, July 17 – Thursday, July 18, 2019
Importance: High

For our discussion of a registration form….

Patrick Cummins
Senior Policy Advisor
Colorado State University
Center for the New Energy Economy

From: Regina Creegan
Sent: Thursday, May 9, 2019 8:00 PM
To: Cummins,Patrick >
Cc: Deborah Burke ; Sonia Jagtiani
Subject: Accelerating U.S. State Action on Climate Change on Wednesday, July 17 – Thursday, July 18, 2019
Importance: High

Dear Patrick,

I'm looking forward to working with you or anyone else on the team on the logistics of the Accelerating U.S. State Action on Climate Change on Wednesday, July 17 – Thursday, July 18, 2019.

Attached is a "generic" list of logistical questions which will give you an idea of the information we will need to get from you a week to 10 days prior to your meeting. In addition, I am attaching a "Participant Information" Excel spreadsheet which you need to complete (using our form) and return to us at least one week before the conference, if not earlier. **When completing the form, please be advised that column "S" is optional and has been included to assist the RBF in its effort to help build a more just, sustainable and peaceful world. By collecting this data, you will be helping us to identify and measure the diversity of conference participants.** Transportation information can be entered on the additional sheets of this document to track travel details or other pertinent information, if you wish.

Additional Pocantico Facilities information can be found:http://www.rbf.org/sites/default/files/meeting_rooms_v4.pdf

I am also attaching an on-line brochure with information about staying at Pocantico and travel directions, which you can send to the confirmed participants and a Transportation Options document with information about ground transportation arrangements to the Center. Of the car services given, our preference is **Tri-State Limousine Service (877.510.5466)** and our contact there is Joe Soleiman. To transport guests between the local hotels, train stations, and Pocantico, it will be more economical to use a local taxi. Prices on document are subject to change.

Copies of our Lobbying Memo and RBF Disclaimer also attached for your information.

The menus are attached as well, you will need to select a reception item, 1st course and main course and dessert for Wednesday evening and a luncheon menu and dessert for Thursday. Let me know if you have any questions. I will need the selections 1 week ahead of the meeting. You can highlight them in different colors and add the date if you prefer and send the selections back to me. Please note the dietary restrictions on the participant excel sheet and the caterer will take care of selecting a menu for those with dietary requests.

Please also note that professional conduct of attendees is expected at all times.

As I said earlier I'm looking forward to working with you on the logistics of this meeting. In the meantime, should you have any additional questions or if I can be of assistance to you, please don't hesitate to contact me at 6 or by e-mail at .

Regards,
Regina

Regina Creegan, Director, Conferences and Administration
The Pocantico Center of the Rockefeller Brothers Fund
200 Lake Road, Pocantico Hills | Tarrytown, NY 10591

| www.rbf.org

From: Cummins,Patrick on behalf of Cummins,Patrick
Sent: Tuesday, August 20, 2019 9:03 AM EDT
To: Michael Northrop
Subject: meeting highlights
Attachment(s): "Pocantico notes and highlights.docx","Xerox Scan_07222019155622.pdf","RBF CNEE climate policy notes Jul 17 18.docx"

Michael –

Slightly edited versions of the highlighted items you captured (which is a really good list) and Jacob's white board capture are combined in the attached doc. Not really practical to translate the notes that Carla (hand written) and Katie provided, though I have attached them here FYI.

I'm off to our Leg Academy this week in Breckenridge and we have a new initiative to help Tri State G&T develop a clean energy plan. Those things along with assisting the govs teams in NM and MT have me hopping these days.

Enjoy the rest of your summer and let's touch base soon. All the best, PC

p.s. – Snail mail is probably subject to open records too, no?

Pocantico Convening
July 18, 2019

Meeting Highlights

Climate Policy

- States would benefit from a guiding climate act like the U.K. has, like California has (AB 32)

Transportation

- States want a vision for transportation policymaking that includes land use, transit, biking, walking, EV's and technology
- States are looking forward to a next steps proposal on vehicle standards they can subscribe to (CA agreement with automakers)
- States should jointly demand Uber and Lyft data to guide policymaking
- The NGA offers a good opportunity for constructive bipartisan conversation on transportation; Gov. Hogan is eager to lead
- TCI is advancing
- Pacific Coast Collaborative (CA, OR, WA, BC) cooperation along west coast is a regional model for EV deployment

Natural Gas

- States need a road map for how to get off natural gas
- There's an opportunity to understand all the rules and incentives that preference gas and unwind them
- Buildings may be the best first target for moving beyond gas

Oil and Gas Methane Rule

- CO, NM, CA are blazing the trail on methane regs for the 10 oil states; these could become virtual or actual national policy
- Producer states need continuous monitoring of methane leakage
- Certifying no-methane-leak natural gas could be useful
- On the customer side of the pipes, states need programs to plug methane leakage; one estimate has Boston's system leaks at 6%

Buildings

- States could adopt net zero codes for new construction; CA's net zero building codes are a model
- States need mandatory disclosure rules to design rules for building efficiency
- WA state's recent legislated retrofit rules for large building are a model way forward; NYC has taken a similar, more aggressive approach
- A benefits analysis like what RMI did for NYC helps make the case for retrofit policies: investment, jobs, cost savings, and GHG savings numbers are big
- Rules to require low carbon materials for all new buildings and infrastructure, including for steel, cement, wood and glass are good economics, good politics, and great climate policy

- States can adopt existing appliance standards
- Air Source Heat Pumps are a critical appliance states could collaborate on; cities have started this conversation; a big impact on gas in buildings

Working Lands Sequestration

- Climate Alliance has made strides in this area; Rhode Island excited about their approach; CA prioritizing this: resilience and fire are drivers
- State approaches to natural lands carbon sequestration that offer economic benefits to farmers and forest owners will improve climate politics

HFCs

- Adopt SNAP rules: corporate support, low or no opposition, big climate benefit

Working with Cities

- Cities have made progress on many of these issues: leadership cities and leadership states could help each other

NGOs and Donors

- There is a gap between NGO/Donor interests and the needs of states; making the case and communicating it is required

Federal Policy

- We have 18 months to be shovel ready for 2021; States can help create model approaches for federal action

Global

- States have an important role as influencer in multilateral climate negotiations over the next 18 months.
- Georgetown and the Climate Registry are ready to assist states that want to participate at COP 25 and COP 26 in Santiago and London

White-Boards Capture

Multi-State Collaborative Opportunities

- US Climate Alliance
- Transportation & Climate Initiative (TCI)
- 2020 Draft state regulations on vehicle standards
- REV West
- Western state carbon policy collaboration
- Appliance standards
- IOUs – navigating political challenges (e.g. re: storage, CCAs, etc.)
- RGGI
- Setting GHG goals – 2030, 2040, 2050
- PJM Regulation + ISO NE
- Regional mechanism to compensate on nuclear fleets in New England

2020 State Legislative / Regulatory Efforts

- Buildings
    - Beneficial electrification – CO, WA, VT, ME, NJ
    - Commercial building standards – CO, VT, NJ
    - Net Zero Codes and stretch codes – WA, VT, NV, NJ
    - Review existing incentives for natural gas – WA
    - Efficiency standards – WA (Done), VT
    - Appliance standards – WA (Done), CO (Done), VT (Done), NV, ME, NJ
    - Parking lot requirements for EV charging – WA (Done), OR (also listed in buildings)
    - Schools and MUSH market (with ESCOs) – ME, VT
    - Efficiency master plan – NJ
    - Weatherization funds for heat pumps – CT, ME
    - Pay for performance - CT
- Transportation
    - Transportation Networking Companies emissions tracking – MA, WA, NY
    - ZEV / LEV – CO, WA, NV, NM, NJ
    - Light & Heavy-duty incentives – CA, NJ
    - EV charging infrastructure build-out – CA, RI, NJ, CT
    - Fleets – NV, NJ
    - EV tax credit – NM, NJ, CT
    - Solar & charging at parks – NM (also listed in Renewable Energy)
    - EV Incentives to salespeople – CT (Done), OR
    - Parking lot requirements for EV charging – WA (Done), OR (also listed in buildings)
- Renewable Energy
    - Solar siting in Land-Use – RI (also listed in Land Use below)
    - Solar tax credit – NM
    - Community solar – NM, HI, CA
    - Solar & charging at parks – NM (also listed in Transportation)
    - Off-shore wind – ME, NJ

- Methane & HFCs
    - Oil & Gas Methane – CO, CA, NM
    - Methane leakage with IOUs – NV
    - Suing Oil & Gas for damages – RI
    - HFC's – NM (?), ME, CT
- Land-use
    - Land-use planning – WA, VT
    - Natural and Working lands and carbon storage – CA, MA
    - Solar siting in Land-Use – RI (also listed in Renewable Energy above)
- General
    - Revenue
        - Revenue for resilience – real estate tax – MA
        - Carbon tax – Net Zero – MA, RI
        - Sustainable funding stream – RI, NM, ME
    - Update Global Warming Act (authority) – MA, VT
    - Roadmap for 50x2030, 90x2040 (etc.) – CO, ME (implementation)
    - Social cost of carbon – CO, CA
    - Studies
        - EE, Solar, Carbon pricing – RI
        - economic study w/ cost of inaction – NJ
        - resilience measures - NM
    - Reviewing GHG goals – revision – HI
    - Cap & Trade – OR
    - GHG & clean renewables energy standards - MD
    - Climate resilience EO – NJ
    - Discussing whether to stay deregulated – CT
    - Storage procurement – CT

Federal Action

- Engage NGOs to prepare federal transportation model (e.g. RI, REV West)
- Drive land-use solutions to inform "shovel-ready" efforts for USDA

Buildings "Pulse-taking"
On emerging high-ambition efforts

Codes – Zero Energy, Zero Carbon, or all-electric

- Working on it
  - CA (Done), CO, HI, NM. NV, VT (On a roadmap)
- Considering
  - CT, MA, ME, NJ, NM. RI
- Not Considering
  -

Efficiency Standards - for existing buildings

- Working on it
  - CA. WA
- Considering
  - CO (for commercial buildings), MA (State gov't only), MD
- Not Considering
  - CT, HI, ME (maybe state gov't only), NJ, NV (maybe state gov't only), RI, VT

Massive market mobilization

- Working on it
  - CA, HI, MA, ME, NJ (EE Standards), NM (?)
- Considering
  - CT, CO (utility BE investment), NV (?), VT, WA
- Not Considering
  - RI?

1

opportunity for regulators

(CA) Industrial CCS

Nik OR manufacturing + process emissions

didn't like lower registration fee idea

how to role steel w/o gas

transportation - freight. more nuance needed.

what about gas tax. EV policy provides opportunity to address much bigger societal problem

CA guided by UC Davis - Dan Sperling 3 Revolutions shared, autonomous, electric

CAFE has outlived original purpose

CA looking for states to join ITT

Sept. 2020 draft state regulation (would need fed waiver)

rethinking

NV - what about heavy duty + fleet - passed bill to relax weight standards to allow EVs

CT - offshore wind to hydrogen

MD - Hogan is chair of NGA + focused on climate

WY - connection to EVs for tourism.

TCI - 12 states. accounting at prime supplier for moving fuel across state lines

Model rule by December

On demand van pools looks good

MA + NY - goals vs have to meet emissions targets

Dale NY - have to work on rural communities + what benefits can we lean forward with

CT - utility commission - task them to pay for level 2 charging + help customers go electric.

RI Gov head of DOA
Baker, Hogan, Scott, Remondo

Kareem → NM - 2019 EV utility planning bill. working on more comprehensive vision
- focus on methane

CA - switched from level of service to VMT -
how to do it in a way people understand.
housing near transit, jobs, + services.
fires mean rethinking land use - + high risk areas w/ lots of people
$ for roadmap to get to carbon neutrality by 2045

DC not just DEP, working on getting EV rebates.
hard to get folks focused on emissions when just trying to run trains on time

CO - ozone/non attainment on front range. utilities can now invest in EV infrastructure. Repurposing VW funding finalize ZEV in coming months.

Maine - just passed big climate bill. 50% GHGs from trans. TCL.

OR - carbon pricing, congestion pricing

Hawaii - looking at carbon pricing (?), where to put more charging stations. Move past studies - how to implement 100% RE goal

NV - E.O. w/ climate goals + transportation.

do ZEV + ZEV together, not separately.
NY - focused on reducing air pollution in neighborhoods
both TCI + LCFS
NM - working w/ tribal partners
Rd - VW settlement $ into electrifying buses...
combined w/ grid modernization
NV - electric highway w/ tourism
VMT study in legislature
NM + NV jump on ZEV/ZEV
VT - $1M ZEV/ZEV, TCI - conversation
important itself
CA - 85% allowances $ -> purchase EVs will go to dealers to help consumers
CT - gives bonus to salespeople
Mass - took away PEVs + vehicles over 60K
but still phasing out incentives
trying to get
Uber + Lyft tell their emissions data to gov.
> contributing to congestion
CO - kicking off stakeholders process on LCFS
+ feasibility study - to decide legislation
or air commission rule making.
trying to get utilities to think big.
Rules in design to incentivize ride sharing +
electrification w/ putting fees on TNCs
50 by 2030, 90 by 50 - DOT wants direction
to tie transportation plans to GHGs.
WA - trying to pass LCFS. legislatures understand
it must be part of transportation package

4

NV no nuclear

Court case about authority.
poison pill...
want to become a ZEV state even though still beating some ZEV states.
how to accelerate elec. transition for TNCs -> emission reduction requirements?
Seattle + Minneapolis - only 2 cities where VMT went down last year.
Lots of fleet commitments 10/15% - conversation about ramping them to make the demand side pull visible.
VW funding organized. working on regional view of highway infrastructure of EVs.
almost possible to get to Trafvance.

ACT Katie Dykes - as we are designing policies - are we thinking about it as federal models.
NGOs can help elevate - if what my state is doing has national significance.
what are we building that is shovel ready?
CO - no NGOs engaged on LCFS + intersection of transit / land use / GHGs
Peter - states good at setting target + moving toward it, lack ability to excite customers / build new culture
NV Brad - need novel / workable funding mechanisms. have to balance the budget.
NM Sarah - NGOs having hard time pivoting from enemy approach to friend approach

5

Nik Blosser – tell him about hydrogen to make steel.

Mary CA Big national orgs. have run out of steam except for Fresh energy.
All foundations putting $ in EJ in not thoughtful way
Some funded orgs fighting everything
Kate CA Cities control land use – they don't want to densify. Housing agenda is not a climate agenda
Zach, CO. – NGO relationship w/ labor.
CT + MAG Katie 40% workforce turning over by 2022 – need workforce + recruitment help. not resourced to do that

---

E+P – extraction + production
75% coal been replaced by natural gas.
CO – moving to continuous emissions monitoring – to what extent can we do that
NM – problem is oil production in Permian 1.5B/month in commerce, 400% ↑ in production
Want to avoiding conflicting oversight across 2 different agencies
MD. – NG is a bridge fuel but not leaky or long
NJ – enviros want moratorium on fossil infrastructure. + MA. Big labor issue
gas + jobs vs no gas + climate
Gov ritter don't overbuild nat gas pipeline infrastructure
Mary – bringing up biogas
Kate Carbon management conversation w/oil + gas labor.
Ernie Moniz saying gas is a bridge fuel...

6

NV - what analysis do they need.

Mary - Moniz has not been well managed.
Reed - industry (gas is good) - enviros (gas moratoria) → how do we accelerate the conversation...
Dale NY - unwilling has moratoria... ldc of pipelines
Orderly transition.
States don't dictate game on pipelines,
DR & EE for gas.
VT - enviros will continue their messaging.
need to lay out a clear vision about when the end is.
Mary - need threat of regulation to move R&P money (gas CCS)
CO - RNG potential study - will be small part of pie - may meet 2% of state demand for diesel.
thinking about investments in distribution system
CA - multi craft career apprentice - trained across construction careers (can do EE one days something else the next day)
RI - 35% emissions heating - don't have plan.

Maine - trying oil → heat pumps.
VT - RPS for fuel oil..

Bldgs

NA - mandatory retrofits. EUI function coupled w/ gas utilities doing all cost effective conservation. have to incorporate SCC (w/ 2.5%) did not focus on triggers - ~~upon sale~~

new code requirement for new construction - 20% parking EV wired 50% has to be ready

CA - local mandates. School efficiency.
- legislative

Nevada (not Brad) NGO - city to state connection
start w/ benchmarking? or not - pick battles.
Need study on benefits of mandatory retrofits.

8

make a slide on regional activities highlight WA buildings policy

add WA has passed a rule.

HFCs VT-commitment
MD - regulatory - vending machines
NM - interested. - Sandra Ely

Chicago - had a market ten years ago that farmers & ranchers could use
MA - payment for farmers & foresters - pilot
What's the federal policy design we can work on at the state level now?

Closing
Mass - no more RPS. mechanism outside of bonds resiliency bond to help w/ infrastructure resiliency → look this up
★ CO - beneficial electrification bill this spring - will include DSM.
bill to combine comm. bldg benchmarking w/ requirements to meet energy standards
WA - included language for gas to rate base RNG infrastructure
WA - done LEV, want ZEV
interested in TNC regulation
land use planning - new
how to deal w/ going to net zero codes for new utilities - more aggressive incentives for developers
★ for all electric. roll back gas incentives
last on stretch code a number of years

running
CA - 2020 big leg on nat. + wlkg lands - carbon storing + resilience
(longer term authorization LD + HD programs are scattered.
Charging - look at legislation - to regulate + build out charging infrastructure
Will do something on oil + gas, maybe health + safety.
What are we trying to accomplish here.
VT - legs on global warming solutions act.
→ doesn't want to do anything that costs $
TCI, comm bldg standards,
roadmap to net zero?
ecosystem services
WA - appliance efficiency - OSCA have model legislation by ASAP
WA + CO did all appliances (?) VT, OK
non controversial
NV - appliance standards - decide if legislative/regulatory
fleet elec., state + public bldgs.
getting flac on solar "fairness" w/ codes
Push 100s on methane leakage
(CO - rolling mandate on adopting IECC codes)
→ have to be careful about keeping Ds in office.
RI - Gen Assembly D but doesn't care on env/climate.
looking for sustainable funding stream
sueing big oil for R.I. damages in state court

losing forests to solar siting - tradeoff.
carbon pricing study - out for RFP now.
U.S. Congress new infrastructure bill...
Need the business community.
NM - methane, LEV/ZEV,
have to work on building capacity. -
doing fees to pay for staff (?)
rooftop solar tax credit, EV tax credit.
going to be asked to do community solar.
Micro-grid, solar at parks.
[Surge of interest in how to deal w/ community solar and CCA and net metering]
MD - on track to meet their 1990 emissions goal.
Utilities have done their part. Many studies underway
OR - try cap + trade again.
parking lots, $ to
CT ↑ $ to EV salespeople
VA - 45% from 2006 by 2030.
developing Clean Energy Standard.
> which will include CHP.
RGGI - VA will participate in auction
VA back in action in 2020.
100% clean elec. by 2040
Maine - passed 45% GHG by 2030, 80% RPS by 2030,
gov launching climate council - will include trans, bldgs, resilience.
working g on implementation
↓ worried about price

11

Dale - economics of electrification - send

BE, storage, green banks, microgrids - studies on all of these
offshore wind coming rapidly
could do HFC. & appliance standards
trying to bond for muni efficiency & school projects.
NJ - EV charging infrastructure bill
working on implementation of efficiency + solar
work on offshore wind
lots of PJM issues - pricing zero carbon resources
CT - same in ISO NE. → follow-up - from USCA playbook
NJ climate resilience executive order
CT - keep bldg gas power plants but not pipeline capacity. Nuclear is an issue -
IRP now relevant again. Actual discussions about no longer being deregulated...
ISO solving for winter reliability
Maine is + CT thinking about funding weatherization for heat pump installs
HFCs in progress, appliance standards next year, TCI legislators carding green banks + RGGI $

AP. example - Utah - HB0411 - 2019

→ Powering Past Coal Alliance

Sept. 9th Lake Tahoe USCA

From: Katie McCormack
Sent: Thursday, July 18, 2019 11:24 PM EDT
To: Michael Northrop <mnorthrop@rbf.org>; Cummins,Patrick
Subject: Notes from Pocantico meeting -- attached
Attachment(s): "RBF CNEE climate policy notes Jul 17 18.docx"

Michael and Patrick - -

Thank you very much for a meeting loaded with great conversation, and for including me in the meeting.

I hope that you will not regret our conversation about my notes. They are pretty detailed and long, but I hope comprehensible, and maybe will spark memories about interesting things people said and noted for follow-up.

Wishing you both a wonderful weekend (even if a bit ahead of time),

Katie

Wednesday, July 17

7:00 Dinner and Introductions

Power going well/ need progress on transport/buildings
Where are some of the newer states gong?
Speak about new states: NJ, NM, CO
States really working it: WA and OR
NY – big announcement tomorrow
Recognize over-packed agenda – please put topics on the agenda

Thank you to CNEE, Georgetown, RMI

Intro – what really excited about?
Ritter: idea – meet post leg session/when hardest part is over, invited 15 states/all here, hope to see connection from this meeting to a good idea. Can state action create net effect w DC – no better place to work right now
Cummins: W states on air quality and climate – like regional convenings
Frisch/RMI: America's Pledge – answer to what it all adds up to
Corvidae: concept – applied hope, fantastic example
Krueger: Arroyo in Germany for ultimate frisbee team, Work w/ TCI states
Grumbles/MD – support 100% clean by 2040, w/ clean/RE policy, in context of RPS veto
Nichols/CA – ref Gina Mc, hoping for good things from conspiring
Toor/CO – climate goals adopted by leg, cabinet working together really well
Bobzien/NV – real job on climate/energy policy, real oppty: relatively small state and working group on all things climate, working to ID comms to Gov on how to do all needed
Bryk/NY – sign leg to decarbonize announce tomorrow, link to fed prospects states set table, already ID good ideas
Campbell/RBF – hear dynamics – important and promising
Ely/NM – ref Richardson, come back out of retirement w/ MLG
/VT – seen as cute puppy, note emissions going up, R Gov interested in making changes, and interest in collaboration—TCI beyond, buildings
Davis/WA – great invite list, excited about different kinds of policies, seeing enthusiasm, excited about political
/MA – conversations with counterparts, R Gov – defined climate change as term 2 priority
, lots of pieces, incl TCI, raising rev for adaptation
Schuler/WA – happy to have R Govs, inspired by so many states – old/new Govs – great outcomes, and states say not yet done. Highlight: HFC phasedown modeled after fed actions, see almost perfect substitute for fed gov't
Pierce/CO – ref carbon bill, note suite of bills to meet carbon bill targets, note office of just transition
Burke/RBF – believe in states as driving force
Coit/RI – RI first female Gov, excited about Gov conversations on TCI, urban forestry project

/HI – PUC comm since May, previously in Ige admin on env't policy, and HEC, passed enviro and carbon—want to make sure it all works together
Propst/NM – agency roles, ETA - -uniquely NM bill – solved for everyone issues, task – change from o/g to clean energy economy
Crowell/NV – Bobzien/he are env't in NV, lots of education to do, ironically R Gov maybe better aligned than D, 3-5 years form out coal, transition to clean, positioned to move look to Gov Ritter
Steer/WRI – inspiration – all of you, thank you for leadership and influence global gov'ts
Frangione/NJ – Gov in 2018, a bit ahead of others, oversee policy team and POC to cabinet, matters she is assigned that role, permits broader view of climate/energy – community solar addressing wealth disparities, offshore wind
Gordon/CA – offshore wind/Navy issue, so much is happening/many goals – commitment to move to action, integrate climate through other issues, permeation to every policy area
Blosser/OR – any normal year would have been blockbuster, abandoned single family zoning, thwarted temporarily

8:30 Hayloft conversation on the international climate negotiation; and on how states are successfully setting and implementing science-based targets.

Dr. Andrew Steer, President and CEO, World Resources Institute --
Michael – push group forward with a little bit of humor and lots of smarts
In biz of silver lining – you are it
Impact bigger because we have Trump in WH
Note UK action – 2030 net zero to prove they are player
Everyone asking what US really doing
China visit to really learn how serious US is
2 experts -- 1 says great progress – RE, markets. 2 say going off cliff – 1940 in bunkers -- Q: who right? Both are totally right
Dog chasing accelerating van, needs to get on scooter
IPCC 1.5 blessing – says incremental not enough – need progress in all direction – global discussion – address path dependency, inertia, vested interest – Trump understands this
Ref new climate economy/Calderon – only jobs/growth if address climate change, need to capture this
Ref Modi – make India great again, biggest solar increase in history – get disruptive change and future of economy
Like announce of decarbonize by 2050
Global needs – political way of explaining things
Figueres on cut in half over each of several upcoming decade
Need to be on path to 1.5 degrees
2020 is super year – by end, need to ramp up level of ambition – make or break on Paris deal if don't get rise in ambition
US contribution –pledge and review – individual pledges will not get there
Plans for global meetings – Italy/youth, Brits – convene
Look to Sept summit

Improve NDCs and need long term strategy to 2050 by 2020
States will be highlight of US offer
Countries showing up w/ carbon neutral commitments
2050 matters, have to half by 2030
Better is not enough/have to lead
Changes in which countries show up to lead
China can peak 2025, not 2030
EU recent meeting – could not get to shared carbon neutral – might do one by one
Job/growth in low carbon economy
Note: Climate summit/September
Concluding thoughts

- Contribute to new global governance
- No longer gov't to gov't – new multi-state, w/ local and corporates
- Project/climate federalism – note lack of state to fed connection – big issue for Sept summit
- Need narrative that links economy to what trying to do
- Need compelling story about what economy will look like
- Grades for sectors – need revolutions
- This group gets it
- What should NDC be? Denomination is from today – halve carbon by 2030, GHG 2050
    - Consider shadow group to prepare for that
    - Brits want COP post-election – want success
    - Ex; Brit de-politicized expert group
    - Look to best analysis in US
    - Kate – need to consider shadow – what if does not happen – what if states separate from official reps?
    - Don't over-estimate rigidity of UN process
    - Role for negotiators but see role for private sector – don't be shy

Kathleen Frangione, Chief Policy Advisor to Governor Phil Murphy

- Science based target reflection, what NJ needs to do
- Murphy run – sought LCV endorsement – ask = 80% clean/2050 – he said do more
- 100% not notable anymore – fast shift – dialogue moves quickly
- Had foundation of strong statute
- Consider interim targets
- Note absence of state-level data
- Bill on Gov desk for more concrete goalposts – inventory, reporting, interim targets
- Consider metric-driven approaches

- Will meet RE goal/nothing else holding to account
- Working w/ RMI on energy master plan – how to get on path now
- Interim targets help understand how to get there
- Separate plans – trying to align them
- Line of sight to 2030, the
- How get leg to pay attention to plan?
  - Strong enviro plan
  - Outside power sector is harder

- Crowell – need to understand upfront investment/action to get to other sector goals. CA market drive helps
  - How change dialogue to put something behind ambition
- Dale – have this issue
  - Marker bills that never moved, but happening now
  - Some without "thought thing" – need to figure out how to deliver on the leg
  - Help each other – tech/econ analysis, policy – power, bldg., transport
  - How extrapolate to regular people
  - Tell success stories
  - Do together so all moving on policies
- Nancy – takes one/more admin agency to do implementation – right regs/figure backstop. Can't do with just a few people
  - Predictable leg adds for $/staff
  - Land use/transportation is a different world – need to engage other agencies
- Bobzien – defend leg – when comes to power sector, look to politics – relatively easy political landscape, as long as utility makes $. Harder w/ transport, land use. OR – can plan at state level. What oppty to link local gov't w/ leg who want to the right thing. The don't have same change capacity as NV Energy. Tough stuff comes later. Transport about VMT – people still in cars.
- VT – call out NGO partners, history set target w/o meeting.All work in electric sector/none focused elsewhere. Need message on need to do more Need message on why what already doing does not get there. NGOs help leg leaders think beyond the easy stuff. NGO invited to suggest ideas – none forthcoming. Address capacity in, but also beyond govt
- Davis/ WA to Mary: Could CARB do w/o AB32 targets? Look harder at agency authorities. Need leg delegation to agencies. Mary – array of workshops/provided basis to fight back. ID villains/blocks in advance. Offer to share playbook

- MA – sued by CLF re: statutory limits, complicated in context of regional market. What counts. Education component for NGOs. Need tighter regional collab conversation and NGO education
- NJ – NGOs not advocates of regional – pressure to consider power emission caps
- VT – look to NY on NOx, Sox to bring equity communities around
- Bryk – work on this, pay attention to transport emissions. Carbon price driven by variety of reasons. Consider do same thing in region to send clear market signals. Work on gas, DR, workforce training for heat pumps. Use timeline for threat of customer connection
- Mary – Transport is #1 source emissions
- NJ – how to move to harder sectors
- Kate: consider place-based investments in infrastructure. Can't forget climate resilience. Land use, fire, flooding are big deal
- Crowell – wildfires wipe out gains --
- Joe/RMI– bldg./transport matter and hep resilience and equity – oppty for high ambition space
- Bill R: set up for tomorrow. Gas issue matters for biz case

Placeholder on role in int'l discussions – for fed and int'l, what does it look like to step up state role – consider Climate Week, COP
Mary: consider bringing leg to int'l meetings

Thursday, July 18

7:00 am **Breakfast buffet available in Coach Barn**

8:00 **Agenda Review and Meeting Objectives, Governor Bill Ritter, CNEE**

- Time meting for post leg session
- Target outcomes – from high anxiety to high ambition
- People working in serious way
- Consider leg session 2020
- Framing
  - 2020 state leg
  - Engaging other states
  - Multi-state collaboration
  - Federal Action
  - International Action

8:15 **Summary Review of High Ambition Policies.** Please review the two documents provided in advance. Please share your questions and suggestions for additions. These are intended to be resources you and others can use to further policy goals in your states.

Steps
Decarbonize power – note changing gas/RE markets

Move away from direct fossil fuel end use – building elec/transport
Land use – natural and working lands – resilience
Document helpful – needs a few corrections
Kate: CCS for ind end-uses – link to plastic recycling?
Blosser – ran into trouble with industry (different in different states) and people w/ very good lobbyists. Transportation – need to separate segments – issues with freight. Notes issues w/ funding gap. Looking at kW-hr fee for user fee equivalency. Bobzien: Need to address infrastructure. Mary: gas tax is not solution – it does not work either. EV policy can be oppty. Note RAP paper
Managing EITE industry –
Will – partial carve-out (Sen Pres), looking oil/gas
Hannah– carve out for industrial – timber/pulp
NIk – timber owned by int'l players. If at 95% best avail tech, separate treatment – created process/period of uncertainty. Mills in swing districts
Mary – year+ process calmed some people down, left says should have been tougher.
Mantra – program is about cap, not trade, but industry cares about this. Need to consider value in getting started vs compromise/locking in lower bar

9:00 **Meeting the Challenges Posed by the Transportation Sector**

- Update on federal vehicle standards and states' response
  - How can states work together to establish ambitious federal and state emission standards for new cars and trucks?
- Status of Transportation and Climate Initiative
  - What can other states learn from this effort?
- Discussion of other strategies to address CO2 emissions from transportation (e.g., incentives for EV purchases and charging infrastructure, Low-Carbon Fuel Standards.)

More difficult than power, in part because of fed gov't role
To Mary: frame for going forward

- Recent CA action guided by good work at UC/Davis – ref: 3 revolutions (shared, autonomous, electric) – demand for mobility unlimited, but need to address or things will get worse. Helpful framing for policymakers
- Consider incentives and mandates
- Tech can be friend or problem
- VMT debates feel tired – solutions have not worked well. Transit – invest more/get less. Lots of leadership coming from cities
- Half land mass rural, lots of suburbs built around autos/failure of that model, concentrated urban
- Rapidly beginning to develop policy/tools for EVs/passenger sector
- Freight issues are huge – need to consider/invest in infrastructure
- Suggest consider climate infrastructure

Bill – states following CA – waiver, EV, LCFS – States follow CA – is this still a good idea

M: authority comes from CAA, all waivers have been litigated. Now have capacity equal to fed gov't. CA acts and fed moves to fill in behind. Important role to play. Helps to have other states defend 177 authority. Passionate about path to more EVs – only works if joined by other states
Thinking to alter reg structure?
Don't see shift in CAFÉ – not national program, 2 regs, not working well. CAFÉ outlived original purpose. Should go away, but may in effect. Look to climate reg as substitute
Use CAA, better understanding of what is happening on other 177 states – working on this, could be more effective

Will: Room for collab on next-gen standards?
Mary – consumed by defense, but quiet work on paper – target is action Sep2020 – would need fed waiver, involves changes in how certify vehicles. Make about software not equipment
Brad – working on where get emission gains, not seeing in light-duty, interested in heavy-duty and fleet, esp interstate comm'l vehicles which need separate infrastructure.
Katie D: using VW on trucks, analysis of power draw is high, look to offshore wind penetration and curtail/spill, battery not enough for several hours – how much wind/storage – maybe hydrogen production linked to heavy duty
Dale: analysis of RNG – use in heavy duty – possibly air/other. Need to design for uncertainty, while paying attention to compliance obligations
Nik: looking at battery disposal? Yes, but first thing is making them more efficient, longer lasting, then move to stationary.
Hydrogen? Mary carve out and looking to 100 chg stations. Note: Shell view of hydrogen biz case helps – links to
Bill: talk to fleets – automation/EV – happening at UPS, FedEx, Amazon. Electric truck advantage on maintenance – dealing with chg infrastructure for fleet of trucks w/ 1MW batteries
David B – bill relax weight std. see moving this from Gigafactory to Tesla/Fremont w/in year
Mary: Elon hates hydrogen
Kate – look to hydrogen/can repurpose gas/charging. Consider whether need to choose one/other
Ben: Hogan chr NGA – committed to climate leadership – infrastructure will be top priority. Encourage people to build onto this for transport resilience/EV infrastructure.
MD EV infrastructure council push to consider H, shift to zero emission council
Zach – looking to conversation about REV-West expansion
Sarah/Sandra – NM in re-evaluate mode. Looking to LEV/ZEV – watching status of waiver. Mary – CAA/177 – some in Trump admin have made getting rid of this a crusade (DOT/Justice). See move to GHG frame is a hook. Frustrating when industry not initially prepared to defend CA authority. Trump admin made a change – increasing fear of uncertainty more than of status quo. Part of this is looking post-2025. Status – NPRM has not gone to OMB – hearing delay till September/Fall. Expect 60-90 days at OMB. Will depend on strength of case. Now talking with several companies about what could be done to save national program. Waiting has been good strategy so far/nothing bad has happened. Lawyers see more than trivial chance that GHG standard would not

prevail if went to SC. Timeframe for CA plan? Next week. If CA acts, will there by stay?/ given expectation that will influence other state plans. M: will ask for time to review. Bill – very likely fed judge will stay enforcement. Industry says will continue to comply until word arrives

TCI
Katie – focus on NE – market based system using RGGI experience. Last 5 years – multiple statements of some states (different states). Conversation among 12 states remains solid. Ref: Georgetown support /analytic work. Addressing stakeholders: rural, urban, equity. Held state and regional workshops. Offer principles: cost effective carbon mitigation, equity. Jan kick-off process, target model rule in December, then do homework on authority
Cap on emission, permits – move along cap/invest
How measure? Easiest at prime supplier, people who move transport fuels across state lines.
Chris Davis: how working on authority to cap? Different among states. Dealing with directed funds to transportation
Katie D – use best to move interstate – Develop template, enact at state level – dealing with critical mass questions
Zach – how many states now have authority – few
Rural feedback? Positive on mobility, less on gas price increase, transit options. More positive: on-demand van pools, maybe autonomous. Peter: encourage consideration in terms of look to future
Ben – Gov's commit to design program for on-road transportation – avoid ICC, label as highway tax. States need flexibility, autonomy, sovereignty to decide on use of revenues
Katie -- frequent meetings – Georgetown funded
Working groups – leadership team, exec policy, investment and equity, comms, legal, technical – expect to see/consider modeling results in August, then vet proposal. Keep Gov's in loop for upcoming/critical Sep/Oct/Nov deadlines
Schuler – WA working on LCFS, problem is not revenue generator. What is OR/CA experience and how relate to TCI.? Joe – will be like RGGI –
Katie – need to ensure revenues drive incremental carbon benefits
Hannah – funds occur n 2023 – Katie – strategy – bond against it
Patrick – timing of leg – 2021, but expect conversation to start 2020
Katie D – see engagement and momentum
Dale – price is not the driver of the change – small impact early, but will drive opposition, consider complementary policies that are driving reductions. Need to win comms battle – leading message on benefits/not cap
Joe – power sector supportive – makes a difference
Mary – how much does this fund transformation to EV? Yes. Dale – do still need complementary
Katie D – pay attention to utility EV revenues – keep difference between benefits and integration costs positive
Keep prices low at outset, then decline cap – will not be on its own consistent with state carbon goal

Janet – emphasize bipartisan climate leadership on highly ambitious idea. Focus on benefits – health, infrastructure, recognize role of politically influential govs
What are states doing
KatieD – TCI, increased revs form electricity to work on clean
Sarah – utility EV planning, hope Gov will include tax incentive LEV/ZEV – bandwidth issues w/ methane. Expect another EO. Looking to REV-West
Kate G: VMT issue is a big one – even if 10X EV, still need VMT. Housing near transit/jobs/services – link to eco devo and urban dev, climate risk – fires create conversation on land use/high-risk issues, looking to supply side, $ in budget for roadmap to carbon neutral by 2045
KathleenF: make sure not just DEP, engage DOT. Will work on multi-agency integrated function. Looking to rebates, attention to transit -- reliability, slower on carbon
Zach: transport funding challenge, ozone non-attainment, utility EV invest, state tax credit, VW repurpose to clean transport. -- next: look LCFS
Hannah/ME—not pent-up demand. TCI top priority, consider rebates extreme range anxiety
Ben – congestion in metro DC
Nik – carbon pricing, congestion pricing, transportation funding
HI – report assess options, look at VW funding, considering invest in fleet/tour. Leg granted public service charge eval opptys, incl credit, need to get to implementation/not study
Brad: transport greatest emission share, want ideas looking to 2020, owe report to policymakers on options at year-end, EO on climate goals, incl transportation elements. Look to CO for lessons – Will/do LEV/ZEV together, great strides on electric highway
Dale – TCI, LCFS, address pollution in overburdened neighborhoods.
Sandra – thinking LEV/ZEV, VW for infrastructure, fleet and EV infrastructure, need to work with tribal partner
Janet – TCI is major focus, VW settlement for dies
David B – NYT article – electric highway, consider REV-West refresh – priority that it goes, VMT study
Peter – TCI priority – conversation valuable even if don't get all the way there, incentive, alert to gas price impact, gov leadership helps with slow mover, encourage Govs to meet in person
Mary: move 80% of utility LCFS into incentives. Biggest obstacle is dealers and this addresses that gap – money on the hood
Katie T – outside TCI, DEP program on infrastructure, phasing out program, then will bring it back. Leg to get uber/lyft emissions data – address those fleets, esp since congestion contributor, VW for electric buses, 80 by 50 on transport and buildings
Will – ZEV rulemaking August – share info n complication when opting later in program – higher reqs in later years, LCFS stakeholder/assessment in Sept/fast time frame. Utility require to submit plans – want them to think big -- $100Ms, not $10Ms. Stakeholder process on sharing/autonomous vehicles/anticipate fees on TNCs - -look to this as model for autonomous vehicles (storyline: what if cheaper for autonomous vehicle to circle sport arena than park). Also looking to SB375 analog.
Reid: likely try again on LCFS/though calculus may not have shifted. Create understanding that, when ready to move, LCFS must be in package. Tortured history

led to poison bill. Looking to pass ZEV standard – argue need even if moving w/o – get ahead of post-2025 adoption. How to accelerate shared, C/T proposal – not clear how serious it will be – would come from transport after clean. Clean bill includes space for action. Chris on regional – PCC – infrastructure and W coast fleets – make demand-side pull visible. Highway – push for standardization of infrastructure. 5 progress

Michael – foundations/NGOs absent, NGO oppty
Katie D – what helps – what links to other states
Bobzien – agree on fed connection, interest in REV-West – ref every 50 miles is tough, what are building blocks
Will – second comment – NGOs absent in some conversations – ex LCFS, transit/land use – helps to create political momentum
Peter – need help exciting customers
Sarah – see relationship EVs to solar power
Brad – not just policies/technologies but stable funding mechanisms
Janet – enviro comm not helping w/ TCI – citing need global warming solutions at
Hannah – need comms strategy/resources
Bill – point well taken
Sarah – NGOs have hard time pivoting from enemy admin to friendly admin
Bill – utility feels that even more, pivot may require change in strategy
Mary – big nationals/regionals running out of steam, some exceptions—note Fresh Energy – how take this model to other places. Funding to EJ in not very thoughtful way – tendency to fund any group that comes along – ID leadership that is diverse and understands the more difficult tradeoffs – may deserve separate conversation
Michael – note activity we see at city level
Kate G – land use challenge – cities control and are fighting/new housing – not considered climate agenda
Zach – NGO/EJ – challenge is NGO relationship w/ labor - build connective in more enduring ways
Katie D – 40% of workforce in state gov't in 2022. If states are where happening, connect students to state agency jobs – several nods
Peter – lots of activity at cities, but still beholden to states (who are beholden to fed)
Bill – EF board – note $ shifting to China/India, suggest link to BB Beyond Carbon

10:00 **Power Sector**

- Achieving 100%
- Replacing Coal with Natural Gas?

Bill – gas conversation
E&P – how translates to power and built env't, and transport
Observation – changing situation
10 producing states
Directionally drilling can extract 10,000 to 15, 000 feet from drill head
Long supply chain, long-term trajectory of low prices – view of good/affordable power
Observe desire – utility – affordability, reliability, sustainability
W – coal out, no net new E – coal out, 75% replaced by gas

Corollary – no benefit over coal when look at chain/leakage rate – 2.3%, if over 3%, lose climate benefit through methane
CO – what Co dd. CO has existing set of rules upstream/midstream – step forward at time. This year o/g reform – more to local gov't, o/g commission authority to say no, move to continuous emissions monitoring (tech issues), moving closer to zero methane emission. 20% of sites are 80% emissions
NM – two producing basins -- NW/gas – worry about leaks. Permian – oil production booming, 400% increase, apps to permit up from 400/yr to 1800. Traffic, produced water. Gas is incidental – flaring and venting. See handle through prevention of waste. Gov EO says look to methane from O/G first. Stakeholder process this summer, public meetings end-July/early-Aug – look to tech/reg solutions. Have to work with industry because very important to state.
Sandra – collab to avoid duplicative/conflicting regs. Looking GHG, VOCs, smog – non-attainment—get right. Expect Sarah to go first, then to EIB. Talking with industry. Develop options paper, watch timing of rulemaking with respect to election
Watch overlapping fed authorities
Bill – fed/ EPA NSR, DOI/methane rules – not enforced
Ben – politics – Gov banned fracking, gas not bridge fuel but gangplank – should not be leaky or long bridge
Bill – can't do w/o gas – if limit, has transition benefits – worry about lack of focus in E&P states. Not close to elimination
Katleen F – NGOs – enviros making life impossible, labor partner difficult – impossible road to navigate
Sarah – ref PNM filing on new gas – finance over shorter period of time
Bill – watch overbuild of pipeline infrastructure
Mary – consider expand conversation if need to get to zero net carbon – this can't be exempt/industry must do its share - - RNG, capture, gas to power – no place where these discussions being discussed. Suggest joint conversation about proactive policies
Kate G – also useful labor conversation – carbon management
Katie T – NGOs beat up – expect compressor station battle, for example, use planning work to show where bridge ends and what do with infrastructure
Reed – wrenching issue, dealing with ind gas proposals – clear divide ind/NGO – watch how language complicates conversation. Maybe align on where must be in 2050. IF all infrastructure in place today operates, we have 1.5 problems. Need to facilitate tough conversation
Dale: moratorium, mantra – orderly transition, note – states not dictating pipeline outcomes. Socializing transition to gas is legislated, so can't direct commission otherwise. Clean energy jobs beat pipeline jobs
David: note bills on consumption/RNG – clear examples of NGOs not wanting to engage – need help on bridge/when it ends . Need robust NGO response before lock in infrastructure
Katie D – gas keeps prices down while building more expensive RE. Solution is RE integration/ note batteries. Value will be capacity, industrial uses that must use gas
Peter – get grumble about NGO – will not stop because easy issue – weak record of closing things early. Need clear end to bridge. Need to prove case of what next/end-state

Bill – helps to force the conversation upstream
Jacob – when look to end-goal, consider RNG for industrial where no alt, get rid of it in other sectors
Bill – utilities in favor of eliminating gas for res thermal, ref NetPower
Mary – need technology, it is expensive, need standard to force discussion
Will – just completed RNG potential study – will be relatively small supply 25% of diesel. Need to consider investments in dist system
Kate G: need to move away from jobs argument – construction short term – watch for disingenuous argument that hurts
Janet – EO on heating – don't have the vision for transition, where are most exciting things
Hannah – heat pumps work even in cold, transition from oil heating
Peter – replacement when something breaks is not oppty for customers to learn

11:00 **Net Zero Buildings**

- Standard Setting, Disclosure, and Mandatory Retrofits
- Electrification Instead of Gas Heating and Cooling

In play
Market mobilization
Mandatory retrofit
Zero net code

Mandatory retrofits
Cite bill, also bldg. standards – technology agnostic, cost effective analysis w/ social cost of carbon embedded –got labor support/bldg. trades
Note NY action

12:00pm **Working Lunch: Industrial Sources, Oil & Gas Methane, HFCs, Land Use**

Moving industrial sources away from fossil fuels and onto clean energy sources poses a set of challenges similar to those associated with buildings in terms of efficiency, retrofits and electrification. In addition, some states face the issue of a rapidly expanding oil & gas sector and associated methane emissions. Several states are early movers on HFC's: what are the lessons for other states?
We will break up into 3-4 groups over lunch for a discussion on the model tools, policies and incentives states can use to make progress in these sectors?

Carbon Pricing
- Recent actions – two models – economy wide/tied to state goals, single sector, goal less aggressive than overall state cap
- West states – same place now, carefully looking to market-based mechanism – need to build infrastructure for that gradually – desire for regional conversation

- Lessons from OR lessons: regulated entity may not be the biggest issue
- CA phased in coverage to trade-effected industries

HFCs
- Need for fast action
- Reason to act – potency, bang for buck, prevent down-the-world worse
- EPA pretty good rule/stopped by fed court – CA moved, WA by leg
- Probably not very hard because no organized opposition/some support
- Data all in federal docket
- Note: key priority for US Climate Alliance – is gathering info on short-term commitments
- Vt just moved on this
- MD announced at GCAS – beginning to meet with stakeholders

Land-based storage/resilience
- Discussed offsets – challenges, need to positively value
- Credit trading systems
- Look to verification – Alberta
- State work
    - Look to sage grouse in NV – market based mechanism
    - Dairy VT
    - LCFS – CCS
    - HI – sequestration
    - Working lands
- Wildfire mgt – value avoided emissions/avoided risk
- Consider how to engage on insurance
- Climate Alliance – work group on this topic
- Can conversation USDA hosted under Obama admin be restarted
- Michael – is their option to engage rural constituencies otherwise difficult
- Kate – avoid conversion of farmland to sprawling development

1:30 **Carbon pricing strategies**
- Tough sledding in WA, OR, VA
- Opportunities to expand existing programs (RGGI, TCI, WCI, EU, China) and enhance collaboration between programs
- Carbon tax

2:00 **Collaborative Opportunities**
- Group actions by leadership states on policy and market creation
- Outreach / support for opportunity states
- Setting the Policy Stage for Federal Action in 2021/Preparing for the Worst
- Participation in upcoming COPs in Santiago and London

2020 State leg Props (also follow up to 2019 outcomes)

Katie T –

- hope for no more RPS leg
- revenue raiser for resiliency investments
- Transportation network emissions counting
- In right place on GHG – implementing past leg
- H/S will do carbon tax again
- Expect roadmap to 2050 to specify net zero – already on that path
- Update global warming authority

Will

- ZEV
- LCFS eval
- Methane rule
- HFCs
- Bigger things wait on 80 by 2050/50 by 2030 – teed up for following year
- Teeing up beneficial electrification bill – welcome advice
- Commercial bldg. standards
- Intrigued by bldg. space
- How to move social cost of carbon to gas side
- Western state conversation on carbon market
- Codes traditionally local – bill required adoption of 2003 code, rolling req for recent code

Reed

- ZEV
- Regulation TNC to accelerate electrification
- Land-use planning
- Net zero codes for new construction – residential
  - Looking for advice on stretch codes == reckon w/ BOMA response
- Roll back incentives for new gas infrastructure
- Chris – look to ACEEE/ASAP on app std/ref USCA—more states/more market pull – don’t need all – get 12

Mary

- Natural and working lands – make them more resilient and capable of storing carbon—longer-term management oriented approach – Look at bill pending in MA
- Longer-term auth on financial incentives – light and heavy duty
- Regularize/lay out vision for charging infrastructure buildout
- Budget called for carbon neutrality roadmap
- Expect something (?what?) on natural gas
- Social cost of carbon – not sure will be legislated

Peter

- Interest in building.
- Eff VT – collecting too much $ for wrong things – use differently
- If TCI, will go to leg
- Comm'l bldg. std
- Net zero'=
- Appliance standard

David

- App standard at top of list
- Interest in TNC
- LEV/ZEV – moving ahead of next session
- EV – fleet, built env't. address funding question – leg needs $
- Code – like the rolling mandate idea, address solar fairness, builders will be back, guard against attempt to weaken ICC
- Moving beyond power to other sectors
- Deal w/ gas – push conversation at utility purchase level
- Political context
  - No leg session next year give runway
  - Need because starting from standstill
  - NV bright blue right now not deep blue over long term – leg need support

Janet

- Assembly very conservative leadership – don't care about env't
- If care, put it in the budget
- Priority – sustainable funding stream
- State court against oil/gas
- Solar siting bill failed – losing forests to solar
- Carbon pricing study out in RFP now – asked them to take closer at Transport, link to other studies in process
- TCI – unsure if ready for prime team
- Lots of good stuff on list
- IF fed moves on infrastructure, would we be ready?
- Biz community more effective than env'l – need jobs/eco devo

Sandra

- Methane
- LEV/ZEV
- Will take HFC to Kinney – Sandra worries bandwidth
- Need to build agency capacity – will look to fees (leg and reg venues – reg easier than leg)
- Climate task force – building on reports coming from agencies soon

- Short budget session – solar tax credit bill, maybe EV credit
- Know will be asked to put comm solar on as – not sure what will do
- w/ oil/gas boom, one-time needs – maybe state parks and
- Zach – navigating tension between utilities and 3rd party – NEM, interconnect coming. See link to storage]
- Michael – NY moving on CCA – Mary/Kate – say be very careful
- VT – stopped program altogether
- Will – any net carbon decrease

HI

- Community solar and microgrids – resiliency
- Leg – budget adjustments
- Election year half Senate and all of House
- Coming up on goal year for GHG below 1990 – trending to success, suggest lower goal
- Accelerating toward what next
- Review USCA needs – time for discussion of new goal

OR

- Another run at cap/trade
- EVs – commissions to dealers
- HFCs
- TNC
- Parking lot reqs

Ben

GHG and clean and RE standard (incorp current RE standard – nuclear, CCS, storage, CHP, hydro) – 100% clean electricity

Hogan to release 200-page plan on how to get to GHG goals

Hannah ==

- Passed
    - 45% GHG reduction
    - 80% RPS by 2030
    - Will launch climate council this fall

Kathleen

- Have less structure session
- Hope for EV charging infrastructure bill – have authority but helps build coalition
- Now spending lots of time on implementation
- Broadly interested in electrification and buildings
- Efficiency master plan
- Offshore wind
- PJM regulation – consumer impacts

- Expect climate resilience EO and report on economic impact on climate change – investments and inactions

KatieD

- Testifying at FERC – direction is not helpful
- Dereg market keeps producing more gas plants, but pipeline issues – low-cost RE cannibalize nuke fleet – link to GHG plans on what happens to nuclear units – means less room for off shore

Engaging Other States

- NGA – w/ MD Gov Hogan – Transportation infrastructure

Multi-State Collaboration

- US Climate Alliance
- TCI
- 2020 draft state reg on vehicle standards
- REV-West
- RGGO
- Setting goals
- PJM regulation and ISO NE – focused on solving winter reliability
- Regional mechanism to compensate nuclear plants in New England
- Looking to new model for RA - increases relevance of IRP
- EV – utility revenue where possible, for heat pumps – do through reg
- Storage procurement – target
- Appliance standards
- TCI
- Efficiency procurement

Federal Action

- Engage NGOs to prepare federal transportation model
- Katie D – drive land use solutions for USDA -- concern are we shovel ready 2021

States working with cities

- UT – require RMP to work with cities with 100% procurement – Community RE Act
- RMI working with NM – state convening cities to align --
- Heinrich lead
- Michael – note PCC model

Michael
Will share notes on highlights
What is plan, vision for transport, strategy on gas
Note capacity issue
Not trying to confound/duplicate USCA or other things in place

USCA meeting Sep9 – Lake Tahoe/NV

3:30 **Next Steps**

4:00 **Adjourn and Optional Tour of the Rockefeller Estate for anyone who can delay their departure to 5:30.**

From: Cummins,Patrick on behalf of Cummins,Patrick < >
Sent: Tuesday, August 06, 2019 9:34 AM EDT
To: Michael Northrop
Subject: Pocantico Notes
Attachment(s): "Re Notes Highlights.msg","Re Notes Highlights.msg","Notes from Pocantico meeting -- attached.msg","Pocantico States Meeting A Big Thank You and some very Summary Notes.msg"

Michael – I gathered notes from Jacob and Carla (attached), adding to what you sent and what we got from Katie. I have not had time to sift through all this info and attempt a more detailed summary of the meeting. It's a bit of a daunting task with such a wide-ranging discussion, but I will put some time in on that over the next week and see what I can come up with. PC

From: Katie McCormack >
Sent: Thursday, July 18, 2019 11:24 PM EDT
To: Michael Northrop ; Cummins,Patrick
Subject: Notes from Pocantico meeting -- attached
Attachment(s): "RBF CNEE climate policy notes Jul 17 18.docx"

Michael and Patrick - -

Thank you very much for a meeting loaded with great conversation, and for including me in the meeting.

I hope that you will not regret our conversation about my notes. They are pretty detailed and long, but I hope comprehensible, and maybe will spark memories about interesting things people said and noted for follow-up.

Wishing you both a wonderful weekend (even if a bit ahead of time),

Katie

Wednesday, July 17

7:00 Dinner and Introductions

Power going well/ need progress on transport/buildings
Where are some of the newer states gong?
Speak about new states: NJ, NM, CO
States really working it: WA and OR
NY – big announcement tomorrow
Recognize over-packed agenda – please put topics on the agenda

Thank you to CNEE, Georgetown, RMI

Intro – what really excited about?
Ritter: idea – meet post leg session/when hardest part is over, invited 15 states/all here, hope to see connection from this meeting to a good idea. Can state action create net effect w DC – no better place to work right now
Cummins: W states on air quality and climate – like regional convenings
Frisch/RMI: America's Pledge – answer to what it all adds up to
Corvidae: concept – applied hope, fantastic example
Krueger: Arroyo in Germany for ultimate frisbee team, Work w/ TCI states
Grumbles/MD – support 100% clean by 2040, w/ clean/RE policy, in context of RPS veto
Nichols/CA – ref Gina Mc, hoping for good things from conspiring
Toor/CO – climate goals adopted by leg, cabinet working together really well
Bobzien/NV – real job on climate/energy policy, real oppty: relatively small state and working group on all things climate, working to ID comms to Gov on how to do all needed
Bryk/NY – sign leg to decarbonize announce tomorrow, link to fed prospects states set table, already ID good ideas
Campbell/RBF – hear dynamics – important and promising
Ely/NM – ref Richardson, come back out of retirement w/ MLG
/VT – seen as cute puppy, note emissions going up, R Gov interested in making changes, and interest in collaboration—TCI beyond, buildings
Davis/WA – great invite list, excited about different kinds of policies, seeing enthusiasm, excited about political
/MA – conversations with counterparts, R Gov – defined climate change as term 2 priority
, lots of pieces, incl TCI, raising rev for adaptation
Schuler/WA – happy to have R Govs, inspired by so many states – old/new Govs – great outcomes, and states say not yet done. Highlight: HFC phasedown modeled after fed actions, see almost perfect substitute for fed gov't
Pierce/CO – ref carbon bill, note suite of bills to meet carbon bill targets, note office of just transition
Burke/RBF – believe in states as driving force
Coit/RI – RI first female Gov, excited about Gov conversations on TCI, urban forestry project

/HI – PUC comm since May, previously in Ige admin on env't policy, and HEC, passed enviro and carbon—want to make sure it all works together
Propst/NM – agency roles, ETA - -uniquely NM bill – solved for everyone issues, task – change from o/g to clean energy economy
Crowell/NV – Bobzien/he are env't in NV, lots of education to do, ironically R Gov maybe better aligned than D, 3-5 years form out coal, transition to clean, positioned to move look to Gov Ritter
Steer/WRI – inspiration – all of you, thank you for leadership and influence global gov'ts
Frangione/NJ – Gov in 2018, a bit ahead of others, oversee policy team and POC to cabinet, matters she is assigned that role, permits broader view of climate/energy – community solar addressing wealth disparities, offshore wind
Gordon/CA – offshore wind/Navy issue, so much is happening/many goals – commitment to move to action, integrate climate through other issues, permeation to every policy area
Blosser/OR – any normal year would have been blockbuster, abandoned single family zoning, thwarted temporarily

8:30 Hayloft conversation on the international climate negotiation; and on how states are successfully setting and implementing science-based targets.

Dr. Andrew Steer, President and CEO, World Resources Institute --
Michael – push group forward with a little bit of humor and lots of smarts
In biz of silver lining – you are it
Impact bigger because we have Trump in WH
Note UK action – 2030 net zero to prove they are player
Everyone asking what US really doing
China visit to really learn how serious US is
2 experts -- 1 says great progress – RE, markets. 2 say going off cliff – 1940 in bunkers -- Q: who right? Both are totally right
Dog chasing accelerating van, needs to get on scooter
IPCC 1.5 blessing – says incremental not enough – need progress in all direction – global discussion – address path dependency, inertia, vested interest – Trump understands this
Ref new climate economy/Calderon – only jobs/growth if address climate change, need to capture this
Ref Modi – make India great again, biggest solar increase in history – get disruptive change and future of economy
Like announce of decarbonize by 2050
Global needs – political way of explaining things
Figueres on cut in half over each of several upcoming decade
Need to be on path to 1.5 degrees
2020 is super year – by end, need to ramp up level of ambition – make or break on Paris deal if don't get rise in ambition
US contribution –pledge and review – individual pledges will not get there
Plans for global meetings – Italy/youth, Brits – convene
Look to Sept summit

Improve NDCs and need long term strategy to 2050 by 2020
States will be highlight of US offer
Countries showing up w/ carbon neutral commitments
2050 matters, have to half by 2030
Better is not enough/have to lead
Changes in which countries show up to lead
China can peak 2025, not 2030
EU recent meeting – could not get to shared carbon neutral – might do one by one
Job/growth in low carbon economy
Note: Climate summit/September
Concluding thoughts

- Contribute to new global governance
- No longer gov't to gov't – new multi-state, w/ local and corporates
- Project/climate federalism – note lack of state to fed connection – big issue for Sept summit
- Need narrative that links economy to what trying to do
- Need compelling story about what economy will look like
- Grades for sectors – need revolutions
- This group gets it
- What should NDC be? Denomination is from today – halve carbon by 2030, GHG 2050
    - Consider shadow group to prepare for that
    - Brits want COP post-election – want success
    - Ex; Brit de-politicized expert group
    - Look to best analysis in US
    - Kate – need to consider shadow – what if does not happen – what if states separate from official reps?
    - Don't over-estimate rigidity of UN process
    - Role for negotiators but see role for private sector – don't be shy

Kathleen Frangione, Chief Policy Advisor to Governor Phil Murphy

- Science based target reflection, what NJ needs to do
- Murphy run – sought LCV endorsement – ask = 80% clean/2050 – he said do more
- 100% not notable anymore – fast shift – dialogue moves quickly
- Had foundation of strong statute
- Consider interim targets
- Note absence of state-level data
- Bill on Gov desk for more concrete goalposts – inventory, reporting, interim targets
- Consider metric-driven approaches

- Will meet RE goal/nothing else holding to account
- Working w/ RMI on energy master plan – how to get on path now
- Interim targets help understand how to get there
- Separate plans – trying to align them
- Line of sight to 2030, the
- How get leg to pay attention to plan?
  - Strong enviro plan
  - Outside power sector is harder

- Crowell – need to understand upfront investment/action to get to other sector goals. CA market drive helps
  - How change dialogue to put something behind ambition
- Dale – have this issue
  - Marker bills that never moved, but happening now
  - Some without "thought thing" – need to figure out how to deliver on the leg
  - Help each other – tech/econ analysis, policy – power, bldg., transport
  - How extrapolate to regular people
  - Tell success stories
  - Do together so all moving on policies
- Nancy – takes one/more admin agency to do implementation – right regs/figure backstop. Can't do with just a few people
  - Predictable leg adds for $/staff
  - Land use/transportation is a different world – need to engage other agencies
- Bobzien – defend leg – when comes to power sector, look to politics – relatively easy political landscape, as long as utility makes $. Harder w/ transport, land use. OR – can plan at state level. What oppty to link local gov't w/ leg who want to the right thing. The don't have same change capacity as NV Energy. Tough stuff comes later. Transport about VMT – people still in cars.
- VT – call out NGO partners, history set target w/o meeting.All work in electric sector/none focused elsewhere. Need message on need to do more Need message on why what already doing does not get there. NGOs help leg leaders think beyond the easy stuff. NGO invited to suggest ideas – none forthcoming. Address capacity in, but also beyond govt
- Davis/ WA to Mary: Could CARB do w/o AB32 targets? Look harder at agency authorities. Need leg delegation to agencies. Mary – array of workshops/provided basis to fight back. ID villains/blocks in advance. Offer to share playbook

- MA – sued by CLF re: statutory limits, complicated in context of regional market. What counts. Education component for NGOs. Need tighter regional collab conversation and NGO education
- NJ – NGOs not advocates of regional – pressure to consider power emission caps
- VT – look to NY on NOx, Sox to bring equity communities around
- Bryk – work on this, pay attention to transport emissions. Carbon price driven by variety of reasons. Consider do same thing in region to send clear market signals. Work on gas, DR, workforce training for heat pumps. Use timeline for threat of customer connection
- Mary – Transport is #1 source emissions
- NJ – how to move to harder sectors
- Kate: consider place-based investments in infrastructure. Can't forget climate resilience. Land use, fire, flooding are big deal
- Crowell – wildfires wipe out gains --
- Joe/RMI– bldg./transport matter and hep resilience and equity – oppty for high ambition space
- Bill R: set up for tomorrow. Gas issue matters for biz case

Placeholder on role in int'l discussions – for fed and int'l, what does it look like to step up state role – consider Climate Week, COP
Mary: consider bringing leg to int'l meetings

Thursday, July 18

7:00 am **Breakfast buffet available in Coach Barn**

8:00 **Agenda Review and Meeting Objectives, Governor Bill Ritter, CNEE**

- Time meting for post leg session
- Target outcomes – from high anxiety to high ambition
- People working in serious way
- Consider leg session 2020
- Framing
  - 2020 state leg
  - Engaging other states
  - Multi-state collaboration
  - Federal Action
  - International Action

8:15 **Summary Review of High Ambition Policies.** Please review the two documents provided in advance. Please share your questions and suggestions for additions. These are intended to be resources you and others can use to further policy goals in your states.

Steps
Decarbonize power – note changing gas/RE markets

Move away from direct fossil fuel end use – building elec/transport
Land use – natural and working lands – resilience
Document helpful – needs a few corrections
Kate: CCS for ind end-uses – link to plastic recycling?
Blosser – ran into trouble with industry (different in different states) and people w/ very good lobbyists. Transportation – need to separate segments – issues with freight. Notes issues w/ funding gap. Looking at kW-hr fee for user fee equivalency. Bobzien: Need to address infrastructure. Mary: gas tax is not solution – it does not work either. EV policy can be oppty. Note RAP paper
Managing EITE industry –
Will – partial carve-out (Sen Pres), looking oil/gas
Hannah– carve out for industrial – timber/pulp
NIk – timber owned by int'l players. If at 95% best avail tech, separate treatment – created process/period of uncertainty. Mills in swing districts
Mary – year+ process calmed some people down, left says should have been tougher.
Mantra – program is about cap, not trade, but industry cares about this. Need to consider value in getting started vs compromise/locking in lower bar

9:00 **Meeting the Challenges Posed by the Transportation Sector**

- Update on federal vehicle standards and states' response
  - How can states work together to establish ambitious federal and state emission standards for new cars and trucks?
- Status of Transportation and Climate Initiative
  - What can other states learn from this effort?
- Discussion of other strategies to address CO2 emissions from transportation (e.g., incentives for EV purchases and charging infrastructure, Low-Carbon Fuel Standards.)

More difficult than power, in part because of fed gov't role
To Mary: frame for going forward

- Recent CA action guided by good work at UC/Davis – ref: 3 revolutions (shared, autonomous, electric) – demand for mobility unlimited, but need to address or things will get worse. Helpful framing for policymakers
- Consider incentives and mandates
- Tech can be friend or problem
- VMT debates feel tired – solutions have not worked well. Transit – invest more/get less. Lots of leadership coming from cities
- Half land mass rural, lots of suburbs built around autos/failure of that model, concentrated urban
- Rapidly beginning to develop policy/tools for EVs/passenger sector
- Freight issues are huge – need to consider/invest in infrastructure
- Suggest consider climate infrastructure

Bill – states following CA – waiver, EV, LCFS – States follow CA – is this still a good idea

M: authority comes from CAA, all waivers have been litigated. Now have capacity equal to fed gov't. CA acts and fed moves to fill in behind. Important role to play. Helps to have other states defend 177 authority. Passionate about path to more EVs – only works if joined by other states
Thinking to alter reg structure?
Don't see shift in CAFÉ – not national program, 2 regs, not working well. CAFÉ outlived original purpose. Should go away, but may in effect. Look to climate reg as substitute
Use CAA, better understanding of what is happening on other 177 states – working on this, could be more effective

Will: Room for collab on next-gen standards?
Mary – consumed by defense, but quiet work on paper – target is action Sep2020 – would need fed waiver, involves changes in how certify vehicles. Make about software not equipment
Brad – working on where get emission gains, not seeing in light-duty, interested in heavy-duty and fleet, esp interstate comm'l vehicles which need separate infrastructure.
Katie D: using VW on trucks, analysis of power draw is high, look to offshore wind penetration and curtail/spill, battery not enough for several hours – how much wind/storage – maybe hydrogen production linked to heavy duty
Dale: analysis of RNG – use in heavy duty – possibly air/other. Need to design for uncertainty, while paying attention to compliance obligations
Nik: looking at battery disposal? Yes, but first thing is making them more efficient, longer lasting, then move to stationary.
Hydrogen? Mary carve out and looking to 100 chg stations. Note: Shell view of hydrogen biz case helps – links to
Bill: talk to fleets – automation/EV – happening at UPS, FedEx, Amazon. Electric truck advantage on maintenance – dealing with chg infrastructure for fleet of trucks w/ 1MW batteries
David B – bill relax weight std. see moving this from Gigafactory to Tesla/Fremont w/in year
Mary: Elon hates hydrogen
Kate – look to hydrogen/can repurpose gas/charging. Consider whether need to choose one/other
Ben: Hogan chr NGA – committed to climate leadership – infrastructure will be top priority. Encourage people to build onto this for transport resilience/EV infrastructure.
MD EV infrastructure council push to consider H, shift to zero emission council
Zach – looking to conversation about REV-West expansion
Sarah/Sandra – NM in re-evaluate mode. Looking to LEV/ZEV – watching status of waiver. Mary – CAA/177 – some in Trump admin have made getting rid of this a crusade (DOT/Justice). See move to GHG frame is a hook. Frustrating when industry not initially prepared to defend CA authority. Trump admin made a change – increasing fear of uncertainty more than of status quo. Part of this is looking post-2025. Status – NPRM has not gone to OMB – hearing delay till September/Fall. Expect 60-90 days at OMB. Will depend on strength of case. Now talking with several companies about what could be done to save national program. Waiting has been good strategy so far/nothing bad has happened. Lawyers see more than trivial chance that GHG standard would not

prevail if went to SC. Timeframe for CA plan? Next week. If CA acts, will there by stay?/ given expectation that will influence other state plans. M: will ask for time to review. Bill – very likely fed judge will stay enforcement. Industry says will continue to comply until word arrives

TCI
Katie – focus on NE – market based system using RGGI experience. Last 5 years – multiple statements of some states (different states). Conversation among 12 states remains solid. Ref: Georgetown support /analytic work. Addressing stakeholders: rural, urban, equity. Held state and regional workshops. Offer principles: cost effective carbon mitigation, equity. Jan kick-off process, target model rule in December, then do homework on authority
Cap on emission, permits – move along cap/invest
How measure? Easiest at prime supplier, people who move transport fuels across state lines.
Chris Davis: how working on authority to cap? Different among states. Dealing with directed funds to transportation
Katie D – use best to move interstate – Develop template, enact at state level – dealing with critical mass questions
Zach – how many states now have authority – few
Rural feedback? Positive on mobility, less on gas price increase, transit options. More positive: on-demand van pools, maybe autonomous. Peter: encourage consideration in terms of look to future
Ben – Gov's commit to design program for on-road transportation – avoid ICC, label as highway tax. States need flexibility, autonomy, sovereignty to decide on use of revenues
Katie -- frequent meetings – Georgetown funded
Working groups – leadership team, exec policy, investment and equity, comms, legal, technical – expect to see/consider modeling results in August, then vet proposal. Keep Gov's in loop for upcoming/critical Sep/Oct/Nov deadlines
Schuler – WA working on LCFS, problem is not revenue generator. What is OR/CA experience and how relate to TCI.? Joe – will be like RGGI –
Katie – need to ensure revenues drive incremental carbon benefits
Hannah – funds occur n 2023 – Katie – strategy – bond against it
Patrick – timing of leg – 2021, but expect conversation to start 2020
Katie D – see engagement and momentum
Dale – price is not the driver of the change – small impact early, but will drive opposition, consider complementary policies that are driving reductions. Need to win comms battle – leading message on benefits/not cap
Joe – power sector supportive – makes a difference
Mary – how much does this fund transformation to EV? Yes. Dale – do still need complementary
Katie D – pay attention to utility EV revenues – keep difference between benefits and integration costs positive
Keep prices low at outset, then decline cap – will not be on its own consistent with state carbon goal

Janet – emphasize bipartisan climate leadership on highly ambitious idea. Focus on benefits – health, infrastructure, recognize role of politically influential govs
What are states doing
KatieD – TCI, increased revs form electricity to work on clean
Sarah – utility EV planning, hope Gov will include tax incentive LEV/ZEV – bandwidth issues w/ methane. Expect another EO. Looking to REV-West
Kate G: VMT issue is a big one – even if 10X EV, still need VMT. Housing near transit/jobs/services – link to eco devo and urban dev, climate risk – fires create conversation on land use/high-risk issues, looking to supply side, $ in budget for roadmap to carbon neutral by 2045
KathleenF: make sure not just DEP, engage DOT. Will work on multi-agency integrated function. Looking to rebates, attention to transit -- reliability, slower on carbon
Zach: transport funding challenge, ozone non-attainment, utility EV invest, state tax credit, VW repurpose to clean transport. -- next: look LCFS
Hannah/ME—not pent-up demand. TCI top priority, consider rebates extreme range anxiety
Ben – congestion in metro DC
Nik – carbon pricing, congestion pricing, transportation funding
HI – report assess options, look at VW funding, considering invest in fleet/tour. Leg granted public service charge eval opptys, incl credit, need to get to implementation/not study
Brad: transport greatest emission share, want ideas looking to 2020, owe report to policymakers on options at year-end, EO on climate goals, incl transportation elements. Look to CO for lessons – Will/do LEV/ZEV together, great strides on electric highway
Dale – TCI, LCFS, address pollution in overburdened neighborhoods.
Sandra – thinking LEV/ZEV, VW for infrastructure, fleet and EV infrastructure, need to work with tribal partner
Janet – TCI is major focus, VW settlement for dies
David B – NYT article – electric highway, consider REV-West refresh – priority that it goes, VMT study
Peter – TCI priority – conversation valuable even if don't get all the way there, incentive, alert to gas price impact, gov leadership helps with slow mover, encourage Govs to meet in person
Mary: move 80% of utility LCFS into incentives. Biggest obstacle is dealers and this addresses that gap – money on the hood
Katie T – outside TCI, DEP program on infrastructure, phasing out program, then will bring it back. Leg to get uber/lyft emissions data – address those fleets, esp since congestion contributor, VW for electric buses, 80 by 50 on transport and buildings
Will – ZEV rulemaking August – share info n complication when opting later in program – higher reqs in later years, LCFS stakeholder/assessment in Sept/fast time frame. Utility require to submit plans – want them to think big -- $100Ms, not $10Ms. Stakeholder process on sharing/autonomous vehicles/anticipate fees on TNCs - -look to this as model for autonomous vehicles (storyline: what if cheaper for autonomous vehicle to circle sport arena than park). Also looking to SB375 analog.
Reid: likely try again on LCFS/though calculus may not have shifted. Create understanding that, when ready to move, LCFS must be in package. Tortured history

led to poison bill. Looking to pass ZEV standard – argue need even if moving w/o – get ahead of post-2025 adoption. How to accelerate shared, C/T proposal – not clear how serious it will be – would come from transport after clean. Clean bill includes space for action. Chris on regional – PCC – infrastructure and W coast fleets – make demand-side pull visible. Highway – push for standardization of infrastructure. 5 progress

Michael – foundations/NGOs absent, NGO oppty
Katie D – what helps – what links to other states
Bobzien – agree on fed connection, interest in REV-West – ref every 50 miles is tough, what are building blocks
Will – second comment – NGOs absent in some conversations – ex LCFS, transit/land use – helps to create political momentum
Peter – need help exciting customers
Sarah – see relationship EVs to solar power
Brad – not just policies/technologies but stable funding mechanisms
Janet – enviro comm not helping w/ TCI – citing need global warming solutions at
Hannah – need comms strategy/resources
Bill – point well taken
Sarah – NGOs have hard time pivoting from enemy admin to friendly admin
Bill – utility feels that even more, pivot may require change in strategy
Mary – big nationals/regionals running out of steam, some exceptions—note Fresh Energy – how take this model to other places. Funding to EJ in not very thoughtful way – tendency to fund any group that comes along – ID leadership that is diverse and understands the more difficult tradeoffs – may deserve separate conversation
Michael – note activity we see at city level
Kate G – land use challenge – cities control and are fighting/new housing – not considered climate agenda
Zach – NGO/EJ – challenge is NGO relationship w/ labor - build connective in more enduring ways
Katie D – 40% of workforce in state gov't in 2022. If states are where happening, connect students to state agency jobs – several nods
Peter – lots of activity at cities, but still beholden to states (who are beholden to fed)
Bill – EF board – note $ shifting to China/India, suggest link to BB Beyond Carbon

10:00 **Power Sector**

- Achieving 100%
- Replacing Coal with Natural Gas?

Bill – gas conversation
E&P – how translates to power and built env't, and transport
Observation – changing situation
10 producing states
Directionally drilling can extract 10,000 to 15, 000 feet from drill head
Long supply chain, long-term trajectory of low prices – view of good/affordable power
Observe desire – utility – affordability, reliability, sustainability
W – coal out, no net new E – coal out, 75% replaced by gas

Corollary – no benefit over coal when look at chain/leakage rate – 2.3%, if over 3%, lose climate benefit through methane
CO – what Co dd. CO has existing set of rules upstream/midstream – step forward at time. This year o/g reform – more to local gov't, o/g commission authority to say no, move to continuous emissions monitoring (tech issues), moving closer to zero methane emission. 20% of sites are 80% emissions
NM – two producing basins -- NW/gas – worry about leaks. Permian – oil production booming, 400% increase, apps to permit up from 400/yr to 1800. Traffic, produced water. Gas is incidental – flaring and venting. See handle through prevention of waste. Gov EO says look to methane from O/G first. Stakeholder process this summer, public meetings end-July/early-Aug – look to tech/reg solutions. Have to work with industry because very important to state.
Sandra – collab to avoid duplicative/conflicting regs. Looking GHG, VOCs, smog – non-attainment—get right. Expect Sarah to go first, then to EIB. Talking with industry. Develop options paper, watch timing of rulemaking with respect to election
Watch overlapping fed authorities
Bill – fed/ EPA NSR, DOI/methane rules – not enforced
Ben – politics – Gov banned fracking, gas not bridge fuel but gangplank – should not be leaky or long bridge
Bill – can't do w/o gas – if limit, has transition benefits – worry about lack of focus in E&P states. Not close to elimination
Katleen F – NGOs – enviros making life impossible, labor partner difficult – impossible road to navigate
Sarah – ref PNM filing on new gas – finance over shorter period of time
Bill – watch overbuild of pipeline infrastructure
Mary – consider expand conversation if need to get to zero net carbon – this can't be exempt/industry must do its share - - RNG, capture, gas to power – no place where these discussions being discussed. Suggest joint conversation about proactive policies
Kate G – also useful labor conversation – carbon management
Katie T – NGOs beat up – expect compressor station battle, for example, use planning work to show where bridge ends and what do with infrastructure
Reed – wrenching issue, dealing with ind gas proposals – clear divide ind/NGO – watch how language complicates conversation. Maybe align on where must be in 2050. IF all infrastructure in place today operates, we have 1.5 problems. Need to facilitate tough conversation
Dale: moratorium, mantra – orderly transition, note – states not dictating pipeline outcomes. Socializing transition to gas is legislated, so can't direct commission otherwise. Clean energy jobs beat pipeline jobs
David: note bills on consumption/RNG – clear examples of NGOs not wanting to engage – need help on bridge/when it ends . Need robust NGO response before lock in infrastructure
Katie D – gas keeps prices down while building more expensive RE. Solution is RE integration/ note batteries. Value will be capacity, industrial uses that must use gas
Peter – get grumble about NGO – will not stop because easy issue – weak record of closing things early. Need clear end to bridge. Need to prove case of what next/end-state

Bill – helps to force the conversation upstream
Jacob – when look to end-goal, consider RNG for industrial where no alt, get rid of it in other sectors
Bill – utilities in favor of eliminating gas for res thermal, ref NetPower
Mary – need technology, it is expensive, need standard to force discussion
Will – just completed RNG potential study – will be relatively small supply 25% of diesel. Need to consider investments in dist system
Kate G: need to move away from jobs argument – construction short term – watch for disingenuous argument that hurts
Janet – EO on heating – don't have the vision for transition, where are most exciting things
Hannah – heat pumps work even in cold, transition from oil heating
Peter – replacement when something breaks is not oppty for customers to learn

11:00 **Net Zero Buildings**

- Standard Setting, Disclosure, and Mandatory Retrofits
- Electrification Instead of Gas Heating and Cooling

In play
Market mobilization
Mandatory retrofit
Zero net code

Mandatory retrofits
Cite bill, also bldg. standards – technology agnostic, cost effective analysis w/ social cost of carbon embedded –got labor support/bldg. trades
Note NY action

12:00pm **Working Lunch: Industrial Sources, Oil & Gas Methane, HFCs, Land Use**

Moving industrial sources away from fossil fuels and onto clean energy sources poses a set of challenges similar to those associated with buildings in terms of efficiency, retrofits and electrification. In addition, some states face the issue of a rapidly expanding oil & gas sector and associated methane emissions. Several states are early movers on HFC's: what are the lessons for other states?
We will break up into 3-4 groups over lunch for a discussion on the model tools, policies and incentives states can use to make progress in these sectors?

Carbon Pricing
- Recent actions – two models – economy wide/tied to state goals, single sector, goal less aggressive than overall state cap
- West states – same place now, carefully looking to market-based mechanism – need to build infrastructure for that gradually – desire for regional conversation

- Lessons from OR lessons: regulated entity may not be the biggest issue
- CA phased in coverage to trade-effected industries

HFCs
- Need for fast action
- Reason to act – potency, bang for buck, prevent down-the-world worse
- EPA pretty good rule/stopped by fed court – CA moved, WA by leg
- Probably not very hard because no organized opposition/some support
- Data all in federal docket
- Note: key priority for US Climate Alliance – is gathering info on short-term commitments
- Vt just moved on this
- MD announced at GCAS – beginning to meet with stakeholders

Land-based storage/resilience
- Discussed offsets – challenges, need to positively value
- Credit trading systems
- Look to verification – Alberta
- State work
    - Look to sage grouse in NV – market based mechanism
    - Dairy VT
    - LCFS – CCS
    - HI – sequestration
    - Working lands
- Wildfire mgt – value avoided emissions/avoided risk
- Consider how to engage on insurance
- Climate Alliance – work group on this topic
- Can conversation USDA hosted under Obama admin be restarted
- Michael – is their option to engage rural constituencies otherwise difficult
- Kate – avoid conversion of farmland to sprawling development

1:30 **Carbon pricing strategies**
- Tough sledding in WA, OR, VA
- Opportunities to expand existing programs (RGGI, TCI, WCI, EU, China) and enhance collaboration between programs
- Carbon tax

2:00 **Collaborative Opportunities**
- Group actions by leadership states on policy and market creation
- Outreach / support for opportunity states
- Setting the Policy Stage for Federal Action in 2021/Preparing for the Worst
- Participation in upcoming COPs in Santiago and London

2020 State leg Props (also follow up to 2019 outcomes)

Katie T –

- hope for no more RPS leg
- revenue raiser for resiliency investments
- Transportation network emissions counting
- In right place on GHG – implementing past leg
- H/S will do carbon tax again
- Expect roadmap to 2050 to specify net zero – already on that path
- Update global warming authority

Will

- ZEV
- LCFS eval
- Methane rule
- HFCs
- Bigger things wait on 80 by 2050/50 by 2030 – teed up for following year
- Teeing up beneficial electrification bill – welcome advice
- Commercial bldg. standards
- Intrigued by bldg. space
- How to move social cost of carbon to gas side
- Western state conversation on carbon market
- Codes traditionally local – bill required adoption of 2003 code, rolling req for recent code

Reed

- ZEV
- Regulation TNC to accelerate electrification
- Land-use planning
- Net zero codes for new construction – residential
  - Looking for advice on stretch codes == reckon w/ BOMA response
- Roll back incentives for new gas infrastructure
- Chris – look to ACEEE/ASAP on app std/ref USCA—more states/more market pull – don’t need all – get 12

Mary

- Natural and working lands – make them more resilient and capable of storing carbon—longer-term management oriented approach – Look at bill pending in MA
- Longer-term auth on financial incentives – light and heavy duty
- Regularize/lay out vision for charging infrastructure buildout
- Budget called for carbon neutrality roadmap
- Expect something (?what?) on natural gas
- Social cost of carbon – not sure will be legislated

Peter

- Interest in building.
- Eff VT – collecting too much $ for wrong things – use differently
- If TCI, will go to leg
- Comm'l bldg. std
- Net zero'=
- Appliance standard

David

- App standard at top of list
- Interest in TNC
- LEV/ZEV – moving ahead of next session
- EV – fleet, built env't. address funding question – leg needs $
- Code – like the rolling mandate idea, address solar fairness, builders will be back, guard against attempt to weaken ICC
- Moving beyond power to other sectors
- Deal w/ gas – push conversation at utility purchase level
- Political context
  - No leg session next year give runway
  - Need because starting from standstill
  - NV bright blue right now not deep blue over long term – leg need support

Janet

- Assembly very conservative leadership – don't care about env't
- If care, put it in the budget
- Priority – sustainable funding stream
- State court against oil/gas
- Solar siting bill failed – losing forests to solar
- Carbon pricing study out in RFP now – asked them to take closer at Transport, link to other studies in process
- TCI – unsure if ready for prime team
- Lots of good stuff on list
- IF fed moves on infrastructure, would we be ready?
- Biz community more effective than env'l – need jobs/eco devo

Sandra

- Methane
- LEV/ZEV
- Will take HFC to Kinney – Sandra worries bandwidth
- Need to build agency capacity – will look to fees (leg and reg venues – reg easier than leg)
- Climate task force – building on reports coming from agencies soon

- Short budget session – solar tax credit bill, maybe EV credit
- Know will be asked to put comm solar on as – not sure what will do
- w/ oil/gas boom, one-time needs – maybe state parks and
- Zach – navigating tension between utilities and 3rd party – NEM, interconnect coming. See link to storage]
- Michael – NY moving on CCA – Mary/Kate – say be very careful
- VT – stopped program altogether
- Will – any net carbon decrease

HI

- Community solar and microgrids – resiliency
- Leg – budget adjustments
- Election year half Senate and all of House
- Coming up on goal year for GHG below 1990 – trending to success, suggest lower goal
- Accelerating toward what next
- Review USCA needs – time for discussion of new goal

OR

- Another run at cap/trade
- EVs – commissions to dealers
- HFCs
- TNC
- Parking lot reqs

Ben

GHG and clean and RE standard (incorp current RE standard – nuclear, CCS, storage, CHP, hydro) – 100% clean electricity

Hogan to release 200-page plan on how to get to GHG goals

Hannah ==

- Passed
    - 45% GHG reduction
    - 80% RPS by 2030
    - Will launch climate council this fall

Kathleen

- Have less structure session
- Hope for EV charging infrastructure bill – have authority but helps build coalition
- Now spending lots of time on implementation
- Broadly interested in electrification and buildings
- Efficiency master plan
- Offshore wind
- PJM regulation – consumer impacts

- Expect climate resilience EO and report on economic impact on climate change – investments and inactions

KatieD

- Testifying at FERC – direction is not helpful
- Dereg market keeps producing more gas plants, but pipeline issues – low-cost RE cannibalize nuke fleet – link to GHG plans on what happens to nuclear units – means less room for off shore

Engaging Other States

- NGA – w/ MD Gov Hogan – Transportation infrastructure

Multi-State Collaboration

- US Climate Alliance
- TCI
- 2020 draft state reg on vehicle standards
- REV-West
- RGGO
- Setting goals
- PJM regulation and ISO NE – focused on solving winter reliability
- Regional mechanism to compensate nuclear plants in New England
- Looking to new model for RA - increases relevance of IRP
- EV – utility revenue where possible, for heat pumps – do through reg
- Storage procurement – target
- Appliance standards
- TCI
- Efficiency procurement

Federal Action

- Engage NGOs to prepare federal transportation model
- Katie D – drive land use solutions for USDA -- concern are we shovel ready 2021

States working with cities

- UT – require RMP to work with cities with 100% procurement – Community RE Act
- RMI working with NM – state convening cities to align --
- Heinrich lead
- Michael – note PCC model

Michael
Will share notes on highlights
What is plan, vision for transport, strategy on gas
Note capacity issue
Not trying to confound/duplicate USCA or other things in place

USCA meeting Sep9 – Lake Tahoe/NV

3:30 **Next Steps**

4:00 **Adjourn and Optional Tour of the Rockefeller Estate for anyone who can delay their departure to 5:30.**

From: Carla Frisch
Sent: Thursday, July 25, 2019 5:17 PM EDT
To: Cummins,Patrick >; Jacob Corvidae
Subject: Re: Notes / Highlights
Attachment(s): "Xerox Scan_07222019155622.pdf"

Thanks for including us. It was a great meeting! My handwritten notes are attached; happy to decipher anything here that doesn't make sense.

Best,
Carla

From: Cummins,Patrick
Sent: Thursday, 25 July 2019 5:14 PM
To: Jacob Corvidae Carla Frisch
Subject: Notes / Highlights

Jacob and Carla – I'm heading out for a few days of camping but just a quick note to ask that you send your notes (including photos of flip charts) and thoughts on highlights and key take aways from Pocantico. No great rush, but don't want too much time to pass before pulling something together. Thank you! PC

Patrick Cummins
Senior Policy Advisor
Colorado State University
Center for the New Energy Economy

From: Jacob Corvidae
Sent: Thursday, July 25, 2019 5:36 PM EDT
To: Cummins,Patrick ; Carla Frisch
Subject: Re: Notes / Highlights
Attachment(s): "White-boards-2019-7-18.docx"

Here is the whiteboard material written up. Do you also want pictures (the visuals can be nice if you're putting it into a slide-deck, but otherwise maybe less useful?) Just let me know.

Jacob

From: Cummins,Patrick <
Sent: Thursday, July 25, 2019 3:14 PM
To: Jacob Corvidae ; Carla Frisch
Subject: Notes / Highlights

Jacob and Carla – I'm heading out for a few days of camping but just a quick note to ask that you send your notes (including photos of flip charts) and thoughts on highlights and key take aways from Pocantico. No great rush, but don't want too much time to pass before pulling something together. Thank you! PC

Patrick Cummins
Senior Policy Advisor
Colorado State University
Center for the New Energy Economy

White-boards capture
Pocantico Convening
July 18, 2019
CONFIDENTIAL – for attendee discussion purposes only

Multi-State Collab Opps

- US Climate Alliance
- Transportation & Climate Initiative (TCI)
- 2020 Draft state regulations on vehicle standards
- REV West
- Western state carbon policy collaboration
- Appliance standards?
- IOUs – navigating political challenges (e.g. re: storage, CCAs, etc.)
- RGGI !
- Setting GHG goals – 2030, 2040, 2050
- PJM Regulation + ISO NE
- Regional mechanism to compensate on nuclear fleets in New England

2020 State Legislative / Regulatory Efforts

- Buildings
    - Beneficial electrification – CO, WA, VT, ME, NJ
    - Commercial building standards – CO, VT, NJ
    - Net Zero Codes and stretch codes – WA, VT, NV (note solar attacks), NJ
    - Review existing incentives for natural gas – WA
    - Efficiency standards – WA (Done), VT
    - Appliance standards – WA (Done), CO (Done), VT (Done), NV, ME, NJ
    - Parking lot requirements for EV charging – WA (Done), OR (also listed in buildings)
    - Schools and MUSH market (with ESCOs) – ME, VT
    - Efficiency master plan – NJ
    - Weatherization funds for heat pumps – CT, ME
    - Pay for performance - CT
- Transportation
    - TNC emissions tracking – MA, WA, NY
    - ZEV / LEV – CO, WA, NV, NM, NJ
    - Light & Heavy-duty incentives – CA, NJ
    - EV charging infrastructure build-out – CA, RI, NJ, CT
    - Fleets – NV, NJ
    - EV tax credit – NM, NJ, CT
    - Solar & charging at parks – NM (also listed in Renewable Energy)
    - EV Incentives to salespeople – CT (Done), OR

    - Parking lot requirements for EV charging – WA (Done), OR (also listed in buildings)
- Renewable Energy
    - Solar siting in Land-Use – RI (also listed in Land Use below)
    - Solar tax credit – NM
    - Community solar – NM, HI, CA
    - Solar & charging at parks – NM (also listed in Transportation)
    - Off-shore wind – ME, NJ
- Methane & HFCs
    - Oil & Gas Methane – CO, CA, NM
    - Methane leakage with IOUs – NV
    - Suing Oil & Gas for damages – RI
    - HFC's – NM (?), ME, CT
- Land-use
    - Land-use planning – WA, VT
    - Natural and Working lands and carbon storage – CA, MA
    - Solar siting in Land-Use – RI (also listed in Renewable Energy above)
- General
    - Revenue
        - Revenue for resilience – real estate tax – MA
        - Carbon tax – Net Zero – MA, RI
        - Sustainable funding stream – RI, NM, ME
    - Update Global Warming Act (authority) – MA, VT
    - Roadmap for 50x2030, 90x2040 (etc.) – CO, ME (implementation!)
    - Social cost of carbon – CO, CA
    - Studies
        - EE, Solar, Carbon pricing – RI
        - economic study w/ cost of inaction – NJ
        - resilience measures - NM
    - Reviewing GHG goals – revision – HI
    - Cap & Trade – OR
    - GHG & clean renewables energy standards - MD
    - Climate resilience EO – NJ
    - Discussing whether to stay deregulated – CT
    - Storage procurement – CT

Federal Action

- Engage NGOs to prepare federal transportation model (e.g. RI, REV West)
- Drive land-use solutions to inform "shovel-ready" efforts for USDA

Buildings “Pulse-taking”

On emerging high-ambition efforts

Codes – Zero Energy, Zero Carbon, or all-electric

- Working on it
  - CA (Done), CO, HI, NM. NV, VT (On a roadmap)
- Considering
  - CT, MA, ME, NJ, NM. RI
- Not Considering
  -

Efficiency Standards - for existing buildings

- Working on it
  - CA. WA
- Considering
  - CO (for commercial buildings), MA (State gov’t only), MD
- Not Considering
  - CT, HI, ME (maybe state gov’t only), NJ, NV (maybe state gov’t only), RI, VT

Massive market mobilization

- Working on it
  - CA, HI, MA, ME, NJ (EE Standards), NM (?)
- Considering
  - CT, CO (utility BE investment), NV (sorta?), VT, WA
- Not Considering
  - RI?

From: Cummins,Patrick on behalf of Cummins,Patrick >
Sent: Wednesday, July 10, 2019 10:52 AM EDT
To: Michael Northrop ; Regina Creegan ; Deborah Burke
Subject: RE: 071719questionnaire

Please do take a close look at this as I don't want to be the decider of who's a VIP and if they should be in Coach Barn or at Kykuit. I'm just not familiar enough with all the people or the facility….we could also run down the list quickly on the phone

Patrick Cummins
Senior Policy Advisor
Colorado State University
Center for the New Energy Economy

From: Cummins,Patrick
Sent: Wednesday, July 10, 2019 8:46 AM
To: Michael Northrop Regina Creegan Deborah Burke
Subject: FW: 071719questionnaire

Michael – I think you answered all the questions. Regarding rankings and room assignments: Here are my thoughts, which you can certainly modify.

To the best of my knowledge, the hike up the hill will not be a problem for most.

But we should have the following stay in deluxe rooms in the Coach Barn:
Leo Asuncion
Mary Nichols

Per Michael, organizers to stay in Coach Barn, but don't need deluxe rooms:

Deborah	Burke
Jacob	Corvidae
Patrick	Cummins
Carla	Frisch
Joe	Kruger
Michael	Northrop
Bill	Ritter, Jr.

After that, it's pretty subjective who is a VIP and whether you want them in Coach Barn or at Kykuit. Here are my thoughts – I've added VIP or either next to the remaining names.

Nik	Blosser – vip
David	Bobzien – either
Dale	Bryk - either
Betsy	Campbell - VIP
Janet	Coit – either (Coach Barn for convenience)
Sarah	Cottrell Propst - either
Bradley	Crowell - either
Chris	Davis – either
Katie	Dykes – either (coach barn for convenience)
Sandra	Ely – either
Kathleen	Frangione - VIP
Carla	Frisch - either
Kate	Gordon - VIP
Ben	Grumbles - either
Katie	McCormack – either (coach barn for convenience)
Zach	Pierce - either
Hannah	Pingree – coach barn
Reed	Schuler - either
Andrew	Steer - VIP
Kathleen	Theoharides - either
Will	Toor - either
Peter	Walke - either

From: Michael Northrop
Sent: Tuesday, July 9, 2019 6:34 PM
To: Regina Creegan Deborah Burke ; Cummins,Patrick
Cc: Michael Northrop <
Subject: 071719questionnaire

Patrick, can you look at the attached? I filled it out but added notes for you in a few places.
Regina needs a total number of participants (count Betsy Campbell from the RBF who is coming to dinner)
Regina needs arrival info for everyone
We also want to know who besides Hannah wants to do the tour on Thursday at 4. I'll join Hannah if she is alone. A note to everyone to say a 4pm tour on Thursday is an option would be great. Regina requests we call it a tour of Kykuit, the Rockefeller Family home, not a tour of the Rockefeller Estate
Regina, let us know what else you need.
Regina, I apologize we have been a little less organized than we should have been. We have been wildly spoiled by Wilson Rickerson obviously.
Thank you!
Michael

From: Cummins,Patrick on behalf of Cummins,Patrick <
Sent: Tuesday, July 02, 2019 1:58 PM EDT
To: Michael Northrop
CC: Hoffer,Trina
Subject: RE: Background Note for July 17-18
Attachment(s): "Background Note for July 17-18 pc clean.docx","Background Note for July 17-18 pc mark up.docx"

Looks good! I suggest moving up some of the stuff that was at the end - putting it in front of the sector specific policy discussion. Other than that, just some minor edits. Attaching both a clean version with my changes the mark up version

If you want to include this as an attached memo (as opposed to just in the body of an email), I can ask our team to do some formatting with logos, etc. Just let me know either way.

Patrick Cummins
Senior Policy Advisor
Colorado State University
Center for the New Energy Economy

From: Michael Northrop
Sent: Tuesday, July 2, 2019 11:17 AM
To: Cummins,Patrick
Cc: Michael Northrop
Subject: Background Note for July 17-18

How does this look? Edits welcome. Formatting welcome too.

To: **Pocantico Participants**
From: **CSU, GCC, RMI, RBF**
Subject: **Accelerating State Action on Climate Change, July 17-18, 2019**

The 2018 elections brought forward a new group of state leaders – governors, legislators, policy makers, and agency officials – committed to reducing greenhouse gas emissions in their states. This new group of state leaders joins those of you who have been leading the charge for a decade or more. We are thrilled that so many of you are able to join us for this event where we will discuss ways to accelerate state action and ensure that the progress being made by U.S. leadership states is recognized and understood across the U.S. and at a global level.

While our time together at Pocantico is short, we hope to address each of the following topics:

- What are the leading edge clean energy policies and GHG reduction programs being enacted and implemented by U.S. states? We will focus especially on electricity, buildings and transportation, but hope we can also touch on other gases (methane and HFC's), land use, and carbon pricing.

- How can this group of state leaders support each other and also work together to bring other states into the fold? Can states do more to drive bipartisan approaches to climate actions?

- Can states working together accelerate market creation for cleaner vehicles, non-gas solutions, and appliances?

- What steps can states be taking over the next 18 months to show the way forward for a federal administration that supports clean energy and climate action?

- How can we ensure that leadership state voices (alongside other subnational leaders) offer encouragement to multilateral climate negotiations in the run-up to COP 26 in December 2020?

With these questions in mind, we will kick things off on Wednesday night with a discussion of the state of play in the international climate negotiations. Dr. Andrew Steer, President and CEO of the World Resources Institute will join us for that conversation. We want to understand where the U.S. needs to be in order to play a constructive role in international discussions.

This has bearing on what level of ambition states must aim for. Kathleen Frangione, Chief Policy Advisor to New Jersey Governor, Phil Murphy, will describe the ambitious Paris-aligned approach her state has taken since Governor Murphy took office last year, how it has been framed, and how it has gathered momentum. We then want each of the participating states to weigh in on how they are thinking about this. We want to get lessons, good ideas, and questions on the table to help frame our conversation on Thursday. A core concern is how to get the politics right in order to maintain forward momentum.

Thursday morning we will start with a rapid fire review of the high ambition policies states are implementing to get to net zero carbon. Rather than reviewing the full suite of leading edge policies in detail, we plan to focus in on a few key policy challenges.

Prior to the meeting, we will send two additional pieces of background material. One laying out the specific policies each state in the room has enacted and another that describes leading edge policies being enacted even more broadly in the world sector-by-sector.

In the afternoon, we will tackle several questions, including how best to encourage other states to enact leadership policies, how states can work together with cities and business, how to use state action to lay the groundwork for ambitious federal policy as soon as 2021, and how to make state, and other subnational, voices present during a string of important upcoming international climate meetings in 2019 and 2020.

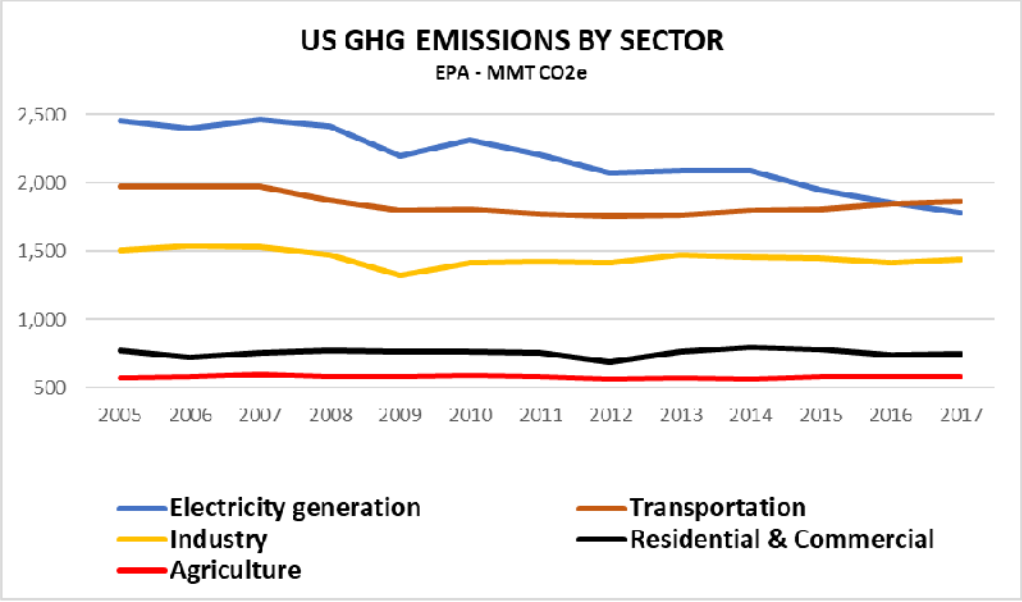
Please also plan to arrive no later than 5:00pm on July 17th at the Pocantico Center. We plan an early dinner and important dinner and after dinner discussions. If you are arriving at one of the regional airports (LaGuardia, JFK, Newark, or Westchester), please grab an Uber to the conference Center or ask us for help. We can arrange cars to pick you up at airports if necessary.

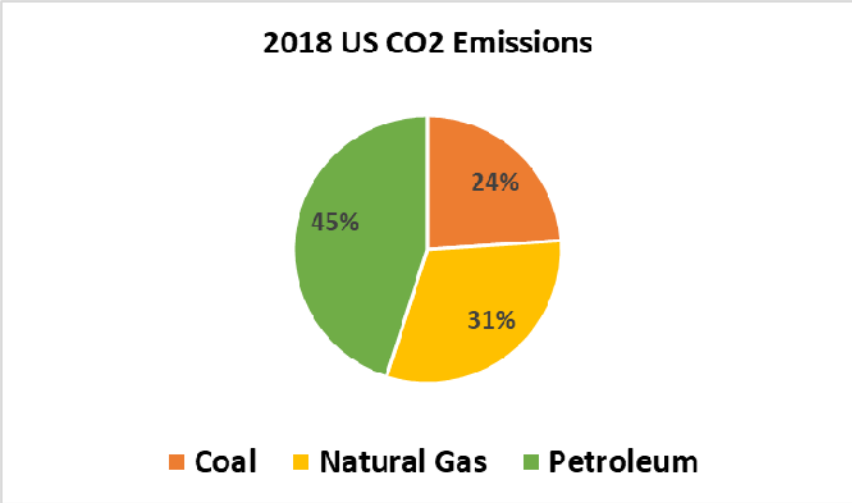
If you are arriving in New York early, there are 3 trains an hour from Grand Central Station to Tarrytown (45-minute trip), where you can get a get a taxi to Pocantico (10 minutes).

Pocantico staff will arrange your travel back to Manhattan or to area airports. We can get those details figured out during the meeting. We plan to adjourn at 4:00pm on July 18th. **If you can stick around after 4:00pm, we will arrange a tour of the Rockefeller Estate.**

Finally, below is some context to help us get the policy conversation started on Thursday morning.

Transportation. We will begin with a conversation on how to meet the challenge posed by emissions from the transportation sector. As we all know by now, the transportation sector has surpassed the electricity sector as the largest source of GHG emissions in the US. In 2018, emissions from the combustion of petroleum products were almost twice that of coal. Moreover, while emissions from coal continue to decline, emissions from the transportation sector have increased each year since 2012.





Vehicle Standards. Front and center in the discussion of how to reduce emissions from the transportation sector is the pending rollback of federal standards and the potential revocation of California's waiver, which would impact many of your states. We are fortunate that Mary Nichols will be with us to lead this discussion and help all the states in attendance figure out how you can work together to protect the progress you've made in this area.

Electric Vehicles. While each state in the room has some policies and programs in place to incentivize electric vehicle purchases and charging infrastructure, some states are going farther. A group of Northeast states is evaluating a market-based approach to reducing emissions from the transportation sector (Transportation Climate Initiative), while California and Oregon both have a low-carbon fuel standard. We will ask participating states to share their ideas for additional policies and programs to drive down emissions from the transportation sector.

Electricity. To date, states have had the greatest success in reducing emissions from the electric power sector. This is an area where states have a number of effective policy options, like renewable portfolio standards/clean energy standards, and you have used these policies to achieve substantial CO2 emissions reductions from the electric power sector over the last 10 years (-30% nationwide). Building on this success, you are moving to achieve even more progress with many states and utilities setting aggressive near-term targets for renewable energy, along with the long-term goal of 100% clean energy. What challenges are emerging and how can states successfully implement these bold electricity goals?

Natural Gas. One of the primary challenges to deep de-carbonization of the electric power sector is the reliance on natural gas as the replacement for coal. On the Eastern grid, coal generation has fallen by almost half over the last ten years, but 75% of that has been replaced by natural gas generation. We will review the current landscape of state policies for clean and renewable electricity, share ideas for next steps, and then discuss how you can work together – and with other states/regions – to make continued progress on the transition to a clean electric power sector.

Buildings. Residential and commercial buildings and industry are source categories where emissions have plateaued as square footage has increased, but where steep reductions have not yet begun. We will discuss what states are currently doing to transition buildings to clean energy, and then identify what options exist for states to expand their policies and programs in areas like net zero building codes, mandatory retrofits, and electrification.

Industrial Sector. Reducing emissions from the industrial sector poses a set of challenges similar to those associated with buildings, including continued reliance on natural gas as a primary energy source.

Methane and HFC's. Some states are also dealing with very significant methane emissions problems associated with oil and gas production, and from industrial livestock operations. States also have a chance to reduce methane leaks from aging residential heating infrastructure. Some states have also taken action on eliminating HFC's, and since methane and HFC's are super greenhouse gases, progress in the near-term can be extremely meaningful.

Land use is an additional category we hope to make some time for in the discussion if possible. Pacific states and Climate Alliance states have taken some actions here that we can learn from.

We will also check in on **carbon pricing** programs. The US Chamber of Commerce and the oil sector have said they are open to carbon pricing. Recent state attempts to enact carbon pricing in Washington, Oregon, and Virginia offer lessons we should consider as well.

To: **Pocantico Participants**
From: **CSU, GCC, RMI, RBF**
Subject: **Accelerating State Action on Climate Change, July 17-18, 2019**

The 2018 elections brought forward a new group of state leaders – governors, legislators, policy makers, and agency officials – committed to reducing greenhouse gas emissions in their states. This new group of state leaders joins those of you who have been leading the charge for a decade or more. We are thrilled that so many of you are able to join us for this event where we will discuss ways to accelerate state action and ensure that the progress being made by U.S. leadership states is recognized and understood across the U.S. and at a global level.

While our time together at Pocantico is short, we hope to address each of the following topics:

- What are the leading edge clean energy policies and GHG reduction programs being enacted and implemented by U.S. states? We will focus especially on electricity, buildings and transportation, but hope we can also touch on other gases (methane and HFC's), land use, and carbon pricing.

- How can this group of state leaders support each other and also work together to bring other states into the fold? Can states do more to drive bipartisan approaches to climate actions?

- Can states working together ~~to~~ accelerate market creation for cleaner vehicles, non-gas solutions, and appliances?

- What steps can states be taking over the next 18 months to show the way forward for a federal administration that supports clean energy and climate action?

- How can we ensure that leadership state voices (alongside other subnational leaders) offer encouragement to multilateral climate negotiations in the run-~~-~~up to COP 26 in December 2020?

With these questions in mind, we will kick things off on Wednesday night with a discussion of the state of play in the international climate negotiations. Dr. Andrew Steer, President and CEO of the World Resources Institute will join us for that conversation. We want to understand where the U.S. needs to be in order to play a constructive role in international discussions.

This has bearing on what level of ambition states must aim for. Kathleen Frangione, Chief Policy Advisor to New Jersey Governor, Phil Murphy, will describe the ambitious Paris-~~-~~aligned approach her state has taken since Governor Murphy took office last year, how it has been framed, and how it has gathered momentum. We then want each of the participating states to weigh in on how they are thinking about this. We want to get lessons, good ideas, and questions on the table to help frame ~~the~~ our conversation on Thursday. A core concern is how to get the politics right in order to maintain forward momentum.

Thursday morning we will start with a rapid fire review of the high ambition policies states are implementing to get to net zero carbon. Rather than reviewing the full suite of leading edge policies in detail, we plan to focus in on a few key policy challenges.

Prior to the meeting, ~~We plan to~~ we will send ~~provide~~ two additional pieces of background material. One laying out the specific policies each state in the room ~~is enacting~~has enacted and another ~~, as well as a~~ that describes ~~list of~~ leading edge policies being enacted even more broadly in the world sector ~~-~~by sector.

~~Later i~~In the afternoon, we will tackle several questions, including how best to encourage other states to enact leadership policies, how states can work together with cities and business, how to use state action to lay the groundwork for ambitious federal policy as soon as 2021, and how to make state, and other subnational, voices present during a string of important upcoming international climate meetings in 2019 and 2020.

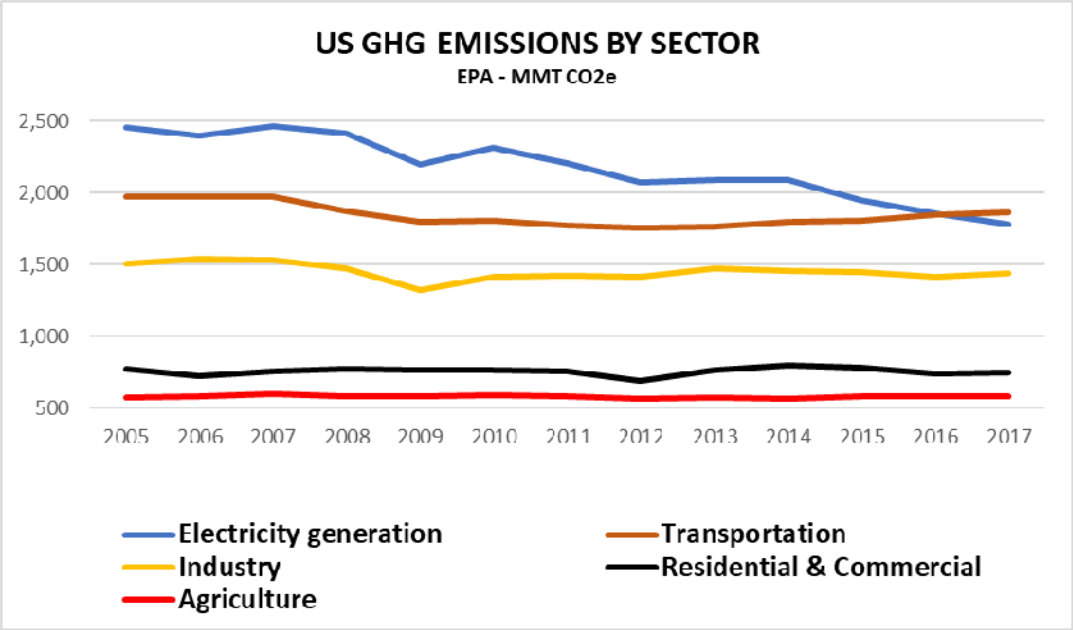
Please also plan to arrive no later than 5:00pm on July 17th at the Pocantico Center. We plan an early dinner and important dinner and after dinner discussions. If you are arriving at one of the regional airports (Laguardia, JFK, Newark, or Westchester), please grab an Uber to the conference Center or ask us for help. We can arrange cars to pick you up at airports if necessary.

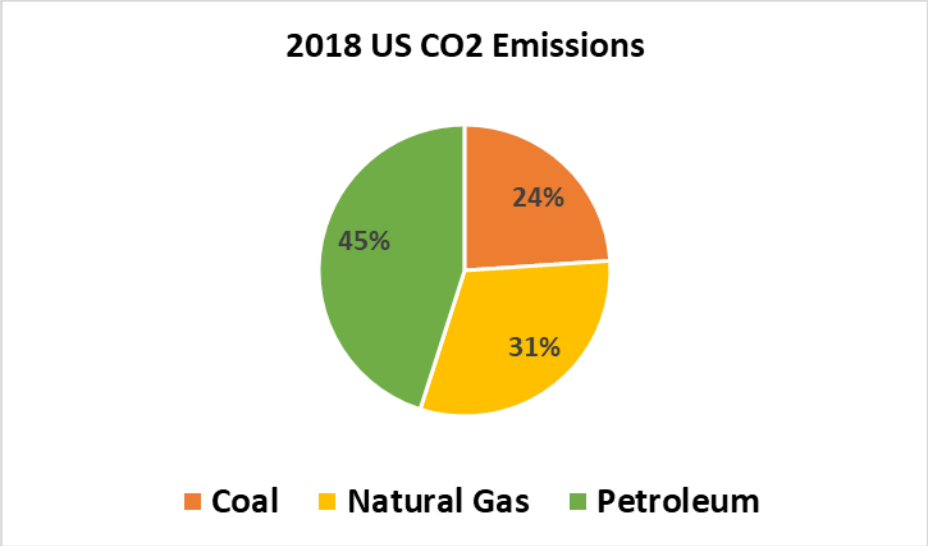
If you are arriving in New York early, there are 3 trains an hour from Grand Central Station to Tarrytown (45-minute trip), where you can get a get a taxi to Pocantico (10 minutes).

Pocantico staff will arrange your travel back to Manhattan or to area airports. We can get those details figured out during the meeting. We plan to adjourn at 4:00pm on July 18th. **If you can stick around after 4:00pm, we will arrange a tour of the Rockefeller Estate.**

Finally, below is some context to help us get the policy conversation started on Thursday morning.

Transportation. ~~Rather than reviewing the full suite of leading edge policies in detail, we plan to focus in on a few key policy challenges.~~ We will begin with a conversation on how to meet the challenge posed by emissions from the transportation sector. As we all know by now, the transportation sector has surpassed the electricity sector as the largest source of GHG emissions in the US. In 2018, emissions from the combustion of petroleum products ~~in the transport sector~~ were almost twice that of coal. Moreover, while emissions from coal continue to decline, emissions from the transportation sector have increased each year since 2012.





Vehicle Standards. Front and center in the discussion of how to reduce emissions from the transportation sector is the pending rollback of federal standards and the potential revocation of California's waiver, which would impact many of your states. We are fortunate that Mary Nichols will be with us to lead this discussion and help all the states in attendance figure out how you can work together to protect the progress you've made in this area.

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Electricity. To date, states have had the greatest success in reducing emissions from the electric power sector. This is an area where states have a number of effective policy options, like renewable portfolio standards/clean energy standards, and you have used these policies to achieve substantial CO2 emissions reductions from the electric power sector over the last 10 years (-30% nationwide). Building on this success, you are moving to achieve even more progress with many states and utilities setting aggressive near-term targets for renewable energy, along with the long-term goal of 100% clean energy. What challenges are emerging and how can states successfully implement these bold electricity goals?

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Methane and HFC's. Some states are also dealing with very significant methane emissions problems associated with oil and gas production, and from industrial livestock operations. States also have a chance to reduce methane leaks from aging residential heating infrastructure. Some states have also taken action on eliminating HFC's, and since ~~. Methane~~ methane and HFC's are super greenhouse gases, ~~where~~ progress in the near-term can be extremely meaningful.

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~~Later in the afternoon, we will tackle several questions, including how best to encourage other states to enact leadership policies, how states can work together with cities and business, how to use state action to lay the groundwork for ambitious federal policy as soon as 2021, and how to make state, and other subnational, voices present during a string of important upcoming international climate meetings in 2019 and 2020.~~

~~Please bring the lessons you've learned, ideas you want to test out, and your questions.~~

~~Please also plan to arrive no later than 5:00pm on July 17th at the Pocantico Center. We plan an early dinner and important dinner and after dinner discussion. If you are arriving at one of the regional airports (Laguardia, JFK, Newark, or Westchester, please grab an Uber to the conference Center or ask~~

~~us for help. We can arrange cars to pick you up at airports if necessary. If you are arriving in New York on the 16th, there are 3 trains an hour from Grand Central Station to Tarrytown (45-minute trip), where you can get a get a taxi to Pocantico (10 minutes). Pocantico staff will arrange your travel back to Manhattan or to area airports. We can get those details figured out during the meeting. We plan to adjourn at 4:00pm on July 18th.~~ **~~If you can stick around after 4:00pm, we will arrange a tour of the Rockefeller Estate.~~**

From: Eda Lee
Sent: Friday, July 12, 2019 4:31 PM EDT
To: Cummins,Patrick
CC: Courtney McComber <
Subject: RE: Can we arrange time to talk by phone to prep for your July 17th dinner remarks?

Dear Patrick,

I hope this finds you well. I'm writing again to double check whether there are any additional steps I need to take in order to confirm Andrew Steer's accommodations for the night of July 17th for the meeting next week. We would like to include a confirmation document for his travel briefing packet if possible.

Many thanks for your patience and assistance on this—

Eda

Eda Lee
Assistant to the President & CEO
World Resources Institute
WRI.org

From: Eda Lee
Sent: Monday, July 8, 2019 3:23 PM
To: Michael Northrop ; Andrew Steer <
Cc: Cummins,Patrick < ; Fiona McRaith
Subject: RE: Can we arrange time to talk by phone to prep for your July 17th dinner remarks?
Importance: High

Dear Mr. Northrop,

I hope you had a great weekend, thank you for your email! Andrew is currently on holiday with family--please excuse me for writing on his behalf in the interim. He'll be back this weekend.

For the call regarding his remarks, might you be able to speak on Monday morning at 9am Eastern? Fiona will likely need to join as well, so I can set up a conference line.

I have registered Andrew for the event, and we are waiting to finalize his travel logistics. Are there any additional steps to confirming Andrew's accommodations? I understand attendees will be at Coach Barn (Conference Center) or Kykuit, but please let me know if there is any further information I need to provide for Andrew's overnight stay.

Many thanks for your patience and assistance,
Eda

Eda Lee
Assistant to the President & CEO
World Resources Institute
WRI.org

From: Michael Northrop <
Sent: Monday, July 8, 2019 1:08 PM
To: Andrew Steer ; Eda Lee
Cc: Cummins,Patrick
Subject: Can we arrange time to talk by phone to prep for your July 17th dinner remarks?
Importance: High

Dear Andrew and Eda,
Two quick things.
-Can you please fill in the registration material below?

-Could we arrange time for a call to prep for your dinner remarks July 17th?
Many thanks,
Michael

From: Cummins,Patrick
Sent: Monday, July 8, 2019 11:00 AM
To: Michael Northrop ; leo.r.asuncion Hannah.Pingree ; dale.bryk
chris.davis Deborah Burke ; jcorvidae cfrisch asteer
Cc: shanell.k. ; Minerva.Canc ; eda.lee Regina Creegan
Subject: Please Register: July 17-18
Importance: High

Resending this to those who have recently been invited and also to who have not yet registered:

So that we can confirm your attendance, and to provide our Pocantico hosts with some information for your stay, please click here to complete a short registration form.
http://events.constantcontact.com/register/event?llr=fji8qakab&oeidk=a07ege9eh81b217f8f4

Patrick Cummins
Senior Policy Advisor
Colorado State University
Center for the New Energy Economy

From: Cummins,Patrick on behalf of Cummins,Patrick
Sent: Monday, July 01, 2019 7:20 PM EDT
To: Michael Northrop
Subject: RE: Emailing: sectors_2016 (4)

Their power sector share in 2018 is about 11%, down from 12% in 2016

Patrick Cummins
Senior Policy Advisor
Colorado State University
Center for the New Energy Economy

From: Michael Northrop
Sent: Monday, July 1, 2019 5:19 PM
To: Cummins,Patrick
Subject: Re: Emailing: sectors_2016 (4)

Makes sense. Thanks.

Sent from my iPhone

On Jul 1, 2019, at 7:11 PM, Cummins,Patrick > wrote:

> The only sector that's changing significantly year to year is electricity. Everything else is pretty flat to slightly up.
>
> I'll run some electricity sector numbers from EPA's acid rain database.
>
> *Patrick Cummins*
> *Senior Policy Advisor*
> *Colorado State University*
> *Center for the New Energy Economy*
>
> ---
>
> **From:** Michael Northrop
> **Sent:** Monday, July 1, 2019 5:07 PM
> **To:** Cummins,Patrick
> **Subject:** Re: Emailing: sectors_2016 (4)
>
> Interesting. Thanks. Do you think 2017 or 2018 data are any different?
>
> Sent from my iPhone
>
> On Jul 1, 2019, at 5:18 PM, Cummins,Patrick > wrote:
>
> > These 15 states = 34% of US population
> >
> > *Patrick Cummins*
> > *Senior Policy Advisor*
> > *Colorado State University*
> > *Center for the New Energy Economy*
> >
> > ---
> >
> > **From:** Cummins,Patrick
> > **Sent:** Monday, July 1, 2019 3:07 PM
> > **To:** Michael Northrop ; jk2128 ; jcorvidae ; Hoffer,Katherine
> >
> > **Subject:** Emailing: sectors_2016 (4)
> >
> > **Table 3. 2016 State emissions by sector**
> > https://www.eia.gov/environment/emissions/state/
> >
> > **Million metric tons of carbon dioxide**

	Commercial	Electric power	Residential	Industrial	Transportation	Total
California	19	37	24	69	213	361
Colorado	4	35	7	14	28	89
Connecticut	4	7	6	2	15	34
Hawaii	0	7	0	1	10	18
Maine	2	1	3	2	9	16
Maryland	5	17	5	2	28	58
Massachusetts	7	11	11	3	32	64
Nevada	2	14	2	3	15	37
New Jersey	10	20	14	10	58	111

New Mexico	2	23	2	7	14	48
New York	22	28	31	8	75	164
Oregon	2	8	3	5	20	38
Rhode Island	1	3	2	1	4	10
Vermont	1	0	1	0	3	6
Washington	4	10	5	11	49	79
15 Pocantico States	85	219	117	139	574	1,133
US States total (unadjusted)	233	1,796	299	940	1,892	5,161
	36%	**12%**	**39%**	**15%**	**30%**	**22%**

Source: U.S. Energy Information Administration, State Energy Data System

From: Toor - CEO, Will
Sent: Thursday, May 09, 2019 5:52 PM EDT
To: Michael Northrop
CC: Ritter Jr,Bill ; Vicki Arroyo >; Cummins,Patrick
Joseph Kruger Hartzell,Wendy
Sonia Jagtiani
Subject: Re: July 17-18 Invitation: State Strategies for Meeting Ambitious Climate Goals

Hi Michael. I had a brief conversation with Bill Ritter earlier this week about also having Zach Pierce attend. Zach is Governor Polis's senior advisor on energy and climate, and has been integral to all of the policymaking in this arena. I want to confirm that Zach can also join, as I think his participation would be valuable.

Will Toor
Executive Director, Colorado Energy Office

On Mon, Apr 29, 2019 at 5:08 PM Michael Northrop wrote:

> Fantastic!
> Many thanks Will.
> All the best,
> Michael
>
> Sent from my iPhone
>
> On Apr 29, 2019, at 7:04 PM, Toor - CEO, Will wrote:
>
> > Thanks Michael. These dates should work well for me, and I look forward to participating. I am cc:ing Nancey Stenheimer who can follow up on logistics and on scheduling an advance phone call.-Will
> > Will Toor
> > Executive Director, Colorado Energy Office
> >
> > On Sun, Apr 28, 2019 at 2:58 PM Michael Northrop > wrote:
> >
> > > April 28, 2019
> > >
> > > Dear Will,
> > >
> > > On behalf of the Center for the New Energy Economy at Colorado State University, the Georgetown Climate Center, and the Rockefeller Brothers Fund, we are writing to invite you to an off-the-record discussion on meeting the increasingly ambitious climate goals being established by governors and state legislatures across the country.
> > >
> > > We are asking lead energy policy advisors to attend from a dozen states with supportive, and in many cases, new governors and legislatures interested in accelerating the transition to a clean, low-carbon economy. You are invited because you are the, or one of the, lead policy advisors to your governor on energy and climate policy.
> > >
> > > We will meet at the Pocantico Center of the Rockefeller Brothers Fund beginning on Wednesday, July 17 for dinner, and conclude at 4:00 p.m. on Thursday, July 18. We will use the dinner and time after dinner the first night for active discussion, so please plan to arrive by 5:00pm on July 17th.
> > >
> > > The Pocantico Center, on the former Rockefeller family estate outside Tarrytown, New York, is 40 minutes from midtown Manhattan by train from Grand Central Station, or is easily accessible by car from any of the metro area's three airports. We'll stay at Pocantico on the evening of July 17 and eat our meals there. The RBF will cover all inside the gate costs and travel to and from airports or midtown Manhattan. If your state cannot cover travel, we can help you cover your travel costs as well.

Given the arrival of a substantial number of new governors, who have committed to moving aggressively on climate and energy, and the ongoing commitment of many other governors, we think this is an opportunity to support this subset of states to move forward aggressively with sensible, economically beneficial policies. We believe your state can help lead this effort. CSU, Georgetown, and the RBF have long prioritized state clean energy policymaking and look forward to supporting your work in the coming months and years.

To tell you some more about the rationale for this discussion, and to get your input on what would be most helpful, we would like to have a brief discussion with you by phone in the coming weeks. In the meantime, please save the dates, and please do not hesitate to reach out to either one of us to discuss this event. You may RSVP to Patrick Cummins at CSU). We will follow up with additional travel planning information after we hear from you.

We sincerely hope you are able to participate and look forward to speaking with you soon. Many thanks.

Sincerely,

Bill Ritter, Jr.

Director, Center for the New Energy Economy

41st Governor of Colorado

Vicky Arroyo

Georgetown Climate Center

Georgetown Law School

Michael Northrop

Program Director

Rockefeller Brothers Fund

From: Cummins,Patrick on behalf of Cummins,Patrick
Sent: Wednesday, July 10, 2019 3:53 PM EDT
To: Michael Northrop
Subject: RE: Maine Hits Clean Energy Grand Slam - Union of Concerned Scientists

Yes, it's all in there

Patrick Cummins
Senior Policy Advisor
Colorado State University
Center for the New Energy Economy

-----Original Message-----
From: Michael Northrop <
Sent: Wednesday, July 10, 2019 1:48 PM
To: Cummins,Patrick >
Subject: Re: Maine Hits Clean Energy Grand Slam - Union of Concerned Scientists

Really impressive!
Will this all be in the policy spreadsheet?
Too bad she's coming late. She'd be great after dinner with all this.

Sent from my iPhone

> On Jul 10, 2019, at 2:49 PM, Cummins,Patrick > wrote:
>
> https://blog.ucsusa.org/steve-clemmer/maine-hits-clean-energy-grand-slam
>
>
> Sent from my iPhone

From: Deborah Burke <
Sent: Thursday, July 18, 2019 10:44 AM EDT
To: Michael Northrop kate.gordon
mary.nichols ; zach.pierce
will.toor ; katie.dykes <katie.dykes leo.r.asuncion
; Hannah.Pingree ; ben.grumbles
; kathleen.theoharides ;
dbobzien bcrowell
kathleen.frangione sandra.ely ;
sarah.propst <sarah.propst dale.bryk
nik.blosser ; janet.coit
peter.walke ; chris.davis ;
reed.schuler Ritter Jr,Bill ; Cummins,Patrick
; jk2128 <jk2128 ; jcorvidae
; cfrisch ; katie.mccormack ;
asteer
CC: shelby.mcmichael ; shannon.stewart
nancey.steinheimer
Carmen.Colon shanell.k.feliciano
kathy.bishop ; victoria.s.grimes
; pamalloy ; Barbara.Panebianco
; Minerva.Canc
jennifer.j.andrew ; Suzanne.Amerault
; Hartzell,Wendy eda.lee
Subject: Re: Pocantico Agenda July 17-18, 2019

A very timely article. H/t David Bobzien:

https://www.nytimes.com/2019/07/17/travel/electric-sustainable-travel.html

By Air, Land and Sea, Travel is Electrifying - The New York Times

The roar of a jet engine, the vroom of a car, the vibration of a moving ship. These sounds and sensations, commonly associated with travel and motion, share a common source: fossil fuel-powered ...

www.nytimes.com

From: Michael Northrop
Sent: Tuesday, July 16, 2019 4:35 PM
To: kate.gordon mary. ; zach.pierce will.toor katie.dykes
leo.r.asuncion ; Hannah.Pingree ben.grumbles kathleen.theoharides ;
dbobzien bcrowell kathleen.frangione ; sandra.ely sarah.propst
dale. nik.blosser janet.coit peter.walke chris.davis ;
reed.schuler ; Deborah Burke; Bill.Ritter Patrick.Cummins jk2128 ;
jcorvidae ; cfrisch katie.mccormack asteer
Cc: shelby.mcmichael ; shannon.stewart ; nancey.steinheimer Carmen.Colon
shanell.k.feliciano kathy. ; victoria.s.grimes pamalloy
Barbara.Panebianco Minerva.Canc jennifer.j.andrew Suzanne.Amerault
Wendy.Hartzell eda.lee
Subject: Pocantico Agenda July 17-18, 2019

Finally. The Agenda.
Looking forward to seeing you tomorrow afternoon.
Last note: Please dress comfortably. No need for business attire.

Safe travels,

Michael

From: Hoffer,Trina
Sent: Tuesday, July 02, 2019 10:47 AM EDT
To: Cummins,Patrick
Subject: RE: Policy Table
Attachment(s): "Pocantico States Policy Table.pdf","Pocantico States Policy Table.docx"

Here you are.

From: Hoffer,Trina
Sent: Monday, July 1, 2019 6:53 PM
To: Cummins,Patrick
Subject: Re: Policy Table

It's done and attached. I'll send you the pdf version as soon as I can after I get into the office tomorrow (my Mac does not abide pdfing).

From: Cummins,Patrick
Sent: Monday, July 1, 2019 1:07:27 PM
To: Hoffer,Trina
Subject: FW: Policy Table

It's a late ask, so if we can't get it done that's fine. We will know exact timing of next email to the group when we talk at 2 tomorrow. Even adding the top 3-5 things for HI would be fine.

Patrick Cummins
Senior Policy Advisor
Colorado State University
Center for the New Energy Economy

From: Cummins,Patrick
Sent: Monday, July 1, 2019 1:05 PM
To: Hoffer,Katherine
Subject: RE: Policy Table

Tomorrow if possible

Patrick Cummins
Senior Policy Advisor
Colorado State University
Center for the New Energy Economy

From: Hoffer,Trina
Sent: Monday, July 1, 2019 12:58 PM
To: Cummins,Patrick
Subject: RE: Policy Table

I can't get that done today. I have a paper I have to have reviewed by COB. When do you need it?

From: Cummins,Patrick
Sent: Monday, July 1, 2019 12:50 PM
To: Hoffer,Trina
Subject: RE: Policy Table

This is terrific. Thank you! Any chance you would have time to add a few highlights for Hawaii? They are a late add to the meeting. Does not need to be comprehensive for them, but the big ticket items would be great. Let me know. Thank you! PC

Patrick Cummins
Senior Policy Advisor
Colorado State University
Center for the New Energy Economy

From: Hoffer,Katherine
Sent: Thursday, June 27, 2019 4:30 PM
To: Cummins,Patrick
Subject: Policy Table

Here you are.

Katherine Heriot Hoffer, PhD
Research Manager | Center for the New Energy Economy


CENTER FOR THE
NEW ENERGY
ECONOMY
Colorado State University

State Climate / Carbon Policies

State	Emissions / GHG Goals	Other Carbon / Climate Activities and Policies
California	Adopted in 2006 (AB 05-32): 1990 levels by 2020; amended in 2016 (SB 15-32): 40% below 1990 levels by 2030. E.O. S-03 in 2005: 80% below 1990 levels by 2050.	Cap & Trade Program EO B-55-2018: achieve carbon-neutrality by 2045 and net-negative emissions thereafter. AB 17-398: extends cap-and-trade through 2030. SB 15-350: directs CARB to adopt rules removing disincentives for utilities' emissions reductions programs.
Colorado	Adopted 2019 (HB 19-1261): more than 26% from 2005 levels by 2025, 50% below 2005 levels by 2030, and 90% below 2005 levels by 2050.	HB 19-1261: in addition to expanding GHG reduction goals, provides for possibility of joining other jurisdictions in regional abatement schemes. SB 19-096: directs the Air Quality Control Commission to track long-term emissions data and publish an inventory. SB 19-236: utilities must include emissions reductions plans in their IRPs, and PUC must consider social cost of carbon.
Connecticut	Originally adopted 2004 (SB 04-595), last amended 2018 (SB 18-7): 10% below 1990 levels by 2020, 45% below 2001 levels by 2030, and 80% below 2001 levels by 2050.	The 2018 amendment to the GHG targets (SB 7) also requires publication of seal level rise scenarios. In 2018, the Governor's Council on Climate Change put forward several policy recommendations for reducing emissions.
Hawaii	Adopted 2018 (HB 18-2182): carbon neutral by 2045.	HB 18-2182 also creates the Greenhouse Gas Sequestration Task Force to examine incentives and policies that will help the state further reduce emissions. Hawaii is on track to reduce GHG emissions to 1990 levels by 2020. The legislature set this target in 2007 (HB 226).
Maine	Adopted 2019 (LD 19-1679): 45% below 1990 levels by 2030, 80% below 1990 levels by 2050.	LD 19-1679: establishes the Maine Climate Council, tasked with developing a climate action plan and clean energy economy transition plan.
Maryland	Adopted 2009, reauthorized and amended in 2016 (SB 16-323): 25% below 2006 levels by 2020, and 40% below 2006 levels by 2030.	HB 19-277: Authorizes Governor to include the state as full participant in regional initiatives (TCI) to reduce emissions from transportation. SB 19-516: Among other provisions, increases the state's RPS to 50% by 2030. Requires study of a 100% renewable energy goal.

State	Emissions / GHG Goals	Other Carbon / Climate Activities and Policies
Massachusetts	Adopted 2008 (the Global Warming Solutions Act): 25% below 1990 levels by 2020, and 80% below 1990 levels by 2050.	E.O. 2016-569: requires the Secretary of Energy and Environmental Affairs to consult the GWSA Implementation Advisory Committee to establish statewide limits for 2030 and 2040, achieve further reductions from government operations, work to develop regional transportation policies, and lead reform on capacity and wholesale markets to achieve state mandates. DEP must also consider limits on sources such as natural gas pipelines and the transportation sector. The state's 2015 update to its Clean Energy and Climate Plan provides a comprehensive suite of policies to reduce statewide emissions.
Nevada	Adopted 2019 (SB 19-254): 28% below 2005 levels by 2025, 45% below 2005 levels by 2030, and "zero or near-zero" by 2050.	SB 19-254: requires DCNR to submit a report on whether existing/pending state policies can ensure that the state achieves zero carbon emissions by 2050.
New Jersey	Adopted 2007 (AB 07-3301): 1990 levels by 2020, and 80% below 2006 levels by 2050.	The Draft 2019 New Jersey Energy Master Plan outlines multiple strategies for emissions reductions in the energy, transportation, and building sectors.
New Mexico	Adopted 2019 (E.O 003): 45% below 2005 levels by 2030.	Governor Grisham's executive order on climate also created the interagency Climate Change Task Force to evaluate and report on mitigation and adaptation policies, including a market-based program to reduce carbon emissions. SB 19-489 requires that the Environmental Improvement Board (EIB) promulgate a rule limiting CO_2 emissions from coal fired generating plants to an emissions standard of 1,100 lbs-CO_2/MWh on or after January 1, 2023.
New York	Adopted by Executive Order 24 in 2009, reaffirmed as a goal of the Reforming the Energy Vision initiative: 40% below 1990 levels by 2030, and 80% below 1990 levels by 2050. Senate Bill 19-6599 will create GHG emissions targets of 40% below 1990 levels by 2030 and 85% below 1990 levels by 2050, with the remaining 15% offset. The bill also requires the PSC to create a clean energy standard of 70% renewable energy by 2030 and 100% zero emissions by 2040.	The state Soil & Water Conservation Committee administers a Climate Resilient Farming Program to reduce agricultural emissions. Governor Cuomo's REV initiative is a series of smaller initiatives to achieve carbon emissions reductions from multiple sectors, including transportation and buildings.
Oregon	Adopted 2007 (HB 07-3543): 10% below 1990 levels by 2020 and 75% below 1990 levels by 2050.	HB 19-2020 (second reading in Senate on 6/19) would create a GHG emissions standard of 45% below 1990 levels by 2035

State	Emissions / GHG Goals	Other Carbon / Climate Activities and Policies
Rhode Island	Adopted 2014 (the Resilient Rhode Island Act): 10% below 1990 levels by 2020, 45% below 1990 levels by 2035, and 80% below 1990 levels by 2050.	Governor Raimondo's executive order 2017-10 required the development of a statewide Climate Resilience Action Strategy by June 2018.
Vermont	Adopted 2006 (S 06-259): 50% below 1990 levels by 2028, and if feasible, 75% below 1990 levels by 2050.	Executive Order 2017-12 created the Vermont Climate Action Committee. The Committee's 2018 report recommends using market-based mechanisms, sequestration measures, and carbon offset projects to address emissions.
Washington	Adopted 2008 (HB 08-2815): 1990 levels by 2020, 25% below 1990 levels by 2035, and 50% below 1990 levels by 2050 or 70% below the state's expected emissions in 2050.	SB 19-5116: Requires utilities to use emissions-free resources by 2045. Social cost of carbon must factor into IRP process.

State Energy Policies and Utility Goals

State	Renewable / Clean Energy Targets	EERS	Utility Commitments / Goals
California	Adopted 2002, last amended 2018: 33% by 2020, 60% by 2030, with a target of 100% carbon-free by 2045.	Electric: Long-term goals average about 1.15% of retail sales through 2024. Average incremental savings targets average about 1.3% of retail sales electricity from 2020-2025. Natural Gas: Incremental savings target of 0.56% through 2024. SB 15-350 requires state agencies and utilities to double cumulative efficiency savings achieved by 2030. Work to develop specific utility targets is ongoing.	Pacific Gas & Electric: Member of the WeAreStill in coalition. Goal to avoid one million tons of cumulative greenhouse gas emissions from 2018 through 2022, compared to a 2016 baseline. SMUD: 33% renewable energy by 2020, 60% by 2030, and reduce retail load GHG emissions to net zero by 2040. Sempra Energy: 35% below 2010 emissions by 2021, SDG&E is on track to meet CA's 50% by RE target.
Colorado	Adopted 2004: 30% by 2020 (IOUs), 10% or 20% by 2020 for municipalities and electric cooperatives depending on size. Polis Administration's Roadmap to 100% Renewable Energy by 2040.	Electric: Flat target of 500 GWh or roughly 1.7% of sales per year. Black Hills follows Xcel's targets. HB 17-1227 extended electric efficiency programs to 2028 and required the commission to set goals of at least 5% peak demand reduction and 5% energy savings (as compared to 2018) by 2028 for demand-side management programs implemented during 2019 through 2028. Natural Gas: Savings targets commensurate with spending targets (at least 0.5% of prior year's revenue).	Xcel Energy: 55% RE by 2026, 80% GHG reduction by 2030, carbon-free by 2050. Platte River Power Authority: Zero carbon emissions by 2030. Holy Cross Energy: 70% emissions reduction by 2030. Poudre Valley Rural Electric Association: increase carbon-free energy from 33% to 80% by 2030. Colorado Springs Utilities: 20% renewable energy by 2020.

State	Renewable / Clean Energy Targets	EERS	Utility Commitments / Goals
Connecticut	Adopted 1998, last amended 2018: Class 1: 21% by 2020, 30% by 2025, 40% by 2030 (plus 4% class 1 or 2 by 2018, 4% class 3 by 2010).	Electric: Average incremental savings of 1.11% of sales from 2019 through 2021.The state's renewable portfolio standard (RPS), established in 1998 and revised thereafter, requires that electricity providers and wholesale suppliers obtain 27% of their retail load from renewable energy and energy efficiency by 2020. Natural Gas: Average incremental savings of 0.59% per year from 2019 through 2021.	AVANGRID (the United Illuminating Company is a subsidiary): increase installed renewable capacity by 2GW, reduce emissions intensity 25% below 2015 levels by 2020, 100% carbon neutral by 2035.
Hawaii	Adopted 2015 (HB 15-623): 40% by 2030, 70% by 2040, and 100% by 2045.	Electric: reduce electricity consumption by 4,300 GWh by 2030 (equal to approximately 30% of forecast electricity sales or 1.4% annual savings). Natural Gas: N/A (Natural gas plays a limited role in the state's energy generation mix.)	Hawaiian Electric Company: reduce GHG emissions more than 16% below 2010 levels by 2020. Achieved: 2014. Committed to meeting the 100% renewable energy target. Kaua'i Island Cooperative: 70% renewable by 2030.
Maine	Adopted 2019 (LD 19-1494): 80% by 2030, 100% by 2050.	Electric: Savings of 20% by 2020, with incremental savings targets of ~ 1.6% per year for 2014-2016 and ~2.4% per year for 2017-2019. While Efficiency Maine operates under an all cost-effective mandate, the agency has fallen short of targets in recent years due to budget cuts. Natural Gas: Incremental savings of ~0.2% per year for 2017-2019.	AVANGRID (Central Maine Power is a subsidiary): increase installed renewable capacity by 2GW, reduce emissions intensity 25% below 2015 levels by 2020, 100% carbon neutral by 2035.
Maryland	Adopted 2004, last amended 2019 (SB 19-516): 28% by 2020, 40% by 2025, and 50% by 2030.	Electric: 2% incremental energy savings goal through 2023. Utilities must also file an energy efficiency program plan every 3 years to be approved by the PSC. Natural Gas: goals and limited income goals are being developed.	FirstEnergy (Potomac Edison Company is subsidiary in MD): 90% below 2005 emission levels by 2045.

State	Renewable / Clean Energy Targets	EERS	Utility Commitments / Goals
Massachusetts	Adopted 1997, last amended 2018 (Clean Energy Standard): 20% by 2020, 40% by 2030, 60% by 2040, and 80% by 2050. RPS: 13% by 2018, 55% by 2050.	Electric: Net annual savings of 3.45 million MWh (not including fuel switching) for 2019-2021, equivalent to savings of ~2.7% of retail sales per year. Natural Gas: 1.25% of retail sales. Net savings of 95.89 MMTherms for 2019-2021. Additional goal of 261.9 million net lifetime MMBtu for 2019-2021.	NationalGrid: 45% below 1990 emission levels by 2020, 70% below 1990 levels by 2030, and 80% below 1990 levels by 2050.
Nevada	Adopted 1997, last amended 2019: 24% by 2021, 50% by 2030, with 100% by 2050 goal (up to 10% of the standard can be met using energy efficiency from 2020-2024.	SB 17-150 set baseline targets for electricity suppliers: 1% in 2018, 1.5% for 2021-2025.	NV Energy: seeks to double renewable generation by 2023. The utility included $2 billion in renewable projects in its 2018 IRP, and expects to retire or divest 100% of its coal generation by the end of 2025.
New Jersey	Adopted 1999, last amended 2018: 35% by 2025, 50% by 2030.	Electric: 2% electric savings (as a percent of average annual usage from the prior three years) within five years of the initial implementation of a utility's plan. In April, consultants presented the New Jersey Board of Public Utilities with the draft strategic plan for 2019-2022 for the statewide Clean Energy Program, including an energy efficiency portfolio achieving a 56% increase in savings by 2022. Natural Gas: 0.75% savings (as a percent of average annual usage from the prior three years) within five years of the initial implementation of a utility's plan.	FirstEnergy (Jersey Central Power & Light is a subsidiary): 90% below 2005 emission levels by 2045. Public Service Electric and Gas: eliminate 13 million metric tons of CO2 equivalent by 2030 (from 2005 levels).

State	Renewable / Clean Energy Targets	EERS	Utility Commitments / Goals
New Mexico	Adopted 2004, last amended 2019 (Carbon-free Resource Standard): Distribution cooperatives: 10% by 2020, 40% by 2025, 50% by 2030, and zero-carbon (at least 80% RE) by 2050. IOUs: 20% by 2020, 40% by 2025, 50% by 2030, 80% by 2040, and carbon-free by 2045.	Electric: The state's three public utilities must achieve 5% savings of 2020 retail sales by 2025. HB 19-291 directs the Public Regulation Commission to set additional targets through 2030.	Xcel Energy: 55% RE by 2026, 80% GHG reduction by 2030, and carbon-free by 2050. PNM: carbon-free by 2040 (5 years ahead of the deadline established by SB 19-489). PNM plans to retire San Juan by 2022.
New York	Adopted 2016 (Clean Energy Standard): 50% by 2030.	Statewide all-fuels target of 185 TBtu cumulative annual savings for 2015-2025, or approximately 3% of incremental electric sales. Electric: detailed proposals are to be submitted by the utilities to the PSC. The PSC assumes that these plans will account for 2% of the statewide goal, with the remainder accounted for by NYSERDA, codes and standards, and other state activities. Natural Gas: no specific targets, but savings will count toward statewide goal.	Long Island Power Authority: add 800 MW of clean energy by 2030. AVANGRID (New York State Electric & Gas Corporation and Rochester Gas & Electric Corporation are subsidiaries): increase installed renewable capacity by 2GW, reduce emissions intensity 25% below 2015 levels by 2020, and 100% carbon neutral by 2035. NationalGrid: 45% below 1990 emission levels by 2020, 70% below 1990 levels by 2030, and 80% below 1990 levels by 2050.
Oregon	Adopted 2007, last amended 2016: Large IOUs (3% or more of state's load): 50% by 2040 Large COUs: 25% by 2025 Small Utilities (1.5 to <3% of state's load): 10% by 2025 Smallest Utilities (<1.5% of	Electric: Incremental targets average ~1.3% of sales annually for the period 2015-2019. Natural Gas: Incremental savings of 0.3% of sales annually for the period 2015-	Portland General Electric and Pacific Power will be nearly coal free by 2030, entirely coal free by 2035. Avista: carbon-neutral electricity supply by 2027; 100% clean by 2045.

	state's load): 5% by 2025 Total coal phase out by 2035.[1]	2019.	
State	**Renewable / Clean Energy Targets**	**EERS**	**Utility Commitments / Goals**
Rhode Island	Adopted 2004, last amended 2016: 16% by 2020, 31% by 2030, 38.5% by 2036.	Electric: Average incremental savings of 2.5% for 2018-2020. Natural Gas: Average incremental savings of 0.97% for 2018-2020.	NationalGrid: 45% below 1990 emission levels by 2020, 70% below 1990 levels by 2030, 80% below 1990 levels by 2050.
Vermont	Adopted 2015: 55% by 2017, 75% by 2032, and 12% energy transformation projects (EE, EVs, storage) by 2032.	Vermont law requires Energy Efficiency Utility budgets to be set at a level that would realize "all reasonably available, cost-effective energy efficiency" and set specific energy and peak demand savings targets. Average incremental electricity savings totaling 357,400 MWh over 2018-2020, or approximately 2.4% of annual sales. Natural Gas: Three-year annual incremental savings of 192,599 Mcf spanning 2018-2020 or 0.5% of sales.	Green Mountain Power, 2018 Goal: partner with customers to drive down costs and eliminate more than 8,000 metric tons of carbon emissions per year using clean energy for the next two decades.
Washington	Adopted 2006, amended 2019: 15% by 2020, coal phased out by 2025, carbon neutral by 2030, 100% carbon-free by 2045.	Electric: average around 1.4% incremental savings per year. Natural Gas: in 2014, all four IOUs committed to a voluntary pilot program with the potential to save over 280 million therms annually.	Avista: carbon-neutral electricity supply by 2027, 100% clean by 2045. Seattle City Light: carbon neutral since 2005. Puget Sound Energy: reduce carbon emissions 50% by 2040, 100% coal-free generation by the early 2030s.

[1] Utilities that buy into a new coal plant or sign a new contract specifically for new coal power and publicly-owned utilities that annex investor-owned utility territory without consent (aside from municipal utilities under certain conditions) are subject to the “large utility” standards.

State Transportation Policies

State	Regional Transportation Collaborative	LEV Standards? [2]	ZEV Standards? [3]	Low Carbon Fuel Standard?	EV / ZEV Goals
California	Pacific Coast Collaborative	Yes	Yes	Goal: reduce carbon intensity of transportation fuel pool by at least 20% by 2030.	Goal (E.O. B.48-2018): 5 million ZEVs by 2030 and 250,000 ZEV chargers by 2025. Deploy over 100,000 zero emission freight vehicles and associated equipment by 2030. Transit agency requirements: all new bus purchases must be zero emission buses by 2029 (50% by 2026 for large agencies, 25% by 2026 for small agencies)
Colorado	REV West	Yes	Rulemaking in Progress		Goal (E.O. B2019-002): 940,000 EVs by 2030.
Connecticut	Transportation and Climate Initiative[4]	Yes	Yes	*	Goal: 500,000 ZEVs by 2030 (ZEV MOU)
Hawaii	N/A	No	No		
Maine	Transportation and Climate Initiative	Yes	Yes	*	
Maryland	Transportation and Climate Initiative	Yes	Yes	*	Goal: ~300,000 ZEVs by 2025 (ZEV MOU)
Massachusetts	Transportation and Climate Initiative	Yes	Yes	*	Goal: ~300,000 ZEVs by 2025 (ZEV MOU)

[2] States that have adopted LEV Standards not represented below: Delaware and Pennsylvania.
[3] All states that have adopted ZEV Standards are represented below.
[4] Other TCI members not captured here: Delaware, New Hampshire, Pennsylvania, and Virginia.

Nevada	REV West				

State	Regional Transportation Collaborative	LEV Standards?	ZEV Standards?	Low Carbon Fuel Standard?	EV / ZEV Goals
New Jersey	Transportation and Climate Initiative	Yes	Yes	*	Goal: 330,000 EVs by 2025.
New Mexico	REV West	Climate Change Task Force to evaluate adopting.	Climate Change Task Force to evaluate adopting.		Governor Grisham stated that she would like to see 20% of the state fleet electrified.
New York	Transportation and Climate Initiative	Yes	Yes	*	Goal: 800,000 ZEVs by 2025.
Oregon	Pacific Coast Collaborative	Yes	Yes	Requires fuel suppliers to reduce the carbon content of transportation fuels by 10% by 2025.	Goal (E.O. 2017-21): 50,000 EVs by 2020.
Rhode Island	Transportation and Climate Initiative	Yes	Yes	*	Goal: 43,000 ZEVs by 2025 (ZEV MOU)
Vermont	Transportation and Climate Initiative	Yes	Yes	*	Goal: ~50,000 EVs by 2025
Washington	Pacific Coast Collaborative	Yes			Goal: 50,000 EVs by 2020.

* Signatory: Low Carbon Fuel Standard MOU (2009) in which the states agreed to analyze low-carbon fuel supply options, determine the feasibility of achieving a range of carbon reduction goals – including a 10 percent reduction in carbon intensity of fuels – and develop a framework for a regional Low Carbon Fuel Standard (LCFS).

State Appliance and Building Efficiency Policies

State	Appliance Standards Opposing Federal Rollback[5]	Building Efficiency Codes
California	In December 2008, California adopted a 45 lumen per watt standard for general service lamps (GSLs) as defined in the 2007 Energy Independence and Security Act (EISA). California's Title 20 Appliance Efficiency Regulations have existing provisions that backstop all other federal appliance standards in case of repeal or rollback.	Commercial: meets or exceeds ASHRAE 90.1-2013 Residential: meets or exceeds IECC 2015 Solar: The California Energy Commission adopted revisions to the Energy code in May 2018. The most noteworthy new provision is a requirement for all new low-rise homes to install PV equipment with an annual output greater than or equal to the home's annual electric consumption. The proposed amended standards, which still need to be approved by the California Building Standards Commission would go into effect on January 1, 2020.
Colorado	HB 19-1231 updates and adopts standards for water efficiency and energy efficiency that apply to a list of 15 consumer and commercial appliances and other products. The bill also includes a provision to adopt current federal standards to backstop all other federal appliance standards in case of repeal or rollback.	No mandatory statewide code, but any county or municipality that had a building code in place was required to adopt 2003 IECC or 2006 IECC as the minimum energy code standard by July 1, 2008. Solar: Builders of single-family homes are required to offer solar energy as a standard feature to all prospective homebuyers. Builders are required to give the buyer the option to have either a PV system or a solar water heating system installed on their new home or to have all the necessary wiring and plumbing installed so that they can easily add a solar system later.
Connecticut	N/A	Residential and commercial building codes are based on the 2012 IECC, with weakening amendments.
Hawaii	HB 19-556 requires the Department of Business, Economic Development and Tourism to adopt minimum appliance efficiency standards for certain products sold or installed in the State that are substantially equivalent to existing appliance efficiency standards established in California and by the federal government.	Residential and commercial building codes are based on the 2015 IECC, with weakening amendments. Solar: As of January 1, 2010, building permits may not be issued for new single-family homes that do not include a solar water-heating system.

[5] In May 2019, 36 utility companies opposed the DOE proposal to roll back lightbulb efficiency stating that "The 2020 standard for lightbulbs should remain applicable to all common household lightbulbs, and efficiency standards for other products should not be delayed."

State	Appliance Standards Opposing Federal Rollback	Building Efficiency Codes
Maine	N/A	Commercial: based on the 2009 IECC and ASHRAE 90.1-2007 Residential: based on the 2009 IECC
Maryland	N/A	Residential and commercial building codes are based on the 2015 IECC.
Massachusetts	N/A	Commercial: based on the 2015 IECC and ASHRAE 90.1-2013 Residential: based on the 2015 IECC
Nevada	AB 19-54 adopted the federal light bulb standards.	Commercial: 2012 IECC, with amendments or ASHRAE 90.1-2010 Residential: 2012 IECC, with amendments
New Jersey	N/A	Commercial: based on ASHRAE 90.1-2013 Residential: based on 2015 IECC Solar: Developers of residential developments with 25 or more dwelling units must "offer to install, or to provide for installation of, a solar energy system" when technically feasible. The law took effect immediately upon enactment; however, the Department of Community Affairs (DCA), in cooperation with the New Jersey Board of Public Utilities (BPU), must develop rules and standards for its implementation. The law does not provide a time frame for the adoption of regulations and it does not appear that such rules have been established.
New Mexico	N/A	Commercial and residential are based on the 2009 IECC, with amendments
New York	N/A	Commercial: based on the 2015 IECC and ASHRAE 90.1-2013, as modified by the 2016 supplement Residential: based on the 2015 IECC, as modified by the 2016 supplement
Oregon	N/A	Commercial: based on ASHRAE 90.1-2010 Residential: more stringent than the 2009 IECC
Rhode Island	SB 19-552, which has been "held for further study", would establish minimum appliance energy efficiency standards.	Commercial: based on the 2012 IECC and ASHRAE 90.1-2010 Residential: based on the 2012 IECC, with amendments

State	Appliance Standards Opposing Federal Rollback	Building Efficiency Codes
Vermont	H 17-411 provides that the state will enforce federal standards if they are "withdrawn, repealed or otherwise voided" at the federal level. Efficiency measures protected by the new Vermont law include all standards on the federal books as of January 17, 2017, including ones that have yet to take effect, including the light bulb standards slated for implementation in 2020.	Commercial: based on the 2015 IECC and ASHRAE 90.1-2013, with amendments Residential: based on the 2015 IECC
Washington	HB 19-1444 adopts federal light bulb standards, providing a backstop to a potential federal rollback.	Commercial and Residential: based on the 2015 IECC, with amendments HB 19-1257: Department of Commerce is to create a State Energy Performance Standard by November 1, 2020 to reduce energy use and GHG emissions associated with large commercial buildings.

State Methane and HFC Emissions Policies

State	Methane Emissions Policy	HFC Emissions Policy
California	CARB adopted stringent methane regulations for monitoring and repairing pipeline leaks in 2017 (required by SB 16-1383). The CPUC ordered utilities to file methane abatement compliance plans by March 2019 (pursuant to SB 14-1371).	SB 18-1013 creates the Fluorinated Gases Emission Reduction Incentive Program to promote the adoption of low-global warming potential refrigerants. The schedule to ban products made with HFCs begins 2022.
Colorado	SB 19-181 directs the Air Quality Control Commission to bolster methane regulations by promulgating rules for all points in the natural gas supply chain (processing, gathering & boosting, storage, and transmission). The legislation also affirms local authority over oil and gas siting and sets objectives to protect public health.	SB19-096 requires the development of a GHG inventory, which will include HFCs.
Connecticut	N/A. Connecticut's omnibus energy bill, HB 19-5002, did not include regulations for methane emissions. Studies of CT pipelines reveal the need to modernize gas infrastructure.	Governor Malloy directed DEEP to develop HFC controls modelled after CARB's that would fit within the state's air quality regulatory framework. New regulations are expected in 2020.
Hawaii	N/A	N/A
Maine	Maine's policy establishes a classification system for pipeline leaks, and sets detection and repair requirements for pipeline operators. Governor Mills joined 15 other attorneys general in suing the Trump administration for halting enforcement of federal methane rules.	N/A
Maryland	The Greenhouse Gas Emissions Reductions Act requires the maintenance of GHG emissions inventories. The Maryland Department of Environment (MDE) publishes data on methane from wastewater, landfills, and oil and gas operations. MDE is in the process of developing proposed methane regulations - Methane Emissions Minimization Plans (MEMPs) - for curbing leaks across the natural gas supply chain.	MDE is in the process of developing HFC regulations for foam and refrigerant products pursuant to SB 16-323 (the Greenhouse Gas Emissions Reduction Act).

State	Methane Emissions Policy	HFC Emissions Policy
Massachusetts	To meet state emissions reductions goals, the DEP adopted rules in 2017 to require natural gas operators to reduce methane emissions annually (specified by utility), keep inventories, and repair pipeline leaks. The DPU adopted rules in March 2019 that establish methods for identifying high-priority leaks. The rules also require that gas operators accelerate repairs when leaks are located in 'environmentally sensitive areas'.	Massachusetts published its Comprehensive Energy Plan in late 2018. HFC regulations have not been announced, but the state's Attorney General joined 10 other states to sue the EPA for its HFC rule rollback in 2018.
Nevada	N/A	N/A
New Jersey	S 19-3207, if enacted, would bolster the state's GHG emissions reporting requirements and require the development of a comprehensive statewide strategy for mitigating 'short-lived' GHGs, including methane. As of May 2019, the bill had been passed by both chambers of the legislature.	S 19-3207 includes a provision requiring the development of a comprehensive strategy to reduce emissions of short-lived climate pollutants in the State. This requirement is based on legislation adopted and implemented in California.
New Mexico	Governor Grisham's EO 2019-003 directs EMNRD and NMED to develop a regulatory framework to reduce oil and gas sector methane emissions. The NMED maintains an interactive map of oil and gas site emissions.	N/A
New York	Governor Cuomo's Methane Reduction Plan (2017) outlines multiple policies to achieve emissions reductions targets, including monitoring and repair of natural gas pipelines.	The New York State Department of Environmental Conservation is developing regulations to phase out HFCs between 2020 and 2024, a draft proposal was released in September of 2018.
Oregon	HB 19-2020 would have directed the Environmental Quality Commission to develop rules regulating methane emissions from landfills, agriculture, and forestry. No legislation or regulations are in place for pipeline leaks.	N/A
Rhode Island	The Rhode Island Energy 2035 Plan (2015) recommended reviewing the state's natural gas replacement and repair policy, suggesting an update to National Grid's Gas Infrastructure, Safety, and Reliability Plan for detecting and repairing pipeline leaks.	N/A
Vermont	Gas utilities must 'routinely' inspect for leaks. No comprehensive program for pipeline emissions reductions is in place.	S 19-0030 establishes a schedule between 2020 and 2024 for when certain products must be manufactured without HFCs.
Washington	State law establishes a classification system for pipeline leaks and requires utilities to maintain permanent leak records and conduct a self-audit every five years.	HB 19-1112 establishes a regulatory framework for phasing out HFCs in the state, banning specific products beginning in 2020.

State	Bill Number	Summary
California	SB 18-1013	Codifies the prohibitions on certain ozone depleting substances and HFC) adopted by the U.S. EPA as part of the Significant New Alternatives Policy (SNAP) Program.
Colorado	HB 19-1261	Sets statewide GHG emissions reduction goals to more than 26% from 2005 levels by 2025, 50% below 2005 levels by 2030, and 90% below 2005 levels by 2050.
	SB 19-096	Requires the AQCC to collect greenhouse gas emissions data from greenhouse gas-emitting entities, report on the data, develop a forecast of future emissions, and propose a draft rule to address the emissions by July 1, 2020.
	SB 19-181	Modifies the composition of the COGCC, requires that the COGCC review and, if necessary, amend existing rules related to methane emissions and oil and gas operations, removes the state preemption of oil and gas regulation, and expands the authority of local governments to regulate oil and gas development.
	SB 19-236	Among other provisions, the bill supplements existing state renewable energy standard laws by establishing targets for the reduction of CO_2 emissions by Xcel Energy (80% below 2005 levels by 2030, 100% by 2050 and thereafter, if practicable). Other utilities may opt in to submitting clean energy plans. The bill also allows utilities to apply to the PUC for approval of a financing order to issue securitized utility ratepayer-backed bonds when retiring an electric generating facility. Bonds are to be used by the utility to purchase, build, or invest in electric generating resources or electricity storage, and repaid through a distinct charge on ratepayers. The bill requires the PUC to promulgate rules that require each wholesale electric cooperative to submit an application for approval of an integrated or electric resource plan. The PUC must evaluate the plans using rules adopted that are applicable to these cooperatives. The bill also requires the PUC to promulgate rules establishing requirements for IOUs to file electric distribution plans; requires IOUs to include a workforce transition plan when proposing the retirement of an electric generating facility; directs the PUC to require electric public utilities to consider the cost of carbon dioxide emissions in certain proceedings; requires the PUC to conduct an investigation of financial performance-based incentives and performance-based metric tracking; and directs the PUC to open an investigatory proceeding to evaluate the costs and benefits associated with regional transmission organizations, energy imbalance markets, joint tariffs, and power pools.
Connecticut		
Hawaii		
Maine	LD 19-1679	Updates the state's GHG emissions reduction targets to 45% below 1990 levels by 2030, and 80% below 1990 levels by 2050. Establishes the Maine Climate Council, comprised of state agencies and stakeholders tasked with developing a climate action plan and a clean energy economy transition plan.

State	Bill Number	Summary

Maryland	HB 19-277	Authorizes the Governor to include the state in any regional governmental initiative, agreement, or compact that limits or reduces greenhouse gas emissions from the transportation sector; requires the Department of the Environment and the Department of Transportation to submit a report on the status of any regional initiative before November 1, 2019.
	SB 19-516	Among other provisions, increases the state's RPS to 50% by 2030. Requires study of a 100% renewable energy goal.
Massachusetts	H 18-4857	Establishes an energy storage target of 1,000 MWh by 2025. Requires electric suppliers to provide a minimum percentage, as determined by the Department of Energy Resources (DER), of kWh sales from clean peak resources. Also provides for EDCs to submit distribution system resiliency reports to the DER. Allows EDCs to hold competitive solicitations for procurement of non-wires alternatives from third party developers. Establishes reporting requirements for lost and unaccounted for gas for gas companies for the purpose of reducing GHG emissions. Requires the DER to study the costs and benefits of requiring EDCs to issue competitive bids for up to 1,600 MW of additional offshore wind.
Nevada	SB 19-254	Sets GHG emissions reduction targets: 28% below 2005 levels by 2025, 45% below 2005 levels by 2030, and "zero or near-zero" by 2050. Also requires DCNR to submit an emissions report, and provide analysis of whether existing/pending state policies can ensure that the state achieves zero carbon emissions by 2050.
	SB 19-358	Increases the state's clean energy standard to 50% by 2030. Includes a zero carbon by 2050 goal.
New Jersey	AB 18-3723	Requires the BPU to conduct an energy storage analysis, make changes to the solar renewable energy certificate program, adopt energy efficiency and peak demand reduction programs, adopt a "Community Solar Energy Pilot Program," and provide tax credits for certain offshore wind energy projects. The bill also requires the Department of Labor and Workforce Development to establish job training programs for those who work in manufacturing and servicing of offshore wind energy equipment.
	SB 19-3207	If enacted, the bill will establish new timeframes for the implementation of certain requirements in the "Global Warming Response Act" (GWRA), and require the Department of Environmental Protection (DEP) to adopt a strategy to reduce short-lived climate pollutants.
New Mexico	SB 19-489	Increases the state's RPS as follows: Distribution cooperatives: 10% by 2020, 40% by 2025, 50% by 2030, zero-carbon (at least 80% RE) by 2050. IOUs: 20% by 2020, 40% by 2025, 50% by 2030, 80% by 2040, and resources must be carbon-free by 2045. Also authorizes an alternative mechanism ("energy transition bonds" or "securitization") for financing the retirement of coal-fired power plants. The mechanism has been designed to accommodate the retirement in 2022 of units 1 and 4 of the San Juan Generation Station (SJGS) and to anticipate the closure of the Four Corners Power Plant in 2031. The bill also requires that the Environmental Improvement Board (EIB) promulgate a rule limiting carbon dioxide emissions from coal fired generating plants to an emissions standard of 1,100 lbs-CO2/MWh on or after January 1, 2023.

State	**Bill Number**	**Summary**

New York	SB 19-6599	If enacted, will create GHG emissions targets of 40% below 1990 levels by 2030 and 85% below 1990 levels by 2050, with the remaining 15% offset. The bill also requires that the PSC creates a clean energy standard of 70% renewable energy by 2030 and 100% zero emissions by 2040.
Oregon		
Rhode Island		
Vermont	HB 19-529	Excludes from the definition of a net metering system a plant for generation of electricity that primarily supplies electricity to electric vehicle supply equipment for the resale of electricity. Requires the Public Utility Commission to report on steps necessary to implement fees on plug-in electric vehicle charging and how to address net metering and net metering credits by December 15, 2019. Establishes the vehicle incentive and emissions repair programs, which, among other things, provide point-of-sale vouchers for the purchase or lease of new plug-in electric vehicles. Permits State agencies that own or control electric vehicle supply equipment (EVSE) to establish, set, and adjust fees for the use of EVSE available to the public for three years starting on July 1, 2019. Specifies that the PUC does not have jurisdiction over persons otherwise not regulated by the PUC that engage in the siting, construction, ownership, operation, or control of a facility that sells or supplies electricity to the public exclusively for charging a plug-in electric vehicle. Requires the Commissioner of Buildings and General Services, to the maximum extent practicable, to purchase and lease hybrid or plug-in electric vehicles for the State fleet with a minimum of 50%, bumped to 75% on July 1, 2021, of newly purchased and leased vehicles being hybrid or plug-in electric vehicles.
	S 19-30	Establishes a schedule between 2020 and 2024 for when certain products must be manufactured without HFCs.
Washington	HB 19-1112	Establishes a schedule between 2020 and 2024 for when certain products must be manufactured without HFCs.
	HB 19-1257	Requires the State Building Code Council to develop rules that require and regulate electric vehicle charging capability at all new buildings that provide on-site parking. Requires the Department of Commerce to create a State Energy Performance Standard by November 1, 2020 to reduce energy use and GHG emissions associated with large commercial buildings. Requires gas companies to identify and acquire all conservation measures that are available and cost-effective. The cost-effectiveness analysis must include the societal costs of GHG emissions. The targets must be based on a conservation potential assessment prepared by an independent third party and approved by the UTC. A gas company may propose a renewable natural gas program under which the company would supply renewable natural gas for a portion of the natural gas sold or delivered to its retail customers. Each gas company must offer by tariff a voluntary renewable natural gas service available to all customers to replace any portion of the natural gas that would otherwise be provided by the gas company. The UTC must monitor the GHG emissions resulting from natural gas and renewable natural gas delivered by each gas company to its customers, relative to the proportionate share of the state's GHG emissions goal.
	HB 19-1512	Allows municipal utilities to adopt transportation electrification plans. Regulated utilities may adopt plans that provide EV charging equipment incentives and support for other transportation electrification programs. Utility Electric Transportation Plan Authorization: The governing authority of a utility or a regulated electric utility, with the approval of the UTC, may adopt an electric transportation plan that proves that utility outreach and

		investment in the electrification of transportation infrastructure does not increase net costs to ratepayers in excess of 0.25%. The governing authority or the UTC may consider items such as the impact of electrification on the utility's load, demand response and load management opportunities, system reliability and distribution system efficiencies, and interoperability concerns. Upon making this determination, electric utilities may offer incentive programs for customers.
	HB 19-2042	Extends and establishes tax credits for electric vehicles and electric vehicle supply equipment (EVSE). Establishes a grant program to assist transit authorities in fleet electrification and alternative fuel use; a car sharing pilot grant program to support car sharing for underserved communities; and extends an existing EV charging infrastructure grant program. Amends provisions authorizing investor-owned utilities' incentive rate of return on investments in EV supply equipment. Extends a technical assistance and education program on alternative fuel vehicles for public agencies within Washington State University's Extension Energy Program. Authorizes the Department of Commerce to conduct a study on reducing barriers to battery and hydrogen fuel cell electric vehicle adoption by lower income residents.
	SB 19-5116	Requires that by December 31, 2025, all electric utilities eliminate coal-fired resources from their allocation of electricity. For IOUs, the UTC is required to accelerate depreciation for any coal-fired resource owned by an IOU and is allowed to accelerate depreciation for any qualified transmission line to no later than December 31, 2025. The UTC must allow in rates prudently incurred undepreciated investments in a fossil-fuel generating resource that has been retired from service under specific conditions. By January 1, 2030, each electric utility must make all retail sales of electricity to Washington customers GHG neutral. An electric utility must achieve compliance with the GHG neutral standard for multiyear compliance periods beginning January 1, 2030, through December 31, 2044. By January 1, 2045, each electric utility must meet 100 percent of its retail electric load to Washington customers using non-emitting electric generation and electricity from renewable resources.

State EV and EVSE Policies and Incentives

California

EV Policies and Incentives

Low Emission Truck and Bus Purchase Vouchers: fleet owners.

Light-duty PHEV and ZEV Rebates

HOV and High Occupancy Toll (HOT) Lane Exemption

The California Clean Truck, Bus, and Off-Road Vehicle and Equipment Technology Program: funding for development, demonstration, pre-commercial pilot, and early commercial implementation projects for zero and near-zero emission trucks, buses, and off-road vehicles and equipment.

Through the California Clean Miles Standard and Incentive Program, the California Air Resources Board (ARB) will establish annual emissions reduction targets for transportation network companies, including goals for increasing the number of miles traveled using zero emission vehicles.

Zero and Near-Zero Emission Vehicle Component Rebates

Vehicle Acquisition and Petroleum Reduction Requirements: beginning in fiscal year 2024, at least 50% of the light-duty vehicles purchased by the state must be ZEVs. At least 30% of the Department of General Service's fleet of new vehicles with a gross vehicle weight of 19,000 pounds or more must be ZEVs by 2030.

Freight Efficiency Action Plan: establishes targets to improve freight efficiency and transition to zero emission technologies.

EV Supply Equipment (EVSE) Policies and Incentives

EVSE Incentive Program Support: provides guidance and funding for local governments and organizations to develop and implement EVSE incentive programs.

EVSE Loan and Rebate Program: available to small businesses.

Emissions Reductions Grants

Residential PACE EVSE Financing Program

EVSE Policies for Residential and Commercial Renters: The lessor of a dwelling or commercial property must approve written requests from a

lessee to install EVSE at a parking space allotted for the lessee on qualified properties. Certain exclusions apply to residential dwellings and commercial properties.

EVSE Policies for Multi-Unit Dwellings: A common interest development, including a community apartment, condominium, and cooperative development, may not prohibit or restrict the installation or use of EVSE or a PEV-dedicated TOU meter in a homeowner's designated parking space or unit. These entities may put reasonable restrictions on EVSE, but the policies may not significantly increase the cost of the EVSE or significantly decrease its efficiency or performance.

Mandatory EVSE Building Standards

EVSE Open Access Requirements: EVSE service providers may not charge a subscription fee or require membership for use of their public charging stations.

PEV Charging Access: Municipalities may not restrict the types of PEVs that may access a public PEV charging station that is intended for passenger vehicle use, and funded, at least in part, by the state or money from utility ratepayers.

EVSE Location Assessment: The State Energy Resources Conservation and Development Commission, in partnership with CARB, must assess whether EVSE in California is located disproportionately by population density, geographical area, or population income level. If EVSE has been disproportionately installed unreasonably, the agencies must proportionately install new EVSE, unless it is determined that the current locations of EVSE further California's policy goals.

EVSE Assessment: The California State Energy Resources Conservation and Development Commission, in partnership with CARB and the CPUC, must publish a statewide assessment of the EVSE infrastructure needed to support the levels of PEV adoption required for at least five million zero emission vehicles to operate in California by 2030. The assessment must consider the EVSE infrastructure needs for all vehicle categories, and must analyze the existing and future infrastructure needs across California, including in low-income communities. The assessment must be updated at least once every two years.

Public Utility Definition: A corporation or individual that owns, controls, operates, or manages public EVSE is not defined as a public utility.

State Agency EVSE Installation: California state agencies must actively identify and pursue opportunities to install EVSE, and accommodate future EVSE demand, at state employee parking facilities in new and existing agency buildings.

EVSE Local Permitting Policies: Cities and counties must adopt an ordinance that creates an expedited, streamlined permitting process for EVSE.

Colorado

EV Policies and Incentives

PEV Tax Credit: $5,000 - 20,000 in 2017-2019; $4,000 - 16,000 in 2020; $2,500 - 10,000 in 2021.

Alternative Fuel Vehicles and Infrastructure Grant Program: CEO, RAQC, and CDOT, have partnered to provide grants through the ALT Fuels Colorado program for new fleet purchases of EVs.

PEV and EVSE Grants: available to individual drivers and fleet owners.

High Occupancy Vehicle (HOV) Lane Exemption

EV Supply Equipment (EVSE) Policies and Incentives

Alternative Fuel Vehicles and Infrastructure Grant Program: Provides grants through the ALT Fuels Colorado program for new, publicly accessible co-located electric vehicle charging and propane station equipment at funded CNG stations, and EVs.

EVSE Multi-Unit Dwelling Installations and Access: A residential tenant may install Level 1 or Level 2 EVSE at their own expense on or in leased premises. The landlord may seek a fee or reimbursement for the actual cost of electricity as well as the cost of installation or upgrades to existing equipment. In addition, the tenant may request that the EVSE be accessible by other tenants, in which case the EVSE must be in compliance with all applicable requirements, and the landlord may seek a fee to reserve a specific parking space.

Alternative Fuel Resale and Generation Regulations: A corporation or individual that resells alternative fuel supplied by a public utility for use in an AFV is not subject to regulation as a public utility. Additionally, a corporation or individual that owns, controls, operates, or manages a facility that generates electricity exclusively for use in AFV charging or fueling facilities is not subject to regulation as a public utility provided that the electricity is generated on the property where the charging or fueling facilities are located and the electricity is generated from a renewable resource.

Connecticut

EV Policies and Incentives

Heavy-Duty Vehicle Emissions Reduction Grants: DEEP allocates a portion of its designated funds from the Volkswagen Environmental Mitigation Trust for the replacement or repower of eligible heavy-duty on-road vehicles through its Diesel Emissions Mitigation Program.

Hydrogen and PEV Rebate

Loans for PEVs and Residential Charging Infrastructure: The Connecticut Green Bank offers Smart-E low-interest loans of up to $30,000 for Connecticut residents to purchase a new or used PEV. The vehicle must be registered with the Connecticut Department of Motor Vehicles. Loans are also available for Connecticut PEV drivers to purchase EVSE. To qualify, applicants must own or lease a model year 2012 or later PEV and occupy the residence at which the EVSE will be installed.

Reduced Registration Fee for Electric Vehicles

AFV Procurement Preference: In determining the lowest responsible qualified bidder for the award of state contracts, the Connecticut Department of Administrative Services may give a price preference of up to 10% for the purchase of AFVs or for the purchase of conventional vehicles plus the conversion equipment to convert the vehicles to dual or dedicated alternative fuel use.

EV Supply Equipment (EVSE) Policies and Incentives

EVSE Grants: available to municipalities, state agencies, and private businesses.

Public EVSE Requirements: Owners and operators of public EVSE that require payment must allow multiple payment options that allow access by the public. In addition, payment should not require users to pay a subscription fee or obtain a membership of any kind, however payment required may be based on price schedules for such memberships. Owners and operators can impose restrictions on the amount of time a vehicle can use the EVSE. In addition, owners and operators of a public EVSE must disclose the location and characteristics of each EVSE to the U.S. Department of Energy's Alternative Fuels Data Center.

Public Utility Definition: An owner of an EV charging station is not defined as a public utility.

Utility Company PEV Rates: By July 1, 2018, utility companies must evaluate if it is appropriate to implement PEV time of day rates for residential and commercial customers.

Hawaii

EV Policies and Incentives

PEV HOV Lane and Parking Fee Exemptions.

State and county agencies must purchase light-duty vehicles that reduce petroleum consumption and meet the needs of the agency. Exemptions may apply.

EV Supply Equipment (EVSE) Policies and Incentives

Public Utility Definition: An entity that owns, controls, operates, or manages a plant or facility primarily used to charge or discharge a vehicle battery that provides power for vehicle propulsion is not defined as a public utility.

All parking facilities that are available for use by the general public and include at least 100 parking spaces must designate at least one parking space specifically for PEVs, provided that no parking spaces required by the Americans with Disabilities Act Accessibility Guidelines are reduced or displaced.

A multi-family residential dwelling or townhouse owner may install EVSE on or near a parking stall at the dwelling as long as the EVSE is in compliance with applicable rules and specifications, the EVSE is registered with the private entity within 30 days of installation, and the homeowner receives consent from the private entity if the EVSE is placed in a common area. Private entities may adopt rules that restrict the placement and use of EVSE but may not charge a fee for the placement. The EVSE owner is responsible for any damages resulting from the installation, maintenance, repair, removal, or replacement of the EVSE.

Maine

EV Policies and Incentives

An insurer may credit or refund any portion of the premium charged for an insurance policy on a clean fuel vehicle in order to encourage its policyholders to use clean fuel vehicles, as long as insurance premiums on other vehicles are not increased to fund these credits or refunds.

EV Supply Equipment (EVSE) Policies and Incentives

EVSE Funding: Efficiency Maine Trust is accepting applications through July 10, 2019, for funding of public, workplace, and multi-unit dwelling Level 2 EVSE in strategic locations within Maine. EVSE along specific roads and at locations that will likely experience a high frequency of use will be prioritized.

PEV Charging Regulation Exemption: An entity that sells electricity for the sole purpose of charging the battery of a PEV is not defined or regulated as an electricity provider. An EVSE provider may charge a submetered user only for kilowatt-hours used.

Maryland

EV Policies and Incentives

PEV and Fuel Cell Electric Vehicle (FCEV) Tax Credit: up to $3,000.

PEV HOV Lane Exemption

AFV Voucher Program: for the purchase of new and converted AFVs registered in Maryland. Vehicles must be used by commercial, non-profit, or public entities.

Zero Emission School Bus Grant Program and Study: The Maryland Department of the Environment will administer a Zero Emission School Bus Transition Grant Program to purchase zero emission school buses, install charging infrastructure, and transition to zero emission school bus fleets.

ZEV State Fleet Goal: state agencies must increase the number of ZEV acquisitions in light-duty fleets to at least 25% of annual fleet purchases by 2025.

EV Supply Equipment (EVSE) Policies and Incentives

EVSE Rebate Program

Alternative Fuel Infrastructure Grants: The Maryland Energy Administration administers the Maryland Alternative Fuel Infrastructure Program (AFIP), which provides grants to plan, install, and operate public access alternative fueling and charging infrastructure.

EVSE Regulation Exemption: Owners and operators of EVSE are not subject to state regulation as electricity suppliers or public service companies. For the purpose of this regulation, owners and operators of EVSE are considered retail electric customers.

PEV Information Disclosure: The Maryland Motor Vehicle Administration is allowed to provide the address of a registered PEV owner and information about the vehicle to electric companies for their use. Electric companies may only use this information in planning for the electric power supply and may not use it for marketing or solicitation.

PEV Infrastructure Promotion: The Maryland EV Infrastructure Council promotes the use of PEVs in the state. Specific responsibilities of the Council include the following:

- developing an action plan to facilitate successful integration of PEVs into the Maryland transportation network;
- assisting in developing and coordinating statewide standards for streamlined permitting and installation of EVSE;
- recommending a statewide charging infrastructure plan and incentives to support investment in PEVs;
- developing targeted policies to support fleet purchases of PEVs; encouraging local and regional efforts to promote the use of PEVs; and
- developing model procurement practices.

Effective July 1, 2019, the Council will be renamed the Zero Emission Electric Vehicle Council and will incorporate fuel cell electric vehicles in all of the Council responsibilities.

Massachusetts

EV Policies and Incentives

Vehicle Emissions Reduction Grants: The (MassDEP) Volkswagen Open Solicitation Grant Program provides up to 80% of the cost of new diesel or alternative fuel replacements and repowers for eligible government entities.

PEV and EVSE Grants for Public Fleets: available to local governments, public universities and colleges, and state agencies.

Plug-In and ZEV Rebates
AFV and Infrastructure Grants: The Massachusetts Department of Energy Resources' Clean Vehicle Project offers grants for public and private fleets to purchase AFVs and infrastructure.

When purchasing new motor vehicles, the Commonwealth of Massachusetts must purchase hybrids or AFVs to the maximum extent feasible and consistent with the ability of such vehicles to perform their intended functions.

EV Supply Equipment (EVSE) Policies and Incentives

Public Access EVSE Grants: Qualified EVSE must be available to the public at least 12 hours per day.

Multi-Unit Dwelling (MUD) EVSE Grants: available to private, public, or non-profit MUDs with ten or more residential units.

Workplace EVSE Grants: available to private, public, or non-profit workplaces with 15 or more employees on site.

Public EVSE Requirements: Owners and operators of public EVSE that require payment must provide payment options that allow access by the public. In addition, payment should not require users to pay a subscription fee or obtain a membership of any kind; however, required fees may be conditional on such memberships. Owners and operators can impose reasonable restrictions on EVSE use, such as limiting access to visitors of the business. In addition, owners and operators of public EVSE must provide the location, hours of operation, payment, and characteristics of each EVSE to the U.S. Department of Energy's Alternative Fuels Data Center.

EVSE Building Standards: The Massachusetts State Board of Building Regulations and Standards and the Massachusetts Department of Energy Resources will develop building and electric code requirements for residential and appropriate commercial buildings for EVSE.

Public Utility Definition: An entity that owns, operates, leases, or controls EVSE is not defined as a public utility.

Nevada

EV Policies and Incentives

AFV and Infrastructure Grants Authorization: The Nevada Office of Energy will establish the Nevada Clean Energy Fund to fund qualified clean energy projects, including any program, technology, product, or service that supports the deployment of AFVs and related infrastructure.

Authorization for HOV Lane Exemption: The NDOT, in consultation with the Federal Highway Administration and U.S. EPA, may establish a program allowing federally certified low emission, energy-efficient, and alternative fuel vehicles to operate in HOV lanes regardless of the number of passengers.

AFV Acquisition Requirement: Fleets containing 50 or more vehicles that are owned, leased, or operated by the state, a state agency, or a political subdivision of the state in a county with a population of 100,000 or more must acquire AFVs or U.S. EPA certified Ultra Low Emission Vehicles (ULEVs). Covered fleets are required to purchase either AFVs or certified ULEVs for 20% of new vehicles obtained. A fleet may meet the acquisition requirements by converting existing or newly acquired vehicles to operate on alternative fuels. An AFV acquired in compliance with this mandate must operate solely on the alternative fuel except when operating in an area where the appropriate alternative fuel is unavailable. Fleets with buses or heavy-duty vehicles are included.

SB 19-299: allows utilities to provide an incentive of 75% of the cost for school districts to develop charging infrastructure or purchase electric school buses.

EV Supply Equipment (EVSE) Policies and Incentives

EVSE Demonstration Program Requirements: The Electric Vehicle Infrastructure Demonstration Program requires Nevada utilities to promote and incentivize the deployment of EVSE. Utilities must submit an annual plan for implementing the Program in their service areas to the PUCN. Plans may include, but are not limited to, the following measures:

- payment of incentives to customers that install EVSE;
- time-of-use rates for electricity used to charge plug-in electric vehicles;
- EVSE education and awareness programs for customers; and
- technical assistance programs for government fleets and private organizations.

Utilities may request to recover the costs associated with carrying out the program, including customer incentives, by filing an application with the PUCN.

The Nevada Electric Highway initiative, a partnership created between the state and NV Energy in 2015, seeks to build a complete electric highway system along the I-95 corridor by 2020. 15% of the Nevada's $25 million allocation from the VW settlement agreement will be used to support electric highway projects.

New Jersey

EV Policies and Incentives

ZEV Tax Exemption: does not apply to partial ZEVs, including hybrid electric vehicles.

High Occupancy Vehicle (HOV) Lane Exemption

PEV Toll Discount Program

Low Emission or Alternative Fuel Bus Acquisition Requirement: All buses purchased by the New Jersey Transit Corporation must be: 1) equipped with improved pollution controls that reduce particulate emissions; or 2) powered by a fuel other than conventional diesel.

EV Supply Equipment (EVSE) Policies and Incentives

EVSE Grants: offered on a first-come, first-served basis for the cost of installation of eligible EVSE at workplaces, government and educational facilities, non-profits, parking facilities, and multi-unit dwellings.

State Interagency EV Partnership: Announced June 3, 2019, will be co-led by the BPU, DEP, and the EDA to develop and implement a statewide charging deployment initiative.

New Mexico

EV Policies and Incentives

Alternative Fuel and Advanced Vehicle System Manufacturing Incentive: The Alternative Energy Product Manufacturers Tax Credit provides credit against combined reporting taxes (gross receipts, compensating, and withholding) for qualified manufacturers of alternative energy products, including hydrogen and fuel cell vehicle systems, and electric and hybrid electric vehicles.

AFV Loans: available to state agencies, political subdivisions, and educational institutions for AFV acquisitions. Funds must be used for the purchase of vehicles that operate on natural gas, propane, electricity, or hydrogen.

Government fleets may finance alternative fuel vehicles or related infrastructure through guaranteed utility savings contracts where vehicle operational and fuel cost savings pay for the capital investment.

AFV and HEV Acquisition Requirements: A minimum of 75% of state government and educational institution fleet light-duty vehicles purchased must be HEVs, bi-fuel, or dedicated AFVs.

The New Mexico General Services Department (GSD) launched plans to electrify state vehicles, devoting $2.5 million to public fleet electrification, $1.2 million of which will be used for solar-powered charging stations in Santa Fe. In a statement, Governor Grisham noted she would like to see 20% of the state fleet electrified.

EV Supply Equipment (EVSE) Policies and Incentives

Public Utility Definition: An entity that is not a regulated utility that resells natural gas or electricity as motor fuel is not defined as a public utility.

New York

EV Policies and Incentives

PEV Rebate Program

Heavy-Duty Alternative Fuel and Advanced Vehicle Purchase Vouchers

ZEV and Fueling Infrastructure Rebates for Municipalities: available to cities, towns, villages, counties, and New York City boroughs.

Workplace EVSE and PEV Incentives: NYSERDA is offering employers in the greater New York City region an $8,000 rebate per dual-connector EVSE installed. Employees of organizations that receive the rebate are eligible for a $500 rebate toward the purchase or lease of a qualified PEV.

HOV Lane Exemption

PEV Toll Discount Program

HEV Taxicabs: By February 3, 2019, the New York City Taxi and Limousine Commission must approve one or more HEV models for immediate use as a taxicab by medallion owners.

EV Supply Equipment (EVSE) Policies and Incentives

EVSE Rebate: available to public and private entities for installations at public parking facilities, workplaces, and multi-unit dwellings.

Alternative Fueling Infrastructure Tax Credit:
PEV and Charging Infrastructure Support: The New York Power Authority's EVolve NY program has allocated up to $250 million to support PEVs and address charging infrastructure gaps throughout the state.

PEV Charging Tariff: Each investor-owned utility selling electricity was required to file a tariff with the NYPSC by April 1, 2018, to allow a customer to purchase electricity solely for the purpose of charging a PEV. The utility must make the tariff available to customers within 60 days of PSC approval.

Electric Corporation Definition: PEV charging stations are not defined as electric plants and owners and operators of charging stations are not defined as electric corporations. The PSC does not have jurisdiction over publicly available PEV charging stations, the owners and operators of the stations, or the transactions between the owners and operators of the stations, as long as the owners and operators do not fall within the definition of an electric corporation.

Governor Andrew M. Cuomo announced in February 2019 that New York is making up to $31.6 million available to ramp-up the expansion of electric vehicle fast charging stations. The plan was approved by the NYPSC and will leverage existing NYSERDA and NYPA funds.

Oregon

EV Policies and Incentives

Support for PEV Adoption: In order to support the state goal of at least 50,000 PEVs registered and operating in Oregon by 2020, the ZEV Working Group will develop goals and progress metrics for PEV adoption. The Working Group will aim to remove barriers to PEVs and PEV charging stations, and establish a website to share information about their efforts with the public.

PEV Rebate: available to residents, businesses, non-profit organizations, and government agencies.

Establishment of Recognition Programs for PEV Adoption: The ODOE must design and establish Governor's Awards for automobile dealerships to encourage sales of PEVs. ODOE must also design and establish Governor's Awards for businesses and organizations that support PEV adoption through installing charging infrastructure and using PEVs in their fleets.

Support for Zero-Emission Buses: ODOE, with ODOT, the PUC, the DEQ, and the Department of Education, must develop tools and provide assistance to school districts and transit agencies about using zero-emission bus options.

AFV Acquisition, Fuel Use, and Emissions Reductions Requirements: All state agencies and transit districts must purchase AFVs and use alternative fuels to operate those vehicles to the maximum extent possible, except in regions where it is not economically or logistically possible to fuel an AFV. DAS and ODO) must improve the PEV bulk procurement process to reduce costs for state agency PEV purchases. DAS must develop a “LEV First" policy to encourage state employees to use PEVs or other LEVs in the state fleet. DAS and ODOE must also develop a tool to calculate the long-term return on investment and life-cycle costs of PEVs to inform agencies of potential cost savings. In addition, DAS must inform and support legislative changes that enable increased charging infrastructure and state agency PEV purchases.

EV Supply Equipment (EVSE) Policies and Incentives

Mandatory EVSE Building Standards: The Oregon Department of Business and Consumer Services, Building Code Division, must amend the state building code to require that all newly constructed residential and commercial building parking structures can support the installation of at least one level 2 EVSE by October 1, 2022.

State Agency EVSE Installation: State agencies may install publicly-accessible EVSE on their premises or contract with a vendor to do so. The Oregon Department of Administrative Services (DAS) will establish criteria to determine the appropriate number of locations for EVSE at each agency. DAS must add PEV charging capacity for employee and public visitor parking lots, develop contracts to procure and install charging infrastructure, and incorporate PEV charging as a tenant improvement for state-leased buildings.

Electricity Provider and PEV Charging Rate Regulations: Regulated electric utility tariffs must explicitly permit customers to resell electricity for use as a motor fuel, as long as the entity is not considered a public utility as defined in Oregon Revised Statutes 757.005 and does not provide any utility service. Additionally, each regulated electric utility must provide customers with a choice of flat rate or time of use electricity rates specific to PEV owners. Finally, an investor-owned utility can own and operate PEV charging equipment using its own funds or petition the OPUC for rate recovery.

Rented Commercial Property EVSE Installations: The tenant of a commercial space may submit an application to install EVSE for the use of the tenant, employees of the tenant, and customers of the tenant. Unless the premises does not have at least one parking space per rental unit, the landlord must approve a completed application no more than 60 days after the tenant submits the application. In the absence of a different tenant-landlord agreement, the EVSE will be personal property of the tenant.

Planned Community and Condominium EVSE Installations: The owner of a lot in a planned community or unit in a condominium may submit an application to install EVSE for their personal use in a parking space subject to the exclusive use of the owner. The HOA must approve a complete application within 60 days. The owner is responsible for all costs associated with the EVSE installation and use, must disclose the existence of the EVSE and related responsibilities to a prospective buyer, and must ensure that the infrastructure meets insurance and safety

requirements. EVSE installed under these regulations on or before June 4, 2015, is considered to be the personal property of the lot or unit owner with which the EVSE is associated, unless the owner and HOA have negotiated a different outcome.

Rhode Island

EV Policies and Incentives

AFV and ZEV Acquisition Requirements: at least 75% of state motor vehicle acquisitions must be AFVs, and the remaining 25% must be HEVs to the greatest extent possible. By 2025, 25% of state motor vehicle acquisitions must be ZEVs.

EV Supply Equipment (EVSE) Policies and Incentives

EVSE and PEV Rebates: The Charge Up! program provides rebates to state and municipal agencies for the purchase and installation of publicly accessible Level 2 or DC fast chargers. Agencies that install EVSE also qualify for up to $15,000 to support the purchase or lease of a new PEV acquired on or after July 1, 2016, as part of their public sector fleet.

Vermont

EV Policies and Incentives

PEV Incentive: provides financial incentives to low- and moderate-income residents for the purchase or lease of a new PEV.

Heavy-Duty Vehicle Emissions Reduction Grants: Through the Vermont Diesel Emissions Reduction Grants Program, the Vermont Department of Environmental Conservation provides funding to local, state and regional agencies or departments, businesses, institutions, and nonprofit organizations for projects focused on reducing emissions from diesel engines and vehicles. Qualifying heavy-duty vehicles include buses and Class 5-8 trucks. Projects eligible for funding include alternative fuel conversions and certified vehicle or equipment replacements.

HEV and PEV Acquisition Requirements: Effective July 1, 2019, the Vermont Department of Buildings and General Services must, to the extent possible, purchase or lease HEVs or PEVs for state use. At least 50% of the vehicles purchased or leased annually must be HEVs or PEVs. Beginning July 1, 2021, at least 75% of the vehicles purchased or leased annually must be HEVs or PEVs.

PEV Analysis: The PUC must evaluate PEVs and PEV charging in the state. The Commission must provide public notice, opportunity for submission of written comments, and one or more workshops on PEVs during the course of its evaluation.

EV Supply Equipment (EVSE) Policies and Incentives

EVSE Grants: available to governments, businesses, non-profit organizations, homeowner associations, electric utilities, and EVSE providers.

Alternative Fueling Infrastructure Incentive: The Vermont State Infrastructure Bank (SIB) offers loan assistance to municipalities, regional development corporations, political subdivisions of the state, and private companies working for the state to finance public electric vehicle charging and natural gas fueling stations.

Public Utility Definition: An entity that supplies electricity to the public exclusively to charge plug-in electric vehicles is not defined as a public utility and may charge for this electricity by the kilowatt-hour.

EVSE Fee Authorization: Effective July 1, 2019, any Vermont agency or department that owns or controls EVSE may establish and set user fees.

EVSE Code Reporting: On or before December 1, 2019, the Vermont Agency of Agriculture, Food and Markets (Agency) must submit a report to the legislature that provides an update on the National Institute of Standards and Technology's (NIST) progress toward adopting a code on EVSE and makes a recommendation for an annual licensing fee for EVSE available to the public. If NIST has not adopted a code on EVSE by December 1, 2020, the Agency must submit an additional report on or before that date which provides an update on NIST's progress toward adopting a code.

Washington

EV Policies and Incentives

Alternative Fuel Commercial Vehicle and Fueling Infrastructure Tax Credit: Businesses are eligible to receive tax credits for purchasing new alternative fuel commercial vehicles and installing alternative fueling infrastructure.

PEV and Fuel Cell Electric Vehicle (FCEV) Infrastructure and Battery Tax: Public lands used for installing, maintaining, and operating PEV infrastructure are exempt from leasehold excise taxes until January 1, 2020. Additionally, the state sales and use taxes do not apply through July 1, 2025 to PEV and FCEV batteries or fuel cells; labor and services for installing, repairing, altering, or improving PEV and FCEV batteries or fuel cells and PEV and hydrogen fueling infrastructure; the sale of property used for PEV and hydrogen fueling infrastructure, and the sale of zero emission buses.

AFV and EV Retail Sales Tax Exemption

PEV Promotion and Infrastructure Development: Any regional transportation planning organization containing a county with a population greater than one million must collaborate with state and local governments to promote PEV use, invest in PEV charging infrastructure, and seek federal or private funding for these efforts.

AFV Car Share Pilot Program: WSDOT will develop a pilot program to provide AFV use opportunities to underserved and low-income communities and to those without easy access to transportation corridors.

AFV Technical Assistance and Education Program: The Washington State University Energy Program will establish and administer a technical assistance and education program on the use of AFVs for public agencies, including state and local governments.

EV and FCEV Low Income Opportunity Study: The Washington State Department of Commerce must conduct a study to identify opportunities to reduce barriers to EV and FCEV adoption by lower income residents through the use of vehicle and infrastructure financing assistance.

Alternative Fuel Use Requirement: All state agencies must, to the extent practicable, use 100% biofuels or electricity to operate all publicly owned vehicles. Agencies must prioritize EVs when leasing or purchasing new vehicles, and all trips that may feasibly use EVs must employ them.

EV Supply Equipment (EVSE) Policies and Incentives

Alternative Fueling Infrastructure Funding Program: WSDOT has developed a pilot funding program to strengthen and expand the West Coast Electric Highway network by deploying DC fast charging infrastructure along highway corridors in Washington.

Utility EVSE ROI Incentive: Utilities may petition the UTC for a rate of return on EVSE installed for the benefit of ratepayers through 2030.

Green Transportation Grant Program: WSDOT will establish a grant program to fund projects including fleet electrification, modification or replacement of facilities to facilitate fleet electrification and hydrogen fueling, upgrades to electrical transmission and distribution systems, and construction of charging and fueling infrastructure. In order to receive funding for a project, a transit authority must provide matching funding that is at least equal to 20% of the total cost of the project.

PEV Charging Regulation Exemption: The UTC may not regulate the rates, services, or facilities of an entity that offers charging facilities to the public for hire. The exemption does not apply if the entity is otherwise subject to UTC jurisdiction as an electrical company, or if an entity's battery charging facilities and services are subsidized by any regulated service. A utility may offer charging facilities as a regulated service, subject to UTC approval.

PEV Charging Infrastructure Availability: Publicly and privately owned PEVs may charge at state office locations if the vehicles are used for state business, conducting business with the state, or as commuter vehicles. Additionally, contingent upon funding, the state must install electrical outlets suitable for charging PEVs in each of the state's fleet parking and maintenance facilities as well as every state-operated highway rest stop.

Local Government PEV Infrastructure Requirements: Jurisdictions must develop regulations to allow the use of PEV infrastructure in all areas except critical areas or areas zoned for residential or resource use.

EVSE and Battery Exchange Station Regulations: State and local governments may lease land for installing, maintaining, and operating EVSE or electric vehicle battery exchange stations for up to 50 years for at least $1 per year. Additionally, the installation of battery charging and exchange stations is categorically exempt from the Washington Environmental Policy Act.

HB 19-1512: Allows municipal utilities to adopt transportation electrification plans. Regulated utilities may adopt plans that provide EV charging equipment incentives and support for other transportation electrification programs. Utility Electric Transportation Plan Authorization: The governing authority of a utility or a regulated electric utility, with the approval of the UTC, may adopt an electric transportation plan that proves that utility outreach and investment in the electrification of transportation infrastructure does not increase net costs to ratepayers in excess of 0.25%. The governing authority or the UTC may consider items such as the impact of electrification on the utility’s load, demand response and load management opportunities, system reliability and distribution system efficiencies, and interoperability concerns. Upon making this determination, electric utilities may offer incentive programs for customers.

State Climate / Carbon Policies

State	Emissions / GHG Goals	Other Carbon / Climate Activities and Policies
California	Adopted in 2006 (AB 05-32): 1990 levels by 2020; amended in 2016 (SB 15-32): 40% below 1990 levels by 2030. E.O. S-03 in 2005: 80% below 1990 levels by 2050.	Cap & Trade Program EO B-55-2018: achieve carbon-neutrality by 2045 and net-negative emissions thereafter. AB 17-398: extends cap-and-trade through 2030. SB 15-350: directs CARB to adopt rules removing disincentives for utilities' emissions reductions programs.
Colorado	Adopted 2019 (HB 19-1261): more than 26% from 2005 levels by 2025, 50% below 2005 levels by 2030, and 90% below 2005 levels by 2050.	HB 19-1261: in addition to expanding GHG reduction goals, provides for possibility of joining other jurisdictions in regional abatement schemes. SB 19-096: directs the Air Quality Control Commission to track long-term emissions data and publish an inventory. SB 19-236: utilities must include emissions reductions plans in their IRPs, and PUC must consider social cost of carbon.
Connecticut	Originally adopted 2004 (SB 04-595), last amended 2018 (SB 18-7): 10% below 1990 levels by 2020, 45% below 2001 levels by 2030, and 80% below 2001 levels by 2050.	The 2018 amendment to the GHG targets (SB 7) also requires publication of seal level rise scenarios. In 2018, the Governor's Council on Climate Change put forward several policy recommendations for reducing emissions.
Hawaii	Adopted 2018 (HB 18-2182): carbon neutral by 2045.	HB 18-2182 also creates the Greenhouse Gas Sequestration Task Force to examine incentives and policies that will help the state further reduce emissions. Hawaii is on track to reduce GHG emissions to 1990 levels by 2020. The legislature set this target in 2007 (HB 226).
Maine	Adopted 2019 (LD 19-1679): 45% below 1990 levels by 2030, 80% below 1990 levels by 2050.	LD 19-1679: establishes the Maine Climate Council, tasked with developing a climate action plan and clean energy economy transition plan.
Maryland	Adopted 2009, reauthorized and amended in 2016 (SB 16-323): 25% below 2006 levels by 2020, and 40% below 2006 levels by 2030.	HB 19-277: Authorizes Governor to include the state as full participant in regional initiatives (TCI) to reduce emissions from transportation. SB 19-516: Among other provisions, increases the state's RPS to 50% by 2030. Requires study of a 100% renewable energy goal.

State	Emissions / GHG Goals	Other Carbon / Climate Activities and Policies
Massachusetts	Adopted 2008 (the Global Warming Solutions Act): 25% below 1990 levels by 2020, and 80% below 1990 levels by 2050.	E.O. 2016-569: requires the Secretary of Energy and Environmental Affairs to consult the GWSA Implementation Advisory Committee to establish statewide limits for 2030 and 2040, achieve further reductions from government operations, work to develop regional transportation policies, and lead reform on capacity and wholesale markets to achieve state mandates. DEP must also consider limits on sources such as natural gas pipelines and the transportation sector. The state's 2015 update to its Clean Energy and Climate Plan provides a comprehensive suite of policies to reduce statewide emissions.
Nevada	Adopted 2019 (SB 19-254): 28% below 2005 levels by 2025, 45% below 2005 levels by 2030, and "zero or near-zero" by 2050.	SB 19-254: requires DCNR to submit a report on whether existing/pending state policies can ensure that the state achieves zero carbon emissions by 2050.
New Jersey	Adopted 2007 (AB 07-3301): 1990 levels by 2020, and 80% below 2006 levels by 2050.	The Draft 2019 New Jersey Energy Master Plan outlines multiple strategies for emissions reductions in the energy, transportation, and building sectors.
New Mexico	Adopted 2019 (E.O 003): 45% below 2005 levels by 2030.	Governor Grisham's executive order on climate also created the interagency Climate Change Task Force to evaluate and report on mitigation and adaptation policies, including a market-based program to reduce carbon emissions. SB 19-489 requires that the Environmental Improvement Board (EIB) promulgate a rule limiting CO_2 emissions from coal fired generating plants to an emissions standard of 1,100 lbs-CO_2/MWh on or after January 1, 2023.
New York	Adopted by Executive Order 24 in 2009, reaffirmed as a goal of the Reforming the Energy Vision initiative: 40% below 1990 levels by 2030, and 80% below 1990 levels by 2050. Senate Bill 19-6599 will create GHG emissions targets of 40% below 1990 levels by 2030 and 85% below 1990 levels by 2050, with the remaining 15% offset. The bill also requires the PSC to create a clean energy standard of 70% renewable energy by 2030 and 100% zero emissions by 2040.	The state Soil & Water Conservation Committee administers a Climate Resilient Farming Program to reduce agricultural emissions. Governor Cuomo's REV initiative is a series of smaller initiatives to achieve carbon emissions reductions from multiple sectors, including transportation and buildings.
Oregon	Adopted 2007 (HB 07-3543): 10% below 1990 levels by 2020 and 75% below 1990 levels by 2050.	HB 19-2020 (second reading in Senate on 6/19) would create a GHG emissions standard of 45% below 1990 levels by 2035 and 80% below 1990 levels by 2050 and achieve those reductions through a cap and trade program.

State	Emissions / GHG Goals	Other Carbon / Climate Activities and Policies
Rhode Island	Adopted 2014 (the Resilient Rhode Island Act): 10% below 1990 levels by 2020, 45% below 1990 levels by 2035, and 80% below 1990 levels by 2050.	Governor Rainmondo's executive order 2017-10 required the development of a statewide Climate Resilience Action Strategy by June 2018.
Vermont	Adopted 2006 (S 06-259): 50% below 1990 levels by 2028, and if feasible, 75% below 1990 levels by 2050.	Executive Order 2017-12 created the Vermont Climate Action Committee. The Committee's 2018 report recommends using market-based mechanisms, sequestration measures, and carbon offset projects to address emissions.
Washington	Adopted 2008 (HB 08-2815): 1990 levels by 2020, 25% below 1990 levels by 2035, and 50% below 1990 levels by 2050 or 70% below the state's expected emissions in 2050.	SB 19-5116: Requires utilities to use emissions-free resources by 2045. Social cost of carbon must factor into IRP process.

State Energy Policies and Utility Goals

State	Renewable / Clean Energy Targets	EERS	Utility Commitments / Goals
California	Adopted 2002, last amended 2018: 33% by 2020, 60% by 2030, with a target of 100% carbon-free by 2045.	Electric: Long-term goals average about 1.15% of retail sales through 2024. Average incremental savings targets average about 1.3% of retail sales electricity from 2020-2025. Natural Gas: Incremental savings target of 0.56% through 2024. SB 15-350 requires state agencies and utilities to double cumulative efficiency savings achieved by 2030. Work to develop specific utility targets is ongoing.	Pacific Gas & Electric: Member of the WeAreStill in coalition. Goal to avoid one million tons of cumulative greenhouse gas emissions from 2018 through 2022, compared to a 2016 baseline. SMUD: 33% renewable energy by 2020, 60% by 2030, and reduce retail load GHG emissions to net zero by 2040. Sempra Energy: 35% below 2010 emissions by 2021, SDG&E is on track to meet CA's 50% by RE target.
Colorado	Adopted 2004: 30% by 2020 (IOUs), 10% or 20% by 2020 for municipalities and electric cooperatives depending on size. Polis Administration's Roadmap to 100% Renewable Energy by 2040.	Electric: Flat target of 500 GWh or roughly 1.7% of sales per year. Black Hills follows Xcel's targets. HB 17-1227 extended electric efficiency programs to 2028 and required the commission to set goals of at least 5% peak demand reduction and 5% energy savings (as compared to 2018) by 2028 for demand-side management programs implemented during 2019 through 2028. Natural Gas: Savings targets commensurate with spending targets (at least 0.5% of prior year's revenue).	Xcel Energy: 55% RE by 2026, 80% GHG reduction by 2030, carbon-free by 2050. Platte River Power Authority: Zero carbon emissions by 2030. Holy Cross Energy: 70% emissions reduction by 2030. Poudre Valley Rural Electric Association: increase carbon-free energy from 33% to 80% by 2030. Colorado Springs Utilities: 20% renewable energy by 2020.

State	Renewable / Clean Energy Targets	EERS	Utility Commitments / Goals
Connecticut	Adopted 1998, last amended 2018: Class 1: 21% by 2020, 30% by 2025, 40% by 2030 (plus 4% class 1 or 2 by 2018, 4% class 3 by 2010).	Electric: Average incremental savings of 1.11% of sales from 2019 through 2021.The state's renewable portfolio standard (RPS), established in 1998 and revised thereafter, requires that electricity providers and wholesale suppliers obtain 27% of their retail load from renewable energy and energy efficiency by 2020. Natural Gas: Average incremental savings of 0.59% per year from 2019 through 2021.	AVANGRID (the United Illuminating Company is a subsidiary): increase installed renewable capacity by 2GW, reduce emissions intensity 25% below 2015 levels by 2020, 100% carbon neutral by 2035.
Hawaii	Adopted 2015 (HB 15-623): 40% by 2030, 70% by 2040, and 100% by 2045.	Electric: reduce electricity consumption by 4,300 GWh by 2030 (equal to approximately 30% of forecast electricity sales or 1.4% annual savings). Natural Gas: N/A (Natural gas plays a limited role in the state's energy generation mix.)	Hawaiian Electric Company: reduce GHG emissions more than 16% below 2010 levels by 2020. Achieved: 2014. Committed to meeting the 100% renewable energy target. Kaua'i Island Cooperative: 70% renewable by 2030.
Maine	Adopted 2019 (LD 19-1494): 80% by 2030, 100% by 2050.	Electric: Savings of 20% by 2020, with incremental savings targets of ~ 1.6% per year for 2014-2016 and ~2.4% per year for 2017-2019. While Efficiency Maine operates under an all cost-effective mandate, the agency has fallen short of targets in recent years due to budget cuts. Natural Gas: Incremental savings of ~0.2% per year for 2017-2019.	AVANGRID (Central Maine Power is a subsidiary): increase installed renewable capacity by 2GW, reduce emissions intensity 25% below 2015 levels by 2020, 100% carbon neutral by 2035.
Maryland	Adopted 2004, last amended 2019 (SB 19-516): 28% by 2020, 40% by 2025, and 50% by 2030.	Electric: 2% incremental energy savings goal through 2023. Utilities must also file an energy efficiency program plan every 3 years to be approved by the PSC. Natural Gas: goals and limited income goals are being developed.	FirstEnergy (Potomac Edison Company is subsidiary in MD): 90% below 2005 emission levels by 2045.

State	Renewable / Clean Energy Targets	EERS	Utility Commitments / Goals
Massachusetts	Adopted 1997, last amended 2018 (Clean Energy Standard): 20% by 2020, 40% by 2030, 60% by 2040, and 80% by 2050. RPS: 13% by 2018, 55% by 2050.	Electric: Net annual savings of 3.45 million MWh (not including fuel switching) for 2019-2021, equivalent to savings of ~2.7% of retail sales per year. Natural Gas: 1.25% of retail sales. Net savings of 95.89 MMTherms for 2019-2021. Additional goal of 261.9 million net lifetime MMBtu for 2019-2021.	NationalGrid: 45% below 1990 emission levels by 2020, 70% below 1990 levels by 2030, and 80% below 1990 levels by 2050.
Nevada	Adopted 1997, last amended 2019: 24% by 2021, 50% by 2030, with 100% by 2050 goal (up to 10% of the standard can be met using energy efficiency from 2020-2024.	SB 17-150 set baseline targets for electricity suppliers: 1% in 2018, 1.5% for 2021-2025.	NV Energy: seeks to double renewable generation by 2023. The utility included $2 billion in renewable projects in its 2018 IRP, and expects to retire or divest 100% of its coal generation by the end of 2025.
New Jersey	Adopted 1999, last amended 2018: 35% by 2025, 50% by 2030.	Electric: 2% electric savings (as a percent of average annual usage from the prior three years) within five years of the initial implementation of a utility's plan. In April, consultants presented the New Jersey Board of Public Utilities with the draft strategic plan for 2019-2022 for the statewide Clean Energy Program, including an energy efficiency portfolio achieving a 56% increase in savings by 2022. Natural Gas: 0.75% savings (as a percent of average annual usage from the prior three years) within five years of the initial implementation of a utility's plan.	FirstEnergy (Jersey Central Power & Light is a subsidiary): 90% below 2005 emission levels by 2045. Public Service Electric and Gas: eliminate 13 million metric tons of CO2 equivalent by 2030 (from 2005 levels).

State	Renewable / Clean Energy Targets	EERS	Utility Commitments / Goals
New Mexico	Adopted 2004, last amended 2019 (Carbon-free Resource Standard): Distribution cooperatives: 10% by 2020, 40% by 2025, 50% by 2030, and zero-carbon (at least 80% RE) by 2050. IOUs: 20% by 2020, 40% by 2025, 50% by 2030, 80% by 2040, and carbon-free by 2045.	Electric: The state's three public utilities must achieve 5% savings of 2020 retail sales by 2025. HB 19-291 directs the Public Regulation Commission to set additional targets through 2030.	Xcel Energy: 55% RE by 2026, 80% GHG reduction by 2030, and carbon-free by 2050. PNM: carbon-free by 2040 (5 years ahead of the deadline established by SB 19-489). PNM plans to retire San Juan by 2022.
New York	Adopted 2016 (Clean Energy Standard): 50% by 2030.	Statewide all-fuels target of 185 TBtu cumulative annual savings for 2015-2025, or approximately 3% of incremental electric sales. Electric: detailed proposals are to be submitted by the utilities to the PSC. The PSC assumes that these plans will account for 2% of the statewide goal, with the remainder accounted for by NYSERDA, codes and standards, and other state activities. Natural Gas: no specific targets, but savings will count toward statewide goal.	Long Island Power Authority: add 800 MW of clean energy by 2030. AVANGRID (New York State Electric & Gas Corporation and Rochester Gas & Electric Corporation are subsidiaries): increase installed renewable capacity by 2GW, reduce emissions intensity 25% below 2015 levels by 2020, and 100% carbon neutral by 2035. NationalGrid: 45% below 1990 emission levels by 2020, 70% below 1990 levels by 2030, and 80% below 1990 levels by 2050.
Oregon	Adopted 2007, last amended 2016: Large IOUs (3% or more of state's load): 50% by 2040 Large COUs: 25% by 2025 Small Utilities (1.5 to <3% of state's load): 10% by 2025 Smallest Utilities (<1.5% of state's load): 5% by 2025 Total coal phase out by 2035.[1]	Electric: Incremental targets average ~1.3% of sales annually for the period 2015-2019. Natural Gas: Incremental savings of 0.3% of sales annually for the period 2015-2019.	Portland General Electric and Pacific Power will be nearly coal free by 2030, entirely coal free by 2035. Avista: carbon-neutral electricity supply by 2027; 100% clean by 2045.

[1] Utilities that buy into a new coal plant or sign a new contract specifically for new coal power and publicly-owned utilities that annex investor-owned utility territory without consent (aside from municipal utilities under certain conditions) are subject to the "large utility" standards.

State	Renewable / Clean Energy Targets	EERS	Utility Commitments / Goals
Rhode Island	Adopted 2004, last amended 2016: 16% by 2020, 31% by 2030, 38.5% by 2036.	Electric: Average incremental savings of 2.5% for 2018-2020. Natural Gas: Average incremental savings of 0.97% for 2018-2020.	NationalGrid: 45% below 1990 emission levels by 2020, 70% below 1990 levels by 2030, 80% below 1990 levels by 2050.
Vermont	Adopted 2015: 55% by 2017, 75% by 2032, and 12% energy transformation projects (EE, EVs, storage) by 2032.	Vermont law requires Energy Efficiency Utility budgets to be set at a level that would realize "all reasonably available, cost-effective energy efficiency" and set specific energy and peak demand savings targets. Average incremental electricity savings totaling 357,400 MWh over 2018-2020, or approximately 2.4% of annual sales. Natural Gas: Three-year annual incremental savings of 192,599 Mcf spanning 2018-2020 or 0.5% of sales.	Green Mountain Power, 2018 Goal: partner with customers to drive down costs and eliminate more than 8,000 metric tons of carbon emissions per year using clean energy for the next two decades.
Washington	Adopted 2006, amended 2019: 15% by 2020, coal phased out by 2025, carbon neutral by 2030, 100% carbon-free by 2045.	Electric: average around 1.4% incremental savings per year. Natural Gas: in 2014, all four IOUs committed to a voluntary pilot program with the potential to save over 280 million therms annually.	Avista: carbon-neutral electricity supply by 2027, 100% clean by 2045. Seattle City Light: carbon neutral since 2005. Puget Sound Energy: reduce carbon emissions 50% by 2040, 100% coal-free generation by the early 2030s.

State Transportation Policies

State	Regional Transportation Collaborative	LEV Standards?[2]	ZEV Standards?[3]	Low Carbon Fuel Standard?	EV / ZEV Goals
California	Pacific Coast Collaborative	Yes	Yes	Goal: reduce carbon intensity of transportation fuel pool by at least 20% by 2030.	Goal (E.O. B.48-2018): 5 million ZEVs by 2030 and 250,000 ZEV chargers by 2025. Deploy over 100,000 zero emission freight vehicles and associated equipment by 2030. Transit agency requirements: all new bus purchases must be zero emission buses by 2029 (50% by 2026 for large agencies, 25% by 2026 for small agencies)
Colorado	REV West	Yes	Rulemaking in Progress		Goal (E.O. B2019-002): 940,000 EVs by 2030.
Connecticut	Transportation and Climate Initiative[4]	Yes	Yes	*	Goal: 500,000 ZEVs by 2030 (ZEV MOU)
Hawaii	N/A	No	No		
Maine	Transportation and Climate Initiative	Yes	Yes	*	
Maryland	Transportation and Climate Initiative	Yes	Yes	*	Goal: ~300,000 ZEVs by 2025 (ZEV MOU)
Massachusetts	Transportation and Climate Initiative	Yes	Yes	*	Goal: ~300,000 ZEVs by 2025 (ZEV MOU)
Nevada	REV West				

[2] States that have adopted LEV Standards not represented below: Delaware and Pennsylvania.
[3] All states that have adopted ZEV Standards are represented below.
[4] Other TCI members not captured here: Delaware, New Hampshire, Pennsylvania, and Virginia.

State	Regional Transportation Collaborative	LEV Standards?	ZEV Standards?	Low Carbon Fuel Standard?	EV / ZEV Goals
New Jersey	Transportation and Climate Initiative	Yes	Yes	*	Goal: 330,000 EVs by 2025.
New Mexico	REV West	Climate Change Task Force to evaluate adopting.	Climate Change Task Force to evaluate adopting.		Governor Grisham stated that she would like to see 20% of the state fleet electrified.
New York	Transportation and Climate Initiative	Yes	Yes	*	Goal: 800,000 ZEVs by 2025.
Oregon	Pacific Coast Collaborative	Yes	Yes	Requires fuel suppliers to reduce the carbon content of transportation fuels by 10% by 2025.	Goal (E.O. 2017-21): 50,000 EVs by 2020.
Rhode Island	Transportation and Climate Initiative	Yes	Yes	*	Goal: 43,000 ZEVs by 2025 (ZEV MOU)
Vermont	Transportation and Climate Initiative	Yes	Yes	*	Goal: ~50,000 EVs by 2025
Washington	Pacific Coast Collaborative	Yes			Goal: 50,000 EVs by 2020.

* Signatory: Low Carbon Fuel Standard MOU (2009) in which the states agreed to analyze low-carbon fuel supply options, determine the feasibility of achieving a range of carbon reduction goals – including a 10 percent reduction in carbon intensity of fuels – and develop a framework for a regional Low Carbon Fuel Standard (LCFS).

State Appliance and Building Efficiency Policies

State	Appliance Standards Opposing Federal Rollback[5]	Building Efficiency Codes
California	In December 2008, California adopted a 45 lumen per watt standard for general service lamps (GSLs) as defined in the 2007 Energy Independence and Security Act (EISA). California's Title 20 Appliance Efficiency Regulations have existing provisions that backstop all other federal appliance standards in case of repeal or rollback.	Commercial: meets or exceeds ASHRAE 90.1-2013 Residential: meets or exceeds IECC 2015 Solar: The California Energy Commission adopted revisions to the Energy code in May 2018. The most noteworthy new provision is a requirement for all new low-rise homes to install PV equipment with an annual output greater than or equal to the home's annual electric consumption. The proposed amended standards, which still need to be approved by the California Building Standards Commission would go into effect on January 1, 2020.
Colorado	HB 19-1231 updates and adopts standards for water efficiency and energy efficiency that apply to a list of 15 consumer and commercial appliances and other products. The bill also includes a provision to adopt current federal standards to backstop all other federal appliance standards in case of repeal or rollback.	No mandatory statewide code, but any county or municipality that had a building code in place was required to adopt 2003 IECC or 2006 IECC as the minimum energy code standard by July 1, 2008. Solar: Builders of single-family homes are required to offer solar energy as a standard feature to all prospective homebuyers. Builders are required to give the buyer the option to have either a PV system or a solar water heating system installed on their new home or to have all the necessary wiring and plumbing installed so that they can easily add a solar system later.
Connecticut	N/A	Residential and commercial building codes are based on the 2012 IECC, with weakening amendments.
Hawaii	HB 19-556 requires the Department of Business, Economic Development and Tourism to adopt minimum appliance efficiency standards for certain products sold or installed in the State that are substantially equivalent to existing appliance efficiency standards established in California and by the federal government.	Residential and commercial building codes are based on the 2015 IECC, with weakening amendments. Solar: As of January 1, 2010, building permits may not be issued for new single-family homes that do not include a solar water-heating system.

[5] In May 2019, 36 utility companies opposed the DOE proposal to roll back lightbulb efficiency stating that "The 2020 standard for lightbulbs should remain applicable to all common household lightbulbs, and efficiency standards for other products should not be delayed."

State	Appliance Standards Opposing Federal Rollback	Building Efficiency Codes
Maine	N/A	Commercial: based on the 2009 IECC and ASHRAE 90.1-2007 Residential: based on the 2009 IECC
Maryland	N/A	Residential and commercial building codes are based on the 2015 IECC.
Massachusetts	N/A	Commercial: based on the 2015 IECC and ASHRAE 90.1-2013 Residential: based on the 2015 IECC
Nevada	AB 19-54 adopted the federal light bulb standards.	Commercial: 2012 IECC, with amendments or ASHRAE 90.1-2010 Residential: 2012 IECC, with amendments
New Jersey	N/A	Commercial: based on ASHRAE 90.1-2013 Residential: based on 2015 IECC Solar: Developers of residential developments with 25 or more dwelling units must "offer to install, or to provide for installation of, a solar energy system" when technically feasible. The law took effect immediately upon enactment; however, the Department of Community Affairs (DCA), in cooperation with the New Jersey Board of Public Utilities (BPU), must develop rules and standards for its implementation. The law does not provide a time frame for the adoption of regulations and it does not appear that such rules have been established.
New Mexico	N/A	Commercial and residential are based on the 2009 IECC, with amendments
New York	N/A	Commercial: based on the 2015 IECC and ASHRAE 90.1-2013, as modified by the 2016 supplement Residential: based on the 2015 IECC, as modified by the 2016 supplement
Oregon	N/A	Commercial: based on ASHRAE 90.1-2010 Residential: more stringent than the 2009 IECC
Rhode Island	SB 19-552, which has been "held for further study", would establish minimum appliance energy efficiency standards.	Commercial: based on the 2012 IECC and ASHRAE 90.1-2010 Residential: based on the 2012 IECC, with amendments

State	Appliance Standards Opposing Federal Rollback	Building Efficiency Codes
Vermont	H 17-411 provides that the state will enforce federal standards if they are "withdrawn, repealed or otherwise voided" at the federal level. Efficiency measures protected by the new Vermont law include all standards on the federal books as of January 17, 2017, including ones that have yet to take effect, including the light bulb standards slated for implementation in 2020.	Commercial: based on the 2015 IECC and ASHRAE 90.1-2013, with amendments Residential: based on the 2015 IECC
Washington	HB 19-1444 adopts federal light bulb standards, providing a backstop to a potential federal rollback.	Commercial and Residential: based on the 2015 IECC, with amendments HB 19-1257: Department of Commerce is to create a State Energy Performance Standard by November 1, 2020 to reduce energy use and GHG emissions associated with large commercial buildings.

State Methane and HFC Emissions Policies

State	Methane Emissions Policy	HFC Emissions Policy
California	CARB adopted stringent methane regulations for monitoring and repairing pipeline leaks in 2017 (required by SB 16-1383). The CPUC ordered utilities to file methane abatement compliance plans by March 2019 (pursuant to SB 14-1371).	SB 18-1013 creates the Fluorinated Gases Emission Reduction Incentive Program to promote the adoption of low-global warming potential refrigerants. The schedule to ban products made with HFCs begins 2022.
Colorado	SB 19-181 directs the Air Quality Control Commission to bolster methane regulations by promulgating rules for all points in the natural gas supply chain (processing, gathering & boosting, storage, and transmission). The legislation also affirms local authority over oil and gas siting and sets objectives to protect public health.	SB19-096 requires the development of a GHG inventory, which will include HFCs.
Connecticut	N/A. Connecticut's omnibus energy bill, HB 19-5002, did not include regulations for methane emissions. Studies of CT pipelines reveal the need to modernize gas infrastructure.	Governor Malloy directed DEEP to develop HFC controls modelled after CARB's that would fit within the state's air quality regulatory framework. New regulations are expected in 2020.
Hawaii	N/A	N/A
Maine	Maine's policy establishes a classification system for pipeline leaks, and sets detection and repair requirements for pipeline operators. Governor Mills joined 15 other attorneys general in suing the Trump administration for halting enforcement of federal methane rules.	N/A
Maryland	The Greenhouse Gas Emissions Reductions Act requires the maintenance of GHG emissions inventories. The Maryland Department of Environment (MDE) publishes data on methane from wastewater, landfills, and oil and gas operations. MDE is in the process of developing proposed methane regulations - Methane Emissions Minimization Plans (MEMPs) - for curbing leaks across the natural gas supply chain.	MDE is in the process of developing HFC regulations for foam and refrigerant products pursuant to SB 16-323 (the Greenhouse Gas Emissions Reduction Act).

State	Methane Emissions Policy	HFC Emissions Policy
Massachusetts	To meet state emissions reductions goals, the DEP adopted rules in 2017 to require natural gas operators to reduce methane emissions annually (specified by utility), keep inventories, and repair pipeline leaks. The DPU adopted rules in March 2019 that establish methods for identifying high-priority leaks. The rules also require that gas operators accelerate repairs when leaks are located in 'environmentally sensitive areas'.	Massachusetts published its Comprehensive Energy Plan in late 2018. HFC regulations have not been announced, but the state's Attorney General joined 10 other states to sue the EPA for its HFC rule rollback in 2018.
Nevada	N/A	N/A
New Jersey	S 19-3207, if enacted, would bolster the state's GHG emissions reporting requirements and require the development of a comprehensive statewide strategy for mitigating 'short-lived' GHGs, including methane. As of May 2019, the bill had been passed by both chambers of the legislature.	S 19-3207 includes a provision requiring the development of a comprehensive strategy to reduce emissions of short-lived climate pollutants in the State. This requirement is based on legislation adopted and implemented in California.
New Mexico	Governor Grisham's EO 2019-003 directs EMNRD and NMED to develop a regulatory framework to reduce oil and gas sector methane emissions. The NMED maintains an interactive map of oil and gas site emissions.	N/A
New York	Governor Cuomo's Methane Reduction Plan (2017) outlines multiple policies to achieve emissions reductions targets, including monitoring and repair of natural gas pipelines.	The New York State Department of Environmental Conservation is developing regulations to phase out HFCs between 2020 and 2024, a draft proposal was released in September of 2018.
Oregon	HB 19-2020 would have directed the Environmental Quality Commission to develop rules regulating methane emissions from landfills, agriculture, and forestry. No legislation or regulations are in place for pipeline leaks.	N/A
Rhode Island	The Rhode Island Energy 2035 Plan (2015) recommended reviewing the state's natural gas replacement and repair policy, suggesting an update to National Grid's Gas Infrastructure, Safety, and Reliability Plan for detecting and repairing pipeline leaks.	N/A
Vermont	Gas utilities must 'routinely' inspect for leaks. No comprehensive program for pipeline emissions reductions is in place.	S 19-0030 establishes a schedule between 2020 and 2024 for when certain products must be manufactured without HFCs.
Washington	State law establishes a classification system for pipeline leaks and requires utilities to maintain permanent leak records and conduct a self-audit every five years.	HB 19-1112 establishes a regulatory framework for phasing out HFCs in the state, banning specific products beginning in 2020.

New and Noteworthy Legislation

State	Bill Number	Summary
California	SB 18-1013	Codifies the prohibitions on certain ozone depleting substances and HFC) adopted by the U.S. EPA as part of the Significant New Alternatives Policy (SNAP) Program.
Colorado	HB 19-1261	Sets statewide GHG emissions reduction goals to more than 26% from 2005 levels by 2025, 50% below 2005 levels by 2030, and 90% below 2005 levels by 2050.
	SB 19-096	Requires the AQCC to collect greenhouse gas emissions data from greenhouse gas-emitting entities, report on the data, develop a forecast of future emissions, and propose a draft rule to address the emissions by July 1, 2020.
	SB 19-181	Modifies the composition of the COGCC, requires that the COGCC review and, if necessary, amend existing rules related to methane emissions and oil and gas operations, removes the state preemption of oil and gas regulation, and expands the authority of local governments to regulate oil and gas development.
	SB 19-236	Among other provisions, the bill supplements existing state renewable energy standard laws by establishing targets for the reduction of CO_2 emissions by Xcel Energy (80% below 2005 levels by 2030, 100% by 2050 and thereafter, if practicable). Other utilities may opt in to submitting clean energy plans. The bill also allows utilities to apply to the PUC for approval of a financing order to issue securitized utility ratepayer-backed bonds when retiring an electric generating facility. Bonds are to be used by the utility to purchase, build, or invest in electric generating resources or electricity storage, and repaid through a distinct charge on ratepayers. The bill requires the PUC to promulgate rules that require each wholesale electric cooperative to submit an application for approval of an integrated or electric resource plan. The PUC must evaluate the plans using rules adopted that are applicable to these cooperatives. The bill also requires the PUC to promulgate rules establishing requirements for IOUs to file electric distribution plans; requires IOUs to include a workforce transition plan when proposing the retirement of an electric generating facility; directs the PUC to require electric public utilities to consider the cost of carbon dioxide emissions in certain proceedings; requires the PUC to conduct an investigation of financial performance-based incentives and performance-based metric tracking; and directs the PUC to open an investigatory proceeding to evaluate the costs and benefits associated with regional transmission organizations, energy imbalance markets, joint tariffs, and power pools.
Connecticut		
Hawaii		
Maine	LD 19-1679	Updates the state's GHG emissions reduction targets to 45% below 1990 levels by 2030, and 80% below 1990 levels by 2050. Establishes the Maine Climate Council, comprised of state agencies and stakeholders tasked with developing a climate action plan and a clean energy economy transition plan.

State	Bill Number	Summary
Maryland	HB 19-277	Authorizes the Governor to include the state in any regional governmental initiative, agreement, or compact that limits or reduces greenhouse gas emissions from the transportation sector; requires the Department of the Environment and the Department of Transportation to submit a report on the status of any regional initiative before November 1, 2019.
	SB 19-516	Among other provisions, increases the state's RPS to 50% by 2030. Requires study of a 100% renewable energy goal.
Massachusetts	H 18-4857	Establishes an energy storage target of 1,000 MWh by 2025. Requires electric suppliers to provide a minimum percentage, as determined by the Department of Energy Resources (DER), of kWh sales from clean peak resources. Also provides for EDCs to submit distribution system resiliency reports to the DER. Allows EDCs to hold competitive solicitations for procurement of non-wires alternatives from third party developers. Establishes reporting requirements for lost and unaccounted for gas for gas companies for the purpose of reducing GHG emissions. Requires the DER to study the costs and benefits of requiring EDCs to issue competitive bids for up to 1,600 MW of additional offshore wind.
Nevada	SB 19-254	Sets GHG emissions reduction targets: 28% below 2005 levels by 2025, 45% below 2005 levels by 2030, and "zero or near-zero" by 2050. Also requires DCNR to submit an emissions report, and provide analysis of whether existing/pending state policies can ensure that the state achieves zero carbon emissions by 2050.
	SB 19-358	Increases the state's clean energy standard to 50% by 2030. Includes a zero carbon by 2050 goal.
New Jersey	AB 18-3723	Requires the BPU to conduct an energy storage analysis, make changes to the solar renewable energy certificate program, adopt energy efficiency and peak demand reduction programs, adopt a "Community Solar Energy Pilot Program," and provide tax credits for certain offshore wind energy projects. The bill also requires the Department of Labor and Workforce Development to establish job training programs for those who work in manufacturing and servicing of offshore wind energy equipment.
	SB 19-3207	If enacted, the bill will establish new timeframes for the implementation of certain requirements in the "Global Warming Response Act" (GWRA), and require the Department of Environmental Protection (DEP) to adopt a strategy to reduce short-lived climate pollutants.
New Mexico	SB 19-489	Increases the state's RPS as follows: Distribution cooperatives: 10% by 2020, 40% by 2025, 50% by 2030, zero-carbon (at least 80% RE) by 2050. IOUs: 20% by 2020, 40% by 2025, 50% by 2030, 80% by 2040, and resources must be carbon-free by 2045. Also authorizes an alternative mechanism ("energy transition bonds" or "securitization") for financing the retirement of coal-fired power plants. The mechanism has been designed to accommodate the retirement in 2022 of units 1 and 4 of the San Juan Generation Station (SJGS) and to anticipate the closure of the Four Corners Power Plant in 2031. The bill also requires that the Environmental Improvement Board (EIB) promulgate a rule limiting carbon dioxide emissions from coal fired generating plants to an emissions standard of 1,100 lbs-CO2/MWh on or after January 1, 2023.

State	Bill Number	Summary
New York	SB 19-6599	If enacted, will create GHG emissions targets of 40% below 1990 levels by 2030 and 85% below 1990 levels by 2050, with the remaining 15% offset. The bill also requires that the PSC creates a clean energy standard of 70% renewable energy by 2030 and 100% zero emissions by 2040.
Oregon		
Rhode Island		
Vermont	HB 19-529	Excludes from the definition of a net metering system a plant for generation of electricity that primarily supplies electricity to electric vehicle supply equipment for the resale of electricity. Requires the Public Utility Commission to report on steps necessary to implement fees on plug-in electric vehicle charging and how to address net metering and net metering credits by December 15, 2019. Establishes the vehicle incentive and emissions repair programs, which, among other things, provide point-of-sale vouchers for the purchase or lease of new plug-in electric vehicles. Permits State agencies that own or control electric vehicle supply equipment (EVSE) to establish, set, and adjust fees for the use of EVSE available to the public for three years starting on July 1, 2019. Specifies that the PUC does not have jurisdiction over persons otherwise not regulated by the PUC that engage in the siting, construction, ownership, operation, or control of a facility that sells or supplies electricity to the public exclusively for charging a plug-in electric vehicle. Requires the Commissioner of Buildings and General Services, to the maximum extent practicable, to purchase and lease hybrid or plug-in electric vehicles for the State fleet with a minimum of 50%, bumped to 75% on July 1, 2021, of newly purchased and leased vehicles being hybrid or plug-in electric vehicles.
	S 19-30	Establishes a schedule between 2020 and 2024 for when certain products must be manufactured without HFCs.
Washington	HB 19-1112	Establishes a schedule between 2020 and 2024 for when certain products must be manufactured without HFCs.
	HB 19-1257	Requires the State Building Code Council to develop rules that require and regulate electric vehicle charging capability at all new buildings that provide on-site parking. Requires the Department of Commerce to create a State Energy Performance Standard by November 1, 2020 to reduce energy use and GHG emissions associated with large commercial buildings. Requires gas companies to identify and acquire all conservation measures that are available and cost-effective. The cost-effectiveness analysis must include the societal costs of GHG emissions. The targets must be based on a conservation potential assessment prepared by an independent third party and approved by the UTC. A gas company may propose a renewable natural gas program under which the company would supply renewable natural gas for a portion of the natural gas sold or delivered to its retail customers. Each gas company must offer by tariff a voluntary renewable natural gas service available to all customers to replace any portion of the natural gas that would otherwise be provided by the gas company. The UTC must monitor the GHG emissions resulting from natural gas and renewable natural gas delivered by each gas company to its customers, relative to the proportionate share of the state's GHG emissions goal.

	HB 19-1512	Allows municipal utilities to adopt transportation electrification plans. Regulated utilities may adopt plans that provide EV charging equipment incentives and support for other transportation electrification programs. Utility Electric Transportation Plan Authorization: The governing authority of a utility or a regulated electric utility, with the approval of the UTC, may adopt an electric transportation plan that proves that utility outreach and investment in the electrification of transportation infrastructure does not increase net costs to ratepayers in excess of 0.25%. The governing authority or the UTC may consider items such as the impact of electrification on the utility's load, demand response and load management opportunities, system reliability and distribution system efficiencies, and interoperability concerns. Upon making this determination, electric utilities may offer incentive programs for customers.
	HB 19-2042	Extends and establishes tax credits for electric vehicles and electric vehicle supply equipment (EVSE). Establishes a grant program to assist transit authorities in fleet electrification and alternative fuel use; a car sharing pilot grant program to support car sharing for underserved communities; and extends an existing EV charging infrastructure grant program. Amends provisions authorizing investor-owned utilities' incentive rate of return on investments in EV supply equipment. Extends a technical assistance and education program on alternative fuel vehicles for public agencies within Washington State University's Extension Energy Program. Authorizes the Department of Commerce to conduct a study on reducing barriers to battery and hydrogen fuel cell electric vehicle adoption by lower income residents.
	SB 19-5116	Requires that by December 31, 2025, all electric utilities eliminate coal-fired resources from their allocation of electricity. For IOUs, the UTC is required to accelerate depreciation for any coal-fired resource owned by an IOU and is allowed to accelerate depreciation for any qualified transmission line to no later than December 31, 2025. The UTC must allow in rates prudently incurred undepreciated investments in a fossil-fuel generating resource that has been retired from service under specific conditions. By January 1, 2030, each electric utility must make all retail sales of electricity to Washington customers GHG neutral. An electric utility must achieve compliance with the GHG neutral standard for multiyear compliance periods beginning January 1, 2030, through December 31, 2044. By January 1, 2045, each electric utility must meet 100 percent of its retail electric load to Washington customers using non-emitting electric generation and electricity from renewable resources.

State EV and EVSE Policies and Incentives

California

EV Policies and Incentives

Low Emission Truck and Bus Purchase Vouchers: fleet owners.

Light-duty PHEV and ZEV Rebates

HOV and High Occupancy Toll (HOT) Lane Exemption

The California Clean Truck, Bus, and Off-Road Vehicle and Equipment Technology Program: funding for development, demonstration, pre-commercial pilot, and early commercial implementation projects for zero and near-zero emission trucks, buses, and off-road vehicles and equipment.

Through the California Clean Miles Standard and Incentive Program, the California Air Resources Board (ARB) will establish annual emissions reduction targets for transportation network companies, including goals for increasing the number of miles traveled using zero emission vehicles.

Zero and Near-Zero Emission Vehicle Component Rebates

Vehicle Acquisition and Petroleum Reduction Requirements: beginning in fiscal year 2024, at least 50% of the light-duty vehicles purchased by the state must be ZEVs. At least 30% of the Department of General Service's fleet of new vehicles with a gross vehicle weight of 19,000 pounds or more must be ZEVs by 2030.

Freight Efficiency Action Plan: establishes targets to improve freight efficiency and transition to zero emission technologies.

EV Supply Equipment (EVSE) Policies and Incentives

EVSE Incentive Program Support: provides guidance and funding for local governments and organizations to develop and implement EVSE incentive programs.

EVSE Loan and Rebate Program: available to small businesses.

Emissions Reductions Grants

Residential PACE EVSE Financing Program

EVSE Policies for Residential and Commercial Renters: The lessor of a dwelling or commercial property must approve written requests from a lessee to install EVSE at a parking space allotted for the lessee on qualified properties. Certain exclusions apply to residential dwellings and commercial properties.

EVSE Policies for Multi-Unit Dwellings: A common interest development, including a community apartment, condominium, and cooperative development, may not prohibit or restrict the installation or use of EVSE or a PEV-dedicated TOU meter in a homeowner's designated parking space or unit. These entities may put reasonable restrictions on EVSE, but the policies may not significantly increase the cost of the EVSE or significantly decrease its efficiency or performance.

Mandatory EVSE Building Standards

EVSE Open Access Requirements: EVSE service providers may not charge a subscription fee or require membership for use of their public charging stations.

PEV Charging Access: Municipalities may not restrict the types of PEVs that may access a public PEV charging station that is intended for passenger vehicle use, and funded, at least in part, by the state or money from utility ratepayers.

EVSE Location Assessment: The State Energy Resources Conservation and Development Commission, in partnership with CARB, must assess whether EVSE in California is located disproportionately by population density, geographical area, or population income level. If EVSE has been disproportionately installed unreasonably, the agencies must proportionately install new EVSE, unless it is determined that the current locations of EVSE further California's policy goals.

EVSE Assessment: The California State Energy Resources Conservation and Development Commission, in partnership with CARB and the CPUC, must publish a statewide assessment of the EVSE infrastructure needed to support the levels of PEV adoption required for at least five million zero emission vehicles to operate in California by 2030. The assessment must consider the EVSE infrastructure needs for all vehicle categories, and must analyze the existing and future infrastructure needs across California, including in low-income communities. The assessment must be updated at least once every two years.

Public Utility Definition: A corporation or individual that owns, controls, operates, or manages public EVSE is not defined as a public utility.

State Agency EVSE Installation: California state agencies must actively identify and pursue opportunities to install EVSE, and accommodate future EVSE demand, at state employee parking facilities in new and existing agency buildings.

EVSE Local Permitting Policies: Cities and counties must adopt an ordinance that creates an expedited, streamlined permitting process for EVSE.

Colorado

EV Policies and Incentives

PEV Tax Credit: $5,000 - 20,000 in 2017-2019; $4,000 - 16,000 in 2020; $2,500 - 10,000 in 2021.

Alternative Fuel Vehicles and Infrastructure Grant Program: CEO, RAQC, and CDOT, have partnered to provide grants through the ALT Fuels Colorado program for new fleet purchases of EVs.

PEV and EVSE Grants: available to individual drivers and fleet owners.

High Occupancy Vehicle (HOV) Lane Exemption

EV Supply Equipment (EVSE) Policies and Incentives

Alternative Fuel Vehicles and Infrastructure Grant Program: Provides grants through the ALT Fuels Colorado program for new, publicly accessible co-located electric vehicle charging and propane station equipment at funded CNG stations, and EVs.

EVSE Multi-Unit Dwelling Installations and Access: A residential tenant may install Level 1 or Level 2 EVSE at their own expense on or in leased premises. The landlord may seek a fee or reimbursement for the actual cost of electricity as well as the cost of installation or upgrades to existing equipment. In addition, the tenant may request that the EVSE be accessible by other tenants, in which case the EVSE must be in compliance with all applicable requirements, and the landlord may seek a fee to reserve a specific parking space.

Alternative Fuel Resale and Generation Regulations: A corporation or individual that resells alternative fuel supplied by a public utility for use in an AFV is not subject to regulation as a public utility. Additionally, a corporation or individual that owns, controls, operates, or manages a facility that generates electricity exclusively for use in AFV charging or fueling facilities is not subject to regulation as a public utility provided that the electricity is generated on the property where the charging or fueling facilities are located and the electricity is generated from a renewable resource.

Connecticut

EV Policies and Incentives

Heavy-Duty Vehicle Emissions Reduction Grants: DEEP allocates a portion of its designated funds from the Volkswagen Environmental Mitigation Trust for the replacement or repower of eligible heavy-duty on-road vehicles through its Diesel Emissions Mitigation Program.

Hydrogen and PEV Rebate

Loans for PEVs and Residential Charging Infrastructure: The Connecticut Green Bank offers Smart-E low-interest loans of up to $30,000 for Connecticut residents to purchase a new or used PEV. The vehicle must be registered with the Connecticut Department of Motor Vehicles. Loans are also available for Connecticut PEV drivers to purchase EVSE. To qualify, applicants must own or lease a model year 2012 or later PEV and occupy the residence at which the EVSE will be installed.

Reduced Registration Fee for Electric Vehicles

AFV Procurement Preference: In determining the lowest responsible qualified bidder for the award of state contracts, the Connecticut Department of Administrative Services may give a price preference of up to 10% for the purchase of AFVs or for the purchase of conventional vehicles plus the conversion equipment to convert the vehicles to dual or dedicated alternative fuel use.

EV Supply Equipment (EVSE) Policies and Incentives

EVSE Grants: available to municipalities, state agencies, and private businesses.

Public EVSE Requirements: Owners and operators of public EVSE that require payment must allow multiple payment options that allow access by the public. In addition, payment should not require users to pay a subscription fee or obtain a membership of any kind, however payment required may be based on price schedules for such memberships. Owners and operators can impose restrictions on the amount of time a vehicle can use the EVSE. In addition, owners and operators of a public EVSE must disclose the location and characteristics of each EVSE to the U.S. Department of Energy's Alternative Fuels Data Center.

Public Utility Definition: An owner of an EV charging station is not defined as a public utility.

Utility Company PEV Rates: By July 1, 2018, utility companies must evaluate if it is appropriate to implement PEV time of day rates for residential and commercial customers.

Hawaii

EV Policies and Incentives

PEV HOV Lane and Parking Fee Exemptions.

State and county agencies must purchase light-duty vehicles that reduce petroleum consumption and meet the needs of the agency. Exemptions may apply.

EV Supply Equipment (EVSE) Policies and Incentives

Public Utility Definition: An entity that owns, controls, operates, or manages a plant or facility primarily used to charge or discharge a vehicle battery that provides power for vehicle propulsion is not defined as a public utility.

All parking facilities that are available for use by the general public and include at least 100 parking spaces must designate at least one parking space specifically for PEVs, provided that no parking spaces required by the Americans with Disabilities Act Accessibility Guidelines are reduced or displaced.

A multi-family residential dwelling or townhouse owner may install EVSE on or near a parking stall at the dwelling as long as the EVSE is in compliance with applicable rules and specifications, the EVSE is registered with the private entity within 30 days of installation, and the homeowner receives consent from the private entity if the EVSE is placed in a common area. Private entities may adopt rules that restrict the placement and use of EVSE but may not charge a fee for the placement. The EVSE owner is responsible for any damages resulting from the installation, maintenance, repair, removal, or replacement of the EVSE.

Maine

EV Policies and Incentives

An insurer may credit or refund any portion of the premium charged for an insurance policy on a clean fuel vehicle in order to encourage its policyholders to use clean fuel vehicles, as long as insurance premiums on other vehicles are not increased to fund these credits or refunds.

EV Supply Equipment (EVSE) Policies and Incentives

EVSE Funding: Efficiency Maine Trust is accepting applications through July 10, 2019, for funding of public, workplace, and multi-unit dwelling Level 2 EVSE in strategic locations within Maine. EVSE along specific roads and at locations that will likely experience a high frequency of use will be prioritized.

PEV Charging Regulation Exemption: An entity that sells electricity for the sole purpose of charging the battery of a PEV is not defined or regulated as an electricity provider. An EVSE provider may charge a submetered user only for kilowatt-hours used.

Maryland

EV Policies and Incentives

PEV and Fuel Cell Electric Vehicle (FCEV) Tax Credit: up to $3,000.

PEV HOV Lane Exemption

AFV Voucher Program: for the purchase of new and converted AFVs registered in Maryland. Vehicles must be used by commercial, non-profit, or public entities.

Zero Emission School Bus Grant Program and Study: The Maryland Department of the Environment will administer a Zero Emission School Bus Transition Grant Program to purchase zero emission school buses, install charging infrastructure, and transition to zero emission school bus fleets.

ZEV State Fleet Goal: state agencies must increase the number of ZEV acquisitions in light-duty fleets to at least 25% of annual fleet purchases by 2025.

EV Supply Equipment (EVSE) Policies and Incentives

EVSE Rebate Program

Alternative Fuel Infrastructure Grants: The Maryland Energy Administration administers the Maryland Alternative Fuel Infrastructure Program (AFIP), which provides grants to plan, install, and operate public access alternative fueling and charging infrastructure.

EVSE Regulation Exemption: Owners and operators of EVSE are not subject to state regulation as electricity suppliers or public service companies. For the purpose of this regulation, owners and operators of EVSE are considered retail electric customers.

PEV Information Disclosure: The Maryland Motor Vehicle Administration is allowed to provide the address of a registered PEV owner and information about the vehicle to electric companies for their use. Electric companies may only use this information in planning for the electric power supply and may not use it for marketing or solicitation.

PEV Infrastructure Promotion: The Maryland EV Infrastructure Council promotes the use of PEVs in the state. Specific responsibilities of the Council include the following:

- developing an action plan to facilitate successful integration of PEVs into the Maryland transportation network;
- assisting in developing and coordinating statewide standards for streamlined permitting and installation of EVSE;
- recommending a statewide charging infrastructure plan and incentives to support investment in PEVs;
- developing targeted policies to support fleet purchases of PEVs; encouraging local and regional efforts to promote the use of PEVs; and
- developing model procurement practices.

Effective July 1, 2019, the Council will be renamed the Zero Emission Electric Vehicle Council and will incorporate fuel cell electric vehicles in all of the Council responsibilities.

Massachusetts

EV Policies and Incentives

Vehicle Emissions Reduction Grants: The (MassDEP) Volkswagen Open Solicitation Grant Program provides up to 80% of the cost of new diesel or alternative fuel replacements and repowers for eligible government entities.

PEV and EVSE Grants for Public Fleets: available to local governments, public universities and colleges, and state agencies.

Plug-In and ZEV Rebates
AFV and Infrastructure Grants: The Massachusetts Department of Energy Resources' Clean Vehicle Project offers grants for public and private fleets to purchase AFVs and infrastructure.

When purchasing new motor vehicles, the Commonwealth of Massachusetts must purchase hybrids or AFVs to the maximum extent feasible and consistent with the ability of such vehicles to perform their intended functions.

EV Supply Equipment (EVSE) Policies and Incentives

Public Access EVSE Grants: Qualified EVSE must be available to the public at least 12 hours per day.

Multi-Unit Dwelling (MUD) EVSE Grants: available to private, public, or non-profit MUDs with ten or more residential units.

Workplace EVSE Grants: available to private, public, or non-profit workplaces with 15 or more employees on site.

Public EVSE Requirements: Owners and operators of public EVSE that require payment must provide payment options that allow access by the public. In addition, payment should not require users to pay a subscription fee or obtain a membership of any kind; however, required fees may be conditional on such memberships. Owners and operators can impose reasonable restrictions on EVSE use, such as limiting access to visitors of the business. In addition,

owners and operators of public EVSE must provide the location, hours of operation, payment, and characteristics of each EVSE to the U.S. Department of Energy's Alternative Fuels Data Center.

EVSE Building Standards: The Massachusetts State Board of Building Regulations and Standards and the Massachusetts Department of Energy Resources will develop building and electric code requirements for residential and appropriate commercial buildings for EVSE.

Public Utility Definition: An entity that owns, operates, leases, or controls EVSE is not defined as a public utility.

Nevada

EV Policies and Incentives

AFV and Infrastructure Grants Authorization: The Nevada Office of Energy will establish the Nevada Clean Energy Fund to fund qualified clean energy projects, including any program, technology, product, or service that supports the deployment of AFVs and related infrastructure.

Authorization for HOV Lane Exemption: The NDOT, in consultation with the Federal Highway Administration and U.S. EPA, may establish a program allowing federally certified low emission, energy-efficient, and alternative fuel vehicles to operate in HOV lanes regardless of the number of passengers.

AFV Acquisition Requirement: Fleets containing 50 or more vehicles that are owned, leased, or operated by the state, a state agency, or a political subdivision of the state in a county with a population of 100,000 or more must acquire AFVs or U.S. EPA certified Ultra Low Emission Vehicles (ULEVs). Covered fleets are required to purchase either AFVs or certified ULEVs for 20% of new vehicles obtained. A fleet may meet the acquisition requirements by converting existing or newly acquired vehicles to operate on alternative fuels. An AFV acquired in compliance with this mandate must operate solely on the alternative fuel except when operating in an area where the appropriate alternative fuel is unavailable. Fleets with buses or heavy-duty vehicles are included.

SB 19-299: allows utilities to provide an incentive of 75% of the cost for school districts to develop charging infrastructure or purchase electric school buses.

EV Supply Equipment (EVSE) Policies and Incentives

EVSE Demonstration Program Requirements: The Electric Vehicle Infrastructure Demonstration Program requires Nevada utilities to promote and incentivize the deployment of EVSE. Utilities must submit an annual plan for implementing the Program in their service areas to the PUCN. Plans may include, but are not limited to, the following measures:

- payment of incentives to customers that install EVSE;
- time-of-use rates for electricity used to charge plug-in electric vehicles;
- EVSE education and awareness programs for customers; and
- technical assistance programs for government fleets and private organizations.

Utilities may request to recover the costs associated with carrying out the program, including customer incentives, by filing an application with the PUCN.

The Nevada Electric Highway initiative, a partnership created between the state and NV Energy in 2015, seeks to build a complete electric highway system along the I-95 corridor by 2020. 15% of the Nevada's $25 million allocation from the VW settlement agreement will be used to support electric highway projects.

New Jersey

EV Policies and Incentives

ZEV Tax Exemption: does not apply to partial ZEVs, including hybrid electric vehicles.

High Occupancy Vehicle (HOV) Lane Exemption

PEV Toll Discount Program

Low Emission or Alternative Fuel Bus Acquisition Requirement: All buses purchased by the New Jersey Transit Corporation must be: 1) equipped with improved pollution controls that reduce particulate emissions; or 2) powered by a fuel other than conventional diesel.

EV Supply Equipment (EVSE) Policies and Incentives

EVSE Grants: offered on a first-come, first-served basis for the cost of installation of eligible EVSE at workplaces, government and educational facilities, non-profits, parking facilities, and multi-unit dwellings.

State Interagency EV Partnership: Announced June 3, 2019, will be co-led by the BPU, DEP, and the EDA to develop and implement a statewide charging deployment initiative.

New Mexico

EV Policies and Incentives

Alternative Fuel and Advanced Vehicle System Manufacturing Incentive: The Alternative Energy Product Manufacturers Tax Credit provides credit against combined reporting taxes (gross receipts, compensating, and withholding) for qualified manufacturers of alternative energy products, including hydrogen and fuel cell vehicle systems, and electric and hybrid electric vehicles.

AFV Loans: available to state agencies, political subdivisions, and educational institutions for AFV acquisitions. Funds must be used for the purchase of vehicles that operate on natural gas, propane, electricity, or hydrogen.

Government fleets may finance alternative fuel vehicles or related infrastructure through guaranteed utility savings contracts where vehicle operational and fuel cost savings pay for the capital investment.

AFV and HEV Acquisition Requirements: A minimum of 75% of state government and educational institution fleet light-duty vehicles purchased must be HEVs, bi-fuel, or dedicated AFVs.

The New Mexico General Services Department (GSD) launched plans to electrify state vehicles, devoting $2.5 million to public fleet electrification, $1.2 million of which will be used for solar-powered charging stations in Santa Fe. In a statement, Governor Grisham noted she would like to see 20% of the state fleet electrified.

EV Supply Equipment (EVSE) Policies and Incentives

Public Utility Definition: An entity that is not a regulated utility that resells natural gas or electricity as motor fuel is not defined as a public utility.

New York

EV Policies and Incentives

PEV Rebate Program

Heavy-Duty Alternative Fuel and Advanced Vehicle Purchase Vouchers

ZEV and Fueling Infrastructure Rebates for Municipalities: available to cities, towns, villages, counties, and New York City boroughs.

Workplace EVSE and PEV Incentives: NYSERDA is offering employers in the greater New York City region an $8,000 rebate per dual-connector EVSE installed. Employees of organizations that receive the rebate are eligible for a $500 rebate toward the purchase or lease of a qualified PEV.

HOV Lane Exemption

PEV Toll Discount Program

HEV Taxicabs: By February 3, 2019, the New York City Taxi and Limousine Commission must approve one or more HEV models for immediate use as a taxicab by medallion owners.

EV Supply Equipment (EVSE) Policies and Incentives

EVSE Rebate: available to public and private entities for installations at public parking facilities, workplaces, and multi-unit dwellings.

Alternative Fueling Infrastructure Tax Credit:
PEV and Charging Infrastructure Support: The New York Power Authority's EVolve NY program has allocated up to $250 million to support PEVs and address charging infrastructure gaps throughout the state.

PEV Charging Tariff: Each investor-owned utility selling electricity was required to file a tariff with the NYPSC by April 1, 2018, to allow a customer to purchase electricity solely for the purpose of charging a PEV. The utility must make the tariff available to customers within 60 days of PSC approval.

Electric Corporation Definition: PEV charging stations are not defined as electric plants and owners and operators of charging stations are not defined as electric corporations. The PSC does not have jurisdiction over publicly available PEV charging stations, the owners and operators of the stations, or the transactions between the owners and operators of the stations, as long as the owners and operators do not fall within the definition of an electric corporation.

Governor Andrew M. Cuomo announced in February 2019 that New York is making up to $31.6 million available to ramp-up the expansion of electric vehicle fast charging stations. The plan was approved by the NYPSC and will leverage existing NYSERDA and NYPA funds.

Oregon

EV Policies and Incentives

Support for PEV Adoption: In order to support the state goal of at least 50,000 PEVs registered and operating in Oregon by 2020, the ZEV Working Group will develop goals and progress metrics for PEV adoption. The Working Group will aim to remove barriers to PEVs and PEV charging stations, and establish a website to share information about their efforts with the public.

PEV Rebate: available to residents, businesses, non-profit organizations, and government agencies.

Establishment of Recognition Programs for PEV Adoption: The ODOE must design and establish Governor's Awards for automobile dealerships to encourage sales of PEVs. ODOE must also design and establish Governor's Awards for businesses and organizations that support PEV adoption through installing charging infrastructure and using PEVs in their fleets.

Support for Zero-Emission Buses: ODOE, with ODOT, the PUC, the DEQ, and the Department of Education, must develop tools and provide assistance to school districts and transit agencies about using zero-emission bus options.

AFV Acquisition, Fuel Use, and Emissions Reductions Requirements: All state agencies and transit districts must purchase AFVs and use alternative fuels to operate those vehicles to the maximum extent possible, except in regions where it is not economically or logistically possible to fuel an AFV. DAS and ODO) must improve the PEV bulk procurement process to reduce costs for state agency PEV purchases. DAS must develop a “LEV First" policy to encourage state employees to use PEVs or other LEVs in the state fleet. DAS and ODOE must also develop a tool to calculate the long-term return on investment and life-cycle costs of PEVs to inform agencies of potential cost savings. In addition, DAS must inform and support legislative changes that enable increased charging infrastructure and state agency PEV purchases.

EV Supply Equipment (EVSE) Policies and Incentives

Mandatory EVSE Building Standards: The Oregon Department of Business and Consumer Services, Building Code Division, must amend the state building code to require that all newly constructed residential and commercial building parking structures can support the installation of at least one level 2 EVSE by October 1, 2022.

State Agency EVSE Installation: State agencies may install publicly-accessible EVSE on their premises or contract with a vendor to do so. The Oregon Department of Administrative Services (DAS) will establish criteria to determine the appropriate number of locations for EVSE at each agency. DAS must add PEV charging capacity for employee and public visitor parking lots, develop contracts to procure and install charging infrastructure, and incorporate PEV charging as a tenant improvement for state-leased buildings.

Electricity Provider and PEV Charging Rate Regulations: Regulated electric utility tariffs must explicitly permit customers to resell electricity for use as a motor fuel, as long as the entity is not considered a public utility as defined in Oregon Revised Statutes 757.005 and does not provide any utility service. Additionally, each regulated electric utility must provide customers with a choice of flat rate or time of use electricity rates specific to PEV owners. Finally, an investor-owned utility can own and operate PEV charging equipment using its own funds or petition the OPUC for rate recovery.

Rented Commercial Property EVSE Installations: The tenant of a commercial space may submit an application to install EVSE for the use of the tenant, employees of the tenant, and customers of the tenant. Unless the premises does not have at least one parking space per rental unit, the landlord must approve a completed application no more than 60 days after the tenant submits the application. In the absence of a different tenant-landlord agreement, the EVSE will be personal property of the tenant.

Planned Community and Condominium EVSE Installations: The owner of a lot in a planned community or unit in a condominium may submit an application to install EVSE for their personal use in a parking space subject to the exclusive use of the owner. The HOA must approve a complete application within 60 days. The owner is responsible for all costs associated with the EVSE installation and use, must disclose the existence of the EVSE and related responsibilities to a prospective buyer, and must ensure that the infrastructure meets insurance and safety requirements. EVSE installed under these regulations on or before June 4, 2015, is considered to be the personal property of the lot or unit owner with which the EVSE is associated, unless the owner and HOA have negotiated a different outcome.

Rhode Island

EV Policies and Incentives

AFV and ZEV Acquisition Requirements: at least 75% of state motor vehicle acquisitions must be AFVs, and the remaining 25% must be HEVs to the greatest extent possible. By 2025, 25% of state motor vehicle acquisitions must be ZEVs.

EV Supply Equipment (EVSE) Policies and Incentives

EVSE and PEV Rebates: The Charge Up! program provides rebates to state and municipal agencies for the purchase and installation of publicly accessible Level 2 or DC fast chargers. Agencies that install EVSE also qualify for up to $15,000 to support the purchase or lease of a new PEV acquired on or after July 1, 2016, as part of their public sector fleet.

Vermont

EV Policies and Incentives

PEV Incentive: provides financial incentives to low- and moderate-income residents for the purchase or lease of a new PEV.

Heavy-Duty Vehicle Emissions Reduction Grants: Through the Vermont Diesel Emissions Reduction Grants Program, the Vermont Department of Environmental Conservation provides funding to local, state and regional agencies or departments, businesses, institutions, and nonprofit organizations for projects focused on reducing emissions from diesel engines and vehicles. Qualifying heavy-duty vehicles include buses and Class 5-8 trucks. Projects eligible for funding include alternative fuel conversions and certified vehicle or equipment replacements.

HEV and PEV Acquisition Requirements: Effective July 1, 2019, the Vermont Department of Buildings and General Services must, to the extent possible, purchase or lease HEVs or PEVs for state use. At least 50% of the vehicles purchased or leased annually must be HEVs or PEVs. Beginning July 1, 2021, at least 75% of the vehicles purchased or leased annually must be HEVs or PEVs.

PEV Analysis: The PUC must evaluate PEVs and PEV charging in the state. The Commission must provide public notice, opportunity for submission of written comments, and one or more workshops on PEVs during the course of its evaluation.

EV Supply Equipment (EVSE) Policies and Incentives

EVSE Grants: available to governments, businesses, non-profit organizations, homeowner associations, electric utilities, and EVSE providers.

Alternative Fueling Infrastructure Incentive: The Vermont State Infrastructure Bank (SIB) offers loan assistance to municipalities, regional development corporations, political subdivisions of the state, and private companies working for the state to finance public electric vehicle charging and natural gas fueling stations.

Public Utility Definition: An entity that supplies electricity to the public exclusively to charge plug-in electric vehicles is not defined as a public utility and may charge for this electricity by the kilowatt-hour.

EVSE Fee Authorization: Effective July 1, 2019, any Vermont agency or department that owns or controls EVSE may establish and set user fees.

EVSE Code Reporting: On or before December 1, 2019, the Vermont Agency of Agriculture, Food and Markets (Agency) must submit a report to the legislature that provides an update on the National Institute of Standards and Technology's (NIST) progress toward adopting a code on EVSE and makes a recommendation for an annual licensing fee for EVSE available to the public. If NIST has not adopted a code on EVSE by December 1, 2020, the Agency must submit an additional report on or before that date which provides an update on NIST's progress toward adopting a code.

Washington

EV Policies and Incentives

Alternative Fuel Commercial Vehicle and Fueling Infrastructure Tax Credit: Businesses are eligible to receive tax credits for purchasing new alternative fuel commercial vehicles and installing alternative fueling infrastructure.

PEV and Fuel Cell Electric Vehicle (FCEV) Infrastructure and Battery Tax: Public lands used for installing, maintaining, and operating PEV infrastructure are exempt from leasehold excise taxes until January 1, 2020. Additionally, the state sales and use taxes do not apply through July 1, 2025 to PEV and FCEV batteries or fuel cells; labor and services for installing, repairing, altering, or improving PEV and FCEV batteries or fuel cells and PEV and hydrogen fueling infrastructure; the sale of property used for PEV and hydrogen fueling infrastructure, and the sale of zero emission buses.

AFV and EV Retail Sales Tax Exemption

PEV Promotion and Infrastructure Development: Any regional transportation planning organization containing a county with a population greater than one million must collaborate with state and local governments to promote PEV use, invest in PEV charging infrastructure, and seek federal or private funding for these efforts.

AFV Car Share Pilot Program: WSDOT will develop a pilot program to provide AFV use opportunities to underserved and low-income communities and to those without easy access to transportation corridors.

AFV Technical Assistance and Education Program: The Washington State University Energy Program will establish and administer a technical assistance and education program on the use of AFVs for public agencies, including state and local governments.

EV and FCEV Low Income Opportunity Study: The Washington State Department of Commerce must conduct a study to identify opportunities to reduce barriers to EV and FCEV adoption by lower income residents through the use of vehicle and infrastructure financing assistance.

Alternative Fuel Use Requirement: All state agencies must, to the extent practicable, use 100% biofuels or electricity to operate all publicly owned vehicles. Agencies must prioritize EVs when leasing or purchasing new vehicles, and all trips that may feasibly use EVs must employ them.

EV Supply Equipment (EVSE) Policies and Incentives

Alternative Fueling Infrastructure Funding Program: WSDOT has developed a pilot funding program to strengthen and expand the West Coast Electric Highway network by deploying DC fast charging infrastructure along highway corridors in Washington.

Utility EVSE ROI Incentive: Utilities may petition the UTC for a rate of return on EVSE installed for the benefit of ratepayers through 2030.

Green Transportation Grant Program: WSDOT will establish a grant program to fund projects including fleet electrification, modification or replacement of facilities to facilitate fleet electrification and hydrogen fueling, upgrades to electrical transmission and distribution systems, and construction of charging and fueling infrastructure. In order to receive funding for a project, a transit authority must provide matching funding that is at least equal to 20% of the total cost of the project.

PEV Charging Regulation Exemption: The UTC may not regulate the rates, services, or facilities of an entity that offers charging facilities to the public for hire. The exemption does not apply if the entity is otherwise subject to UTC jurisdiction as an electrical company, or if an entity's battery charging facilities and services are subsidized by any regulated service. A utility may offer charging facilities as a regulated service, subject to UTC approval.

PEV Charging Infrastructure Availability: Publicly and privately owned PEVs may charge at state office locations if the vehicles are used for state business, conducting business with the state, or as commuter vehicles. Additionally, contingent upon funding, the state must install electrical outlets suitable for charging PEVs in each of the state's fleet parking and maintenance facilities as well as every state-operated highway rest stop.

Local Government PEV Infrastructure Requirements: Jurisdictions must develop regulations to allow the use of PEV infrastructure in all areas except critical areas or areas zoned for residential or resource use.

EVSE and Battery Exchange Station Regulations: State and local governments may lease land for installing, maintaining, and operating EVSE or electric vehicle battery exchange stations for up to 50 years for at least $1 per year. Additionally, the installation of battery charging and exchange stations is categorically exempt from the Washington Environmental Policy Act.

HB 19-1512: Allows municipal utilities to adopt transportation electrification plans. Regulated utilities may adopt plans that provide EV charging equipment incentives and support for other transportation electrification programs. Utility Electric Transportation Plan Authorization: The governing authority of a utility or a regulated electric utility, with the approval of the UTC, may adopt an electric transportation plan that proves that utility outreach

and investment in the electrification of transportation infrastructure does not increase net costs to ratepayers in excess of 0.25%. The governing authority or the UTC may consider items such as the impact of electrification on the utility's load, demand response and load management opportunities, system reliability and distribution system efficiencies, and interoperability concerns. Upon making this determination, electric utilities may offer incentive programs for customers.

From: Cummins,Patrick
To: Michael Northrop; Regina Creegan; Deborah Burke
Subject: RE: 071719questionnaire
Date: Wednesday, July 10, 2019 8:52:00 AM

Please do take a close look at this as I don't want to be the decider of who's a VIP and if they should be in Coach Barn or at Kykuit. I'm just not familiar enough with all the people or the facility….we could also run down the list quickly on the phone

Patrick Cummins
Senior Policy Advisor
Colorado State University
Center for the New Energy Economy

From: Cummins,Patrick
Sent: Wednesday, July 10, 2019 8:46 AM
To: Michael Northrop ; Regina Creegan Deborah Burke

Subject: FW: 071719questionnaire

Michael – I think you answered all the questions. Regarding rankings and room assignments: Here are my thoughts, which you can certainly modify.

To the best of my knowledge, the hike up the hill will not be a problem for most.

But we should have the following stay in deluxe rooms in the Coach Barn:
Leo Asuncion
Mary Nichols

Per Michael, organizers to stay in Coach Barn, but don't need deluxe rooms:

Deborah	Burke
Jacob	Corvidae
Patrick	Cummins
Carla	Frisch
Joe	Kruger
Michael	Northrop
Bill	Ritter, Jr.

After that, it's pretty subjective who is a VIP and whether you want them in Coach Barn or at Kykuit. Here are my thoughts – I've added VIP or either next to the remaining names.

Nik	Blosser – vip

David	Bobzien – either
Dale	Bryk - either
Betsy	Campbell - VIP
Janet	Coit – either (Coach Barn for convenience)
Sarah	Cottrell Propst - either
Bradley	Crowell - either
Chris	Davis – either
Katie	Dykes – either (coach barn for convenience)
Sandra	Ely – either
Kathleen	Frangione - VIP
Carla	Frisch - either
Kate	Gordon - VIP
Ben	Grumbles - either
Katie	McCormack – either (coach barn for convenience)
Zach	Pierce - either
Hannah	Pingree – coach barn
Reed	Schuler - either
Andrew	Steer - VIP
Kathleen	Theoharides - either
Will	Toor - either
Peter	Walke - either

From: Michael Northrop
Sent: Tuesday, July 9, 2019 6:34 PM
To: Regina Creegan ; Deborah Burke ; Cummins,Patrick

Cc: Michael Northrop
Subject: 071719questionnaire

Patrick, can you look at the attached? I filled it out but added notes for you in a few places.
Regina needs a total number of participants (count Betsy Campbell from the RBF who is coming to dinner)
Regina needs arrival info for everyone
We also want to know who besides Hannah wants to do the tour on Thursday at 4. I'll join Hannah if she is alone. A note to everyone to say a 4pm tour on Thursday is an option would be great. Regina requests we call it a tour of Kykuit, the Rockefeller Family home, not a tour of the Rockefeller Estate
Regina, let us know what else you need.
Regina, I apologize we have been a little less organized than we should have been. We have been wildly spoiled by Wilson Rickerson obviously.
Thank you!
Michael

From:	Cummins,Patrick
To:	Michael Northrop
Cc:	Hoffer,Trina
Subject:	RE: Background Note for July 17-18
Date:	Tuesday, July 02, 2019 11:58:00 AM
Attachments:	Background Note for July 17-18 pc clean.docx Background Note for July 17-18 pc mark up.docx

Looks good! I suggest moving up some of the stuff that was at the end - putting it in front of the sector specific policy discussion. Other than that, just some minor edits. Attaching both a clean version with my changes the mark up version

If you want to include this as an attached memo (as opposed to just in the body of an email), I can ask our team to do some formatting with logos, etc. Just let me know either way.

Patrick Cummins
Senior Policy Advisor
Colorado State University
Center for the New Energy Economy

From: Michael Northrop
Sent: Tuesday, July 2, 2019 11:17 AM
To: Cummins,Patrick <
Cc: Michael Northrop
Subject: Background Note for July 17-18

How does this look? Edits welcome. Formatting welcome too.

Message

From: Michael Northrop [mnorthrop@rbf.org]
Sent: 7/10/2019 11:23:18 PM
To: Nichols, Mary D. @ARB [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7585b067870148049f8ac530c2324e7e-Mary Nichol]
Subject: Re: Illinois contacts

Fantastic. We'd love the one who has the Governors ear..
Connect me if you think the person is interested in coming. Tell them Georgetown can cover travel and their lodging and food are covered too.
Thanks!

Sent from my iPhone

On Jul 10, 2019, at 6:06 PM, Nichols, Mary D. @ARB <mary.nichols@arb.ca.gov> wrote:

> I checked with several people There are two climate appointeesthe Governo's office. Either or both would be a great addition to the Pocantico discussion, but even if ut's Too late I want to follow up anyway.
> Mary D Nichols, Chair
> California Air Resources Board

From: Wimberger, Emily@ARB <Emily.Wimberger@arb.ca.gov>
Sent: Tuesday, July 9, 2019 5:28 PM
To: Nichols, Mary D. @ARB
Subject: Re: TCR ED

The names I know are Jessica Himes (Jessica.himes@illinois.gov) who is a policy advisor (and looks 12 from her twitter picture but worked on the Hillary campaign) and Pat Collier (pat@jbpritzker.com) the deputy chief of staff for foreign affairs (who worked on the Obama campaign). They are the two USCA reps for IL and were invited to the EPIC social cost of carbon workshop.

From: Nichols, Mary D. @ARB
Sent: Tuesday, July 9, 2019 5:16 PM
To: Wimberger, Emily@ARB
Subject: RE: TCR ED

I HAVE A LINE IN TO TWO PEOPLE. I think I need the person in the governor's office who specializes in climate.

: Wimberger, Emily@ARB
Sent: Tuesday, July 09, 2019 5:02 PM

Message

From: Kate Gordon [Kate.Gordon@opr.ca.gov]
Sent: 7/13/2019 12:22:59 AM
To: Michael Northrop [mnorthrop@rbf.org]; Nichols, Mary D. @ARB [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7585b067870148049f8ac530c2324e7e-Mary Nichol]
CC: Sanchez, Lauren@ARB [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=6096bc811ad24721b87bc95c2c8793b5-Lauren Sanc]; Jennifer Phillips [Jennifer.Phillips@OPR.CA.GOV]
Subject: Re: July 17-18 Pocantico Leadership States Meeting: Background Note, Agenda, Participant List, and Pocantico Center Information

Michael,

I wanted to share some thinking that Mary and I have been doing, with Lauren and Jenn on our staffs, about this agenda and our goals.

We truly appreciate all the work you've put in here. That said, we're thinking that given the mix of states in the room, many of which are at different levels of ambition/action than California, it would be great to focus in on just a few areas that we know from our USCA and other bilateral conversations are top of mind for these states.

From our perspective, transportation and climate resilience are key issues. The former is on the agenda, though we'd like to see that expended and including more of a land use focus, not just technology. The latter isn't on the agenda but is clearly the major way for most states that climate is engaging people and politicians across political lines -- witness the fact that here in CA we've spent 6 months talking about wildfires, which has led to a much more focused discussion on climate risk and the impact of fires on our overall utility structure/ability to meet our climate goals.

We'd love to see a broader focus on these two areas, and maybe less focus on some issues that are not as critical to a broad swath of states -- specifically the UN process, which is a remote issue for many, and possibly also net-zero buildings, which is pretty technical. There's obviously room for at least one more deep dive, at your discretion.

Just our 2 cents but we'd really love to make sure this is as useful and productive for the entire group as possible!

Happy to discuss further. Thanks Michael.

KG/MN

Kate Gordon
Director, Governor's Office of Planning and Research
Senior Advisor to the Governor on Climate
Exec Assistant: Denise Gutierrez
1400 Tenth Street
Sacramento, CA 95814
www.opr.ca.gov

Message

From: Michael Northrop [mnorthrop@rbf.org]
Sent: 7/7/2019 9:15:44 PM
To: Nichols, Mary D. @ARB [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7585b067870148049f8ac530c2324e7e-Mary Nichol]
Subject: Re: Do you know anything about this foundation?

I'm hearing they are going to be serious climate donors. Don't know too much else yet..

Sent from my iPhone

On Jul 6, 2019, at 10:44 PM, Nichols, Mary D. @ARB <mary.nichols@arb.ca.gov> wrote:

Apparently they are about to get a lot of money. Who is the donor and is there a hidden catch? It certainly would be good to have another foundation to rot Keith.

Mary D Nichols, Chair
California Air Resources Board

<JD for Climate Initiative FINAL.pdf>

From: Michael Northrop <mnorthrop@rbf.org>
Sent: Friday, July 19, 2019 10:12 PM
To: kate.gordon@opr.ca.gov; mary.nichols@arb.ca.gov; zach.pierce@state.co.us; will.toor@state.co.us; katie.dykes@ct.gov; leo.r.asuncion@hawaii.gov; Hannah.Pingree@maine.gov; ben.grumbles@maryland.gov; kathleen.theoharides@mass.gov; dbobzien@energy.nv.gov; bcrowell@dcnr.nv.gov; kathleen.frangione@nj.gov; sandra.ely@state.nm.us; sarah.propst@state.nm.us; dale.bryk@exec.ny.gov; nik.blosser@oregon.gov; janet.coit@dem.ri.gov; Walke, Peter; chris.davis@gov.wa.gov; reed.schuler@gov.wa.gov; Deborah Burke; Bill.Ritter@colostate.edu; Patrick.Cummins@colostate.edu; jk2128@georgetown.edu; jcorvidae@rmi.org; cfrisch@rmi.org; katie.mccormack@ef.org; asteer@wri.org
Cc: shelby.mcmichael@sgc.ca.gov; shannon.stewart@arb.ca.gov; nancey.steinheimer@state.co.us; Carmen.Colon@ct.gov; shanell.k.feliciano@hawaii.gov; kathy.bishop@maryland.gov; victoria.s.grimes@state.ma.us; pamalloy@energy.nv.gov; Barbara.Panebianco@nj.gov; Minerva.Cano@exec.ny.gov; jennifer.j.andrew@oregon.gov; Suzanne.Amerault@dem.ri.gov; Wendy.Hartzell@colostate.edu; eda.lee@wri.org
Subject: Pocantico States Meeting: A Big Thank You and some very Summary Notes

I'm still absorbing the conversation, but suffice it to say, it was great!
I'll be offline for the next week, and before I vanish I wanted to say a huge thank you for your time this week at Pocantico It was a privilege to be with you. What an impressive group of smart dedicated people you are.
THANK YOU!!
Thanks also to Bill and Patrick and Carla and Jacob and Joe for all the organizing and facilitating you did before and during the meeting.
THANK YOU!!
Some of you, including Katie McCormack, Carla Frisch, and Patrick Cummins took excellent notes. Patrick is going to share a merged version so we are sure to capture all the nuance of the conversation.
THANK YOU!!

My own, top line, incomplete notes are attached, if only to keep the conversation top of mind until the complete notes get circulated. Apologies in advance for everything I've glossed over and misrepresented.

Please let me know how I can help with next steps.

Have a great weekend.

Here are the nuggets that pop out of my notes:

Climate Policy
**States would benefit from an guiding climate act like the U.K. has, like California has (AB 32)

Transportation
** States want a vision for transportation policymaking that includes land use, transit, biking, walking, EV's and technology
** States are looking forward to a next steps proposal on vehicle standards they can subscribe to
** States should jointly demand Uber and Lyft data to guide policymaking
** The NGA offers a good opportunity for constructive bipartisan conversation on transportation; Gov. Hogan is eager to lead
** TCI is advancing
** PCC (CA, OR, WA, BC) cooperation along west coast is a regional model for EV deployment

Natural Gas
** States need a road map for how to get off natural gas (Katie Dykes)
** There's an opportunity to understand all the rules and incentives that preference gas and unwind them
** Buildings may be the best first target for moving beyond gas

Oil and Gas Methane Rule

** CO, NM, CA are blazing the trail on methane regs for the 10 oil states; these could become virtual or actual national policy
** Producer states need continuous monitoring of methane leakage
** Certifying no-methane-leak natural gas could be useful **On the customer side of the pipes, states need programs to plug methane leakage; one estimate has Boston's system leaks 6%

Buildings
** States could adopt net zero codes for new construction; CA's net zero building codes are a model
** States need mandatory disclosure rules to design rules for building efficiency
** WA state's recent legislated retrofit rules for large building are a model way forward; NYC has taken a similar, more aggressive approach
** A benefits analysis like what RMI did for NYC helps make the case for retrofit policies: investment, jobs, $$ savings, and GHG savings numbers are Yuge
** Rules to require low carbon materials for all new buildings and infrastructure, including for steel, cement, wood and glass are good economics, good politics, and great climate policy
** States can adopt existing appliance standards
** Air Source Heat Pumps are a critical appliance states could collaborate on; cities have started this conversation; a big impact on gas in buildings

Working Lands Sequestration
** Climate Alliance has made strides in this area; Rhode Island excited about their approach; CA prioritizing this: resilience and fire are drivers
** State approaches to natural lands carbon sequestration that offer economic benefits to farmers and forest owners will improve climate politics

HFCs
** Adopting the SNAP rules is easy to do says Reed Schuler: corporate support, low or no opposition, big climate benefit

Working with Cities
** Cities have made progress on many of these issues: leadership cities and leadership states could help each other

NGOs and Donors
** There is a gap between NGO/Donor interests and the needs of states; making the case and communicating it is required

Federal Policy
** We have 18 months to be shovel ready for 2021; States can help create model approaches for federal action

Global
** States have an important role as influencer in multilateral climate negotiations over the next 18 months: Georgetown and the Climate Registry are ready to assist states that want to participate at COP 25 and COP 26 in Santiago and London

Message

From: Nichols, Mary D. @ARB [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=7585B067870148049F8AC530C2324E7E-MARY NICHOL]
Sent: 7/7/2019 9:52:06 PM
To: Michael Northrop [mnorthrop@rbf.org]
Subject: RE: Do you know anything about this foundation?

Apologies for the weird typos. It's a big enough deal so I don't want to recruit anybody without a little more background infor, but it's very hard to come by. I figured you foundation people all know each other.

From: Michael Northrop <mnorthrop@rbf.org>
Sent: Sunday, July 07, 2019 2:16 PM
To: Nichols, Mary D. @ARB <mary.nichols@arb.ca.gov>
Subject: Re: Do you know anything about this foundation?

I'm hearing they are going to be serious climate donors. Don't know too much else yet..

Sent from my iPhone

On Jul 6, 2019, at 10:44 PM, Nichols, Mary D. @ARB <mary.nichols@arb.ca.gov> wrote:

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>
> Mary D Nichols, Chair
> California Air Resources Board
>
> <JD for Climate Initiative FINAL.pdf>

Message

From: Michael Northrop [mnorthrop@rbf.org]
Sent: 7/7/2019 9:15:44 PM
To: Nichols, Mary D. @ARB [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7585b067870148049f8ac530c2324e7e-Mary Nichol]
Subject: Re: Do you know anything about this foundation?

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Mary D Nichols, Chair
California Air Resources Board

<JD for Climate Initiative FINAL.pdf>

Draft Agenda

Accelerating State Action on Climate Change

The Pocantico Center
200 Lake Road
Tarrytown, New York
July 17-18, 2019

This meeting will provide an opportunity for officials from leadership states taking action on climate change to share information on recent developments in their states and to strategize together on the most promising ways to accelerate the pace of implementation in response to the increasingly ambitious climate goals being established by these states' governors and state legislatures. The group will also discuss how state action can influence and underpin future federal action and how U.S. federal action needs to be positioned within the global climate negotiations.

Wednesday, July 17

6:00 pm Reception in Loggia area of the Coach Barn

7:00 Dinner and Introductions

8:30 Hayloft conversation on the international climate negotiation; and on how states are successfully setting and implementing science-based targets.
Dr. Andrew Steer, President and CEO, World Resources Institute
Kathleen Frangione, Chief Policy Advisor to Governor Phil Murphy

Thursday, July 18

7:00 am **Breakfast buffet available in Coach Barn**

8:00 **Agenda Review and Meeting Objectives, Governor Bill Ritter, CNEE**

8:15 **Summary Review of High Ambition Policies.** Please review the two documents provided in advance. Please share your questions and suggestions for additions. These are intended to be resources you and others can use to further policy goals in your states.

9:00 **Meeting the Challenges Posed by the Transportation Sector**

- Update on federal vehicle standards and states' response
  - How can states work together to establish ambitious federal and state emission standards for new cars and trucks?
- Status of Transportation and Climate Initiative
  - What can other states learn from this effort?
- Discussion of other strategies to address CO2 emissions from transportation (e.g., incentives for EV purchases and charging infrastructure, Low-Carbon Fuel Standards.)

10:00 **Power Sector**

- Achieving 100%
- Replacing Coal with Natural Gas?

11:00 **Net Zero Buildings**

- Standard Setting, Disclosure, and Mandatory Retrofits
- Electrification Instead of Gas Heating and Cooling

12:00pm **Working Lunch: Industrial Sources, Oil & Gas Methane, HFCs, Land Use**

Moving industrial sources away from fossil fuels and onto clean energy sources poses a set of challenges similar to those associated with buildings in terms of efficiency, retrofits and electrification. In addition, some states face the issue of a rapidly expanding oil & gas sector and associated methane emissions. Several states are early movers on HFC's: what are the lessons for other states?
We will break up into 3-4 groups over lunch for a discussion on the model tools, policies and incentives states can use to make progress in these sectors?

1:30 **Carbon pricing strategies**

- Tough sledding in WA, OR, VA
- Opportunities to expand existing programs (RGGI, TCI, WCI, EU, China) and enhance collaboration between programs
- Carbon tax

2:00 **Collaborative Opportunities**

- Group actions by leadership states on policy and market creation
- Outreach / support for opportunity states
- Setting the Policy Stage for Federal Action in 2021/Preparing for the Worst
- Participation in upcoming COPs in Santiago and London

3:30 **Next Steps**

4:00 **Adjourn and Optional Tour of the Rockefeller Estate for anyone who can delay their departure to 5:30.**