Act on Climate Sharing Session

Please complete this pre-session survey while we wait for folks to join us: <u>www.pollev.com/eresources411</u>

Technical questions about zoom: email Matthew.Moretta.CTR@energy.ri.gov

We will get started shortly!



Act on Climate

Sharing Session #4 April 19-21, 2022





Act on Climate Mandates

2022 Update: By 12-31-2022, the EC4 shall submit an update to the 2016 Greenhouse Gas Emissions Reduction Plan

- For more info on the scope of the 2022 Update, visit <u>www.climatechange.ri.gov/aoc/</u>
- Today's discussion informs priority actions we take over the next few years to set Rhode Island on a path to meet our 2030 emissions reduction mandate

The 2021 Act on Climate establishes economy-wide emissions reduction mandates of:

- > 10% below 1990 levels by 2020
- > 45% below 1990 levels by 2030 ← Today's focus
- > 80% below 1990 levels by 2040
- ➢ Net-zero emissions by 2050

Facilitated Discussion

- 1. What actions related to electricity consumption do we need to do in order to reach our 2030 mandate?
 - 2. How should we prioritize those actions?



How to Participate



• **Unmute** yourself using the icon at the bottom right of the screen and speak your question or comment.





- Type your question or comment into chat.
- Type that you would like to speak in the chat.
- We will either read your comment or call on you to speak.
- Click the participants icon at the bottom of your screen then click the raise hand icon at the bottom left of the pop-up window to raise your hand.
- We will call on you to speak.

- **Phone**: unmute yourself from your phone options and speak your question or comment.
- Phone: hit *6 to unmute yourself and speak your question or comment.
- Phone: hit *9 to raise hand and we will call on you to speak.



 Please direct technical zoom **questions** to Matthew.Moretta. CTR@ energy.ri.gov

Housekeeping and Logistics







We do not intend to post this recording publicly.

- Please **mute** your mic when not speaking.
- OFR will monitor noise levels and mute folks who may have accidentally unmuted themselves.
- Make space and take space
- Each person will be allotted a maximum of 3 minutes to speak initially to ensure we are allowing everyone an opportunity to be heard



- We recognize there may be inherent power dynamics in this conversation.
- We encourage everyone to voice both support and concerns, and invite you to challenge our assumptions and our thinking.



- Thank you in advance for your good intentioned comments and questions and for your respect toward everyone present.
- Please refrain from interrupting or speaking over others – this will ensure we hear and understand all speakers. 5

Background Information

Emissions from Rhode Island's Electric Sector

2018 Emissions
2. Efforts since 2016
3. Recommendations from recent key studies

Over a Quarter of Total Emissions



The transportation sector is the largest source (35.0%) of greenhouse gas emissions

The electric sector – meaning emissions from electricity consumed in Rhode Island – accounts for 26.3% of emissions

Our emissions are based on how much electricity we use



First, we account for our renewable energy sources

RI's Renewable Energy Standard (RES) requires 13% renewables The majority of compliance results in emissions-free electricity, but a small portion can use emissions-intensive electricity with an Alternative Compliance Payment

Second, we account for our in-state generation

RI has 6 in-state power plants that generate electricity

RI's power plants rely mainly on natural gas, which results in emissions

http://www.dem.ri.gov/programs/air/ghg-emissions-inventory.php

Finally, we account for regional generation

For the remainder of our electricity consumption, we apply emissions resulting from the regional fuel mix

Emissions from regional fossil-based generation

Emissions from in-state fossil-based generation

Renewable Energy Standard (RES) – emissions free! (mostly)



RI's 2018 Electric Sector Emissions RI consumed roughly 8 billion kWh

Rhode Island exported electricity, so no regional emissions included

___About 7 billion kWh had emissions equal to our in-state power plants

—About 1 billion kWh were emissions-free

Renewable Energy Standard (RES) – emissions free! (mostly)

Example: 100% Renewable Energy Standard

When compliance is satisfied with Alternative Compliance Payments, a portion of electricity will continue to result in emissions

----Nearly all kWh would be emissions-free

http://www.dem.ri.gov/programs/air/ghg-emissions-inventory.php

Pathways from the 2016 Plan

- Energy Efficiency
 - ✓ Extend energy efficiency programs
 - \checkmark Update appliance standards
 - Energy disclosure and labeling
- Clean Energy
 - ✓ Weigh costs and benefits of comparative pathways
- Energy Storage
 - $\checkmark\,$ Policies and programs to promote energy storage
- Other Pathways See 'Since 2016' for more info
 - Grow Clean Economy Jobs
 - Empower Citizens and Communities
 - Foster a More Dynamic Regulatory Model
 - Regional Greenhouse Gas Initiative (RGGI)
 - Other Regional Work



Select Key Studies

- 100% Renewable Electricity by 2030 ← Today's focus
- Solar Siting Opportunities
- Power Sector Transformation
- Docket 4600: Investigation into the Changing Electric Distribution System
- Energy Efficiency 2021-2026 Market Potential Study
- Others



Policy and Programmatic Recommendations

Study insights inform three categories of recommendations:





Policy

Recommendations for defining, achieving, and procuring 100% renewable electricity.

Planning & Enabling

Recommendations on ways to reduce risk, increase flexibility, and optimize renewable energy integration.



Equity

Recommendations on ways to foster equitable outcomes developed in partnership with frontline communities.

Policy Recommendations



Policy is needed to establish a strong, statewide framework and reach our goals in ways that align with our foundational principles.



We must ensure we meet our clean energy goals by advancing a **100% Renewable Energy Standard.** Continued efforts to decrease energy consumption necessitate extension of Least-Cost Procurement and Nation-Leading Energy Efficiency Programs.



Maintaining continued support for in-state development, while supporting **programmatic evolution** to deliver more affordable and sustainable outcomes.

Planning and Enabling Recommendations

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We need to advance innovative, integrated, and collaborative **planning** to **enable** interconnection of clean energy onto the grid while minimizing costs and optimizing land use.

Optimize the electric grid through collborative, **integrated** grid planning. Facilitate integration of distributed energy resources by advancing **Power Sector Transformation** and **Grid Modernization**.

Build out a strategic role for **energy storage** technologies.

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Continue **regional collaboration** on wholesale markets and interstate transmission.

Equity Recommendations

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We must center **equity** and include community engagement in program design to improve access to clean energy benefits for all Rhode Islanders. Throughout this effort, we will identify and address systemic racism and historic inequities.



Partner with trusted community organizations to listen, learn, support, and establish foundational definitions. Based on foundational definitions, develop **equity metrics** with the community to track and monitor progress towards equitable outcomes. Improve **outcomes** identified and prioritized by commuities through rate design, program adjustments, and policy.

Facilitated Discussion

Meeting our 2030 Mandate – Prioritizing Actions for the Electric Sector

1. What actions related to electricity consumption do we need to do in order to reach our 2030 mandate?

2. How should we prioritize those actions?

3. Other considerations?

Scope

- Actions required over next 1-3 years
- Limited to reducing emissions from the electric sector
- Consider 2030 Mandate (45% emissions reduction)
- Some principles to consider
 - Prioritize low-hanging fruit biggest impact with lowest cost
 - Prioritize actions we can control
 - Prioritize actions that balance and advance multiple policy objectives
 - Others?

Scope

- Actions required over next 1-3 years
- Limited to reducing emissions from the electric sector
- Consider 2030 Mandate (45% emissions reduction)
- Some principles to consider
 - Prioritize low-hanging fruit biggest impact with lowest cost
 - Prioritize actions we can control
 - Prioritize actions that balance and advance multiple policy objectives, like affordability, reliability, equity
 - Others?

• Types of actions



Ensure decarbonization

(ex: Renewable Energy Standard)



Enable decarbonization

(ex: grid modernization, energy storage, regional collaboration)



Refining our actions

(ex: energy efficiency, evolving renewable energy programs, centering equity)

Priority Actions – 4/19



Ensure decarbonization

- Pass/advocate for 100% Renewable Energy Standard
- Renewable energy cluster; climate/energy cluster at CommerceRI
- Public and stakeholder collaboration to understand perspectives and inform how to achieve climate mandates
- Energy efficiency see recommendations from 100% renewable electricity by 2030 report: how can we align energy efficiency programs with climate mandates
- Improve visibility and control of the electric grid; enable smart investments in renewable and EVSE investment



Enable decarbonization

- Encourage solar carport development (brings clean energy and reduces heat island effect)
- Prioritize development of renewable energy in priority areas (e.g. incentivize solar on rooftops)
- Allow for sizing rooftop solar to generate more electricity than consumed
- Allow for sharing solar between neighbors
- Energy storage solutions: How much do we need? What types do we need? Where do we need these resources? How do these needs change as we increase renewables?
 = Systematic Planning
- Improve accessibility and transparency in regulatory processes, utility procurements, etc.



Refining our actions

- Discourage tree cutting, such as by: incentivizing development in locations that are already cleared (incentives may include financial incentives, programs, etc.)
- Refine energy efficiency programs and measures to improve equity, reduce energy burden, deliver additional benefits; analysis to determine the extent to which energy efficiency programs are serving those who need it most
- Importance of weatherization
- Remove 'silos' of energy efficiency programming to optimize energy delivery and energy efficiency delivery
- Opportunity to broaden perspectives

Priority Actions – 4/20



\checkmark

Ensure decarbonization

- 100% Renewable Energy Standard by 2030
- Grow energy storage in line with needs
- Consider how customer appliances (e.g. vehicles) can support the health of our electric grid
- Consider strategically reducing electricity needs at times of peak demand (such as "load-shifting")
- Increase communications, outreach, education about variable emissions impacts of electricity use throughout the year (e.g. such as similar to storm messaging) – programmatic AND individual actions
- Support businesses in advancing Act on Climate goals
- Inter-regional coordination (e.g. with Hydro Quebec; for long-duration energy storage)



Enable decarbonization

- Facilitate deployment of rooftop solar and solar in the built environment
- Consider improvements to the interconnection process that can reduce costs and time
- Promote and procure offshore wind and continue to promote and procure offshore wind to accommodate growth in electricity needs
- Tie energy efficiency programs to emissions reduction mandates
- Improve equitable participation in energy efficiency programs (e.g. particularly for weatherization)
- Continue to enforce and revise appliance energy efficiency standards
- Vehicle efficiency standards
- Invest in grid modernization, smart meters

Refining our actions

- Continue to pursue building energy disclosure, labeling, and reporting
- Process efficiency improvements in installing solar (think about the entire process from concept to completion)
- Consider costs and administration burdens in terms of incentive levels
- Look to other jurisdictions for best practices and benchmarks
- Multiple policy objectives: decarbonization, land use, agriculture; comprehensive integrated approach
- Rebalance solar incentives to encourage development in preferred areas
- Implement time-of-use rates: signal for relative costs of electricity use throughout the year
- Offshore wind as affordable and scalable
- Ensure resources available to execute and implement (e.g. staff, funding, external)
- Workforce development, ensure benefits of job creation flow to climate/environmental justice communities
- Environmental justice advisory board, increase public participation; co-host with EJ social groups

Priority Actions – 4/21

\checkmark

Ensure decarbonization

• Notes



Enable decarbonization

- The role of energy efficiency how should incentive levels and incentivized measures evolve over time?
- Trends in incentive levels signal importance of new decarbonize-able technologies
- Marketing, communications, outreach, and education are all essential – communicate both environmental and non-environmental impacts of our actions
- How can we support young people, new homeowners, new renters/leasers? (New assets, appliances, vehicles, etc.)
- What is the role of education for children?
- Can we partner with other organizations to support climate literacy?



Refining our actions

- Reduce cost of distributed solar installed cost of domestic retail solar is double other countries
- Affordability is priority
- Demand response (and load shifting) is key to avoiding building out our electric grid
- Need to evolve demand response to meet a changing peak
- To what extent should we require connecting devices to demand response programs?
- Need to consider issues of liability for connecting appliances/equipment to the electric grid (both demand response and interconnection of renewables)

Next Steps

March

- Draft 'Since 2016' chapter ready for review

April

 Draft 'Greenhouse Gases' chapter ready for review

May

- 5/17-18 Sharing Sessions on Transportation
- 5/19 Workshop on Climate-Health Nexus
- Draft 'Electric Sector' chapter ready for review

More info & comment form: www.climatechange.ri.gov/aoc



Act on Climate Thank you!

Please complete this post-session survey so we can continue to improve opportunities for engagement: <u>www.pollev.com/eresources411</u>

Comments may be submitted: <u>www.climatechange.ri.gov/aoc</u>

Check back for updated project materials: www.climatechange.ri.gov/aoc

All climate-related activities will be posted to the EC4 calendar: www.climatechange.ri.gov

