



STATE OF RHODE ISLAND
**ENERGY EFFICIENCY &
RESOURCE MANAGEMENT COUNCIL**

MEETING MINUTES

Thursday, April 20th 2017 | 3:30 - 5:30 PM

Conference Room A, 2nd Floor, Department of Administration, Providence, RI

Members in Attendance: Abigail Anthony, Chris Powell, Michael McAteer, Roberta Fagan, Tom Magliocchetti, Karen Verrengia, Joe Cirillo, Carol Grant, Bob Bacon, Betsy Stubblefield Loucks, Shigeru Osada.

Others Present: Mike Guerard, Savannah Harik, Becca Trietch, Rachel Henschel, Emily Levin, Danny Musher, Jeff Loiter, Courtney Lane and Jonathan Schrag, Marisa Desautel

1. Call to Order

Chairman Chris Powell called the meeting to order at 3:34pm.

2. Approval of Meeting Minutes

Chairman Chris Powell made motion to approve the minutes for February, Joe Cirillo made motion and Bob Bacon seconded it. All approved. Chairman Chris Powell made motion to approve the minutes for March, Joe Cirillo made motion and Karen Verrengia seconded it. All approved.

3. Executive Director Report

a) General Update

Commissioner Carol Grant shared with the full Council members that the Union of Concerned Scientists had created an executive report ranking the States in Clean Energy Leadership, and the State of Rhode Island was ranked #4. This article provided great exposure and news for the State. Commissioner Carol Grant also stated that the first round Lead by Example Awards Ceremony was taking place tomorrow (April 21st). Commissioner Lastly, Carol Grant reported that the OER, DPUC and PUC are starting stakeholder meetings about transforming the grid. She will keep the Full Council informed as these meetings continue to happen.

b) Debrief on State/ House Hearings

Commissioner Carol Grant stated that the Hearings went well and most of the attendees were opposed to the bill to cap the system benefit charge. No decision was made, therefore she will continue to update the Full Council members.

4. Executive Committee Report

a) Update on key issues

Chairman Chris Powell reported that Karen Verrengia has accepted a position at CleaResult, a National Grid vendor. She asked the RI Ethics Commission for a Hearing, and she will let us now the outcome. In the meantime, she will abstain from any potentially conflicting votes prior to the ruling. Chairman Chris Powell also stated that the small non-profit seat on the council is currently empty. Joe Garlick, the Executive Director of NeighborWorks Blackstone River Valley, has been recommended to the Governor's Office for appointment to this seat. During the previous Executive Committee meeting, Rachel Henschel had provided the Ex Comm with an overview of the 3 Year- Plan development process. The first draft is due July 10th and the second draft is due July 26th. During the month of May, the Collaborative will dive into the topic of financing, and on May 18th, the PUC will be holding a technical session on financing. Chairman Chris Powell also reported that the next Ex Comm meeting (May 4th) has been canceled due to a light agenda.

b) Purchasing Report Update

Marisa Desautel reported that she has been working with Andrew Marcaccio from the DOA Legal Staff to put together a memo about the Procurement Requirements for the EERMC and will have a final answer by the next full Council meeting.

5. Council Business

a) Communications Working Group Update

Becca Trietch reported that they received two proposals for the website and they selected Basics Group. They are working on finalizing the contract, and hope to have the website running by mid-Summer. Becca Trietch shared an Energy Expo handout with the Full Council about what they achieved at this year's vs last year's expo. Becca Trietch stated that this year's expo had 5,000 more attendees compared to last year's. In general, they achieved a lot of participation and were able to reach many people through the expo. Becca Trietch has already reached out to the RI Builders Association (RIBA) to request information about sponsorship for next year. She will have an update on sponsorship details by the June Full Council meeting. Becca Trietch also reported that they are working on the proposal for the \$75k the EERMC has set aside for the public education. The marketing team from National Grid is doing a presentation to the EERMC's Communications sub-group about what their general marketing and outreach strategy has been so far. The goal of the discussion with National Grid is to identify potential education/communication gaps. Once those gaps have been identified, Becca Trietch will share a draft of the Request for Proposal with the full Council to discuss further options. Lastly, Becca Trietch mentioned that the EERMC Annual Plan will be provided to the full Council for review and approval at the May meeting.

b) Consultant Team Updates

Mike Guerard stated that Dunsky will attend the PUC technical session on Financing, May 18th. Currently they are working on the agenda for that day. The team will be sure to share the finalized agenda and outcomes of the session with the Council. Mike Guerard gave an update on the Teaching and Learning survey, stating that it helped a lot to figure out the retreat program topics. Mike Guerard also reported that for those who need more help to learn about the topics, they are going to be doing a series of short, recorded webinars; this way it will make it easier for everyone to have access to the information at their leisure. Mike Guerard informed the full Council that the Retreat is set for June 15th and they will also have a 'goodbye party' for Scudder that same day. In addition, Mike Guerard gave a brief background introduction about Jeff Loiter and Emily Levin, who will be part of the transition team for Scudder Parker's position once he retires. Mike Guerard stated that Jeff Loiter is specialized in regulatory matters and Emily Levin is specialized in program planning. Lastly, Mike Guerard reported that the Consultant Team assisted in answering questions posed by the PUC on the LCP Standards. The Consultant Team was hoping to have a final ruling from the PUC by April 15th, but the PUC reached out to Marisa Desautel stating they had trouble scheduling the hearing. The hearing is now scheduled to happen on April 27th. Mike Guerard will update the Council by the next meeting in May.

6. Special topics Presentation

a) Targets & Standards Impact on Three- Year Plan

The meeting's Special Topic reviewed how the EERMC's proposed Targets & Standards will support the development of the Three- Year Plan. The presentation reviewed some of the key issues identified in the Targets and Standards development. Emily Levin spoke about the electric base potential, and Jeff Loiter spoke about the gas base potential and changes to the Rhode Island Test.

7. Public Comment

Chairman Chris Power mentioned that the 15th Annual People's Power & Light Annual Event is May 3rd at the Omni Hotel in Providence. There was no more public comments.

8. Adjournment

Chairman Chris Powell requested a motion to adjourn the meeting. Abigail made motion and Karen Verrengia seconded it. All approved. The meeting was adjourned at 5:08pm.

Meeting Materials



STATE OF RHODE ISLAND

ENERGY EFFICIENCY & RESOURCE MANAGEMENT COUNCIL

MEETING AGENDA

Thursday, April 20, 2017 | 3:30 - 5:30 PM

Conference Room A, 2nd Floor, Department of Administration, Providence, RI

1. Call to Order

2. Approval of Meeting Minutes

3. Executive Director Report (10 min)

a) General Update

b) Debrief on Senate/House Hearings

4. Executive Committee Report (10 min)

a) EERMC Membership Status

b) Purchasing Process Update

5. Council Business (25 min)

a) Communications Working Group Update (10 min)

The Communications Working Group will update the Council on recent efforts and present any recommendations: website, Energy Expo, communications proposal discussion, annual plan update

b) Consultant Team Updates (15 min)

The EERMC Consultant team to provide updates on Policy/Planning Team Transition, Upcoming Dunskey Tasks, and Teaching & Learning initiative

6. Special Topics Presentation (30 min)

a) Targets & Standards Impact on Three-Year Plan (30 min)

The EERMC Consultant team will present on the Targets and Standards recently filed with the PUC.

7. Public Comment

8. Adjournment



STATE OF RHODE ISLAND
**ENERGY EFFICIENCY &
RESOURCE MANAGEMENT COUNCIL**

MEETING MINUTES

Thursday, February 16th 2017 | 3:30 - 5:30 PM

Conference Room A, 2nd Floor, Department of Administration, Providence, RI

Members in Attendance: Abigail Anthony, Bob Bacon, Joe Cirillo, Carol Grant, Michael McAteer, Shigeru Osada, Chris Powell, Karen Verrengia, Betsy Stubblefield Loucks, Tom Magliocchetti, Diane Williamson, Anthony Hubbard, Roberta Fagan.

Others Present: Mike Guerard, Raquel Webster, Savannah Harik, Becca Trietch, Sara Canabarro, Rachel Henschel, Kat Burnham, Muxi Yang, Angela Li, Ben Rivers, George Sfinarolakis.

1. Call to Order

Chairman Chris Powell called the meeting to order at 3:37pm.

2. Approval of Meeting Minutes

Chairman Powell asked for a motion to approve the minutes. Bob Bacon made motion, Karen Verrengia seconded it. All approved.

3. Executive Director Report (5 min)

Commissioner Carol Grant reported that the OER is focusing on four primary areas, which are: Clean Energy; Continue Leadership in Energy Efficiency; the Lead by Example Effort; and the Future of Electricity Grid, in which the OER, DPUC, PUC and others are working with National Grid.

Commissioner Grant also added that they have found a candidate to fill Rachel Sholly's position to work at the OER.

4. Executive Committee Report (15 min)

Chairman Powell stated that he spoke with Marisa Desautel, the EERMC counsel, about PUC deadlines and times to meet. Ms. Desautel had reported that a Technical session on the EERMC's proposed 2018-2020 Energy Efficiency Savings Targets and LCP Standards is scheduled for March 7th. In addition, Mr. Powell stated that Ms. Desautel's contract for legal services allows one more, one-year extension. The Executive Committee recommends extending it, but the Council will vote on this item later tonight.

Chairman Powell also reported that Betsy Stubblefield Loucks requested to step down as the 3rd member of the Executive Committee. Therefore, we will have to pick another 3rd member. He requested that if anyone on the council is interested, please talk to Commissioner Grant or Chairman Powell tonight or within the next few days.

Chairman Powell also informed the council that the special topic today, Lead by Example, would be presented by George Sfinarolakis from OER. He stated that they would be having special topics every meeting, and that he is open to any suggestions about possible topics to present.

Finally, Chairman Powell reported that at the Executive Commitment meeting, Nick Ucci from OER had mentioned a newer initiative on gas peaking demand issues. Mr. Ucci had talked about how OER was reviewing potential programs/options to help with this issue. Mr. Osada asked for more information

about the gas peaking topic, and Commissioner Grant asked that since Mr. Ucci was not present and was taking the lead on this topic, to provide time at the next Full Council meeting to discuss it further.

5. Schedule and Process for the EERMC Annual Report to General Assembly

Mike Guerard presented a schedule and some updates about how the EERMC Annual Report will be drafted. He also showed a brief outline of topics that had previously been covered by the report. Chairman Powell added that if someone does not know what the Annual Report looks like, they can access the past years online.

6. Updates on Energy Efficiency Programs and System Reliability Procurement

a) Review of 2016 Energy Efficiency Program

Angela Li, Muxi Yang and Ben Rivers had a brief presentation about the preliminary results of its energy efficiency programs for 2016. They reported that they reached over 100% participation for residential programs, and that the full portfolio would be over 100%.

They also shared that National Grid is rolling out a demo test for their Wi-Fi thermostat program for residential customers in March. and that this residential demand response program is new in Rhode Island. They hope to have some updates about the Demo in a few meetings.

7. Council Business

a) Vote on Final EERMC Budget

Becca Trietch reported that she had corrected the errors in the 2017 budget identified last meeting. She stated that the spending was very similar to the 2016 Budget.

Chairman Powell asked for a motion to approve the 2017 Budget. Joe Cirillo made motion and Bob Beacon seconded it. All approved.

b) Vote on Legal Contract Extension

Chairman Powell asked for a motion to approve a year-long extension of the current legal contract for Ms. Desautel, which is the second and final option for renewal. Bob Bacon asked why it was so much cheaper this year compared to last year. Becca Trietch reported that it was cheaper because last year there was a lot more work with several Dockets compared to this year. Karen Verrengia made motion and Bob Bacon seconded it. All approved.

c) Communications Working Group Update

Becca Trietch introduced Savannah Harik, who is the new EERMC intern. Ms. Trietch and Ms. Harik are working on the energy expo documents, and Ms. Harik is going to put together a display about Energy Efficiency in Rhode Island and some information about the EERMC for the Expo. Ms. Trietch is going to have tickets to be distributed by all the members who would like to attend the Expo at the next meeting.

The next topic the Communications Working Group will be discussing is the website development. The group will update the Council at the next meeting.

8. Special Topics Presentation

a) Lead By Example Update

George Sfinarolakis gave a presentation about the Lead by Example efforts and talked about the Executive Order by the Governor. Commissioner Grant suggested getting the Full Council members the copy of the Governor's Budget Article by next meeting.

The presentation was followed by a brief discussion amongst the council members about Strategy Energy Management Plans (SEMPs) with National Grid.

b) Review of Teaching- Learning Survey

Mike Guerard gave another brief introduction of Savannah Harik and let her go over the Teaching-Learning updates. Ms. Harik informed the members that she and Mark Kravatz are developing a survey which is expected to be sent out to the members by next week. The survey will gauge knowledge of energy efficiency related topics to better tailor future Special Topic presentations at council meetings. Once the survey is completed by the members, Ms Harik, the consultant team, and Ms. Trietch will use the responses to draft an EERMC Special Presentations schedule.

9. Public Comment

There was no public comment.

10. Adjournment

Chairman Chris Powell asked for a motion to adjourn, Karen made motion, and Bob Bacon seconded it. All approved. The meeting was adjourned at 5:04pm.

DRAFT



STATE OF RHODE ISLAND
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MEETING MINUTES

Thursday, March 16th 2017 | 3:30 - 5:30 PM

Conference Room A, 2nd Floor, Department of Administration, Providence, RI

Members in Attendance: Abigail Anthony, Chris Powell, Michael McAteer, Anthony Hubbard, Roberta Fagan, Tom Magliocchetti, Karen Verrengia, Joe Cirillo, Carol Grant.

Others Present: Mike Guerard, Savannah Harik, Becca Trietch, Rachel Henschel, Emily Levin, Abel Collins, Brian McCowan, Chon Wong, Belinda Wong, Tom Coughlin, Dino Larson, Mark Kravatz.

1. Call to Order

Chairman Chris Powell called the meeting to order at 3:38pm.

2. Approval of Meeting Minutes

Chairman Chris Powell reported that because we did not have a quorum, we could not vote on the approval of the meeting minutes.

3. Executive Director Report (5 min)

a) Three- Year Themes from OER (10 min)

Commissioner Carol Grant was not present at this time of the meeting. Since we did not have a quorum this agenda item could not be moved.

4. Executive Committee Report

a) Summary of Dunsky presentation

Chairman Powell reported that Dunsky was present at the last EERMC Executive Committee meeting. Before the Executive Committee meeting, Dunsky had met with National Grid, RIIB, PUC and OER. Dunsky will be attending the Full Council meeting in May to report what they are working on regarding financing topics. Currently, they are creating a consistent reporting matrix that can be applied across all financing initiatives and programs. They are also looking at improvements in other systems that will better integrate financing into the Three-Year Plan.

b) PUC Technical Session Report

Abigail Anthony attended the PUC Technical Session last week and reported that the hearing covered the EERMC's proposed 2018-2020 Energy Saving Targets, the Proposed Revision of Least Cost Procurement Standards and Proposed Revision of System Reliability Standards. This technical session was an opportunity for Commissioners and their staff to ask questions about the proposals that the EERMC has made. The PUC staff had questions about the 2018-2020 Energy Savings Targets Budget. All of the technical session attendees consistently answered that it was too soon to talk about the budget since budgets are largely determined by program designs. More concrete numbers regarding the budget should be known by early September.

Also, the PUC staff are very interest in how the EE Financing will help achieve our Three- Year goal and how it will impact the budget needed for those goals. Abigail ended the report by stating that the sessions was very productive, and that they would hopefully have a decision made by April 15th.

5. Schedule and Process for the Three- Year Plan

Rachel Henschel gave a presentation about the Schedule and Process for the Three-Year Plan. She also shared that once the decision from the Commission is made on the Targets, they should have a first draft of the Three-Year Plan completed by the second week of July. A week later, the collaborative will have a meeting and will look through the draft. The second draft will be circulated later in July, and then in August the Council members will receive a copy so that the Council can vote on it. Rachel stated that once approved, the Three-Year Plan will be submitted and filled at the PUC by September 1st.

During this time, Mike Guerard also introduced Emily Levin from VEIC to the Council and gave a brief overview of her background. She will be helping to cover some of the work Scudder from VEIC is currently doing. Scudder will be retiring later this summer.

6. Council Business

a) Communications Working Group Update

Mike Guerard stated that the Website development is currently in the works and that since it is a four week process from choosing the firm and hiring them, they hope to start the development in May and launch it by the second half of the year.

Mark Kravatz reported that the Teaching and Learning survey came back with various results. He stated that this is going to be a learning curve and there is a lot of topics to go over. They are thinking of doing one-on-ones or small group discussions so that they can start going over the topics identified in the survey. Mark Kravatz reported that he is extremely excited about the next steps to move forward.

Becca gave a brief update about how Savannah is putting together a sheet about EERMC facts and a display board for the Energy Expo. Once it is all in a final draft, Becca will share these items with everyone electronically so that the members can take a look. Becca also reported that the Annual Report writing assignments will be sent out within the next week.

7. Special topics Presentation

a) Stretch Code Presentation

Brian McCowan from ERS and Tom Coughlin from National Grid gave a presentation about Stretch Codes. They gave a brief overview of the Stretch Code development process, what they need to do to finalize the Commercial Stretch Code and the on-going process to draft a Residential Stretch Code. The first draft of the Commercial Stretch Code was done in December, and the first revisions were completed in February. Second-round revisions are getting done now. The presentation also summarized the content and provisions of the draft Commercial Stretch Code.

8. Public Comment

Since Commissioner Carol Grant was not present for her Executive Director Report, she gave a brief update during the public comment timeslot. First, Commissioner Grant reported that she attended the State Planning Council Meeting last week and was very happy that Diane Williamson was honored in her capacities as a planner for her outstanding work with the State. Secondly, Commissioner Grant stated that she had included a fact sheet about the Governor's Announcement on the 1000MW by 2020 in Council Member packets. Lastly, the Governor has charged the DPUC, PUC and OER with working to

design a new regulatory framework for Rhode Island's electric system. If there is any council member interested in participating in this project, Commissioner Grant asked that they please let her know.

She also reported that she will be on the Rhode Show, March 31st during the Rhode Island Expo to help encourage attendance.

Becca Trietch gave a very brief update for OER's four major themes for the Three-Year Plan, which are: Increasing and optimizing financing options; optimizing and increasing Low-to-Moderate Income Programs; finding ways to support energy efficiency improvements for Delivered Fuels customers, and last but not least, attempting to address Winter Gas Peak issues.

Joe Cirillo announced that his re-appointment to the Council has been completed. So he looks forward to participating for another five years.

9. Adjournment

Chairman Chris Powell asked for a motion to adjourn the meeting. Abigail Anthony made a motion and Karen Verrengia seconded it. All approved. The meeting was adjourned at 5:08pm.

DRAFT

Clean Energy Momentum

Ranking State Progress

HIGHLIGHTS

The UCS Clean Energy Momentum State Ranking assesses state leadership in the nation's historic transformation to a clean electricity future. As its 12 measures of progress, current status, and likely future actions show, leading states help make clean energy happen, create clean energy jobs, and reduce public health risks. The states can be a consistent, powerful, positive force, embracing all that clean energy has to offer, from promoting renewable energy sources, to supporting energy efficiency for homes and businesses, to cutting transportation pollution with electric vehicles.

Clean energy is moving forward in the United States, with significant, tangible, rapid progress. Wind farms in 41 states provide enough electricity to meet the needs of more than 20 million American households. In 2016 alone, the nation added enough solar electric panels to meet the needs of two million households. Investments in energy efficiency over the last quarter century have precluded the need for the equivalent of more than 300 additional large power plants. Electrification of the transportation sector, while nascent, is rapidly picking up steam, with more than half a million plug-in electric vehicles now on US roads.

Those advancements yield direct benefits. Clean energy substantially improves public health by reducing the power sector's harmful emissions, particularly emissions from coal-fired power plants. And more than half a million people now work in the fields of solar, wind, hydro, and geothermal energy; four times as many have jobs in energy efficiency.

To assess state leadership in this historic transformation, the Union of Concerned Scientists (UCS) created the Clean Energy Momentum State Ranking. While the federal government can play important roles in making efficiency, renewable energy, and vehicle electrification a national priority, states can be a consistent, powerful, positive force as well. Understanding which states lead, and how, will help the nation as a whole build momentum toward a clean energy future.



Dennis Schroeder/NREL

States have been a consistent, powerful, positive force for driving clean energy momentum through renewable energy sources such as wind and solar, and through energy efficiency and transportation electrification.

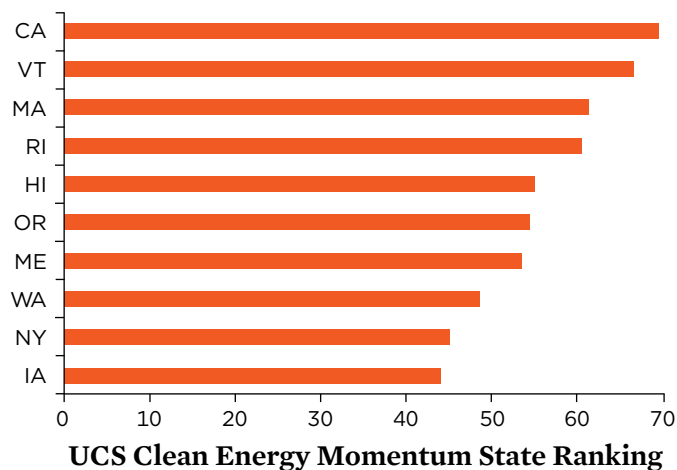
Our easy-to-understand ranking uses 12 metrics in three broad areas to gauge state leadership.

- **Technical progress:** How much of a state’s electricity generation is based on renewable energy and how quickly has that changed in recent years? How much electricity are state utility programs saving, and how strong are electric vehicle sales?
- **Direct, visible effects on our daily lives:** How many jobs has clean energy created in each state? How much has it reduced pollution from power plants?
- **Policies to build the momentum for the future:** How much progress has a state made on policies to promote renewable energy, energy efficiency, and carbon reduction?

The UCS analysis identifies clear leaders among the 50 states (Figures ES-1, ES-2):

- **California**, a stellar all-around performer, leads the way on clean energy momentum. The Golden State appears in eight top-10 lists. It is tops in electric vehicle adoption and one of the top five on six other metrics: residential solar capacity per household, energy savings, clean energy jobs, renewable electricity standard targets, ease of

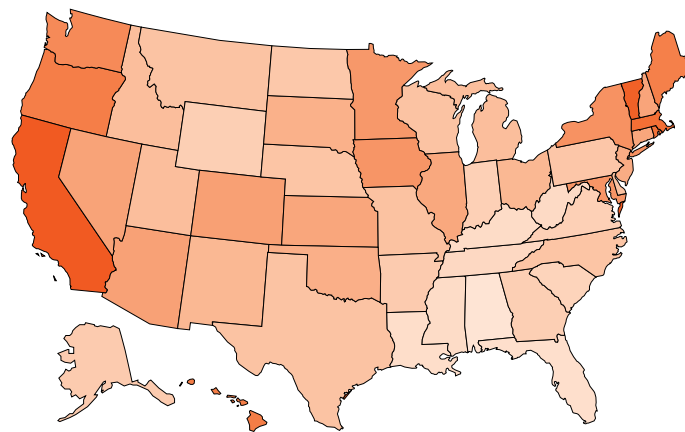
FIGURE ES-1. States Leading the Way in Clean Energy



To determine the clean energy momentum state ranking, UCS analyzed the 50 states on 12 metrics, such as job creation, pollution reduction, renewable energy in the electricity generation mix, and policies to advance clean energy. California leads the way, with strong showings on eight metrics and the number one position in electric vehicle adoption.

Note: For each metric, top-performing states receive a 10, bottom ones receive a zero, and other states are rated according to their position relative to those two benchmarks. A state’s overall score is the total of their metric scores. The highest possible score is 120.

FIGURE ES-2. States Across the Nation Lead on Clean Energy Momentum



States from across the country drive clean energy momentum. Eight of the top 10 states in the UCS Clean Energy Momentum State Ranking are on the West Coast or in the Northeast, highlighting region-wide commitments to clean energy. Iowa leads in the Midwest, followed by Minnesota. Maryland, Colorado, Arizona, and Nevada also make the top 15.

Note: The higher the general score a state received, the darker it appears.

corporate renewable energy procurement, and carbon reduction targets.

- **Vermont**, in second place, leads the nation in clean energy jobs per capita and for its carbon reduction target and has top-five scores in energy savings, electric vehicle adoption, and energy efficiency policy. The Green Mountain State earns 10 top-10 appearances, the most of any state.
- **Massachusetts**, in third place, garners top marks on one metric and top-10 appearances on nine metrics. It has the strongest energy efficiency resource standard and is a top-five performer in residential solar capacity per household, energy savings, clean energy jobs per capita, and carbon reduction targets.
- **Rhode Island**, number four, leads in energy savings. It is a top-five state in pollution reduction and policies around renewable electricity, energy efficiency, and carbon reduction.
- **Hawaii**, number five, is first in residential solar and scores high for electric vehicles and its renewable energy policy.
- **Oregon, Maine, Washington, New York, and Iowa** round out the top 10.

State leadership on even a single metric is worth noting. South Dakota tops the states on its use of renewable energy in

electricity generation, even if much of that electricity supplies neighboring states. Wyoming may dominate coal production in the country, but it also handily leads in terms of renewable energy being built on a per-capita basis as the state harnesses its great wind resources.

That said, multifaceted leadership matters most. In all, 21 states score in the top 10 for at least three UCS metrics. Moreover, any state can be a leader, not just those better endowed with natural resources. Both momentum and leadership are apparent in millions of clean energy jobs and in reduced damage to public health from power plants. States lead, too, with policies that will propel clean energy momentum into the future.

Taken together, the metrics in the UCS Clean Energy Momentum State Ranking paint a picture of state successes and a 50-state race for clean energy leadership. They also point to several important conclusions:

- The transition to clean energy is real, and clean energy momentum takes many forms.
- State choices translate into rapid growth in renewable energy, energy efficiency, and vehicle electrification.

Multifaceted leadership matters most. In fact, any state can be a leader, not just those better endowed with natural resources.

- Any state can lead on clean energy, not just those with the strongest renewable energy resources.
- Job creation is a powerful incentive for additional action on clean energy.
- Businesses can make major contributions to clean energy progress—if states let them.

With uncertainty surrounding national energy policy, state leadership is more important than ever. This analysis prompts UCS to offer several recommendations for states to accelerate clean energy momentum and lead the nation to a new energy future:



Businesses play a large role in driving renewable energy, motivated not just by the potential to save energy and money directly but also by the ability to demonstrate leadership in a key sector undergoing transformation. Swedish furniture giant IKEA has solar on 90 percent of its US stores.

With the future of national energy policy uncertain, state leadership is more important than ever.



Energy efficiency is a powerful clean energy resource, and has played a key role in building momentum across states. Energy efficiency resource standards drive efficiency for homes and businesses.

- **Adopt policies supporting multiple dimensions of progress.** Many states have implemented policies that have a proven ability to foster clean energy development at reasonable costs. By adopting such policies in support of renewable energy, energy efficiency, and vehicle electrification, along with setting economy-wide targets for reducing global warming pollution, states can create a broad framework for clean energy progress.
- **Facilitate business involvement.** State policies should make it easier for businesses to adopt renewable energy, enabling them to be a powerful force for accelerating clean energy progress. For example, states could broaden the array of options available to businesses for acquiring renewable energy through utilities or third parties, and could remove barriers to installing solar panels or wind turbines on site.
- **Improve energy equity.** States should directly address the challenges faced by low-income communities and communities of color—those who are most affected by power plant pollution and other inequities in the electricity sector. State programs, for instance, can help low-income homeowners weatherproof their homes to save money and improve comfort, and can give low- and moderate-income households better access to solar power and electric vehicles.
- **Advocate for federal action.** While leading by example, states should also insist that the federal government be

a full partner in building clean energy momentum, through strong support for innovation and deployment. Efficiency standards, tax credits, research support, and other nationwide activities would provide a strong impetus for continued progress in all 50 states.

Clean energy is happening, with states building momentum in many ways. As measures of progress, current status, and plans for the future show, the efforts of top states create jobs and reduce pollution. California, Vermont, Massachusetts, Rhode Island, and Hawaii—as well as many others—are rising directly to the challenge of transforming the nation’s electricity sector and embracing all that clean energy has to offer.

John Rogers is a senior analyst in the UCS Climate and Energy Program. Paula Garcia is an analyst in the program.

Union of Concerned Scientists

FIND THE FULL REPORT AND TECHNICAL APPENDICES ONLINE: www.ucsusa.org/EnergyProgress

The Union of Concerned Scientists puts rigorous, independent science to work to solve our planet’s most pressing problems. Joining with citizens across the country, we combine technical analysis and effective advocacy to create innovative, practical solutions for a healthy, safe, and sustainable future.

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STATE OF RHODE ISLAND
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Energy Expo Metrics

EERMC Meeting, April 20, 2017

Metric	2017 Achievements	2016 Numbers
1) # of attendees	25,000	20,000
2) # of energy audit sign-ups	488	681
3) # of National Grid bill insert coupons redeemed	612	332
4) # of energy efficiency-related vendors/exhibitors	90	84
5) # of renewable energy vendors/exhibitors	16	14
6) # of efficiency kits sold	1,535	1,516
7) # of LEDs sold	18,319	~11,000
8) # of advanced power strips sold	19	81
9) # of HVAC rebates filed 2 months after the Expo	TBA	Not Tracked
10) # of refrigerators recycled within 2 months after the Expo	TBA	Not Tracked

Primary Goal for the Expo: to help teach the public about energy efficiency and to encourage them to take advantage of available energy efficiency programs.

2017 Energy Expo Highlights

RI EERMC, RI Office of Energy Resources

One Capital Hill, Providence, RI 02908
(401)-574-9121 | www.rieermc.ri.gov



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Over 300 RI Career Technical Education (CTE) students from 20 different schools built a solar-powered greenhouse which is being donated to DelSesto Middle School (a Public middle school in Providence, RI with both horticulture and energy curriculums).



90 Energy Expo exhibitors were identified with large floor decals and called out in the program. Carol Grant and Michael McAteer also promoted attendance on the Rhode Island Home Show.



RI EERMC, RI Office of Energy Resources

One Capital Hill, Providence, RI 02908
(401)-574-9121 | www.riermc ri.gov



COMMUNICATIONS WORKING GROUP

Funding Allocation Proposal

Communications Subgroup Members: Thomas Magliocchetti, Karen Verrengia, Laura Rodormer, Becca Trietch, Mike Guerard, Savannah Harik

Current Status:

- EERMC has allocated \$75,000 for “Public Education” in the Council’s 2017 Budget
- One of the Purposes of the EERMC (RIGL § 42-140.1-3) is to “Promote public understanding of energy issues and of ways in which energy efficiency, energy conservation, and energy resource diversification and management can be effectuated.”

Process Proposal:

- **Review National Grid’s Marketing and Outreach Strategies**
 - National Grid’s Marketing Team to present to the Communications Subgroup (4/25)
 - Goal: to learn more about how the EERMC can fill any communication/outreach gaps
- **Draft & Post a Request for Proposals (RFP)**
 - Communications Subgroup to draft a RFP (with scoring criteria) for addressing any identified education/outreach gaps
 - Share this with the full council at the May meeting for edits/discussion
 - Post RFP in early June to the EERMC and OER websites, and distribute via email to RI non-profits and other identified stakeholders.
- **Communications Subgroup to Review Submitted Proposals**
 - Review all submitted proposals based on the agreed upon scoring criteria
 - Present recommendations to the full council in July
 - Full council to vote on proposal selection in July



JEFFREY M. LOITER, PARTNER

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PROFESSIONAL EXPERIENCE

Optimal Energy, Hinesburg, VT. *Partner*, 2015-present; *Managing Consultant*, 2006-2014.

As a Partner, Mr. Loiter is responsible for business development, administrative systems, and staff development in addition to project management. In addition, he provides quality control and editing for all of Optimal's client deliverables. His project work includes designing and developing statewide and utility-specific efficiency programs and supporting program implementation for both public and private-sector clients. He works primarily in the commercial sector on programs targeting electric, natural gas, and un-regulated fossil fuel consumption and specializes in developing solutions that fit the needs of specific customer segments and markets. Mr. Loiter is also an experienced analyst and uses these skills in a variety of contexts, such as reviewing and critiquing utility Integrated Resource Plans and efficiency potential studies.

Independent Consultant, Cambridge, MA, 2005-2006.

As an independent consultant for the Massachusetts Renewable Energy Trust SEED Initiative, Mr. Loiter evaluated renewable energy technology companies' applications for early-stage funding. Responsibilities included leading due diligence efforts on three applications and contributing to several others. Awards recommended for approval totaled \$1.4 million. For a separate client, prepared two articles describing the potential impact of proposed federal legislation to increase domestic oil refining capacity, published in *Petroleum Technology Quarterly* (1Q 2006) and *BCC Research/Energy Magazine* (2006).

Industrial Economics, Inc., Cambridge, MA. *Associate*, 1997-2000; *Senior Associate*, 2001-2004.

Managed multi-disciplinary qualitative and quantitative assessments of natural resource damages and environmental policy for clients such as NOAA, USFWS, USEPA, USDOJ, the National Park Service, the State of Indiana, and the United Nations.

URS Consultants, Inc., New Orleans & Boston., 1991-1995.

Prepared water, air, and solid and hazardous waste permit applications for state and federal agencies on behalf of industry clients.

EDUCATION

Massachusetts Institute of Technology, Cambridge, MA

Master of Science in Technology & Policy, 1997

Cornell University, Ithaca, NY

Bachelor of Science with distinction, Civil and Environmental Engineering, 1991

REPRESENTATIVE PROJECT EXPERIENCE

Delaware Department of Natural Resources and Environmental Control, Energy Efficiency Advisory Council Program Development and Support (2015-present)

Optimal Energy provides broad program planning, analysis, and strategic guidance to the Delaware Energy Efficiency Advisory Council as it begins developing a new model for joint utility and public-sector delivery of energy efficiency services, with the objective of dramatically increasing energy savings and demand reductions in that state. In support of the Council, Mr. Loiter drafted Council organizing documents and regulations specifying evaluation, measurement, and verification (EM&V) procedures and standards. He also provided the Council with proposed electric and gas energy savings targets as supported by an earlier potential study.

EPA State and Local Branch, EPA National Action Plan for Energy Efficiency (2008)

Prepared two documents for inclusion with EPA's National Action Plan for Energy Efficiency: a guidebook on conducting efficiency potential studies and a handbook describing the funding and administration of clean energy funds.

Connecticut Municipal Electric Energy Cooperative, Conservation and Load Management Consulting (2006-present)

Optimal has provided energy efficiency consulting services to the Connecticut Municipal Electric Energy Cooperative (CMEEC) since the inception of their conservation and load management programs. Mr. Loiter contributes to the full range of these services, including program planning, program savings analysis and reporting, developing incentive and delivery strategies, and managing CMEEC's participation in the ISO-NE Forward Capacity Market. The latter has included drafting M&V plans specifying procedures for meeting all ISO-specified M&V rules and developing a web-based data tracking and reporting system. Mr. Loiter also helps CMEEC develop strategy for and manage participation in new FCM auctions and arranges for required annual certification reviews.

Orange and Rockland Utilities, Energy Efficiency Program Consulting (2006-present)

Optimal Energy supports program implementation and on-going program design and development for Orange and Rockland Utilities, a subsidiary of Consolidated Edison, Inc. Mr. Loiter managed the preparation of a DSM plan and Commission filings for this client during the initial phases of the New York State Energy Efficiency Resource Standard. Prior to that, he led the commercial sector component of an electric and gas potential study for the utility, which included on-site customer audits and residential surveys.

New York State Department of Public Service, Generic Environmental Impact Statement and Supplement (2014-2016)

As part of proceedings on Reforming the Energy Vision (REV) and the Clean Energy Fund (CEF), Optimal contributed to a Generic Environmental Impact Statement (GEIS) by describing alternative energy supply resources, the potential scale of their use under two future scenarios, and the magnitude of possible negative environmental impacts that would result. Mr. Loiter led a team researching several technologies, including energy efficiency, customer-sited renewables, combined heat and power, alternative rate structures, and energy storage. The research led to estimates of the potential scale and impact of these solutions to New York's future energy challenges.

As a Consulting Manager, Emily Levin leads VEIC's Program Strategies group. Her team provides a full range of energy efficiency and renewable energy initiative design, planning, and implementation support services for utility customers, as well as program review and critique services for regulators and consumer advocates across the U.S. and Canada. VEIC's Program Strategies group is a national leader in designing next generation energy efficiency initiatives that harness the opportunity created by utility 2.0 business models and a next generation electric grid. She specializes in designing initiatives that serve as models of market transformation while engaging all customers, including low-income people and hard-to-reach sectors, in energy efficiency and renewable energy.

Emily has reviewed and designed energy efficiency initiatives in Maryland, New Jersey, Vermont, Florida, and other states. She recently co-authored a white paper for NYSERDA entitled, "Value-Based Compensation for Energy Efficiency," which recommended mechanisms to value energy efficiency as a resource to the electric grid. Emily joined VEIC in 2007 and has more than ten years of experience in efficiency program design and delivery. In a previous role at VEIC, Emily led strategic planning for the residential portfolio of Vermont's energy efficiency utility, Efficiency Vermont, and managed Efficiency Vermont's Existing Homes Program. Under her leadership at Efficiency Vermont, the Home Performance with ENERGY STAR program grew tenfold. Emily also led development of a statewide Vermont home energy label and created an Efficiency Excellence Network to facilitate partnership with contractors, distributors, and other supply chain partners.

Experience

- **Pay for Performance and Innovative Procurement Models for Energy Efficiency:** Co-authored report for NYSERDA reviewing EE procurement models and options for New York; collaborated with the Natural Resources Defense Council (NRDC) on white paper, "Putting Your Money Where Your Meter Is: A Study of Pay for Performance Programs in the U.S." (to be released in December 2016).
- **Energy Efficiency Program Portfolio Review:** Led team that recommended new energy savings goals for EmPOWER Maryland and led comprehensive review of strategic initiatives (including demand response) for a Florida utility.
- **Residential Program Design:** Planned and designed programs for Efficiency Vermont's Residential Existing Homes and New Construction programs and the New Jersey Clean Energy Program.
- **Efficiency Vermont's Existing Homes Portfolio:** Managed Home Performance with Energy Star®, Low-Income Single-Family initiatives, and targeted high use/fuel switch program.
- **Industrial Economics, Inc.:** Performed environmental policy research and economic analysis for clients including the U.S. Environmental Protection Agency and U.S. Fish and Wildlife Service.

Education and Certifications

Leadership & Affiliations

- **University of Vermont**, Professional Certificate in Leadership and Management, 2013.
- **Master of Environmental Management, Yale School of Forestry and Environmental Studies**, 2005.
- **Bachelor of Arts, Amherst College**, Geology, 2000.
- **Phi Beta Kappa**, 2000.

- Led the initiative that created statewide Vermont Home Energy score and label.
- Frequent presenter (Market Transformation Symposium, ACI Home Performance National Conference, etc.) on topics related to new energy policies and programs, energy labeling, and residential program design.



STATE OF RHODE ISLAND
**ENERGY EFFICIENCY &
RESOURCE MANAGEMENT COUNCIL**

CONSULTANT TEAM



Impact of 2018-2020 Targets & LCP Standards on 3-year plan

Next step in LCP cycle of activities

Presented By: EERMC Consultant Team:
Emily Levin, Jeff Loiter, Mike Guerard
Date: April 20, 2017



Introduction

- EERMC's filing of Targets and LCP Standards is a critical part of LCP cycle



EERMC identifies cost-effective potential and proposes energy savings targets for PUC consideration.

Why are they developed?

Targets are developed to serve as guideposts as the utility develops its 3-Year Plan and more detailed Annual Plans.

What conditions must be met?

Targets = levels of energy efficiency that are cost-effective and **less than the cost of supply**, and **prudent and reliable** based on assessment of **achievable potential**



Key Questions & Objectives

- How do the Targets/Standards factor into the 3-Year Plan?
- What are the biggest contributors to energy savings in RI?
- What are key issues and opportunities to monitor going forward?
- What are next steps in the process?



Presenters & Main topics

- **Emily Levin** / VEIC and **Jeff Loiter** / Optimal Energy, C-Team members of the Policy & Strategic Planning group
- Key items from the Targets & Standards that will be main areas of focus in next 3 years:
 - Lighting, lighting and.... More lighting
 - C&I gas savings
 - Evolving potential – the “RI Test” and Upstream



Base Potential

- The 2018-2020 plan will build on the current suite of programs
- These programs make up the base potential

Program	Actual							Planned		Core Program Projections			3-yr % of portfolio
	2009	2010	2011	2012	2013	2014*	2015	2016	2017	2018	2019	2020	
Small Business Direct Install	9,220	12,741	16,871	19,008	21,358	18,089	15,876	12,165	12,136	10,000	10,000	10,000	5.4%
Large Commercial New Construction	8,304	7,678	11,561	20,898	30,613	34,236	37,205	15,728	14,270	14,891	15,761	16,641	8.5%
Large Commercial Retrofit	32,557	32,019	30,848	38,398	41,707	36,460	59,921	67,030	77,611	82,892	84,957	86,264	45.8%
C&I Total	50,081	52,438	59,280	78,304	93,678	88,785	113,002	94,923	104,017	107,783	110,718	112,905	59.7%
Single Family - Income Eligible Services	1,713	2,205	2,243	3,404	3,735	4,911	4,010	4,061	4,350	4,084	3,785	3,399	2.0%
Income Eligible Multifamily					2,570	3,276	3,249	2,830	2,726	2,757	2,699	2,661	1.5%
Income Eligible Total	1,713	2,205	2,243	3,404	6,305	8,187	7,259	6,891	7,076	6,841	6,484	6,059	3.5%
Residential New Construction	636	782	613	671	753	813	1,263	1,213	1,065	1,013	1,009	1,020	0.5%
ENERGY STAR HVAC	324	421	680	895	1,664	1,639	1,040	1,011	1,376	1,245	1,479	1,764	0.8%
EnergyWise	4,000	6,614	9,696	8,361	11,434	13,242	19,484	11,729	6,545	5,253	4,052	3,190	2.3%
EnergyWise Multifamily					1,733	3,559	4,592	4,061	3,519	2,950	2,763	2,617	1.5%
Home Energy Reports					10,002	36,307	31,177	32,186	26,184	24,795	23,555	22,377	12.7%
ENERGY STAR Lighting	19,871	14,292	17,460	22,533	28,376	30,668	41,245	43,098	48,856	45,119	29,396	19,134	16.9%
Residential Consumer Products	4,918	4,523	6,037	5,499	5,090	5,269	3,760	4,647	4,708	3,690	3,745	3,826	2.0%
Residential Total	29,749	26,632	34,486	37,959	59,052	91,497	102,561	97,945	92,253	84,065	65,999	53,929	36.8%
Portfolio Total	81,543	81,275	96,009	119,667	159,035	188,469	222,822	199,759	203,346	198,689	183,201	172,893	



Base / Evolving Potential

Base Potential relating to Evolving Potential as percent of Proposed targets

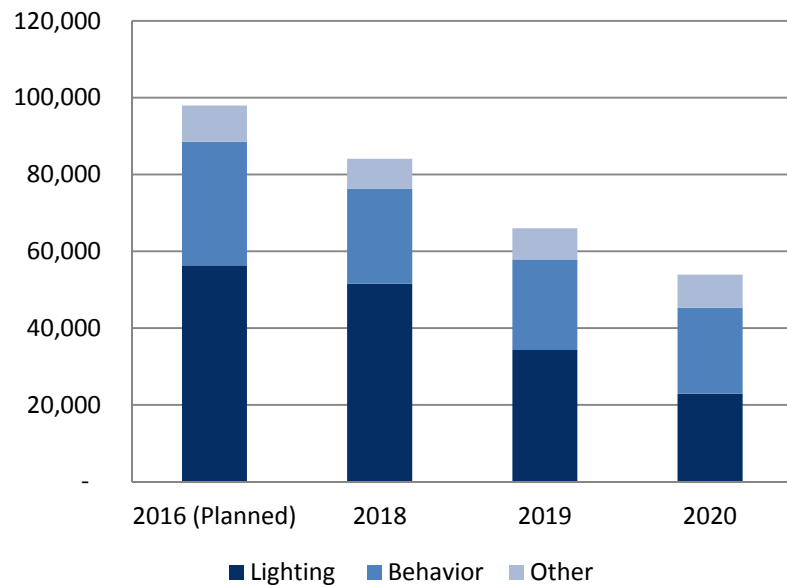
	2018	2019	2020	3-yr total
Gas	93%	93%	92%	93%
Electric	98%	94%	92%	95%



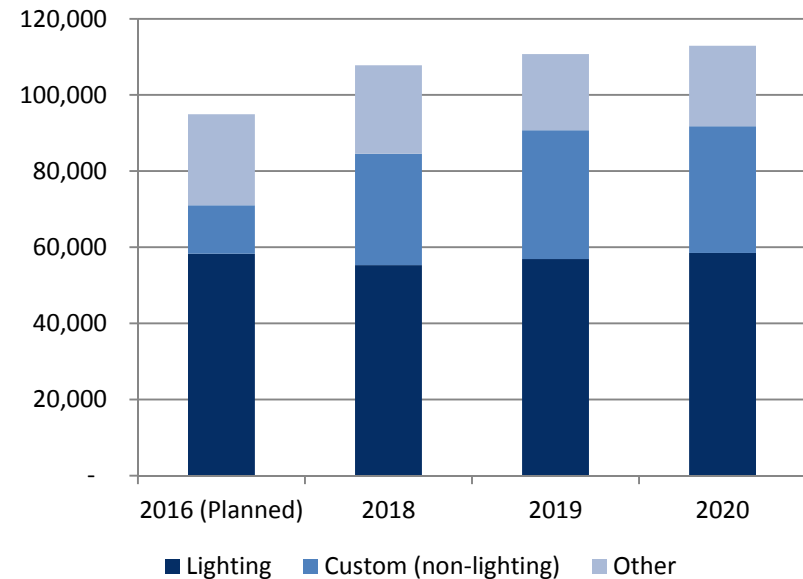
Lighting is the Biggest Contributor to Base Potential

- Lighting is 53% of residential and 52% of C&I three-year plan savings

Residential Electric Program Savings (MWh)



C&I Electric Program Savings (MWh)





The Lighting Market is Rapidly Changing

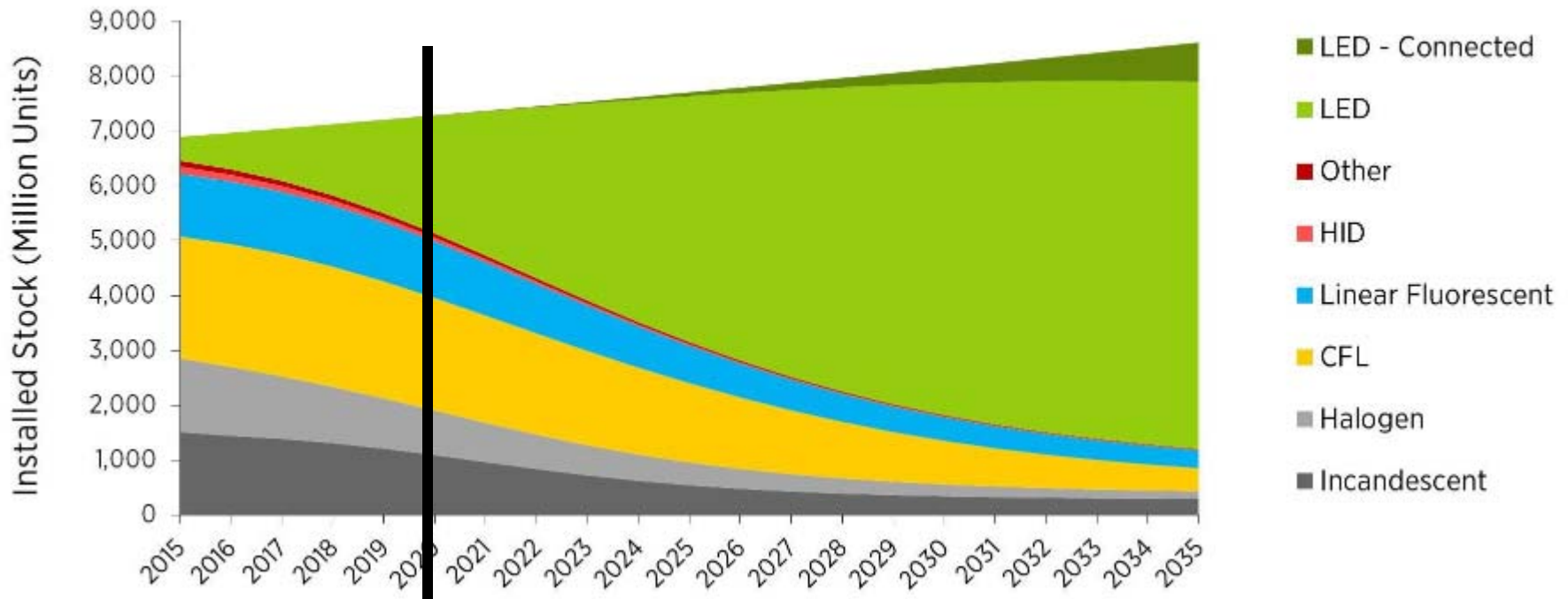
- Federal legislation:
 - Residential: EISA phased out general service incandescent lamps in 2012-2014
 - Commercial: DOE rules phased out most T12 and now T8 linear fixtures



Sources: <http://blog.arcadiapower.com/comparing-different-light-bulbs/>; <http://www.gfmlcd.com/products-2/tube/led-tube-t8-18w/>



Market Forecast for Installed Lighting 2015-2035



US DOE, SSL Market Adoption: Status and Trends, November 17, 2016,
https://energy.gov/sites/prod/files/2016/11/f34/yamada_market-trends_denver2016.pdf



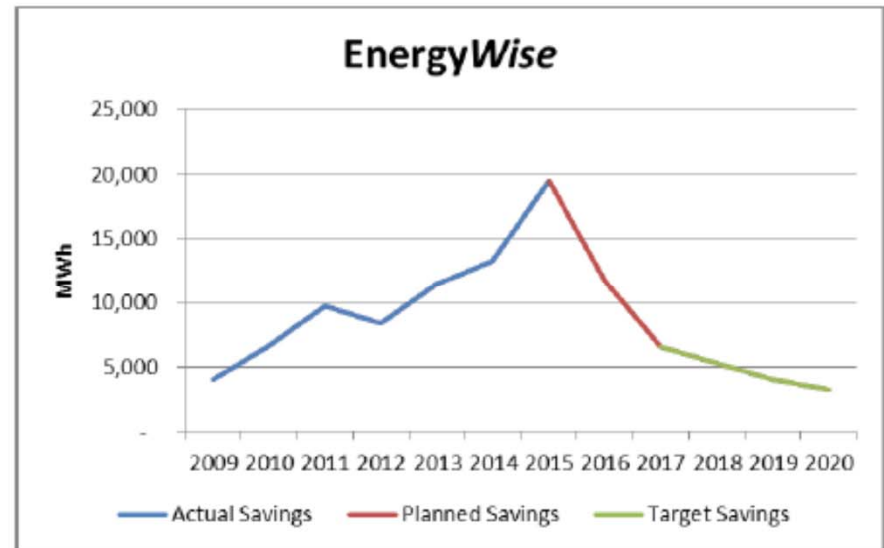
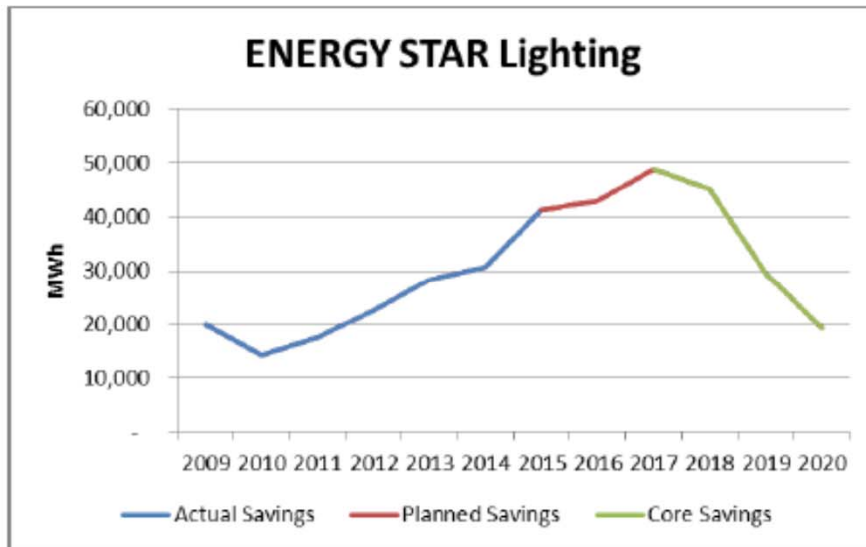
Program Savings from Lighting are Diminishing

- Federal standards are setting a new “baseline”
 - Less potential for efficiency savings above baseline
- LEDs are becoming the default choice
 - Prices are falling quickly
 - Rapid advancements in technology
 - Consumers prefer LEDs to CFLs
- Many sockets already have CFLs so there are fewer sockets to fill



Residential Lighting Savings are Projected to Drop Substantially

- Savings peak 2015-2017 and fall 2018-2020
- Short-term opportunity in 2018-2019 to capture savings from customers who haven't yet transitioned to LEDs





Commercial Lighting Savings Remain Significant to 2020

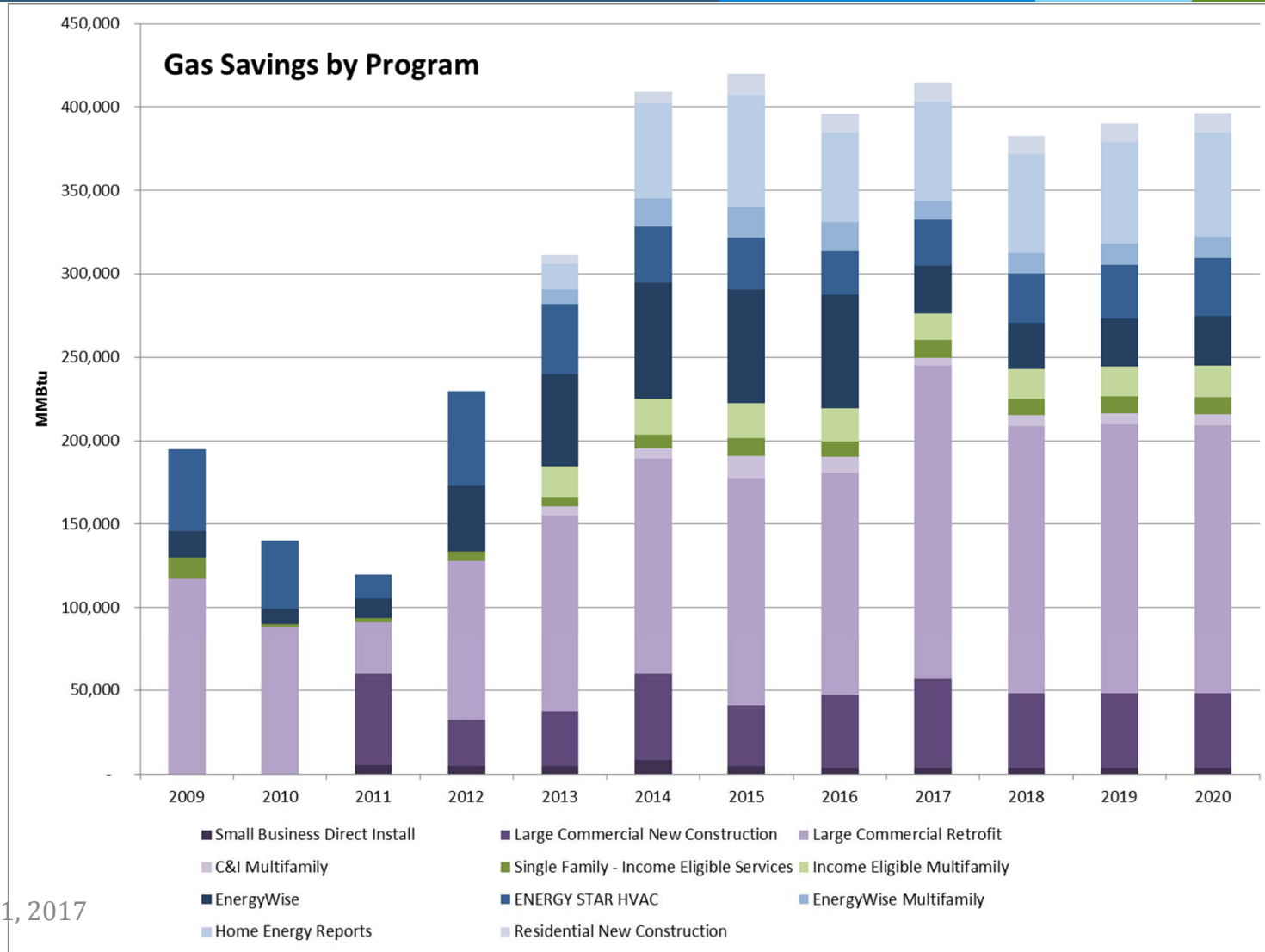
- Key opportunities for savings in 2018-2020:
 - Linear/troffer retrofits to LED
 - Controls if installed at the time of LED upgrade
 - Connected lighting with demand response potential



Source: <http://www.designingwithleds.com/cree-enters-lighting-controls-business-wireless-smartcast-technology/>



C&I Retrofit Drives Gas Savings



April 21, 2017



C&I Retrofit Drives Gas Savings

- Large retrofit is biggest share of savings
- Biggest challenge is economic
- Leidos effort supporting more industrial process savings
- Additional “new” savings from SEMP with State



Components of Evolving Potential

- Codes & standards
- LCP Standards/“Rhode Island Test”
- New technologies & program enhancements:
 - Program enhancements beyond base potential (e.g., more upstream program delivery, financing)
 - Emerging technologies
 - HVAC controls (thermostats, RTUs)
 - Laminar flow restrictor devices
 - Heat pump dryers



Rhode Island Test - Benefits

Factor/Input/Parameter	TRC Docket 4443 (2015-2017 plan)	RI Test	Value Determination
Benefits			
Resource impacts	Yes (summer, transmission, and MDC capacity; energy; non-electric resource benefits [gas incr.]; energy & capacity DRIPE)	Yes	
Non-electric resource impacts	Yes (water only at this point)	Yes	
Non-resource benefits	Yes	Yes	
Distribution system impacts	Not explicitly, but Yes	Yes	RI-specific inputs to AESC framework
Value of GHG reductions	As imposed by RGGI, plus reasonably anticipated (but currently \$0 in the models)	As before, plus “the value of GHG reduction not embedded in any of the above”	Policy-based
From other emissions reduced through LCP	Not explicitly, but Yes (embedded)	Yes	Policy-based
Economic development	No	Yes (already in use for CHP and accepted by Commission)	Modeling (e.g., REMI)
Program or technology-specific benefits	Yes (e.g. streetlight O&M)	Yes	
Other Factors			
Discount Rate	Reflects low risk	As before	
Discuss carbon impacts	Yes	Yes	
Other Principles		“reflects the policy objectives of the state...” Uses RVF principles of symmetry, transparency, and congruence with goals	



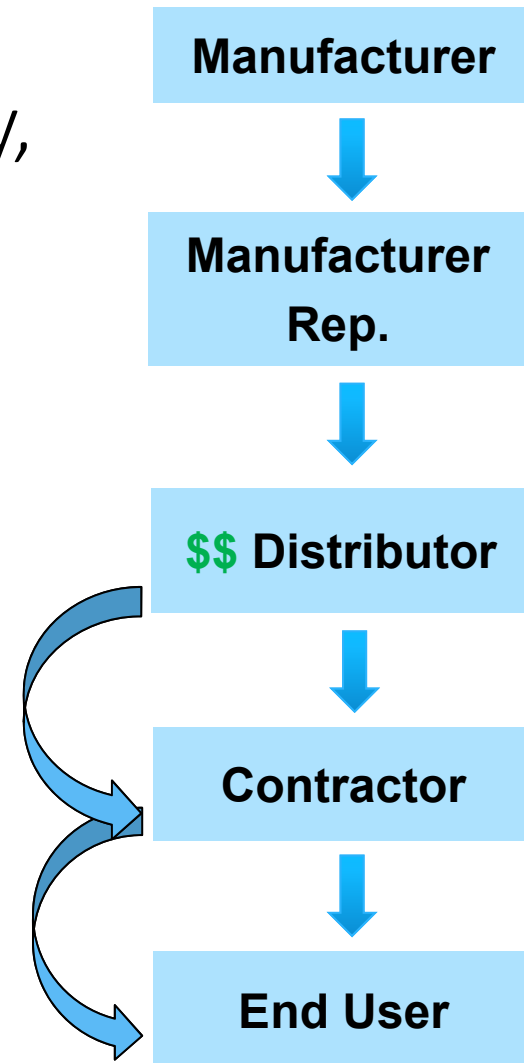
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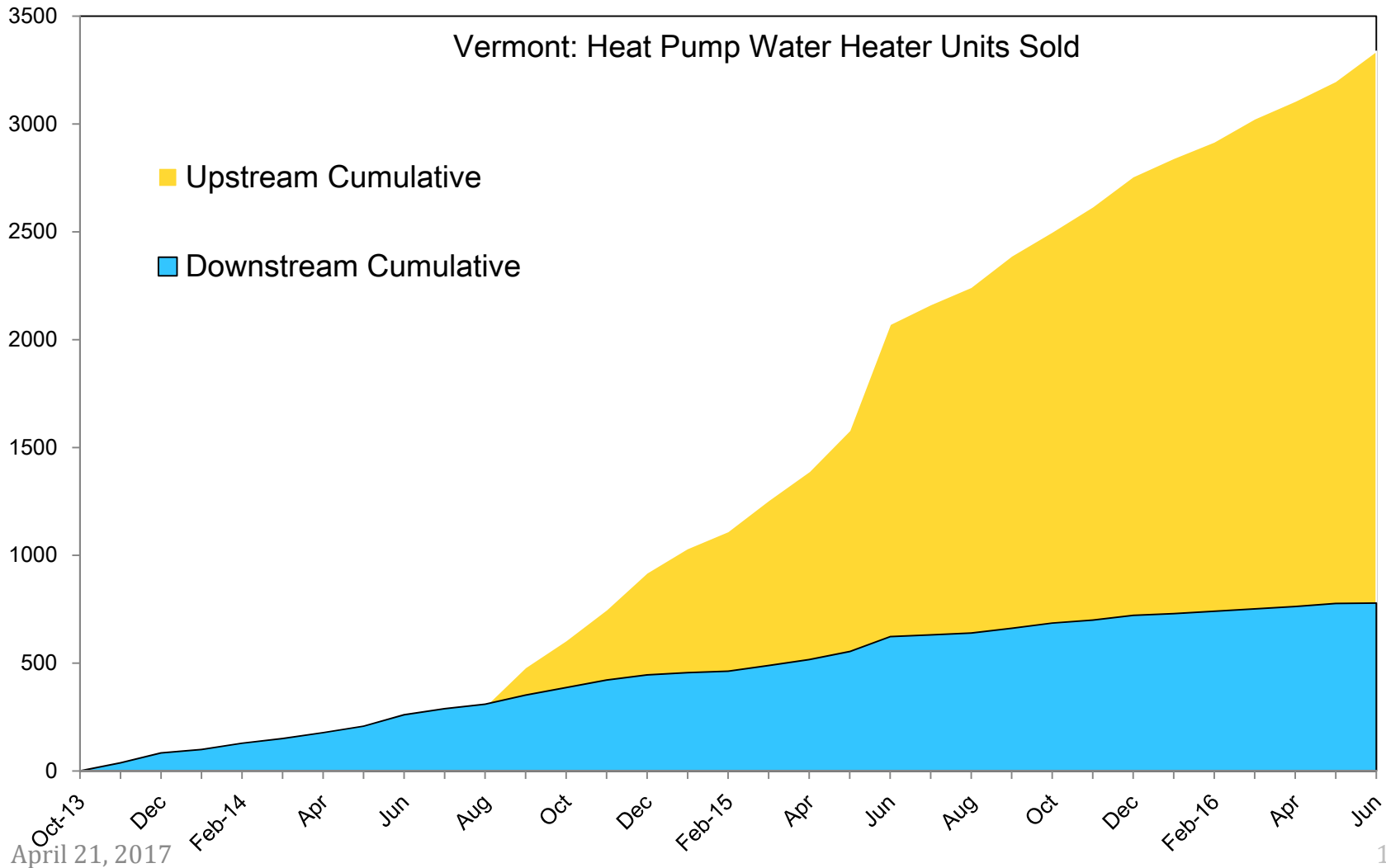
Upstream Programs

- Promote increased availability, sales, and installation of efficient equipment
- Influence distributor stocking practices
- Diminish financial barriers
- Transform markets





Savings from Moving Upstream: Heat Pump Water Heaters





How Upstream Programs Factored into the Targets

- Residential Base potential assumed moderate increases in savings for many HVAC measures from 2018-2020
 - On average, savings assumed to increase 75%
- Shifting more HVAC measures upstream could increase savings exponentially
 - Upstream delivery commonly increases savings 900% compared to downstream rebates
 - This extra savings is part of Evolving potential



What Comes Next?

- Collaborative meetings: May 8 & 22; June 12 & 28; July 12
- PUC session on Financing: May 18
- C-Team/OER & National Grid Sector Strategy meetings: monthly for residential and C&I
- 1st draft of 3-Year Plan: July 10
- 2nd draft: July 26
- EERMC review/vote: August 17
- PUC filing: September 1



Q&A

Questions?







April 21, 2017