



MEETING MINUTES

Wednesday, February 13, 2019

100 Cambridge St, 2nd Floor

Conference Rooms B & C

Boston, MA 02114

Councilors Present: Michael Sommer, Mary Downs, Sharon Weber (for Martin Suuberg), Deirdre Manning, Charlie Harak, Cammy Peterson (for Rebecca Davis), Shan Li (for Janelle Chan), Cindy Arcate, Mary Wambui, Amy Boyd, Don Boeke (for Maura Healey), Judith Judson, Justin Davidson, Robert Rio, Paul Johnson, John Howat, Victoria Rojo, Paul Gromer, Chris Porter, JoAnn Bodemer, Elliott Jacobson, Elizabeth Cellucci, Frank Gundal (for Tilak Subrahmanian), Emmett Lyne (for Laurie Pereira), Richard Malmstrom

Councilors Absent: Michael Ferrante, Andrew Newman

Consultants Present: Eric Belliveau, Gretchen Calcagni

DOER Staff Present: Maggie McCarey, Ian Finlayson, Emily Powers, Alex Pollard, Rachel Evans

1. Call to Order

Commissioner Judson, as Chair, called the meeting to order at 1:08 PM.

2. Public Comment

Hank Keating–Passive House Massachusetts

Keating congratulated and thanked the EEAC for including a detailed framework for a Passive House Incentive program in the current Three-Year Plan. He was concerned that the final incentive amounts being considered (\$1,400 to \$1,800 per unit) may be too low to generate significant participation. Keating pointed out that the MassCEC Passive House Challenge pilot program offered \$4,000 per unit and the response from the affordable development community was positive. He believed targeting an incentive of \$4,000 per unit was justified and needed to

make this incentive program a success and urged the PAs to size the certification adder to reach that goal.

Steve Cowell–E4TheFuture

Cowell stated that he was encouraged by Department of Public Utilities (DPU) order and that he thought there were a lot of good things in the Plans. He also suggested that there were a lot of implementation challenges and that they (E4TheFuture) are here to help. Heat pumps, in particular, pose several challenges and they are in the process of putting together recommendations for implementation. Cowell noted that other states such as Rhode Island and Connecticut are also dealing with heat pump implementation questions and encouraged Massachusetts to work with other states to come up with common recommendations. For example, E4TheFuture suggests linking heat pump incentives to shell incentives, which Rhode Island is offering. Cowell indicated that targeting homes that have already treated for shell improvements may be the best way to go. He also stated he was discouraged by the DPU not supporting Cape Light Compact's (CLC's) solar integration plans. He noted that he thought more consumer education would be needed and sent around some proposed education documents. Last, Cowell noted that he did not think the DPU fully understood the proposed language around sector rather than program or individual technology cost-effectiveness. A sector approach would allow for new technologies and approaches to be brought in more quickly and at lower hurdle.

3. Council Updates and Business

Commissioner Judson acknowledged that new Councilor, Shan Li from DHCD, was in attendance.

Cellucci provided an update on the targeted Greater Lawrence Area targeted energy efficiency effort. She indicated that things were running smoothly. There is a dedicated specialist working with small businesses, who is located in the Lawrence Customer Care Center, but travels all over the territory. There have been seven completed small business audits and six multi-family audits in the past month, and there is a long list of leads. On the residential side, 178 audits have been scheduled and 104 have been completed. They have spent over \$200k on residential work. A couple of good projects have come from the Green Communities efforts. Overall, there has not been so much work that they cannot keep up with, but there has been more than there normally would have in the affected towns. Cellucci indicated that she can give monthly anecdotal updates and will provide a full update in March.

Commissioner Judson asked Cellucci to remind the Council what is being offered through the program. Cellucci indicated that for residential customers, incentives cover 100% of weatherization recommendations from the audit, and small business projects have the possibility of receiving 100% of weatherization costs, but it depends on the cost-benefit analysis results. They have been using social media, website, collateral, newsletters, and word of mouth to promote the program.

Powers announced the DOER will be sending a survey to Councilors covering several topics including EEAC meeting logistics, the EEAC website, and EEAC consulting services.

4. 2019 EEAC Budget – Overview and Vote

Powers presented a proposed budget for the EEAC for 2019. To develop the budget, DOER took the approved Consultant Team budget (~\$976k), calculated the average spend per month for January through August 2019, and applied it to last 4 months of the year for a total of \$1,464,600. This takes into account the that the approved Consultant Team budget is for the final eight months of the contract which ends at the end of August. The proposed operating budget (\$200,000) is lower than in recent years because DOER is not anticipating any studies to be completed or other purposes that would require additional funds at this time.

McCarey clarified that DOER left some funds in the operating budget in case of unanticipated needs.

Boyd motioned to approve the 2019 EEAC budget as presented. Harak seconded. All were in favor, with none opposed. Li abstained. The Council’s motion passed.

5. Overview of DPU Order on the 2019 – 2021 Energy Efficiency Plan

Commissioner Judson stated that she was excited about the new Three-Year Plan and thanked the Council, PAs and others for their hard work.

McCarey, noting that there was a lot included in order, walked through the large items and those that aligned with the draft 2019 Council priorities. She also indicated that the DPU directed the Council to work on certain items in the order. DOER worked with the Executive Committee to add these items to the draft 2019 Council priorities. Overall, McCarey indicated that the DPU approved the plan, including the savings goals. However, the DPU asked the PAs to relook at the MMBtu savings metric. The DPU approval included new initiatives such as fuel switching, active demand management (ADM) programs, home energy scorecards, a passive house incentive program, and benefits associated with greenhouse gas emissions reductions.

McCarey then provided some additional detail on the following specific items in the order:

- Relative to fuel switching, the DPU approved the PAs’ plans as filed, with the exception of CLC, which she discussed more later.
- The DPU approved the ADM programs, including the ADM performance incentive (PI) component, with a few exceptions. The DPU did not approve the daily dispatch pathway for storage at scale, though the PAs can use a portion of the ADM budgets for demonstrations with the hopes of rolling out programs statewide in 2020 and 2021. The DPU also did not approve CLC’s upfront incentive for storage, but indicated that CLC should continue to refine the offering this year and bring it back to Council for approval before bringing it back to the DPU. The DPU will not consider an active demand program for CLC until they come to a final agreement with Eversource on distribution system concerns. If they are unable to come to an agreement by September 30, the DPU has asked the Council to make a recommendation on the matter. This has been reflected in the revised version of the 2019 Council priorities.

- The DPU approved home energy scorecards as long as the PAs can implement them without increasing the RCS budget by more than 20%. The goal is to roll out the scorecards in July.
- The DPU approved a new benefit associated with greenhouse gas reduction in the plan. DPU did not approve the benefit values and methodology from the avoided cost of compliance with Global Warming Solutions Act (GWSA) supplemental study. However, the DPU approved an avoided cost value using the methodology in the original Avoided Energy Supply Cost (AESC) study, which calculated the marginal abatement cost, rather than the weighted average cost approach in the supplemental study. The PAs were working to recalculate benefits, which will likely increase using the alternative methodology. The PAs will be refiling the Plan next Tuesday.
- The Performance Incentive was approved with the new active demand component, but the renter metric was not approved. The PI pool for the renter metric was taken out of the total pool rather than being reallocated for a different purpose. The DPU stated that the PAs should be tracking data on renters moving forward.
- The DPU approved the evaluation, measurement, and verification (EM&V) framework as filed.
- There was also one other issue related to CLC and National Grid about who serves gas customers on Cape Cod. The DPU did not issue a decision in this order but will in a future order. When they do, this will likely be a topic that comes up at the Council.
- The order also included new potential study requirements. The PAs will need to do more coordination amongst each other to develop common definitions and outputs and with the Council to determine deadlines.
- There was also a change to the calculation of performance incentives. The DPU added a new cost-effective requirement. If any core initiative is not cost-effective, PAs have to back out benefits from their performance incentive calculation for any program within that core initiative that is not cost-effective.

Johnson stated that he thought using program level cost-effectiveness was going backwards and wanted to see it calculated by each initiative. Johnson also wanted to know what the DPU's problem was with the MMBtu metric. He also asked what the problem was with storage, since Massachusetts was doing a good job with storage in terms of rest of the country. Johnson also did not understand why the DPU did not support CLC's approach if the Council did. He also asked for clarification on the scorecard budget increase.

Commissioner Judson provided clarification to Johnson's question about the scorecard, stating that it cannot increase the RCS by more than 20%, which she indicated should not be a problem. McCarey responded to Johnson's question about the MMBtu metric and noted that the issue had to do with measuring site versus source energy savings, which we will need to work on. Gundal answered that CLC and Eversource will coordinate on the distribution system concerns and the issue will be worked out.

Harak asked what the DPU meant by "readily available" in terms of the PAs tracking renter data. He wondered what the PAs were actually going to track. Lyne responded by saying it was one of the implementation issues the PAs have to figure out and that it requires some interpretation. He indicated that it could be categories rather than specific data collected from customers. He noted

that the order was long and he and the PAs were still going through it and trying to determine all of the implications.

Harak commented on CLC's proposal, stating that he was glad they were thinking about demand and storage and hoped they and Eversource could come back with an agreement.

McCarey noted that there was no "readily available" language in the previous sentence of the order specific to reporting on renter participation.

Boyd indicated that it sounded like the PAs were willing to make more data readily available. She asked Lyne whether that was the case. Lyne responded that he could not fully answer that question and did not know the answer.

Boeke added an editorial comment from the Attorney General's Office, stating that there was helpful language in the order about cost-effectiveness, indicating that it was the floor of what could be approved. He also suggested that cost-efficiency, spending ratepayer money wisely, and considering rate impacts was important. Given that we do not live in a world of unlimited resources, we should look for opportunities with the best cost-benefit ratios.

Commissioner Judson indicated there was a standard the DPU followed, which included considering rate and bill impacts in its decision.

Johnson voiced support for CLC and noted that he thought they were innovative.

6. 2019 Council Priorities – Review and Vote

Commissioner Judson stated that the Executive Committee added the DPU Council requests to the priorities and also made some language adjustments based on a proposed amendment from Gromer,

McCarey indicated that the tracked changes version of the priorities were posted to the EEAC website and walked through the changes. For priority #1, language was added about the recalculation of MMBtu metric because it was a high priority to Council. In the last order, the DPU required the PAs to conduct an administrative cost study. The DPU order stated that they needed to report back in 2019 on progress toward implementing the recommendations in the report. So, they also added a bullet to the priority requesting a progress update on this topic. They added clarification where the priority referred to new technologies to specify that it referred to technologies not included in the 2019-2021 Plan. McCarey noted that the discussion needed to start on this topic in 2019, but did not require a standalone priority for the Council. However, this would likely be a standalone priority in the outyears of the plan.

Gromer commented that the language as McCarey put forward did a good job of balancing the topic and supports approving it.

Boyd recommended that the second to last bullet include a reference to Appendix P of the Three-Year Plan for clarification.

Lyne commented that he was supportive of the language in the last bullet and appreciated dialogue on the issue.

McCarey indicated that the changes made to priority #2 were made as a result of the DPU order. The first changes recognize the Council's role in CLC/Eversource ADM issue which includes language requesting quarterly status updates to the EEAC in order to monitor progress. The second update to priority #2 pertains to the PA Daily Dispatch storage demonstrations with a request for updates on implementation and results in order to assess cost-effectiveness with the goal of statewide roll-out in 2020.

Harak commented that he appreciated the CLC language addition and hoped we see more information before September.

McCarey indicated that the change to priority #3 was to make sure the Council is informed about fuel switching, and the edit was suggested at a previous Council meeting by Sharon Weber.

Lyne commented that this point was raised at the Executive Committee meeting and that the PAs were aware that people were looking for updates on the Council Priorities in the PA quarterly reports. There is a lot of reporting required and it was more than what has historically been provided in the past. He indicated that there may not be something new to report on all of these topics every quarter and will keep the update short if that is the case. The PAs are trying to keep the quarterly reports readable.

Johnson stated that he cannot support the priorities as drafted. He wanted to see monthly reports on the residential redesign and hold the PA's feet to the fire. At a minimum, he wanted to see this information reported on bimonthly and recommended changing the second bullet in priority #1 reflect that.

Boeke commented that he did not disagree on the importance of the residential redesign and suggested the Council can ask for progress monthly, but that it did not need to be added to priorities.

Johnson stated that he thought it needed to be the top priority.

Harak pointed out that there were plenty of months when the Council did not get through the agenda and he did not want a residential redesign update to take up time every month while ignoring other topics.

Commissioner Judson noted that there were already residential topics on upcoming EEAC meeting agendas and an update on the redesign was scheduled in May.

Boyd motioned to approve the 2019 Council Priorities as presented. Rio seconded. Johnson motioned to amend the priorities to require the residential redesign to be reported on bimonthly. There was no second. The majority were in favor of the original motion, with Johnson opposing. Li abstained. The Council's motion passed.

7. New Incentives Launched in January 2019

Air Source Heat Pumps

Kyle Svendsen (Eversource) and Stephan Wollenburg (National Grid) presented on air source heat pumps. They provided an overview of heat pumps in the 2019-2021 Plan and discussed integrated controls as a solution to evaluation findings that customers do not operate heat pumps in a way that maximizes heating savings. They also discussed customer incentive levels and requirements as well as implementation considerations.

Boyd stated that the focus of the presentation was on heat pumps in retrofit projects. She asked what was being done with heat pumps in residential new construction. Wollenburg indicated that the PAs wanted new construction projects to come through the New Construction Program, which compensates customers for savings. This will likely be the most cost-effective option for new construction customers and will provide the greatest savings. Because customers are paid based on savings, this should incentivize them to install heat pumps.

Boyd asked why the incentive for propane was the same as oil if the benefits were not the same. Wollenburg stated that the benefits were not exactly the same, but were close enough that it made sense to use the same incentive level for both.

Boyd indicated that a footnote in the presentation stated that the PAs did not recommend replacing existing heating system with full displacement. She asked why not. Svendsen stated that there was more than just the energy savings associated and distribution also come into play. They wanted to make sure customers were comfortable and offer freeze protection for when the temperature got too low. Wollenburg pointed out that they were trying to build the market and did not want the bad publicity of frozen pipes.

McCarey asked what incentive category full displacements would fall into. Svendsen stated that if the customer removed the system, they could not integrate it with controls, so the customer therefore could not get those incentives.

Arcate asked the presenters to explain more about integration. Svendsen responded that it depended on the manufacturer and type of system. So, for central systems there were a lot of dual fuel thermostats that have been in the market for a long time. There were over 30 thermostats on the products list that fit into category of controls. They were hardwired from heat pump and heating system that can switch over between systems based on balance point. For mini-splits, it was new territory. Some solutions might just be a thermostat that was hardwired, or it could be operating over Wi-Fi, or relay boxes with outdoor temperature sensor. There were a lot of options.

Arcate asked if heat pumps could eventually be controlled for demand response. Wollenburg indicated that generally, they could. The thermostats installed were mostly smart Wi-Fi connected thermostats

Arcate asked what kind of rebate was offered for controls themselves. Svendsen stated \$500 per zone to \$1,500 for the entire home. He noted that although many thermostats are Wi-Fi connected, some were not, and would not be appropriate for demand response.

Peterson asked why the PAs were not integrating controls with natural gas. Wollenburg indicated that the benefits and savings available from that option were limited. They want customers to make their own decisions but also to choose an economically beneficial option.

Peterson asked if a customer with a gas boiler wanted to add a heat pump with controls whether that would be an option for them at all. Wollenburg did not think an integrated controls only option was available to gas customers.

Peterson asked whether the calculator included GHG emissions. Wollenburg indicated that it did.

Peterson asked if there was an opportunity to promote weatherization measures along with heat pumps. Wollenburg indicated that there was, and that National Grid Rhode Island took a slightly different approach, but marketed to customers who have already weatherized their homes.

Weber asked if Wi-Fi thermostats are still offered to natural gas customers. Svendsen indicated that Wi-Fi thermostats were offered as a solution for central systems. Wollenburg indicated that if a customer had a central gas system and mini-split or ductless heat pumps, it would not preclude them from installing a Wi-Fi thermostat. He was not aware of many people in that situation who already have integrated controls.

Gromer noted the complexities associated with heat pumps and that other states were dealing with similar issues. He asked whether the PAs were able to learn from regional efforts. Wollenburg stated that the PAs were involved in several regional efforts. For example, the PAs were working with NYSERDA to fund a study of different control strategies.

Johnson commented that “heat-pump” was a misnomer and that people were not using them for heating purposes. He asked what the PAs were doing to reduce this misconception. Wollenburg stated that they were ensuring installed measures were cold climate heat pumps and that they were not recommending that customers take out existing heating system. Svendsen added that as they form relationships with manufacturers, the manufacturers were able to push the message down to their installer base.

Residential New Construction and Renovations Program

Nathaniel Dick and Meredith Miller presented on the Residential New Construction and Renovations Program. They provided an overview of the program, discussed the pay for savings incentive structure, reviewed the renovations and additions process, and provided an update on their new offering and marketing efforts. They also presented on the upcoming passive house offering.

Boyd asked if incentive levels were based on annual or lifetime savings. Miller responded that they were based on annual savings.

Peterson asked whether adders offered through the passive house offering might reach the incentive level offered by NYSERDA. Dick indicated that the benefit-cost ratio for the new construction program was slightly above one, so there was not a lot of wiggle room with codes advancing. Right now, the PAs were projecting between 1,600-2,500 dollars as a range for the all-in incentives including the adder. He indicated they need to do more homework to see if they can do more.

Peterson asked if there was any support after completion of the passive house projects to ensure proper operations and maintenance. Dick stated that support was not offered through PA programs. But, there were built-in mechanisms to work with verifiers and raters to ensure the buildings were optimally maintained. However, he did not know how long they were on the project to provide that support.

Weber asked why the program did not cover low rise master metered buildings. Dick stated that those fell into the high-rise program. Weber stated that the slides could be clearer to reflect that.

Johnson stated that National Grid's passive house program from several years ago did not work. He asked what the payback period was for passive house. Dick stated that he was not aware of a previous passive house program. He indicated that with better training, costs will come down and the payback period will be quick.

Commissioner Judson indicated that the program was approved by the DPU and met necessary cost-effectiveness standards. Dick stated that trying to retrofit to passive house was a lot more expense. However, it was also noted that the cost for passive house in new construction projects, compared to standard code-built construction, does not incur a huge incremental cost, and additionally has significant benefits and reduction in energy consumption.

8. Key Performance Indicators

Belliveau presented on the key performance indicators (KPIs) being discussed with the PAs. He indicated that some agreement had been reached. Discussions were on-going to resolve some details, in particular, the residential KPI intended to measure energy optimization activity.

Peterson stated that she noticed reporting on cross-sector municipal partnerships was taken out of the previous version the priorities and that she would like to see those things reported on. She also indicated that geography was important. Lyne stated that the PAs will report on geography in quarterly reports, but he was not sure exactly what it will look like.

Johnson asked whether the KPIs were rigorous enough. Belliveau stated that the Consultant Team and DOER came up with these KPIs because they will give the Council the best real-time information.

Johnson asked whether the PAs will provide the information on the KPIs. Belliveau stated that they would.

Lyne asked Councilors to let DOER know if they have specific suggestions on the KPIs.

9. Preliminary 2016-2018 Term Results

Brandy Chambers (Eversource) and Steve Menges (National Grid) presented on 2018 fourth quarter performance. They provided an overview of the savings spending, benefits, and emissions reductions achieved during the fourth quarter of 2018 by fuel and sector. They indicated that these results were not finalized and evaluation results still need to be applied.

Weber asked that they spell out acronyms on slides in the future. Chambers explained what the acronyms stood for on slide 17.

Boyd stated that she was happy to see the successful gas performance. She asked what went particularly well and stated that she would like to make sure it continues. Menges stated that high residential participation helped lead to the success and the PAs were trying to continue that momentum, especially with residential redesign. However, he could not point to a single thing that led to the increase in savings.

Johnson asked what the residential redesign will include. Menges responded that the presentation was meant to highlight 2018 results and the PAs will report more on the redesign at future meetings.

10. Adjournment

Commissioner Judson, as Chair, adjourned the meeting at 4:01 PM.