



MEETING MINUTES

Wednesday, July 14, 2021
Virtual Meeting via Zoom

Councilors Present: Greg Abbe (for Jennifer D Maddox), Jo Ann Bodemer (for Maura Healey), Amy Boyd, Tim Costa, Justin Davidson, Mary Downes (for Cindy Carroll), Maggie Downey, Michael Ferrante, Paul Gromer, Frank Gundal, Charlie Harak, Elliott Jacobson, Paul Johnson, Deirdre Manning, Cammy Peterson, Chris Porter, Robert Rio, Dennis Villanueva, Mary Wambui, Sharon Weber, Commissioner Patrick Woodcock

Councilors Absent: Cindy Arcate, Andrew Newman

Consultants Present: Eric Belliveau, Adrian Caesar, Margie Lynch

DOER Staff Present: Rachel Evans, Maggie McCarey, Ian Finlayson, Emily Webb

1. Call to Order

McCarey, as Chair, called the meeting to order at 1:05 PM.

2. Public Comment

Emily Jones (LISC)

Jones commented that 23 organizations with over 15,000 affordable housing units have expressed formal support a deep energy retrofit market transformation program. Jones urged the program administrators (PAs) to implement a deep energy retrofit program providing \$35,000 in incentives per unit, similar to the NYSERDA program. Jones suggested that the PAs leverage federal funds, as a large investment will be needed to support market transformation and retrofit 50,000 homes per year in the Commonwealth. Jones recommended that the Council revisit the social value of greenhouse gas (GHG) emissions reductions in cost-effectiveness screening to find a viable path forward for deep energy retrofits.

Bill Stevens (NEGPA)

Stevens indicated that the exclusion of ground source heat pumps (GSHPs) from the April Draft Plan is inconsistent with the Climate Act, Department of Public Utilities (DPU) guidelines, and

Council recommendations. Stevens said the Climate Act requires the social cost of carbon to be included in cost-effectiveness screening, as well as benchmarks for GSHP adoption. Stevens added that the Council Roadmap Report concluded that GSHPs provide 300-600% higher efficiencies and greater peak load reductions than air source heat pumps (ASHPs). Stevens suggested the current technical reference manual (TRM) underestimates the GHG and cost benefits of GSHPs, especially as it relates to low- and moderate-income families that could benefit from low maintenance costs.

Sarah Dooling (Massachusetts Climate Action Network)

Dooling stressed the importance of deep energy retrofits in the multifamily housing sector and meeting 2030 GHG reduction targets. Dooling suggested a deep energy retrofit program to target 1-4 unit mixed- and low-income homes, modeled after the Passive House New Construction program. Dooling said the program should include Passive House Certification standards, heat pumps, energy recovery ventilation, electric domestic hot water, and materials that reduce embodied carbon. Dooling also said that solutions need to be replicable, affordable, and scalable, so financing options and incentives must be robust. Lastly, Dooling called for the program to establish tenant protections against rent increases for 7 years.

Yve Torrie (A Better City)

Torrie commented that the April Draft Plan Commercial budget and savings were misaligned with the Commonwealth's commitment to decarbonization. Torrie supported matching or exceeding the 2019-2021 Commercial budget, third-party program implementation pilots, deep energy retrofits, heat pumps, and variable refrigerant flow technology. Torrie indicated that third-party program administration would provide solutions-oriented approaches to deliver cost-effective savings where the PAs have struggled historically. Torrie also suggested the Council and proposed C&I Working Group would oversee such third-party pilot programs while communicating with C&I customers and utilities.

Sean Burke (New England Clean Energy Council)

Regarding the Connected Solutions program, Burke suggested that a milestone-based approach with corresponding funding allocations for developers would help the program to run more smoothly. Burke also suggested a transparent process around program rule changes to allow for industry feedback on changes that may impact program participation. Burke, like Torrie, stated that the C&I budget in the April Draft Plan was misaligned with the commitment to capture all cost-effective savings and work toward decarbonization. Burke also recommended a third-party program delivery pilot through competitive bids for deep energy retrofits, high efficiency heat pumps, and variable refrigerant flow systems in large buildings.

Hank Keating (Passive House Massachusetts)

Keating emphasized that a conservative 2022-2024 Plan will prevent achievement of 2030 climate goals. Keating said aggressive programs that support market transformation and serve 50,000 homes annually will be necessary. Keating recommended a Residential Coordinated Delivery (RCD) that mimicked the NYSERDA program, as providing \$5,000 per home as proposed in the April Plan Draft would be insufficient. Keating urged the Council to modify cost-effectiveness screening to comply with the Climate Act, and explain the screening calculation parameters in the Final Resolution on the 2022-2024 Plan. Keating said the existing Mass

Save Passive House incentive program has proven its effectiveness, Passive house certification needs to be considered as an improved alternative pathway for the LEAN program, RCD initiative, and Path to Zero program. Keating hoped the Council Resolution would put the 2022-2024 Plan on track to comply with the Climate Act.

Vincent Graziano (RISE)

Graziano stated that over 300 firms are involved in the delivery of Residential and Small Business program delivery, and that these firms provide customer services in their areas of proficiency. Graziano said the wide spectrum of service providers and expanding on custom technologies has been effective in driving market transformation. Graziano suggested that the current PA model is the most appropriate framework for program delivery. In addition, Graziano said the PA delivery model would undergo continuous refinement to meet evolving needs.

Ron Gillooly (LEIDOS)

Gillooly indicated the network of trade allies have worked closely with current PAs to support programs for many years. Gillooly said the Council Resolution indicates a tipping point into more custom and comprehensive offerings that will require high stakeholder involvement in measure delivery. Gillooly advocated for the existing PA model, supported by effective service providers, to continue.

Andrew Yarrows (Conservation Law Foundation)

Yarrows commented that the next Draft Plan needs to emphasize equity as a central priority, which could be achieved through increased targets, targeted investments, and robust data reporting that account for historic participation discrepancies. Yarrows also recommended methods through which the Plan could support heat pump adoptions consistent with the 2030 Clean Energy and Climate Plan (CECP), including ambitious heat pump targets, full heat pump barrier mitigation, no-cost incentives for heat pumps, and removing fossil fuel incentives. In addition, Yarrows expressed support for earlier comments regarding an improved C&I program and the creation of a C&I Working Group.

Michael Hogan (Paradigm)

Hogan commented that implementation firms adjust their market-driven framework led by PAs and lead vendors. Hogan said PAs and lead vendors provide program access and consistency, flexibility in service delivery, and ability to deliver replicable services. Hogan indicated that dozens of contractors are excited about the innovation that will come in the next fifteen years. Hogan warned that changes to, and diversion of resources away from, the current delivery model would be present a substantial risk to small businesses and clean energy jobs.

Heather Takle (Power Options)

Takle reiterated comments from Torrie and Burke regarding reductions in planned C&I savings and spending. Takle said a reduced budget would hinder nonprofits and public entities in their decarbonization. Takle acknowledged the challenge presented by lighting market saturation, but joint public comment viewed it as an opportunity to pilot innovative solutions. Takle also acknowledged vendor comments on providing innovative solutions, and responded that larger scale would be required to meet climate goals. Takle suggested a competitive bid for third-party administration within two underperforming PA programs would be a logical solution. Takle

recommended that the Council consider third-party program administration in the Plan Resolution.

Steve Cowell (E4TheFuture)

Cowell recommended revisiting cost-effectiveness screening to better align with the Climate Bill. Cowell said fuel switching for delivered fuel customers would be more cost-effective than for gas customers, which is a key consideration. Cowell noted that new Mass Save data system was the most thorough program data management system in the country, so the data needs to be used effectively to address equity and energy savings issues. Cowell placed particular emphasis on reaching underserved customers, and added that LEAN and PAs are looking to package services more effectively for renters and landlords.

3. Council Updates & Business

Virtual Meeting Procedure Review

McCarey reviewed the virtual EEAC meeting procedures, which included the following:

1. The Council meetings would be recorded.
2. All attendees except for Councilors and presenters would remain muted for the duration of the meeting.
3. Councilors would hold comments until the end of presentations, but Councilors and other participants should speak instead of using any chat functionality.
4. Councilors who disconnect from meetings need to announce when they rejoin.
5. All Council votes would be taken by a roll call for accuracy.

May Executive Committee Meeting Minutes – Vote

Abbe motioned to approve the minutes as submitted. Boyd seconded. All were in favor, with none opposed or abstaining. The minutes were approved, as submitted, by the Executive Committee.

May EEAC Meeting Minutes - Vote

Peterson clarified that the American Rescue Plan Act (ARPA) was being referenced during discussion of the April Draft Plan. Cowell also noted this was being referenced in his public comment. Villanueva motioned to approve the minutes as amended. Abbe seconded. All were in favor, with none opposed or abstaining. The minutes were approved, as amended, by the Council.

June Executive Committee Meeting Minutes - Vote

Abbe motioned to approve the minutes as submitted. Boyd seconded. All were in favor, with none opposed or abstaining. The minutes were approved, as submitted, by the Executive Committee.

June EEAC Meeting Minutes - Vote

Terach indicated she was present for June Council meeting. Villanueva motioned to approve the minutes as amended. Abbe seconded. All were in favor, with none opposed or abstaining. The minutes were approved, as amended, by the Council.

4. Program Administrator Updates

Chambers, Coen, and Downey, on behalf of the PAs, provided updates on topics with outstanding stakeholder questions including the discontinuation of Residential Lighting incentives, ground source heat pumps, solar domestic hot water, Cape and Vineyard Electrification Offering (CVEO), and greenhouse gas impacts of combined heat and power (CHP).

Council Discussion

Abbe asked for detail on the plan for Income Eligible lighting measures. Chambers indicated the PAs were still discussing Income Eligible lighting and would follow up once evaluation data becomes available. Abbe said the PAs deserve credit for successfully transforming and saturating the Residential lighting market. Harak similarly commended the PAs. McCarey noted a filing on lighting with detailed information was submitted to the Department of Public Utilities (DPU).

Johnson asked for the average cost of GSHPs, given they are incented at \$2,000 per ton with a \$15,000 incentive cap per system. Coen replied that they cost \$20,000-\$30,000 depending on system size. Johnson wondered how GSHPs were being marketed considering the high customer costs. Coen said contractor networks have received communications on GSHPs, and educational materials including an informational video are available on the Mass Save website.

Commissioner Woodcock asked if NEGPA and other advocates of geothermal heating systems have been contacted regarding GSHP marketing strategy, since public comment seemed to indicate remaining concerns. Coen responded that geothermal stakeholders were notified as soon as the GSHP offering launched. Coen said the PAs can follow up with NEGPA and others to address additional questions.

Peterson asked about efforts to increase awareness of solar domestic hot water, and whether these measures would screen as cost effective using the Social Cost of Carbon. Coen was unaware whether the PAs have directly contacted solar hot water developers and stakeholders. Coen also said that cost effectiveness screening for solar water heaters would require an update to include the Social Cost of Carbon.

Villanueva noted that GSHP projects can cost nearly \$2 million in the C&I sector, and urged the PAs to offer higher incentives to match climate goals. McCarey indicated the new offering and incentives were specific to the Residential sector. Bryant said Commercial GSHPs were uncommon due to high installation costs, but they were typically handled through the custom pathway. Bryant added that current GSHP offerings were being assessed to improve customer economics. Commissioner Woodcock suggested that federal tax credits and DPU proceedings related to treating GSHPs as gas measures might help.

Harak thanked Cape Light Compact staff for their persistence in supporting the Cape and Vineyard Electrification Offering (CVEO) for low- and moderate-income customers. Downey said a more detailed CVEO presentation was posted on the Mass Save website.

Abbe seconded Harak comments. Abbe asked if the drivers behind high benefit-cost ratios (BCRs) for CVEO in the first two years might apply to other programs. Downey indicated nothing unique was done in benefit-cost analysis for CVEO. Brandt said the combination of particular measures might be the biggest contributor to high BCRs.

Boyd suggested that the PAs implement more measure bundling strategies to combat the climate crisis and provide resources for underserved customers.

Jacobson indicated LEAN is supportive of CVEO and glad to see forward progress on it. Downey said the program may have been undergoing evaluation if not for the COVID-19 pandemic, but hoped it would get approval as a full program.

5. Draft Council Resolution on 2022-2024 Plan

McCarey and Peterson reviewed the structure, development process, and high-level priorities included in the Draft Resolution and Equity Working Group Draft Plan Comments. McCarey indicated that language was added to address the integration of stakeholder comments into the Resolution and Draft Plan review process. McCarey also thanked Bodemer, Boyd, and Washburn for their support in drafting the Resolution and Equity Working Group Comments.

GHG Reduction Goals

Commissioner Woodcock presented a summary of the GHG goal-setting process, as required by the Climate Act. Commissioner Woodcock emphasized the importance measures with good, but also persistent, GHG benefits. McCarey added that equity considerations were included in the GHG targets to prevent leaving customers behind in electrification and deep energy retrofits.

Wambui was supportive of the GHG goal, but cautioned against exacerbating current program inequities. Wambui hoped that DOER would be cognizant of rate and bill impacts that could harm energy burdened customers. Wambui also urged DOER to consider where GHG reductions would be attributed in order to prevent historically underserved customers from being left behind.

Villanueva agreed with Wambui's comments, and added that GHG reductions would benefit low-income communities even more, since they are disproportionately impacted by carbon emissions. Commissioner Woodcock responded that the Council priorities have paired equity and GHG reductions, and concurred that including equity considerations would lead to comprehensive decarbonization that includes all population groups.

Review and Council Feedback on Draft Resolution

Villanueva expressed support for Resolution, particularly the recommendations on maintaining 2019-2021 Term levels for the C&I sector budget and benefits. Villanueva suggested that creative solutions to drive energy efficiency and electrification could be achieved through a C&I Working Group and third-party program administration. Villanueva also supported eliminating fossil fuel incentives, but reiterated resiliency benefits from combined heat and power (CHP) that help some facilities.

Rio also supported the creation of a C&I Working Group since deeper savings opportunities are needed to compensate for lighting market saturation. Rio was open to suggestions on third-party administration if it would lower costs and improve programs delivery, but wanted to keep PAs informed throughout the process. In addition, Rio advocated for CHP incentives due to resiliency, cost, and marginal emissions benefits.

Johnson asked Peterson for examples of equity targets as described on Page 7 of the Draft Resolution. Peterson said these targets would be related to spending, participation, and workforce diversification targets particular to underserved populations like renters and moderate-income customers. McCarey added that the Equity Working Group was still discussing specific targets.

Wambui felt that weatherization was not emphasized enough as part of decarbonization efforts, given that heat pumps are not always suitable for certain buildings and weatherization is needed to right-size heat pumps. McCarey agreed, and suggested that weatherization could be highlighted in the GHG Emissions Reductions or Residential and Income Eligible sections of the Resolution.

Boyd noted that the final bullet on Page 4 of the Resolution addressed weatherization for Market Rate Residential sector, but should be included in other sections. Boyd said Income Eligible weatherization should be prioritized to since there are many homes that would benefit from weatherization and emissions reductions in this sector. McCarey said language around weatherization for Income Eligible and underserved customers could be strengthened.

Johnson doubted that an expanded workforce was necessary, and many contractors actually believe there is not enough work available. McCarey indicated the PAs recently conducted a workforce needs assessment.

Peterson recommended language saying the PAs should have GHG reduction goals in alignment with the Secretary's established targets, but also set forth a Plan that illustrates how those targets will be met.

Harak asked when highlighted placeholder numbers in the Resolution text would be available. McCarey said the Secretary should formally issue GHG targets tomorrow, so the placeholder numbers should be updated shortly after.

Wambui agreed with Peterson that the program Plan needs to show how the GHG targets would be met, but also show how they would be met equitably.

Weber noted the language on removing the social cost of carbon for fossil fuel efficiency was unclear. McCarey replied that in the April Draft Plan, the PAs reduced incentives for fossil fuel efficiency, but the language could be clarified.

Boyd indicated the reference to whole building conversions was unclear on whether weatherization was included. Boyd also wanted to see evidence in next Draft Plan that the GHG reduction target set by the Secretary would be reached. Boyd emphasized the need for rigorous

tracking, and remediation for being off-track progress toward goals given the urgency of the climate crisis.

Wambui said the equity section failed to respond to stakeholder feedback, address historical program inequities, and make equity a priority. Wambui commented that language urging the PAs to “continue to develop new innovative approaches” would lead to the continuation of inequitable program delivery. McCarey responded that Equity Working Group comments can be applied to improve the language.

Harak agreed with Boyd that the climate crisis is already an existential threat. Harak urged the PAs to phase out fossil fuel system incentives, but noted that this was still being discussed for the Income Eligible sector. McCarey indicated the fossil fuel incentive phase out approach was outlined in greater detail in each sector section, but there was broader, directional statement to shop opposition to fossil fuel incentives. Jacobson added that handling of fossil fuel incentives in Income Eligible homes was being discussed at the federal level.

Peterson said the language in the Resolution should capture the need to customer support for gas to electric fuel switching. Peterson suggested that end of life replacement is the best situation to fuel switch to prevent gas systems from being locked in place for longer time periods, and this needs to be included in the Resolution whenever discussing electrification.

Wambui noticed that concurrent delivery of electrification and weatherization services was difficult given the current workforce, but the customer experience could be improved if this was not the case.

Davidson said the cost implications of fuel switching should be included in Residential section’s first bullet. Davidson warned that requiring gas to electric fuel switching would be a cost burden. Boyd responded that including the social cost of carbon at end-of-life replacement results in comparable costs to acquiring a new gas system. Boyd recommended that programs provide incentives to support the cost differential. Commissioner Woodcock said that long-term decarbonization planning should account for all fuels.

Johnson suggested that a specific weatherization target at least higher than the 2019-2021 Plan term should be established. Lynch expressed confidence that the weatherization goal would increase in the next Draft Plan. Johnson recommended the weatherization goal increase twofold relative to the savings goal included in the April Draft Plan.

Review and Council Feedback on Equity Working Group Comments

Jacobson stated that a stagnant budget paired with more expensive measures and heat pumps would lead to serving less customers.

Harak said installation goals for Income Eligible active demand measures would be important, as well as an increased focus on multifamily buildings. Harak suggested it was important to look at households served relative to increased heat pump investments. Harak also highlighted the importance of reaching more multifamily buildings, as the Non-Participant Study identified the largest gap in 3-10-unit buildings. Harak noted the language on pursuing electrification where

energy burden would be reduced is important, and this language should be employed elsewhere in the Resolution.

Commissioner Woodcock commented that electrification should not diminish the number of Income Eligible customers served. Commissioner Woodcock pushed the integration of supplementary heating systems, as the current wording implies only full heating system replacements. Jacobson replied that supplementary heating systems are being installed in many LEAN heat pump programs.

Wambui supported Harak's suggestion to include energy burden reduction in the language on Income Eligible heating electrification.

Weber noted that in the Residential section, there was a bullet on integrating storage, electric vehicle charging, and solar, but this did not exist in the Income Eligible section. Weber supported offering these services to Income Eligible customers. McCarey responded that this language could be added in the Income Eligible section, but there was also language in the Active Demand section on increasing Income Eligible customer access to these measures. Jacobson reiterated that LEAN and the PAs are coordinating on bringing active demand and storage technologies to the Income Eligible sector.

Wambui seconded Weber's comments regarding Income Eligible access to active demand and storage technologies. Wambui said electric vehicle charging and storage are becoming increasingly critical to affordable housing developers.

Commercial and Industrial Section

Peterson felt it would be appropriate to provide clarity on the scope of the deep energy retrofit pilot or program that is explored. Regarding municipalities, Peterson proposed the language should reflect the remaining LED streetlight conversions, and also mention the importance of wireless controls integration during these conversions. Peterson also suggested a dedicated downstream program for public buildings in 2023 to emphasize envelope and HVAC measures based on the Cape and Vineyard Electrification Offering. Peterson said 100% incentives for such a program would be ideal, but recognized that may not be feasible.

Villanueva wondered if the exploration of third-party program administration should be included in C&I Working Group topics to explore, since there would be substantial discussion on alternative program administration models. Rio agreed that this would be a suitable place to add such language.

Villanueva cited personal experience with smaller business entities under Mass General Brigham, and suggested basing small businesses on their account sizes instead of entity names. Gundal indicated customer meters are aggregated in order to segment between large and small businesses, but considerations are made to avoid mislabeling customers. Gundal added that the Small Business program is meant to circumvent project management and administrative barriers faced by smaller entities. Gundal suggested that small, independent under Mass General Brigham would ideally be treated as small business customers. McCarey recommended including the definition of small businesses as a topic for the C&I Working Group.

Villanueva suggested modifying language on third-party program administration to incite immediate discussion and action. Gundal replied that the PAs would be happy to discuss opportunities, but noted that multiple implementers could result in high project costs due to unhealthy competition. Gundal emphasized that Mass Save Large C&I program is the most flexible in the country, where any project that passes cost-effectiveness screening is eligible for incentives. Gundal added that the program is open market, allowing for electricians, energy service companies, and all entities to participate. McCarey proposed updating the language to include third-party program administration for the C&I Working Group to explore and discuss further during the next Plan cycle.

Wambui was excited by third-party program administration, as other entities might be better suited to achieve equity goals than in the current implementation model. Wambui supported Villanueva and public comments related to third-party program administration.

Gromer commented that third-party implementation is interesting, but would require significant debate and disagreement. Gromer added that previous attempts at alternative delivery models were costly and not very successful.

Rio agreed that there would be substantial debate over third-party administration, but the language should elicit action from the Council to initiate discussion. Rio said public comment shows the Council needs to explore alternative program delivery models and determine the best path forward.

Commissioner Woodcock supported including third-party program administration in topics for the C&I Working Group to explore, but the Resolution should be focused on refining the Plan and Council recommendations. Commissioner Woodcock was cautious of thinking about new delivery methods at the same time of transformational program design. Villanueva replied that the large reduction in C&I benefits spurred discussion of alternative program delivery models.

Active Demand Section

Weber hoped electric vehicles would be mentioned in the Active Demand section. Weber suggested that home vehicle charging will continue to grow, so enrolling them in Active Demand programs will be critical. Weber also hoped the electric vehicle charging pilots would become full offerings at the start of 2022, and that language should be added.

Peterson supported Weber's comment, and added that the Council should expect the PAs to achieve Tier 4, fully integrated, programs. Peterson felt merely recommending the PAs to reach full integration between efficiency and active demand was insufficient language.

Performance Incentives Section

Wambui reiterated that the GHG goal should not conflict with serving underserved customers.

Abbe urged the PA evaluation teams to comb through all assumptions, non-energy impacts, and cost-effectiveness screening inputs to ensure all benefits are captured. Abbe cited dollar amounts for noise reduction and home durability, and suggested there might be other claimable benefits.

Peterson suggested the language on expanding active demand management goals should specifically reference Income Eligible customers. Wambui added that the same callout should be included for low-and moderate-income energy storage.

McCarey said the updated Resolution would be posted prior to the July 28th Special Meeting for Council feedback, but any additional comments could be submitted via email.

Commissioner Woodcock thanked the Councilors for their contributions to the Resolution, as well as the PAs for their work on the Draft Plan.

6. Adjournment

McCarey, as chair, adjourned the meeting at 4:24 PM.