



**Energy Efficiency Board  
Commercial & Industrial Committee Meeting**

**Tuesday July 13, 2021**

1:00 – 3:30 PM

Meeting Materials in Box.com:

<https://app.box.com/s/sc3uxkiwdgtm3ywhqukkklkdpxytmb9>

## **Minutes**

1. Roll call

Board members present: Ron Araujo, Jack Traver, Joel Kopylec, Kate Donatelli

Other attendees: Alex Sopelak, Glenn Reed, Jodi Sullivan, Jordan Schellens, Mike Doucette, Mike Weissmann, Paul Tangredi, Peter Ludwig, Sheri Borrelli, Brandon Mark, Daniel Robertson, David McIntosh, Elizabeth Murphy, Emily Rice, Erin Engelkemeyer, George Lawrence, Hammad Chaudhry, James Klase, Jeff Crittenden, Jodi Sullivan, John Blair, Jonathan Bronke, Jordan Schellens, Mia Lombardi, Mike Weissmann, Nicolette Karakos, Phil Mosenthal, Amanda De Vito Trinsey

Ms. Kate Donatelli shared that Ms. Donna Wells has retired from DEEP and that she will be assuming Ms. Wells' role on the Board.

2. Three Year Plan Text - Consultants/Companies

The Consultants received a version of the Plan text and provided input to companies. Mr. George Lawrence provided an overview of the second draft of the Plan text. The Consultants impression of the draft Plan text was that it was thorough, comprehensive, and well-written. The Companies were responsive to comments and suggestions. For the C&I Section, there are a number of key priorities: (1) equity, (2) decarbonization, (3) workforce development, (4) co-delivery of efficiency and active demand reduction, (5) transition from lighting to non-lighting savings, and (6) improvement of project process; including better alignment between companies for dual customers. Mr. Lawrence indicated there would be a new international code adopted in 2022 so making sure all parties are aware of that will be an important task. The Plan text outlines four pathways, including net zero/deep energy savings, whole buildings with energy use index, whole buildings streamlined, and systems and measures. Mr. Lawrence shared energy opportunities under the retrofit program. Some examples include lighting controls, enhanced ventilation for schools, and more work with landlords. Mr. Lawrence's presentation can be found in the materials folder and the draft Plan text can be found here: <https://app.box.com/s/43qlddtxd0cxg4z9z4iaon4k0fc1utbh>.

Consultants have suggested further adoption of heat pumps and decarbonization under the new Plan and have inquired where the Benchmarking initiative is. Ms. Elizabeth Murphy noted that the Companies are working on the Benchmarking initiative and it will be in the next iteration of the Plan.

Mr. Lawrence discussed the SEM processes, noting that the process varies between the

Companies and suggested that the Companies combine the process charts into one and has offered a draft of such a chart in his slide deck. Ms. Jordan Schellens stated that the Companies received this comment and will be addressing it today.

Mr. Lawrence highlighted some great updates to the Small Business Energy Advantage Program, which include expanding languages to increase equity and participation, virtual pre-assessments, and the Small Manufacturer Initiative. Consultants suggest targeting electric resistance space and hot water heat in small businesses and promoting the new PSD compressed air measures as part of the Small Manufacturer Initiative. Further Consultants suggest expanding upstream and midstream options and increasing update of lighting controls. Additionally, increasing outreach to manufacturing customer who have had no or minimum historical participation.

Under Active Demand Response, Mr. Lawrence highlighted the fair number of new initiatives from energy and thermal storage to electric vehicle charging. Mr. Lawrence asked whether Eversource would adopt successful approaches from UI's demand response initiatives? Ms. Rebecca Meyer asked which program Mr. Lawrence was referring to, to which Mr. Lawrence suggested more broadly that if UI provides a measure/service that Eversource do the same and vice versa. Mr. Lawrence noted that there would be more discussion regarding the Plan text at the EEB meeting Wednesday.

### 3. Heat Pump updates – Companies

#### C&I Pilot for 2021 | Conversion of electric resistance heat customers (DEEP condition 9) Initial findings on the soft costs of heat pumps (DEEP Condition 14)

Mr. Mike Doucette discussed the roles of people involved in a project, on supply and demand ends, distributors, engineering, etc. With heat pumps, people want to focus on what they already know how to do and by default traditional cooling equipment is chosen more often than heat pumps. Further, both the perception and reality of electric heating costs inhibit uptake of heat pumps. Mr. Doucette has engaged Trane Technologies to coordinate and find a solution that would yield higher uptake of heat pumps; including training, education, case study development, and identifying candidates. On the customer-front, Mr. Doucette has been working with Yale University with an aim to collaborate on a pilot that may reveal barriers for motivated customers, glean other challenges to heat pump installation, and quantify incremental costs.

Mr. George Lawrence brought up a Boston Globe article that discussed Mass Saves programs and the comment section revealed a misunderstanding of heat pumps. Mr. Lawrence referenced a new ground source system at U Mass that will reduce carbon emissions by 40% and suggested that case studies at universities would be a good place to start. Mr. Doucette recognized there are common misconceptions around heat pumps, both impacting consumers and installers. Mr. Doucette also acknowledged the added cost of wells for ground source heat pumps.

Ms. Amanda De Vito Trinsey shared her experience with heat pumps in her home and noted that a backup fuel source is a reality that, when scaled up for Commercial applications, can present a challenge. Ms. De Vito Trinsey added that eliminated the need for backup heat is a myth. Mr. Lawrence commented that weatherization and heating goes hand-in-hand and should be a consideration going forward. Mr. Lawrence added that it's possible to eliminate the need for back up heat with heat pumps, and good exterior shell is critical in order to do so.

Mr. David Macintosh asked what size of system is considered for the C& I pilot and Mr. Doucette responded any system of commercial size. Mr. Lawrence asked where the pilot stands at this point. Mr. Doucette responded that the Companies are still considering the shape of it and determining what can be accomplished with partnership buy-in. Mr.

Lawrence asked if there was a report on soft costs and Mr. Doucette noted that there is source material which is referenced in the conditional approval that relies on data from MA and NY that looks at relative percentage of overall project costs that's soft costs. Mr. Lawrence asked if Mr. Doucette has looked in to air-to-water heat pumps, which Vermont is offering incentives for. Mr. Doucette noted that this is an area where the Companies have not focused on too much as its applications are better in the New Construction space, particularly for offices or buildings where cooling may be needed in the winter.

Mr. Lawrence mentioned a ground-source-heat pump company that seems to have overcome much of the initial soft costs and hurdles and have figured out how to sell these projects. Mr. Doucette indicated they weren't seeing these projects on the C&I side. If they would do a small commercial or large residential project in CT, Mr. Doucette stated there would be an opportunity to participate in the pilot. Mr. Doucette said he could reach out to them. Mr. Ron Araujo added that Eversource is seeing a lot of large residential ground-source heat pump projects installed and there could be an increase in commercial applications. Mr. Araujo credited that to both the increased incentives and the contractor's ability to overcome hurdles.

Mr. Lawrence acknowledged the hurdles to heat pumps; education, costs, complexity to design and install, low cost of natural gas, etc. but the point of the pilot is to figure out how to overcome those barriers.

#### 4. Update and future plans for Strategic Energy Management – Companies

Mr. Paul Tangredi and Ms. Sherri Borelli provided an update for SEM efforts at Avangrid. Mr. Tangredi shared an overview of Strategic Energy Management and its process, including the process flow Mr. Lawrence alluded to when providing Consultant comments on the draft Plan text. Strategic Energy Management is a continuous process of planning, implementation, and monitoring to provide a path for achieving energy savings goals. Mr. Tangredi likened energy management with a roller coaster, in that savings can vary and building operators must respond and adjust throughout the process to realign with building performance potential. The process of SEM starts with finding low and no-cost savings options that kickstarts a change in company culture. Integrating SEM into existing programs would target candidates that can take energy efficiency to the next level and help them identify more capital projects that would have been overlooked otherwise. The SEM Delivery process includes a cycle with the following steps: Commitment, Plan, Do, Check, and Act. Commitment has been included because it's required in order for the customer to continue to see savings. SEM measures are typically low and no-cost opportunities that are behavioral-driven.

Ms. Borelli discussed SEM customer benefits and participation and highlights of the 2022-2024 Plan focus. Ms. Borelli stated Eversource's commitment to helping customers lower their energy use. SEM customer benefits include

1. Vendors as coaches to help customers continuously manage their energy use
2. Low-cost and no-cost measures, many of them behavior-based, that offer quick wins
3. Enhanced energy management process
4. Energy modeling that quantifies the impact of implementation efforts
5. Training to support behavioral changes

Mr. Borelli provided an overview of customer participation requirements. Participants must be committed to behavioral change, quality of environmental process systems, and have sustainability commitments. Participants must consume at least 8 million kWh/year. Existing participants include manufacturing, colleges, hospitals, and waste-water treatment facilities. Participants must have a commitment from senior leadership and be capable of engaging for a number of years. Mr. Tangredi discussed the delivery mechanisms for SEM, which includes four active SEM providers. Ms. Borelli shared that Avangrid has one SEM provider. The process and coaching support is 100% supported by Eversource. SEM savings are determined

using regression modeling, which varies by provider. Eversource is currently piloting a platform with an aim to use a common platform for modeling down the road. Customers are engaged at the onset to provide feedback, and conduct a self-assessment which establishes a baseline. SEM focus for 2022-2024 includes increasing cohort participation, optimizing effort in capturing SEM savings, and engaging resource-strapped customers with “SEM Lite” options like virtual treasure hunts. All C&I Customers can receive data automatically and the vendor provides training to the customer on how to read and extract the data.

Ms. Kate Donatelli asked about what’s determining the length of commitment and how long they generally last. Mr. Tangredi noted that once the customer moves into implement low-cost measures, about 3-6 months into the engagement the intent is to stay with them another two years beyond that point. This includes monthly check-ins for the first year and then quarterly check-ins the second year. Overall, it’s probably a three-year engagement, Mr. Tangredi said. Ms. Donatelli asked if there has been a need to course-correct with customers due to stalled savings and what is used to get them back on track. Mr. Tangredi noted that only one customer has proceeded to the implementation phase and the modeled savings were not accurate so they adjusted to a bottoms-up calculation. This happens to be a customer interested in achieving ISO certification and Eversource is working with them to fill the gaps. Mr. Tangredi shared that he doesn’t have a lot of data points to share, but anticipate more experience with corrective action down the road. Ms. Borelli added that Avangrid does not have many data points at this time either.

5. Planning for August C&I Committee Meeting

- Microbusiness Energy Advantage Pilot – Ms. Elizabeth Murphy indicated that she would love to give an update
- 2<sup>nd</sup> Qtr. C&I Metric Performance – Companies will be ready in August
- Green Bank Update – Mr. Peter Ludwig can provide an update
- 3 Year Plan – discuss the numbers in August

6. Adjourn

Mr. Lawrence adjourned the meeting.