



Energy Efficiency Board
October 13, 2021 | 1:00 – 3:30 pm

Documents for the meeting are located here:
<https://global.gotomeeting.com/join/458198517>

Minutes

1. Process

A. Roll call of Board Members

Board and Committee members: Amanda Fargo-Johnson, Amy McLean, Brenda Watson, John Viglione, John Wright, Kate Donatelli, Neil Beup, Steve Bruno, Vicki Hackett, Ashley Marshall, Ron Araujo

Jack Traver was absent and designated Neil Beup as his proxy.

Ms. Vicki Hackett joined during item 1C.

Other attendees: Daniel Robertson, Emily Rice, George Lawrence, Ghani Ramdani, Glenn Reed, Jeff Howard, Lisa Skumatz, Richard Faesy, Ron Araujo, Samantha Dynowski, Shannon Laun, Andrea Goodman, Ashley Nicholls, Claire Sickinger, Devan Willemsen, Diane Del Rosso, Gannon Long, Gioia Connell, Giulia Bambara, Glen Eigo, Joseph Roy, Julia Dumaine, Larry Rush, Matt Macunas, Mike Uhl, Nate Chumley, Patrice Gillespie, Philip Mosenthal, Rose Croog, Susan Miller, Tim Fabuien, Vinay Ananthachar, William Wesson

B. Minutes – Approve minutes from September 2021 Board Meeting

The Chair entertained a motion to approve the minutes. Mr. John Wright motioned to approve September minutes, Ms. Amanda Fargo-Johnson seconded the motion. The motion passed

C. DEEP Staff & Board vacancy updates

Ms. Kate Donatelli informed the Board of DEEP vacancies. There are three Office Director positions open: Building and Transportation Decarbonization, Affordable Housing and Retrofits, and Telecommunications and Broadband. Job postings are online now and are due October 19 or October 21.

Additionally, there are four vacant Board vacancies that DEEP is looking to fill. Applications received by the original deadline in August are still being considered, but the deadline has been extended so that DEEP can receive a larger pool of applicants. DEEP hopes to fill these vacancies by the New Year.

D. EEB Joint Committee membership

Under statute the EEB has a Joint Committee with the CT Green Bank. Due to Board vacancies, there is currently only one EEB member appointed to the Committee, Mr. John Viglione. Ms. Brenda Watson serves on the Joint Committee but was not appointed to represent the EEB. The Chair notified the Board that the Board will be considering appointing another member, and encouraged Board members that may be interested to let Mr. Beup know.

E. Public Comments

Ms. Sam Dynowski, State Director of the Sierra Club, wanted to check in on developments with the Three-Year Plan since the last meeting. Ms. Dynowski referenced the latest CT GHG emissions report that determined that CT is not meeting its goals, and acknowledged that the EPA removed gas appliances from their Most Efficient designation. Ms. Dynowski asked the Board to remove gas appliance incentives from the next Three-Year Plan and to highly incentivize heat pumps, which would deliver ancillary health benefits and align with the state's GHG goals.

Ms. Shannon Laun, Staff Attorney with Conservation Law Foundation, emphasized that the 2018 GHG Inventory found that the emissions in 2018 actually increased, and were higher than 2017 emissions and were higher than the state's 2020 goal. Ms. Laun added that the increase in 2018 was directly attributed to an increase in emissions from the use of natural gas and oil for heating in both the residential and the commercial building sectors.

2. DEI Consultant RFP Update – DEEP

Ms. Donatelli shared that the Companies and Consultants have had a chance to provide some comments on the RFP. DEEP is currently working through its final approvals and DEEP will be running this RFP through the Board's typical process. The next step is to send the RFP back to Committee before it's released. DEEP hopes to have the DEI Consultant on board before the New Year.

3. Weatherization Barriers Update/Wx Program Operator RFP – DEEP

Stakeholders should have received an e-mail communication indicating DEEP's timeline that the release of this RFP has been amended. DEEP is considering modifications to the RFP that are based on the public comments received through the process DEEP held a couple weeks ago. The revisions include a more thorough scope of service and evaluation criteria, as well as more clarity on the projects for the Program Operator. DEEP hopes to work these changes, and others considered from the public comments, and to release the RFP in the coming weeks. Ms. Donatelli thanked those on the call that have engaged in the process so far.

Ms. Vicki Hackett added that the DEEP is trying to be careful and think thoughtfully to make it easier for entities that would bid. This isn't the easiest RFP because there are a variety of potential funding sources, and different levels of funding.

4. Programs and Planning

A. Discussion and Votes on Revised Savings and Budget Tables and Plan Text – Companies/Consultants

Due to the anticipated motions and votes, Ms. Kate Donatelli reviewed the voting procedures prior to the following presentations. The Board Operating Procedures specify that in order to have a quorum to conduct meetings, half of all voting members must be present. Ms. Donatelli acknowledged there are 8 voting members present currently. There are 12 voting members on the Board, including the two new seats that were added during the last legislative session. However, those two seats, and two existing seats representing Statewide Business Association and Chamber of Commerce are currently vacant. If a Board member is absent from a meeting, or there are extenuating circumstances, their absence is considered to be a temporary vacancy for the purpose of any votes. Board members can arrange a proxy, and Ms. Donatelli acknowledged that Mr. Jack Traver appointed Mr. Neil Beup today as his proxy. Motions to approve Plan Text or Budgets require half plus one votes to pass, not just a simple majority like other motions.

For the anticipated vote today, the Board needs five votes for a Budget approval motion to pass. Vacancies and temporary vacancies do not count towards the total number of votes, which is the denominator for half plus one Board members in attendance. Abstentions do count toward the total number of votes or denominator. If half plus one is not a whole number, the required

number is rounded to the nearest whole number.

- Savings and Budgets
 - Evaluation budget

Mr. Stephen Bruno shared the latest Budget and Savings Tables, noting changes since the last Board meeting. The Budget remains at \$706 million for 2022-2024, bringing a combined benefits of \$1.8 billion dollars which equates to a 2.5X return on investment for every dollar put in. Mr. Bruno noted that the 2022 budgets still remain at \$189 million for electric and \$54 million for gas.

Mr. Bruno noted that the income-eligible programs receive 1% more spending than the revenue those accounts draw. Mr. Bruno noted that revenue is expected to drop over the next three years on the electric side; the primary funding source for the C&LM programs. Gas revenues remain consistent.

The 2022 residential portfolio budget is \$102 million and the C&I is \$99 million. On the C&I side, the Companies were able to lower budgets from 2021 to 2022, while increasing kW benefits.

Mr. Bruno noted that the evaluation budget changed from 2% of the budget to 3%, increasing the budget from 2022 to 2023. Mr. Bruno added that Mr. Glenn Reed will discuss this later in the meeting and provide a recommendation.

Mr. Ghani Ramdani shared that the Companies have continued to work with the Consultants and Evaluation team to dive into the savings and assumptions for savings. Mr. Ramdani shared changes in the savings tables since the last Board meeting. A table summarizing these changes can be found in the slide deck provided by the Companies [here](#). Overall, annual MWh savings decrease across the Three-Year Plan for both C&I and residential portfolios on the electric side, while the gas savings remain relatively consistent across the Plan. Mr. Ramdani also shared updated waterfall charts for the Three-Year Plan, which can be viewed in the presentation. The most notable change is a 1% increase in the lifetime MWh compared to the presentation in September.

Mr. Glenn Reed shared that the Consultants propose the Savings and Budget tables be accepted as proposed by the Companies, with additional consideration for the PMI modification and four detailed C&I savings items discussed and reviewed at the C&I committee meeting yesterday. The C&I changes have to do with evaluation results and realization rates. Mr. Reed also noted the evaluation budget changes that Mr. Bruno shared. Mr. Reed added that Ms. Lisa Skumatz and her team have suggested further increases in 2023 and 2024. Mr. Neil Beup asked what the timeline was for these items: the evaluation budget change in January, C&I in a couple weeks, and PMI today.

Mr. Neil Beup indicated the Board needs to vote on the Savings and Budget Tables and entertained a motion to do just that. Ms. Amanda Fargo-Johnson asked if the proposed Budget & Savings Tables included the increase in evaluation budget. Mr. Beup clarified that the Board is voting on the evaluation budget increase proposed by the Consultants, not Evaluators, and the Board can address the Evaluators' proposal in 2022. Ms. Fargo-Johnson asked if the PMI is included in the current budget proposal. Mr. Beup noted that the Savings and Budget Tables need to be voted on now, and a modification can be voted on after.

Ms. Vicki Hackett asked if the Board knows what the additional evaluation budget increase would be used for. Mr. Neil Beup noted that the Board needs more clarity and didn't have time to get an explanation so is voting for a placeholder. The Board is

voting on a slight increase to 2022 and a flat line versus the Evaluator proposal that includes an increase each year over the 2022-2024 Plan. Ms. Hackett asked if there was an explanation for the increase proposed by the Companies, and recommended by the Consultants. Ms. Lisa Skumatz shared that the Evaluation Committee has reviewed the projects for the next Three-Year period and that historically the Evaluation Committee doesn't know how many projects they will review over the next Three-Years when the budget is voted on. Mr. Beup said he was comfortable voting on the proposed increase with the information at hand. Ms. Hackett wanted to confirm that the budget could go up or down, pending the discussions in 2022; essentially ensuring this vote didn't lock the budget at the proposed increased level. Mr. Beup stated the budget can go up or down and DEEP is the arbiter of it.

Mr. Beup entertained a motion to approve the Savings & Budget Tables in line with the recommendations of the Consultants, as submitted by the Companies. Mr. Beup motioned to approve the Savings & Budget Tables; Mr. John Wright seconded the motion. Ms. Amanda Fargo-Johnson said the PMI should be taken out as a separate vote. The motion passed 6-0 with Ms. Vicki Hackett abstaining. Mr. Viglione was absent during the vote.

Mr. Glenn Reed asked if the C&I budget changes was included. Mr. Beup noted that if any changes are made, it will require a simple majority vote. Given that the Companies and Consultants needed more time, a vote addressing these changes can come later, similar to the Evaluation budget.

- Revised Plan text

Mr. Glenn Reed indicated that it's up to Board members to move any or all of the Companies' documents to a vote.

Mr. Stephen Bruno shared the Table of Contents in the Plan Text. Mr. Bruno noted that the Plan Text that has been posted has summary tables, but once the Plan and Budgets are approved, with possible DEEP conditions, the Companies will put all the tables into one document and submit that in the November 1 filing.

There are three areas that include modifications due to conditions for approval since the Plan Text was voted for approval: gas condensing equipment incentives, residential concierge service, and the Policy Working Group. Mr. Bruno shared the modifications for each.

Regarding high efficiency gas furnaces and boilers, the Companies are still incentivizing gas condensing measures, but they will, in the next Three-Year Plan, look to see whether or not it still makes sense to support incentives on these types of equipment.

Regarding residential concierge service, there was a DEEP requirement to provide smoother service to homeowners as they get out on measures and to develop a comprehensive service, a concierge type service, facilitating the process to go from the weatherization audit to add-on measures. The Companies will track engagement and report metrics to the EEB.

Regarding the Policy Working Group, Mr. Bruno shared that typically third parties or companies look to have new technologies evaluated for potential funding. These technologies would be steered towards the Policy Working Group (PWG). With the proposed text changes, the Policy Working Group's charter would be reviewed, and considerations made as to whether the PWG should take on a larger, more active role

considering new technologies for both the residential and C&I portfolios.

Mr. Stephen Bruno also shared additional text modification items that the Companies worked on with the Board and Consultants. One addresses the HVAC modernization pilot. In the 2019-2021 timeframe, the Companies used an RFP process to bring more projects through with regards of increase technologies in the HVAC area. Now that the pilot is over, the Companies want to add more of an HVAC program monetization program component.

The next text item added is regarding virtual commissioning. The UI billing system has AMI technologies, so it's able to offer a virtual audit. Because the pilot was successful, the Companies want to transition the virtual commissioning pilot to a full term, full pilot program in the 2022-2024 Plan.

Mr. Bruno also shared that the Companies' responses to the Public Input Session comments had previously been provided as a separate document from the Board's responses. But now, a document with the public comments, Board responses, and Company responses can be found on [Box.com](#).

Mr. Glenn Reed noted that the Consultants recommend the Board approve the Plan Text changes identified in September and highlighted here: concierge service, Policy Working Group, and gas condensing incentives and the virtual commissioning and C&I HVAC activities. Mr. Neil Beup asked if there were any questions or comments and suggested a vote on the Plan Text changes. This only requires a simple majority. Mr. John Viglione did leave the meeting, leaving 7 voting members available. Ms. Brenda Watson motioned to approve the Plan Text changes; Ms. Amanda Fargo-Johnson seconded the motion. The vote passed 6-0, of seven total votes, with Ms. Vicki Hackett abstaining.

- PMIs
 - Incentive allocations and primary metrics
 - Secondary Metrics
 - Performance vs. payout

Mr. Stephen Bruno provided a deeper dive on Secondary Metrics. On the residential program side for HES there are metrics for savings per home, with and without ducts, and an insulation percentage added metric using a baseline from 2019. The HES-IE program has the same metrics. For residential new construction, the secondary metric addresses participation by HERS ratings. There is also a residential equitable distribution metrics. For C&I, secondary metrics include number of comprehensive projects, performance above ASHRAE standards for new construction projects, strategic energy management participation, and equitable distribution. There is also a cross sector evaluation secondary metric. Mr. Bruno noted that evaluations drive many of the savings and help determine realization rates.

Mr. Bruno presented performance versus payout scenarios (existing, proposed at EEB in August, and a modified proposal from the Companies). For 2021, these is a 2%-8% payout based on performance of 75%-135% of target. The Companies proposed revising the payout from 2.5%-7.5% for performance of up to 125% of target. Mr. Bruno noted that the Companies feel this provides a better balance of performance and incentive compared to the PMI the Board presented in August.

Ms. Vicki Hackett asked the Consultants what the thought process was in changing the PMI and what the neighboring states do for PMI. Mr. Neil Beup stated that the PMI change was more of a Board member-driven change. Mr. Beup said it's rare to see payout for performance

at 135%. Mr. Beup added that the Companies were consistently hitting the 135% target, maximizing their payment for performance, doubling their payout for exceeding their target at 100% of goals. Mr. Beup wanted to ensure that performance beyond 100% should be meaningful and a challenge to get to, and so the Board threw a new suggestion out. Mr. Glenn Reed said the Consultants did some benchmarking on the payout vs performance structures and the CT payout level is high in comparison to other states. Ms. Vicki Hackett asked if neighboring states have the same structure, and what differences exist. Mr. Reed noted that New Hampshire, Massachusetts, and Rhode Island have similar structures. Mr. George Lawrence shared a chart comparing the PMI structures of neighboring states, which range from a 6%-8% payout for performance up to 125% (average). Ms. Vicki Hackett asked what the consensus was among the Consultants about the idea that incentivizing to 135%, and meeting that consistently, means that the goals are too low. Mr. Glenn Reed indicated that this varies.

Ms. Vicki Hackett referred to the lowering of the budget for demand response programs, which is in contrast to DEEPs interest in expanding demand response programs to account for system resiliency and other things. Ms. Vicki Hackett asked about the challenges here. Mr. Stephen Bruno clarified that the soft costs has previously been included and budgeted, but that costs were no longer needed to get the technologies included in the program. Additionally, the avoided energy supply cost study in 2021 placed a lower value on capacity, which drove savings benefits. Ms. Vicki Hackett pointed out that CT is anticipating a winter of high gas prices and that we should be considering where our dollars are going in response to that.

Ms. Amanda Fargo-Johnson asked why the Board voted on the PMI and it wasn't incorporated. Mr. Beup said that the given the voting rules, the Companies felt the Board couldn't modify the PMI until the budget was approved by the Board. DEEP supported that. The Board must vote on the whole budget, and then amend the PMI. Ms. Fargo-Johnson questioned the purpose of the Board voting (on PMI modification in this case) and providing direction to the Companies which gets ignored.

Mr. Glenn Reed provided the Consultant recommendations regarding the PMIs, which was consistent with what the Board had considered previously. Ms. Amy McLean motioned to modify the PMI to the Consultant/Board recommendation. Ms. Brenda Watson approved the motion. The motion passed 5-1, of seven votes, with Ms. Vicki Hackett abstaining.

B. Program treatment of Gas equipment incentives and Heat Pumps – Consultants/Companies)

Mr. Glenn Reed shared information about current gas-fired equipment incentives, proposed program changes, opportunities/challenges/next steps for expanding heat pump applications. Mr. Reed noted that the Three-Year Plan is a living document and that change can be made.

Mr. Reed shared that during the Public Input Sessions, which had historical participation levels, two fairly common re-occurring themes, among others, were discontinued support for fossil fuel fired equipment and an increased support for heat pumps. Mr. Reed noted that that Companies and programs do not currently support anything other than gas-fired equipment, i.e., there are not incentives for propane or oil-fired equipment. Regarding heat pump support, a subtheme from the comments included increased support for all-electric new construction.

Mr. Reed shared a list of planned measures, which include space and water heating equipment, food service and processing/custom measures. Four times as much was spent on space and water heating in residential than other equipment. In C&I the majority of space heating spending went to condensing boilers.

Proposed changes include space for Companies to investigate the need to support installation of

condensing heating and water equipment when condensing equipment was already in place. Mr. Reed indicated that any significant move to remove gas-fired incentives would require consideration to avoid backsliding.

Mr. Reed noted that as we consider expanding heat pump activities, we must consider the barriers and challenges vary from building-to-building, given the many variables affecting feasibility of heat pump conversion. Issues include capital costs and operating economics.

Mr. Reed noted that higher incentives for retrofitting existing systems and the inclusion of air-to-water heat pumps in the Pan, and that central AC to ducted heat pump conversions are opportunities. Things to consider include promoting cold climate heat pumps, proper controls for partial displacement projects, and customer engagement. Increased promotion of residential all-electric new construction and rehab, including induction cooktop incentives, are also opportunities.

Mr. Reed indicated that the economics of heat pumps are uncertain due the many variables; from the type of building, whether it's retrofit vs new construction, fuel costs, etc. Mr. Reed shared an upcoming heat pump calculator that will be available on the Energize CT site to help consumers learn more about heat pumps. Mr. Reed noted that heat pumps displacing electric resistance heat has long been supported by the C&LM programs.

Mr. Reed shared that there is language in the Plan to expand heat pump incentives and a proposed examination of a reduction over time of gas new construction incentives. The heat pump pilot results will inform engagement on heat pumps. Additionally, the DEEP Comprehensive Energy Strategy will provide some potential policy direction in this area. Actions in other states can also be informative.

Ms. Amy McLean appreciated this information and acknowledged that amount of feedback the Board has received on this topic. Mr. Reed noted that the devil is in the details and to benefit the CT ratepayers we need to be thorough. Ms. Vicki Hackett said this information is helpful. Ms. Hackett said CT is facing a large increase in natural gas prices, and we may not want to only focus on oil conversions. Ms. Hackett added that she wasn't sure whether much emphasis needed to be placed on measures that were in the middle of market transformation. Ms. Hackett suggested the focus should rather be on decarbonization and perhaps DEEP should provide some guidance sooner than later on that. Ms. Hackett reminded the Board that the compliance conditions for the past couple of annual reviews included heat pump expansion and DEEP is focused on increasing the pace of achieving this goal. Mr. Beup noted that the programs haven't been adopted or haven't taken off and the group has been learning what barriers exist; including training, costs, proper applications, etc. Mr. Beup noted that a deeper understanding of where heat pumps make sense is necessary.

C. Community Engagement Plan – Companies

Mr. Ron Araujo provided an update. The application window closed October 1 and the Companies are currently evaluating the applications. There were four goals that applicants could apply under: HES activity, HES-IE activity, rebate activity, and small business energy advantage participation activity. There were 10 applications received. Companies will notify applicants on or around October 22 and at the November Board meeting the Companies can provide more details.

Ms. Amy McLean shared that \$220,000 is available for the 10 applicants. Ms. McLean asked if the total budget was \$250,000. Mr. Ron Araujo said the budget was increased to \$500,000. Ms. McLean noted that the public needs to know about these programs and this program is a great way to do that. Mr. Araujo reminded members this is only the first round and the Companies anticipate future rounds which will drive further applications.

D. Connecticut Annual Legislative Report (ALR) – Companies

Mr. Stephen Bruno shared that the Annual Legislative Report is available on Box.com. There were seven main priorities from the 2018-2021 Plan. Using the seven guiding principles, the Companies have created an outline for the 2020 ALR. The report includes an executive summary, key benefits, infographics for programs, outreach and engagement, economic and environmental benefits.

Mr. Bruno outlined the timeline: EEB will approve the outline/schedule and the first draft of the Executive summary November 2. The report will be developed in November-December, and the EEB will review the draft text in late December. Year-end data is collected in January-February. EEB approves the report in February followed by the submittal to the General Assembly in March.

Mr. Neil Beup said the Board would like the report to be a more productive document. The group put a lot of work into equity and that should be highlighted, as well as the weatherization workforce development and engagement with the public should all be highlighted.

E. Q2 Results – Companies

Mr. Stephen Bruno provided results. As of June, Eversource revenues on electric side were at 64% of revenues and 49% on the gas side. There was 41% spending on electric and 50% spending on gas. Savings lined up with spending: 41% electric and 52% on gas. Mr. Bruno indicated Eversource was tracking to spend 100% of budgets.

Mr. Joel Kopylec shared Avangrid's numbers. 64% revenue on the electric side, 46% on the gas side and 41% spending on the electric side and 50% on the gas side. Savings to goals varied across Companies, 41%-47% on electric side and 23%-41% on gas side. Avangrid is tracking to be fully spent by the end of the year.

5. Connecticut Greenhouse Gas Inventory – DEEP

Mr. Jeff Howard provided information on the IPCC's recent report and the 2018 Greenhouse Gas (GHG) Inventory issued by DEEP. Some of some of the headlines from the release of the report this summer, pointing to the idea that that the report poses a code red situation for humanity and that we have got to move ahead much more aggressively to address the challenge of climate change. Mr. Howard provided background on the IPCC An shared the top five headlines from the report: (1) we're on course to reach 1.5C of warming within two decades, (2) transformational change is required to limit to 1.5C, (3) our understanding of climate science is stronger than ever, (4) changes are unprecedented and reaching every region of the globe, (5) every fraction of a degree of warming leads to more dangerous and costly impacts.

The 2018 CT GHG Inventory is published every year, but there is a three-year lag time it takes in order for EPA to compile the data and for the state to conduct its own specific analysis and get the results. A 2-to-3-year lag time is unavoidable for a full report. The metric for the inventory is in millions of metric tons of carbon dioxide equivalent. The report covers transportation (which is the largest emitter), electricity, residential, commercial, agriculture, and other sectors. In 2004 emissions peaked and between 2014-2018 we reduced emissions 0.7 million metric tons per year. We have to increase the pace of emissions reductions in the coming decades in order to meet emissions goals. The longer we wait, the harder it will be to hit the target.

Mr. Howard shared that transportation accounts for 37% of emissions, despite improvements in fuel economy. 28% of emissions come from residential and commercial emissions. Commercial emissions are not decreasing at all while the reduction in residential emissions have decreased 8% since 1990 and commercial emissions increased 13%. Heating oil is by far the largest contributor to emissions on the residential side; with heating degree days have jumped and are driving much of this.

DEEP's recommended policy changes include enabling municipalities to adopt "stretch" building code and have mandatory residential building energy-consumption reporting to potential buyers and sellers.

Ms. Amy McLean thanked Mr. Howard for the information.

6. Closing Public Comments

Mr. Dan Robertson stated that if the goal is to reduce the usage of fossil fuels, maximize decarbonization with the current level of incentives, we need figure out what works better. Mr. Robertson also asked why have heat pumps not moved? Mr. Robertson said we need to consider how to maximize results and he doesn't believe all-or-nothing is the right approach.

Ms. Sam Dynowski shared the Massachusetts Clean Energy Center heat pump pilot which learned that heat pumps are feasible for gas retrofit applications. Ms. Dynowski noted support for induction cooking, referencing a study NPR reported on that studied pollutants emitted from a stove during cooking.

7. Adjourn

Mr. John Wright motioned to adjourn. Ms. Amanda Fargo-Johnson seconded the motion. The motion passed 7-0 and the meeting was adjourned.