



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

Tuesday January 11, 2022

1:00 – 3:30 PM

Meeting Materials in Box.com:

<https://app.box.com/s/kf52kgspg0vx3ls5nkwuvim5f50h0wuu>

Minutes

1. Roll Call

Board Members: Kate Donatelli, Neil Beup, Ron Araujo, Donald Mauritz, Hammad Chaudhry, Joel Kopylec, Walter Szymanski

Other attendees: Alex Sopelak, Brian Malarkey, Daniel Robertson, Emily Rice, George Lawrence, Glenn Reed, Jay Goodman, Joe Mortimer, Jordan Schellens, Philip Mosenthal, Randy Vagnini, Ricky Jordan, Sara Doutney, William Giblin, Amanda De Vito Trinsey, Brendan Thomas, Charlie O'Neill, Dan Mellinger, Daniela Iozzo, Dave McIntosh, Dennis Robb, Gene Bloxsom, Jamie Klase, Jay Polydys, Jodi Sullivan, Jordan Tuttle, Joseph Roy, Julie Yedowitz, Katie Savino, Lisa Skumatz, Madison Butler, Mike Weissmann, Peter Ludwig, Ralph Prah, Richard Tomasko, Stacy Sherwood, Steven Robinson, Thomas Phillips, Tracy Dyke-Redmond

Ms. Kate Donatelli announced that on [January 6 DEEP launched a scoping process](#) for the 2022 Comprehensive Energy Strategy (CES). The CES is a document the state publishes regularly to guide the development of energy in the state. The 2022 CES will build on and modify the previous (2018) CES as well as explore emerging issues like decarbonization. The [Notice](#) provides more background and specific prompts for public comment. It also includes information on a Public Meeting to discuss the scope of the CES, which will be February 17 at 9AM. DEEP will be accepting public comments until March 3.

2. Discuss Feedback Received at DEEP Technical Meetings

Mr. George Lawrence indicated that two of the groups that provided interesting feedback during the Public Input Process for the development of the 2022-2024 Plan have prepared to discuss their comments today. Comments each group provided can be found in the [materials folder](#). Mr. Lawrence indicated that the Committee would be walking through each group's comments in order to begin the process of determining how to address each issue. The goal being to get started, not necessarily solve each problem.

a. Discuss CT Industrial Energy Consumers (CIEC) Feedback

First, the Connecticut Industrial Energy Consumers Group which is a group of large industrial consumers represented by Mr. Jay Goodman. Mr. Lawrence noted that the Committee might not have time to go into each issue in depth, but asked if Mr. Goodman could provide a synopsis for each point.

Mr. Goodman expressed appreciation for the EEB's interest and discussion to work

towards a collaborative solution. Mr. Goodman noted that generally CIEC members have good relationships with the Companies and find the programs valuable. There are, however, some areas for improvement from the perspective of CIEC's membership.

Ms. Jordan Schellens noted the utilities would respond point-by-point and there are multiple representatives on the call to address these points.

Regarding the first points below, the next steps suggested by Ms. Schellens include regular meetings with CIEC, Utilities, Consultants, and Evaluators. Ms. Schellens offered to organize.

- Companies should rely on energy savings estimates calculated by customer P.E.s or C.E.M.s

Mr. Goodman noted that many large industrial customers have CEMs or Energy Engineers on staff who are experienced and knowledgeable about systems at their sites. These people spend a lot of effort vetting efficiency projects for internal budget approval and implementation.

CIEC recommends that the utilities rely on those engineers or CEMs for energy savings calculations at the outset and shift the emphasis to post-implementation. Currently, the process can be arduous as it requires back-and-forth in attempts to validate savings calculations.

Ms. Schellens, Eversource, said the utilities are open to it but the approach will require more discussion. It could require more measurement and verification. The utilities would need to understand the baseline assumptions and calculations being used. Ms. Schellens noted that from a timing point-of-view the utilities would need to understand the incentive structure companies are expecting. For example, 80% at installation and 20% post-verification or 100% once savings were verified. Mr. Joel Kopylec noted United Illuminating was in agreement.

Mr. Lawrence stated that there should still be a review at the onset to ensure the proposed measures are eligible or that the proper baseline was being used.

Mr. Goodman asked what is the best way to move forward with determining a streamlined process that would integrate these changes. Ms. Schellens suggested a meeting with CIEC and the utilities. Ms. Schellens noted that the CIEC members would also need to develop a EM&V plan that the utilities agree on. Mr. Lawrence suggested an allowable variance between the company and utility pre-implementation calculations given the variability of methodology and assumptions, and then a true-up with M&V post-implementation. Regarding the variance, Mr. Joel Kopylec indicated that the timeline constraints would need to be considered, - for example, does it help?

Ms. Lisa Skumatz from the Evaluation Team clarified that two stages of

EM&V are getting discussed, noting that the post-implementation is conducted independently by the Evaluators. Mr. Ralph Prah1 wondered if projects evaluated by end users are exempt from the impact evaluation process or evaluated the same. If yes, Mr. Prah1 expressed significant concerns as it would be contrary to Connecticut's EE framework. If the proposal is to evaluate these projects through the typical process, Mr. Prah1 noted some concerns about the EM&V costs. Currently evaluation is conducted by few players, but with an end-user evaluation approach it could add dozens of evaluators to the mix. Ms. Skumatz indicated this would also have an effect on the realization rates, which are currently able to be extrapolated after measuring a few cases because the methodology is consistent (few evaluators). Ms. Skumatz indicated that an end-user evaluator approach would most certainly increase Evaluation costs for the Program. [George Lawrence note: the comments above are based on the assumption that every post project evaluation would be conducted entirely by third party evaluators and not Eversource/Avangrid. Current practice is for Eversource/Avangrid to verify and claim savings after project completion, and then 3rd party evaluation is done on a sample of projects every three years or so. It has not been determined what the CIEC meant in their proposal.]

Regarding the impact analysis, Mr. Goodman shared that this wasn't on the radar of CIEC members. Some discussion would be needed to determine criteria for this approach from a cost and administrative perspective.

Mr. Ron Araujo, addressing Mr. Prah1's comments, noted that the utilities had no intent to remove these customers from the impact evaluation. When dealing with some of these very complex, complicated measures that are industry-specific, the companies have the in-house expertise. If the utilities can review a project and agree on savings methodology and calculation, there's no need to use the EM&V pathway. In instances where there is a disagreement in the level of savings, the EM&V can be used to determine what those savings are. Mr. Prah1 stated that wherever the division of labor between utilities and end user, the process may require dedicated sampling and new working relationships that are likely to transfer a lot of costs to the evaluation process.

Mr. Lawrence noted that we are anticipating about 10 projects a year and they would likely be included in that dedicated sampling anyway. Mr. Prah1 asked if we are talking about 10 largest projects or projects implemented by the largest customers? Mr. Araujo said the typical custom methodology would still be used by utilities, but this alternative pathway would be applied when an industry-specific project comes along. Mr. Goodman noted that this wouldn't be a large volume. Mr. Phil Mosenthal shared that in his experience with custom projects, program implementers that are ultimately responsible for tracking and claiming savings can use end user calculations to the extent they agree with them. In some cases, they may agree or modify

the assumptions. Regardless the M&V process is still reviewing the credibility of the implementor, who is standing behind the savings estimates, wherever they came from.

Mr. Prah said he agrees with Mr. Mosenthal, but doesn't hear that is the approach being described. Mr. Araujo clarified that Mr. Mosenthal's depiction is what is being put forward. Ms. Skumatz acknowledged this is the first discussion and hopes the Evaluation Team continues to be involved. Ms. Skumatz noted that variability in methodologies and calculations, which is a characteristic of this proposed method, may add evaluation costs and add complexity to the EM&V process. Ms. Skumatz added that 3rd party evaluation within the evaluation framework is expected and important. Ms. Skumatz hopes that the group is getting some of the issues from the Evaluation Team's point-of-view.

Mr. Araujo noted that the utilities will include the Evaluation Team when more details have been ferreted out to ensure they aren't missing anything from an evaluation perspective. Ms. Skumatz suggesting including the Evaluation Team along the way so as not to throw a wrench into a plan that everyone has already bought into. Mr. Araujo agreed. Mr. Goodman clarified that the CIEC hopes to establish this alternative pathway for custom projects, not standard projects.

- DEEP should direct the EDCs to begin a collaborative process for the development of an alternate pathway to demonstrate project energy savings

Mr. Goodman noted that CIEC had good discussions with the utilities between filing the comments and DEEP's Technical Meeting and the utilities had a good starting point to address the alternative process CIEC put forward. CIEC would like to continue this discussion. Mr. Goodman noted that the utilities indicated they would need to have savings validation up front. The concern from CIEC members is that additional validation at post-implementation without reducing effort at pre-implementation can add time to projects and be burdensome.

Mr. Lawrence suggested a whole facility approach versus a bottom-up engineering approach. There are potentially a lot of interactive impacts that could be captured. Mr. Prah indicated that many projects include 1-2 measures and not more. Mr. Goodman noted that the alternative could be the custom-like pathway that the group has been discussing.

Mr. Lawrence asked what is most significant, savings or incentives? Mr. Goodman noted that the savings calculations and getting there without burdening internal project teams as well as those incentive levels. Many companies have concerns about savings themselves; they want to accurately report GHG savings. The actual value of the incentives is primary. Mr. Goodman said that if there is some way to not associate savings calculations with incentive value and there might

be some flexibility in how we work through those calculations, CIEC is open.

Mr. Lawrence shared a program in Nova Scotia in which customers disclosed their investment criteria and committed to moving any projects meeting those criteria forward. Mr. Goodman said he would share this with CIEC members.

- Project energy savings should be estimated with reference to the replaced equipment and not with reference to the code baseline
Mr. Goodman noted that CCC agreed on this point and also presented this comment at the Technical Meeting. Regarding the baseline issue, Ms. Skumatz shared that industry standard practice and energy code are typically used to establish baseline. If the equipment is early replacement, you may get to use it as a baseline for the remainder of its useful life.

Mr. Goodman responded to the baseline issue, noting that CIEC members lose revenue and costs when operational equipment goes down so they tend to maintain equipment in good working order. Mr. Goodman suggested these practices could make useful life assumptions inadequate and CIEC customers would like more flexibility in this area.

Mr. PrahI indicated that Connecticut has a net savings framework and the programs are attempting to generate savings that wouldn't occur without the program. When a measure fails and the customer is forced to replace it or would be forced to replace it soon, those are savings typically that would have occurred even in the absence of a program. Equipment efficiency is generally increasing over time and when a customer's is forced to replace a field piece of equipment, generally they end up with a higher level of efficiency. Mr. PrahI agrees that some equipment can be nursed too long. EM&V does try to capture how long equipment lasts and to characterize early replacement or replacement on failure. Mr. PrahI is concerned about not treating this as a researchable issue. Mr. Goodman clarified that CIEC isn't referring to failed equipment, but equipment reaching the end of its useful life and deciding whether to keep maintaining the equipment or replacing it. Mr. Goodman noted that CIEC member are looking for a way to streamline this process and efficiently determine the equipment is eligible and in good working order.

Mr. Lawrence assumes the utilities are gathering data on the condition of the equipment, motivations behind the project, etc. Ms. Schellens noted that currently this information is not gathered as existing equipment is not used for baseline. Mr. Mosenthal observed that CIEC is less concerned with the regulatory savings process the utilities face and more with the economics and incentive levels. Mr. Mosenthal suggested that

there are ways to design incentives that are less tied to savings but still effective at motivating projects.

- DEEP should clarify that incentives may be awarded to fuel switching projects

Mr. Goodman described two types of fuel switching projects, one where the intent isn't to switch fuels per se but to achieve better efficiency with a piece of electrical equipment. The other where the intent is to actually switch fuels. Either way, CIEC advocates that there be no limitation on eligibility for projects where fuel switching is the outcome.

Ms. Kate Donatelli stated that DEEP has provided some limited guidance on fuel switching with respect to delivered fuels and has received some comments from stakeholders. Before DEEP issues its Determination on the plan, Ms. Donatelli can't speak to the specifics about the direction the Department might take on this issue. Ms. Donatelli noted that DEEP appreciates CIEC's raising those comments and providing feedback. DEEP does see the need for more guidance and should be providing that in its next Determination on the Plan.

Mr. Prah noted that the EA team doesn't have a comment on fuel switching per se, but did note it will require more discussion given the implications for the Evaluation process. Ms. Schellens noted the utilities would follow DEEP's guidance. Mr. Lawrence noted that Massachusetts has more flexibility in certain instances. Mr. Prah shared a bit more information on the Massachusetts approach. What was agreed upon by stakeholders is that if a new building goes up with gas available, gas would be the baseline. Whether that customer would have switched to electric on their own would be packed in to the net-to-gross ratio. The MA program is trying to negotiate an initial net-to-gross ratio for new construction fuel switching.

Ms. Schellens asked whether the Board is open to fuel switching. Mr. Reed noted that the Board is interested in learning more and the Consultants are presenting on this topic soon.

- Annual incentive caps should be aligned with customer contributions
Mr. Goodman acknowledged that the utilities have an annual incentive cap that each Federal Tax ID is eligible to receive. Large customers can make significant energy investments one year and other years very little where the amount spent doesn't exceed the cap. The recommendation is to consider offering the greater of the existing cap per federal ID structure OR a three-year rolling average of that cap. This would enable companies to better plan and include more projects, particularly those that have demonstrated the level of commitment and making energy investments.

Additionally, CIEC recommends establishing a clearly defined process for when a company may seek approval to exceed the applicable incentive cap. Mr. Goodman noted that these have been times when a company has met their cap while the overall program spending is at a shortfall. If

company's could seek approval to overspend, there may be an opportunity for large customers to tap into additional incentives while benefiting the utility by helping achieve Program goals.

Mr. Goodman added another point, that CIEC is requesting 12 months' notice before changes are made to incentive structures and annual incentive caps. Companies plan a year or more in advance and that planning considers incentives in its economic analysis. When incentive changes occur mid-project that effect the project's economics it can be disruptive and worst-case inhibit implementation.

Mr. Goodman shared that he volumetric per kilowatt-hour surcharge is difficult for large customers. For some CIEC members this could be tens- or hundreds of thousands of dollars annually. This doesn't reflect cost-causation principles because there is no component to consider demand-driven versus energy driven projects. Mr. Lawrence noted this may be more of a legislative issue.

Ms. Schellens stated the current incentive cap is \$2 million for Eversource and \$1.5 million for United Illuminating. Currently Eversource can seek approval from DEEP to exceed those caps. Mr. Goodman asked if the utilities automatically seek this approval. Ms. Schellens said yes, while not common, it is standard to run up the chain for approval. Mr. Araujo shared that it happened twice in 2021. Mr. Kopylec stated that United Illuminating would need to be a bit more careful due to a smaller budget and lower cap. Mr. Kopylec also noted that multi-year projects and long-term planning can help better accommodate customers for instances like this.

b. Discuss Commercial Contractor Consortium (CCC) Feedback

The second group here to discuss comments provided during the Public Input Process is the Commercial Contractor Consortium. This group of contractors work closely with the Companies in Connecticut to get projects done. Mr. Daniel Robertson and Mr. Randy Vagnini, representing CCC led discussion on the following points. Mr. Robertson shared CCC has already had some discussions with DEEP and some of these are moving forward.

- High volume of projects resulted in project turnaround delays (diversion to midstream)

Make sure the any projects that go through engineering review warrant that. CCC provided a list of project types they believed didn't need to go through engineering review. Also CCC recommend the utilities share comprehensive calculators. Ms. Alex Sopelak appreciated CCC getting these comments together and shared that the utilities are actively reviewing these projects and moving what can be moved out of engineering review. For example, training the small business team to review high-performance lighting projects. For calculators with minimal input variables like air source heat pumps and rooftop units, utilities are considering what needs an engineering review and what quality assurance measures need to be in place. Nearly any

equipment piece currently requires one.

A training recording and workbook is available on Energize CT to determine what level of comprehensiveness one qualifies for.

Ms. Sopelak welcomed feedback on that tool. End uses and associated programs are included with the tool. Ms. Sopelak welcomed further comments regarding needs around comprehensive tool. Mr. Robertson indicated that some of the members had noticed varying results and wanted to know more about how it worked.

- Variability in post-inspections

Some variability for these inspections makes it difficult for CCC members. For example, when pictures are needed and when onsite is required, redundancy, etc. are a few observations. Mr. Robertson noted that the Green Workforce covers labor and materials until the end of the project, so when post-inspections aren't done they can be carrying the project three-four months.

Ms. Sopelak shared that the teams getting trained up on inspections and the engineering group will be working on publicizing some of the inspection requirements so that there's an easy guide to refer to regardless of project. This should help provide an idea of what's going to be looked for ahead of time rather than having to wait for each specific project. Mr. Vagnini suggested that the requirements be consistent.

Mr. Vagnini appreciates that these talking points are on the agenda and the work the utilities have done to collaborate with and hear CCC concerns.

- Limited recognition of actual energy savings for HVAC assets

Mr. Vagnini noted that CIEC addressed some of this. More transparency about what is code, what is existing, what is the baseline. Small and large commercial customers need more incentive.

Ms. Sopelak asked the best way to engage the commercial group? It needs to happen before this idea can move forward. Mr. Vagnini noted that the mechanical contractors can meet regularly with utilities to get into more details about what is working. Mr. Robertson asked what the rules are around baseline determination. There are inefficient HVAC assets on the grid well past useful life that are not being upgraded. Mr. Robertson noted that members of CCC have had 15-20 projects that didn't move forward. The savings must be able to be recognized.

Ms. Schellens indicated that the utilities can't just choose to change the baseline, it's provided by the Evaluators. Ms. Schellens suggested Mr. Robertson review the ISP Early Retirement study Mr. Lawrence can provide [the study is now in the January Meeting Materials Box] in order to understand the requirements and suggestions moving forward. Mr. Vagnini said that they heard the Evaluators about changing baseline, but changing the incentive could be another option.

Mr. Lawrence noted that which pathway will determine the baseline; mid-stream versus retrofit is different. Mr. Lawrence asked what the utilities have learned from the HVAC modification studies. Ms. Schellens noted that chillers and boilers didn't need incentives to move forward as much as rooftop units. Ms. Schellens asked from Mr. Robertson and Mr. Vagnini's perspective: are there specific technologies for your customers that you think would benefit from the analysis on incentives? Mr. Vagnini said it depends on the business size, facility type. Smaller customers would rather put \$5K in maintenance cost to extend another 2-3 years. An unidentified caller asked why, when he makes inspections, he would have to use a baseline that doesn't reflect the actual savings for the customer or the equipment? CCC members are asking to use the real information in the field. The caller referenced the upcoming increase in codes and asked if the savings calculations would be further underrepresented because the "baseline" will shift. Convincing customers to replace equipment with diminishing incentives and skewed savings calculations is a challenge.

Ms. Skumatz recognizes the concerns, but the program needs to claim savings that it's allowed to take credit for. This is based on what is in the marketplace. Ultimately, Mr. Vagnini stated, the companies are looking to get more incentives and are less interested in changing the calculations. CCC wants to bring people to the table to figure out, to contribute, and to make this work.

- Stronger incentives for microbusinesses

When the utilities and DEEP put together a list of incentives for microbusiness, creating the microbusiness program, more incentives drove more projects. Project sizes were \$10K average with a 50% incentive there was a <0.5% default rate. These are the businesses on main street and in low-income neighborhoods. Ms. Sopelak said they are actively following this pilot program and the utilities are looking to roll out a joint program that leverages the lessons learned from the Microbusiness Pilot.

Mr. Vagnini reiterated that it's great to see progress happening.

- Adjust prescriptive cost assumptions to account for inflation

Into the fourth year of the Three-Year Plan and the price doesn't change throughout the Plan regardless of external factors. Ms. Sopelak shared there was an option for project-by-project and the utilities will offer training on it. The training will cover how to submit the custom pricing for anything that falls within our fixed catalog that you're unable to meet the fixed catalog pricing for. Ms. Sopelak said the utilities were in conversations about the RFP cycle. An RFI process is an opportunity to provide new pricing estimates on some of the most active measures.

Mr. Vagnini stated that they have done the project-by-project but the process is long and he likes the idea of an RFI. Hopefully it can come up sooner rather than later, whatever is quicker. Mr. Robertson noted that pricing increases are across the board, from 4% to 20%. An unknown caller shared that his company does quite a bit of comprehensive projects. Including HVAC. In the last several months, distributors and manufacturers would not accept a specific cost, they would not lock in the price. Material

costs are changing nearly on a monthly basis.

Mr. Ricky Jorden indicated that Eversource recognizes the urgency and is going to jump on this relatively quickly.

- Workforce needs training to meet plan goals
Regarding electrification, many technologies aren't the perfect fit based on backup systems. We may need more incentives to drive this. Mr. Lawrence shared the upcoming Consultant study that is assessing scenarios for heat pumps and hopes to have a sensitivity tool that consumers can use.
- Electric vehicle charger efficiency in addition to demand
CCC doesn't have a comment here, just stated great job. Mr. Lawrence asked if there was an opportunity for utilities to provide an incentive for more efficiency chargers. Mr. Araujo shared that there was insufficient savings potential. Mr. Vagnini indicated other states have established approved vendor lists and noted that while the savings differential may be small, the range of quality across different manufacturers is significant.

3. C&I Committee planning for 2022

Mr. Lawrence shared a list of 2022 tracks for the year; including EEB Priorities, DEEP Reporting Or Conditions Of Approval, Program Design And Implementation, Financing And The Annual Plan Update.

For February, Mr. Lawrence suggested the results of Heat Pump Modeling and asked if the C&I Metrics for 4th quarter would be available. Ms. Schellens confirmed. Mr. Lawrence shared the Companies have a contractor rollout meeting and it can be helpful to hear changes being rolled out to the programs? Ms. Schellens noted that meeting was in March so that topic should push to March. Ms. Schellens shared a few ideas: a delivered fuels update, weatherization update, SBA has a vendor RFP or RFI.

Mr. Neil Beup suggested revisiting the CIEC and CCC comments and progress. Mr. Beup also suggested that some of the relevant Focus Areas the Consultants have proposed for 2022 could be presented prior to the EEB meeting in this meeting, not necessarily the day before though. Mr. Beup noted that the Electrification Fuel Switching topic would make sense to hear before, even if it will be the day before it's presented to EEB in March. If any of the other focus areas need moved around to accommodate the C&I group and get feedback, Mr. Beup noted that would be appropriate. Mr. Beup emphasized the relevancy of electrification and fuel switching, particularly for the C&I group and expressed interest in hearing that topic in February. Mr. Beup also stated his desire to hear more about what's been put into practice for which there are results; what exists, what's in practice that we can learn from, regardless of where it's from. Mr. Beup added if there are benefits getting beyond electrification and into other technologies/applications like biodiesel, pellets or biomass, the Board needs to have an understanding of what that is. Mr. Beup observed that electrification has become synonymous with heat pumps in Connecticut's discussions and the Board needs to make sure people understand electrification is broader than that.

Mr. Joel Kopylec suggested an update on the Battery Storage Program in Q3. Ms. Schellens asked Mr. Lawrence for the updated planning sheet.

Mr. Brian Malarkey suggested SBEA Financing and the adverse effect of cost-effectiveness on

the customer balance which can be tied to HVAC analysis. Mr. Malarkey has ten totaling \$750K that can't move forward because of a lack of financing. This continues the discussion from CIEC and CCC talking points above.

4. Adjourn

Mr. Beup thanked everyone for a great meeting. The meeting was adjourned.