

**Energy Efficiency and Sustainable Energy Board  
ENERGY EFFICIENCY RESOURCE STANDARD (EERS) COMMITTEE**

**Draft Minutes of the February 10, 2020 Meeting.  
Hearing Room A, Public Utilities Commission, Concord**

**Committee Members Present:** Eric Stanley (Liberty Utilities), Cindy Carroll (Unitil), Don Kreis (Office of the Consumer Advocate), Kate Peters (Eversource), Raymond Burke (NHLA), Ryan Clouthier (Southern New Hampshire Services), Tonia Chase (BIA) on phone, Matt Siska (GDS Associates), Carol Woods (NH Electric Cooperative), Becky Ohler (Department of Environmental Services), Jeff Marks (Acadia Center); David Borden (New Castle Energy Committee), Madeleine Mineau, ex officio as EESE Board Chair (Clean Energy New Hampshire), Tom Erwin (CLF).

**Others present:** Liz Nixon, Paul Dexter, Jacqueline Trottier, Jay Dudley, Stephen Eckberg (all from the Public Utilities Commission Staff); Christa Shute (Office of the Consumer Advocate), Phil Mosenthal (Optimal Energy on behalf of OCA) on phone; Emily Levin / Christine Donovan (VEIC, consultant to EERS Committee); Mary Downes (Unitil); Mark Lemenager, Jessica Chiavara, Brandy Chambers, and James Butler (all from Eversource), Steve Tower (NHLA) on phone.

- 1) In his capacity as chair of the committee, Don Kreis called the meeting to order at 1:01 p.m.
- 2) Approval of February 03, 2020 minutes on the motion of Eric Stanley, the second of Ryan Clouthier. Corrections included changing SBC rate on page 3 from \$.0054 to \$.00528 and eliminating the projection by program administrators of how much the SBC rate would go up in 2022. Minutes approved by unanimous vote with one abstention.
- 3) VEIC provided a review of where the EERS committee is in the process. This included preliminary inputs to utilities by February 21<sup>st</sup> for use in developing the plan for April 1<sup>st</sup>. VEIC will be reporting out on the in-depth working sessions with the utilities at the March 2nd meeting including some of the program level details and issues such as workforce development and cost effectiveness.
- 4) Committee input and discussion: policy topics to guide utility planning
  - a) *Further input on planning scenarios*

The program administrators stated that to meet the April 1<sup>st</sup> deadline they need to pick something to start planning from. Based on the concerns expressed by PUC staff at the previous meeting they are considering moving from a 35 percent increase to 20 percent year over year budget increase for the electric program. Then the program administrators can do a dive into the actual modeling to see how much savings can be achieved with that level of budget increase. The program administrators also need to understand what lighting assumptions to use and shared that there is additional information coming from Massachusetts studies that could have an impact on that decision. The gas program remains at an 11 percent year over year budget increase.

*Responses to moving from a 35 percent year over year increase to 20 percent year over year:*

- Tonia Chase (BIA) indicated that manufacturing portion of BIA is concerned about 35 percent increase because the electric bills are so high it means a real increase in expenses.
- Don Kreis stated the Office of the Consumer Advocate (OCA) takes “all cost effective energy” seriously.
- Tom Irwin of Conservation Law Foundation agreed that the utility Scenario 2 does not feel ambitious enough and needs to be more aggressive.
- Carol Woods from New Hampshire Electric Coop indicated she believes the goal of all cost effective energy efficiency was a long term secondary goal, where the primary goal is to meet a specified percentage of sales.
- Christine Donovan of VEIC shared that it is best practice in the energy space today to strive to achieve any energy efficiency that is less expensive than the alternative generated energy because any time a cost effective option is available it results in lowering costs to society, for both residents and businesses. A best practice is to do as much as one can possible do to achieve any and all efficiency. Getting into the “how much I pay” discussion takes one down a rabbit hole. Tom Irwin from Conservation Law Foundation (CLF) supports that view. Matt Siska supports all cost effective energy efficiency. Madeleine Mineau (CENH) supports doing as much as possible if displacing units of energy is cheaper through efficiency.
- Jeff Marks from the Acadia Center acknowledged that his organization has not been as active in New Hampshire lately but are turning focus toward New Hampshire. They support more aggressive savings goals and intend to look at the 2 percent savings goal and come back with recommendations.
- Ray Burke of NHLA indicated they would also be in favor of being as ambitious as reasonably can since there are thousands of low-income families still on a wait list for the current program that we can’t serve. In review of 2019, from a simplistic view, is that the goals were not ambitious enough because they were achieved for less than originally planned.
- There was a discussion regarding the **Granite State cost test (GST)** and the secondary utility test. Arguably if it passes the GST then it is a prudent investment of funds. There was confusion about how the GST applies to unregulated fossil fuel savings being generated from the electric budgets. Counting that savings is why the GST is used as the primary test instead of the secondary utility cost test. Madeleine Mineau recommended simple metrics to make the benefit cost test less of a big black box rather than saying “trust us”.
- There was a discussion regarding the confusion regarding the **cost to achieve a kwh saved** is not an accurate reflection because there are cost of fuel savings that do not show up on the kwh savings but do show up on the cost side. Phil Mosenthal indicated that in some places the budget is allocated based on where the savings come from. There was clarification that the \$0.88 per kwh number is a dollar per *annual* kwh savings – if you were to compare it to what it would cost to generate electricity you would need to use the lifetime savings rather than the annual so the cost would be closer to \$0.08 per kwh. The bottom line is that there needs to be a better job done at explaining this to the legislature, public etc.
- Matt Siska from GDS Associates asked to **mine down on the PUC comment from the previous meeting that the 35 percent increase is alarming** so as to better understand the concern. Paul Dexter replied that they are concerned that the budget increase may not

correspond to the rate increase. They cited page 8 of the Settlement Agreement which discusses balancing the goal of capturing more cost effective efficiency with the goal of gradually increasing the cost while minimizing impact of rate payers. The concern is that when you compound the rates get high. They signed page 52 of the commission order to consider the impact of funding to the bill – the bill impact calculations do not take into account customer savings. Couple pages later – in approving as proposed we are mindful of and don't take lightly the increase in customer rates. This is what is guiding us. The cost is immediate and the savings are long term. The alarm bells went off when we heard a statement that it would hit one cent per kWh. That is going to gain attention since at the last hearing the commissioners asked for lifetime kwh by utility and received a range from \$0.037 to \$0.06 with an average of \$0.0394. (Item 28 in the record requires under 17-136). The PUC also acknowledged that money was set aside to do rate and bill impact study analysis to take a look at this difference between short and long term and the differences between participants and non-participants. The PUC commented that perhaps with that data it would be less alarming – but that at this point they do not have the data.

- Emily from VEIC identified the connection to program design – the difference between a rate payer and the non-participant. She noted that a conversation important in some states is to make sure the program offering is designed in a way to make sure that wide spread participation can be achieved. In Maryland they call it the quick home energy check up – where someone comes in and directly installs low cost energy savings measures like LED's water savings devices, weather stripping – to be about equivalent in value to their SBC charge. In NH on residential side – not sure how broad the programs are but a lot of them seem designed to be pretty deep. Programs design that make the programs more accessible so that a higher percentage can participate may address some of the issue. Kate of Eversource supported this concept and indicated that three years of the SBC could be made up by installing 6 LED lights. This is another type of contextual that would be helpful for the discussion and explanation to the commission and the public.
- Phil Mosenthal of Optimal brought up **amortization**. People are interested in aggressive savings but concerned about rate impacts. Amortization provides a way to have both. Addressing short term rate impacts is important, especially since energy efficiency is cheaper than energy generation then moving to amortization means costs would go down with increased spending. The costs can be kept down by amortizing using the utilities short term cost of debt rather than the rate of return for share holder earnings. Could still have shareholder earnings based on performance incentives. The time frame would be the weighted average measure life or roughly ten years. Using amortization can make it harder to cut a program because most of the costs are paying back what you already spent so just stopping programs doesn't help you that much.
- Don at the OCA indicated that the OCA introduced the idea of amortization to get at the problem of cost incurred now that are paid back over the lifetime of an energy efficiency measure and therefore putting it on par with other utility investments. He asked if other parties are interested.
- Tonia (BIA) said yes we are very interested in that.
- Kate of Eversource indicated that while not an expert, her old boss looked into it and concluded that it was more expensive for customers over time. Phil at Optimal responded that interest rates are fairly low compared to customer discount rates and time value of money.

- Brian of the PUC identified a Maryland report from April 2019 was helpful in review of the issues. They used five year periods and not sure of what they gave the utilities for weighted cost of capital but found it a helpful read for the advantages and disadvantages.
- Emily confirmed that the big difference is that in Maryland the utilities are earning the rate of return – so cost of capital plus return on equity – they don't separately have a performance structure – so earning is not tied to the performance. Another sticking point in Maryland is that utilities earn that extra payment on all the costs of the portfolio including administration and EM&V. Could consider only amortizing just the measures.
- Ray of NHLA commented that last meeting the committee discussed the idea of changing things so each utility could set a different SBC rate, potentially by sector. He asked how the idea compares to the amortization idea – and how determine which provides a better result of if a combination of those is possible. He opined that he needed more information to be able to say one way or the other.
- It was discussed that the rate and bill impact tool would be done soon and might be able to provide additional information. Would need to see if the model can accommodate amortization.
- Acadia indicated that we should strive to have the most ambition in gas savings as well.

*b) Sector balance between Residential and C&I*

- Should utilities be tied together to same rate? Should sectors be tied together to same rate?
- The previous meeting indicated a general consensus that it would be ok to have different SBC rates per utility.
- There was a concern about setting a different SBC rate by sector for electric and a general consensus that for this plan there would not be a different rate by sector. The LDAC for the gas program does have a different rate by sector.

*c) Level of fuel-neutral savings in the portfolio*

- Fuel neutral means using electric funds for oil, propane and wood. HPwES, HEA, new construction and municipal are all programs that due this. The issue is that the performance incentive calculation creates a threshold where if all the energy savings are converted into the same unit of measure then 55 percent of those savings must come from electric savings to avoid a penalty in the performance incentive. In the December 2019 B/C Order the commission noted that threshold again. The 55 percent number came from the P&I working groups in 2013 when the home performance program became fuel neutral. Some felt the number is a bit arbitrary.
- There was a discussion about the conversion factors used. There are two fundamental ways to convert kwh to energy equivalents: 1) it can be done on a site basis where the number of mmbtu's that would get in a space by running it through an electric resistance space heater or a conversion factor of 3.41 or 2) going back to the actual source of the energy – where electricity is not generating and transmitting at 100% efficiency. There is a compelling argument that a source btu value would make a lot more sense.
- The big challenge is that as measure lives like lighting get shorter it becomes more difficult to keep the 55 percent. Utilities with higher residential accounts such as NHEC are bumping up against this issue.
- The other issue is that there are additional fuel neutral savings opportunities that are going untapped such as small businesses with oil and propane that are not currently eligible. In

other words, there is a lot of potential to do even more fuel neutral savings if they were not already bumping up to the threshold.

- The question was posed whether folks place a higher value on keeping electric dollars to electric savings, or fuel neutral savings.
- Becky Ohler – looking at the focus on this program at consistent basis at legislature we need to be cautious about having the SBC paying for more fuel neutral programs in an effort to pay attention to what could sink the program overall.
- Paul from PUC indicated that while staff sees the December commission order as a very recent reaffirmation of the 55 percent that it is not binding on the next triennium or the order would have said that.
- Christine indicated that new information may change Commission opinion. Don concurred that the December order was not the result of a litigated issue supported by a body of evidence so it should not be considered binding.
- There was a discussion about the difficulties in splitting out the savings per kwh versus mmbtu. Some utilities track at the project level rather than the measure level and the same dollars are attributed to both. However, they do measure the different benefits so could just allocate the cost proportional to the benefit. But there are also other costs such as weatherization and marketing that are difficult to allocate. The other concern was the residential lighting issue. If the SBC was split by sector then the 55% threshold could be navigated.
- Emily at VEIC noted that it is worth considering that some residential households currently saving on fuel may in the future convert to electric heat pumps etc and then those fuel neutral savings are actually electric savings.
- The consensus was that there was interest in finding the appropriate balance. The recommendation was for the utilities to look at it and consider switching to a source based conversion.
- Emily at VEIC commented how striking it is that so much of the portfolio benefit is not directly part of the goal framework – the program is delivering meaningful benefits that don't show up anywhere so the costs look high. One solution might be a fossil fuel savings goal. The utilities responded that it would make it difficult to prioritize budget if you had both goals. Other parties commented that even if not a goal it is important to show the mmbtu savings as well so that the budget numbers are put in context of not just these electric savings but also these mmbtu savings.
- The consensus seems to be to set a metric for the mmbtu savings rather than a goal.

*d) Inclusion of energy optimization/fuel switching*

- The December 30<sup>th</sup> order from the Commission indicated a willingness to entertain a pilot that could be tested for effectiveness. They specified the importance of investigating load factor improvement. In developing the pilot think about statistical significance but also look to neighboring states to see what might be borrowed.
- One challenge is figuring out what the pilot is testing for and how incentivizing the program. Data collection on how much fossil fuel savings are being saved and how much load growth is being caused were identified as potentially important. ISO is also asking about the extra load from heat pumps. A suggestion was made to consider a pilot with heat pumps with integrated thermal storage. A reminder was provided that it is important to link this to or consider weatherization.

- Ryan from SNHS indicated that low-income would be on board with a pilot because many of the homes have old steam systems and this would be a perfect opportunity, but currently it is difficult to do without finding another funding source. Emily commented that if the energy optimization pilot allowed them to count all fuel savings it would open the program up for low-income.
- There was additional support for a pilot over a study because it provides more realistic on the ground information.

e) *Inclusion of active demand management (ADM)*

- ADM means more load shifting and flexibility along demand response in addition to the passive load reduction provide by energy efficiency. The question is whether ADM should be included in SBC funded electric energy efficiency plans.
- Emily at VEIC indicated there is general agreement that there is value in coordinating energy efficiency and active demand management – from a customer perspective – commercial building or industrial facility can look at energy efficiency but also at ways they can shift the loads. There is a lot of synergy with the energy efficiency programs and the demand management opportunities. There is a sense between VEIC and the utilities that there is a lot of benefit in a coordinated approach regardless of how it is funded.
- Kate from Eversource indicated that they do not want to lose momentum. The utilities are open to a different funding source. In Massachusetts, ADM is looking to save almost 90 MW, NH is looking at 8 MW. It is important to do because the other states are doing it.
- Brian at the PUC indicated there was a program approximately 10 years ago run by utilities and built into ISO that would be worth looking at how it was funded. Perhaps transmission rates based on RNS cost avoidance.
- Emily discussed the pros and cons of ways to fund the program. If utility funded through a rate case then one con is that it becomes utility specific and lose uniform across the state. The other con is that not coordinated with EE programs as well and could create an incentive for utility to own it. Where if in the EE program it would support a more vendor and market neutral approach. The important part of the coordination is on the behind the meter side because it is really about how serving the customer
- Madeleine at CENH supports robust active demand management in the plan. They support the free market approach – paying for the performance of services provided rather than the utility owning them.
- Don from the OCA is not convinced yet it should be part of the SBC and believes there is an argument to be made to engage in ADM as part of the distribution revenue requirement. The concern is that if in the SBC it may give the utilities the ability to distance themselves from responsibility to incorporate ADM as part of their distribution service.
- Emily at VEIC reminded folks that the key is identifying the structure that is most likely to support continued ADM in New Hampshire because many other states are ramping up aggressively and, because of the way regional costs are allocated, New Hampshire could risk carrying a bigger share of cost if it doesn't keep up with its neighbors.
- Liz from the PUC believes there are synergies in marketing them together – not convinced yet that it should be part of the SBC funding in terms of sharing the risk. If under the SBC then there should be its own incentive – so the utility is only awarded if they actually meet the goal of reducing peak. She did not have another funding source idea.
- Phil from Optimal asked whether people generally agree that it should be funded in some

way by the ratepayers – because if the answer is yes - does it matter where it comes from?

- Could it, like energy efficiency and the lost revenue recovery mechanism, be a subset of the SBC labeled ADM with its own performance incentive / revenue recovery mechanism?
- David asked if it could be included but wither away either as it becomes very useful to utilities or just part of business as usual. Cindy from Unitil supported the idea of keeping it in EE while still nascent technology, until they understand more about how to scale it and then it could move.
- Phil – do think there is incentive to integrate it – smart thermostats – promote and rate for EE but can bundle a DR program at the same time.
- Mary – evaluations to date DR is different animal from EE and difficult to plan for a future peak event. The plan and the actual is less a function of utilities good faith effort to do it versus Still in this trying it out and figuring it out. Difficult to model.
- Emily at VEIC indicated that if it were to be included it wouldn't have to be at pilot scale because there is decent experience in MA – the question is more around predictability. She also indicated that it can become increasingly important with the penetration of renewables and mitigating the duck curve.
- Issues with a pilot that looks at 1-3 years is that the market has really indicated they need a five year commitment.

f) *Dedicated budget for pilots / emerging tech*

- In Scenario 2 there is an assumption of 2-4 percent placeholder for DR and pilots. The question is whether these should be embedded in the core or carved out and dedicated.
- Utilities indicated that emerging technologies would be more practical within the program and be budgeted accordingly even if they may not have fully defined what those opportunities are – so a bit more flexibility to test new widgets. Would be ok to have a certain amount of money to do that kind of investigation as the opportunities arise. In contrast a new concept all together such as energy optimization warrants a pilot.
- Emily from VEIC indicated that in regard to emerging technologies through their review of programs nationally they are strong advocates for a reasonable degree of flexibility for program administrators, especially now as markets are changing rapidly. They discourage the need for an approval process and promote a higher degree of flexibility for that kind of thing versus energy optimization or geo targeting that would need more goals, and up front vetting and scrutiny.
- There was a discussion regarding geo-targeting that included items that wouldn't screen, placing deeper incentives, and increased marketing costs.
- Liz from the PUC was supportive of up to 4 percent for pilot flexibility. Important to identify what the pilot is trying to learn and to figure out if it can achieve the goals being set.

Next meeting is March 2<sup>nd</sup>.

Meeting was adjourned at 4:09.