



Via electronic submission: deep.energybureau@ct.gov

November 1, 2018

Commissioner Robert Klee
Department of Energy and Environmental Protection
10 Franklin Square
New Britain, CT 06051

RE: Cost-effectiveness testing of the Conservation and Load Management Plan Programs

Dear Commissioner Klee,

On behalf of Northeast Energy Efficiency Partnerships (NEEP)¹, I am pleased to submit comments relative to the cost-effectiveness testing of the 2019-2021 Conservation and Load Management (C&LM) Plan for the State of Connecticut. NEEP is a non-profit with a mission to accelerate regional collaboration to promote advanced energy efficiency and related solutions in homes, buildings, industry, and communities. With the goal to assist the region's leaders to reduce building sector energy consumption three percent per year and carbon emissions 40 percent by 2030, our vision is that the region's homes, buildings, and communities will be transformed into efficient affordable, low-carbon, resilient places to live, work, and play.

We thank the Department of Energy and Environmental Protection (DEEP) for the opportunity to provide input on the cost-effectiveness testing of the 2019-2021 C&LM Plan and key issues to consider when going through this process. Ranked number six in ACEEE's state scorecard, Connecticut has much to be proud of in terms of policies and programs offered that continue to make Connecticut a leader in energy efficiency. NEEP applauds Connecticut's commitment to regional collaboration to advance policies and programs to lower the cost of reliable energy while meeting environmental and resiliency goals in an expedient and equitable manner.

Introduction

Development of Connecticut's 2019-2021 three year C&LM plan is an important time to review best practices to assess cost-effectiveness to develop impactful programs to achieve the State's policy goals while maximizing total net benefits to Connecticut's ratepayers at the lowest cost. Today, energy efficiency is increasingly an integral part of an expanding set of demand-side resources (including energy storage, demand response, strategic electrification, and clean distributed generation) to meet a broader set of public policy goals (e.g., carbon emission reduction, air and water quality, health and safety, energy affordability, resiliency, energy reliability, and economic development) as articulated in Connecticut's Comprehensive State Energy Plan². In assessing the value of energy efficiency, it is important to include all of the benefits and costs associated with meeting these goals. This includes important non-energy benefits provided by these resources, such as health, safety, resiliency and economic development. By reviewing the cost-effectiveness test in Connecticut, DEEP has

¹ These comments are offered by NEEP staff and do not necessarily represent the view of the NEEP Board of Directors, sponsors or partners. NEEP is a 501 (c)(3) non-profit organization that does not lobby or litigate.

² See: http://www.ct.gov/deep/lib/deep/energy/ces/2018_comprehensive_energy_strategy.pdf



the opportunity to consider the full range of goals associated with its energy efficiency programs. Cost-effectiveness assessment is one of several steps in the process to develop and evaluate programs to achieve relevant goals. These steps include:

1. **Identify energy efficiency options** that address Connecticut’s public policy goals for adequate, affordable, adequate, reliable, resilient, clean and low-carbon energy supplies and to transform markets for energy efficiency – as spelled out in Connecticut’s recently updated Comprehensive State Energy Strategy completed last winter.
2. **Screen the cost and benefits of these options relative to these policy goals** – including the full cost to participants as well as non-participants, and the full range of quantifiable benefits.
3. **Develop program designs with incentives, technical assistance, outreach and education to overcome barriers to adoption** – and allocate program budget to these programs in alignment with overall funding and goals to achieve energy savings, demand reduction and carbon reduction along with prioritization goals for market transformation and to serve specific market sectors such as low and moderate residents, municipalities and small businesses.
4. **With program implementation, collect data to undertake program evaluation** in real time to assess and inform actions to optimize program impacts and net benefits.

This four-step planning process gives Connecticut the opportunity to identify those efficiency and demand-side resources that can achieve the state’s goals at the lowest cost. The issue of program design and how much to pay to achieve program goals is not the task of cost-effectiveness screening. Rather that is the task of Program Design. Fortunately, Connecticut has a well-established process through the CT Energy Efficiency Board to develop the most effective program designs, allocate available resources to maximize net benefits, and conduct evaluation to assess impacts and optimize program implementation to maximize net impacts.

Limitations of the Utility Cost Test

With this overall planning process in mind, NEEP encourages DEEP to revisit the application of the Utility Cost Test (UCT). The UCT as the measure for cost-effectiveness conflates the assessment of which resources can maximize net benefits for Connecticut’s ratepayers and how much to pay to optimize program impacts at the lowest cost. It is important to consider that Connecticut statutes do not state which test the companies have to use, just states that cost-effectiveness has to be assessed. At this time when public policy includes a broader set of goals such as carbon emission reduction and grid reliability at the lowest cost, Connecticut should revise its demand-side resource cost-effectiveness practices to consider the benefits of resource options relative to all goals, and then design programs to achieve those benefits in the most economically efficient manner. Relevant public policies that DEEP should consider include:

- **CGS 22a-1a:** In the coordination of state plans and programs, this statute requires the state to maximize use of energy efficiency systems and minimize environmental impact of energy production and use. The statute specifically call out the health and safety of all residents and to “practice conservation in the use



of energy, maximize the use of energy efficient systems and minimize the environmental impact of energy production and use.”³ This has been in statute since the 1970s.

- **Global Warming Solutions Act**⁴: Requires the state to reduce the emissions of greenhouse gases (GHG) by 80 percent below 2001 levels. **Public act 180-82**⁵ adds an interim goal of 45 percent by 2030 below 2001 levels to help Connecticut stay on track to achieving its long-term goal. Energy consumption accounts for 93 percent of GHG emissions in Connecticut, where residential, industrial, and commercial uses of energy – primarily for heating and cooling buildings – constitute 35 percent of GHG emissions.⁶ With GHG reduction goals, Connecticut should consider avoided GHG from energy efficiency in the buildings sector as a benefit in its cost-effectiveness testing.
- **CGS 16-245m**⁷ states that the C&LM Plan “shall include steps that would be needed to achieve the goal of weatherization of eighty percent of the state’s residential units by 2030,” and includes all fuels.
- **Public Act No. 07-242**⁸, An Act Concerning Electricity and Energy Efficiency (2009), Section 51 states that “resource needs shall first be met through all available energy efficiency and demand reduction resources that are cost-effective, reliable and feasible.”
- **CGS 16a-35k**⁹ covers energy utilization and planning by ensuring Connecticut avoids unnecessary and wasteful consumption. It is the policy to:
 1. Conserve energy resources by avoiding unnecessary and wasteful consumption;
 2. Consume energy resources in the most efficient manner feasible;
 3. Develop and utilize renewable energy resources, such as solar and wind energy, to the maximum practicable extent;
 4. Diversify the state’s energy supply mix;
 5. Where practicable, replace energy resources vulnerable to interruption due to circumstances beyond the state’s control with those less vulnerable;
 6. Assist citizens and businesses in implementing measures to reduce energy consumption and costs;
 7. Ensure that low-income households can meet essential energy needs;
 8. Maintain planning and preparedness capabilities necessary to deal effectively with future energy supply interruptions; and

³ https://www.cga.ct.gov/2015/pub/chap_439.htm#sec_22a-1

⁴ <https://www.cga.ct.gov/2008/ACT/PA/2008PA-00098-R00HB-05600-PA.htm>

⁵ <https://www.cga.ct.gov/2018/act/pa/pdf/2018PA-00082-R00SB-00007-PA.pdf>

⁶ CT DEEP, Comprehensive Energy Strategy, 2018, Available at: https://www.ct.gov/deep/lib/deep/energy/ces/2018_comprehensive_energy_strategy.pdf

⁷ https://www.cga.ct.gov/2017/pub/chap_283.htm#sec_16-245m

⁸ <https://www.cga.ct.gov/2007/act/pa/2007pa-00242-r00hb-07432-pa.htm>

⁹ https://www.cga.ct.gov/2015/pub/chap_298.htm#sec_16a-35k



9. When available energy alternatives are equivalent, give preference for capacity additions first to conservation and load management.
10. Ensure the health and safety of all residents.

In addition to these statutes, DEEP should consider the goals outlined in the Comprehensive Energy Strategy (CES) and the anticipated resources included in the scope of the Integrated Resource Plan. The premise of the strategies outlined in the CES is to achieve the carbon reduction goals, therefore in order to ensure the program in the C&LM plan are achieving high levels of GHG reduction, the benefits and costs associated with GHG reduction should be included.

Connecticut is not alone in having to re-evaluate its approach to cost-effectiveness in light of new goals and resource options and strategies. Neighboring states – RI, NY, MA as well as NH and VT - are also re-evaluating and/or adopting new approaches to cost-effectiveness. By being clear about the desired outcomes of the C&LM plan and including the associated costs and benefits in the cost-effectiveness test, Connecticut can design programs maximized to protect customers and the impact on ratepayers, and maximize its investment in energy efficiency by aligning cost-effectiveness with public policy goals.

National Standard Practice Manual

We encourage DEEP to use the guidance offered by the National Standard Practice Manual¹⁰ (NSPM) to evaluate Connecticut's current cost-effectiveness practices and to assess other options. The NSPM guidance provides a framework to critically review cost-effectiveness test methods and inputs relative to public policy goals including how to consider all costs and benefits – energy and non-energy - applicable to energy efficiency programs. The NSPM guidance breaks down the silos in traditional cost-effectiveness test by removing the categorization of benefits and costs, which allows the jurisdiction to truly evaluate the most applicable benefits and costs based on its goals.

The NSPM does not advocate for the inclusion of certain non-energy impacts, but instead helps to identify non-energy impacts that should be included based on established public policy goals. The NSPM introduces seven core principles to evaluate Connecticut's current cost-effectiveness framework to better align demand-side resource economic analysis with relevant state public policy goals. The NSPM core principles include efficiency as a resource, policy goals, hard-to-quantify impacts, symmetry, forward-looking analysis, and transparency.

Use of the NSPM Elsewhere

Other New England states have considered the National Standard Practice Manual in evaluating cost-effectiveness testing. Rhode Island initiated a stakeholder process under docket 4600¹¹ to develop a new benefit-cost framework for Rhode Island including a comprehensive set of recommended benefits and costs that

¹⁰ <https://nationalefficiencyscreening.org/national-standard-practice-manual/>

¹¹ <http://www.ripuc.org/eventsactions/docket/4600page.html>



can be applied to diverse resources, programs, and rate designs. The rationale was to create a test that “more fully reflects the policy objectives of the state with regard to energy, its costs, benefits, and environmental and societal impacts.”¹²

Rhode island’s rationale for including \$100 per ton GHG reduction include 1) the value supports RI policy commitment to carbon reduction with GHG reduction of 80 percent below 1990 levels by 2050 and 2) that RI is a coastal state, likely to experience higher damage from climate change. By including the GHG reduction and economic development impacts, the Rhode Island test provides a more holistic view of energy efficiency.

The New Hampshire Public Utility Commission has convened a Benefit-Cost Working Group to implement its recently adopted energy efficiency resource standard. The Working Group is evaluating which benefit/cost assumption are most appropriate, such as the new Avoided Energy Supply Components assumptions, to include in its Total Resource Cost test, and is also using the NSPM as a tool to assist their process. This includes a specific assessment on non-energy impacts such as those referenced in NEEP’s 2017 report “Non-Energy Impacts Approaches and Values: an Examination of the Northeast, Mid-Atlantic, and Beyond”¹³.

Other examples across the U.S. where states are using the NSPM to update cost-effectiveness testing methods for energy efficiency include Arkansas, Minnesota, and Washington State.¹⁴

Conclusion

We thank DEEP for the opportunity to provide technical comments on the cost-effectiveness framework for Connecticut’s Three Year CL&M Plan. This public review process and use of the NSPM to evaluate cost-effectiveness test options are important strategies to align energy efficiency with the State’s public policy goals in applicable State Statutes as part of an overall framework that provides customer and environmental protection.

Let us know if we can be of further assistance.

Sincerely,

A handwritten signature in black ink that reads "Samantha Caputo".

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¹² See slide 4, [http://www.ripuc.org/eventsactions/docket/4684-NGrid-RI-Test-Tech%20Session\(9-13-17\).pdf](http://www.ripuc.org/eventsactions/docket/4684-NGrid-RI-Test-Tech%20Session(9-13-17).pdf)

¹³ See: <https://neep.org/non-energy-impacts-approaches-and-values-examination-northeast-mid-atlantic-and-beyond>

¹⁴ <https://neep.org/blog/staying-cool-nspm-states-wade-deeper-waters>