



**Comments of Northeast Energy Efficiency Partnerships (NEEP)
To the Connecticut Energy Efficiency Board (EEB)
Regarding the 2013 Conservation and Load Management Plan
May 7, 2013**

Commissioner Esty and members of the Energy Efficiency Board:

On behalf of Northeast Energy Efficiency Partnerships, I am pleased to offer input on the 2014 revisions to the 2013-2015 Conservation and Load Management (CL&M) plans being developed through the Connecticut Energy Efficiency Fund (CEEF).¹ NEEP is a regional non-profit whose mission is to serve the Northeast and Mid-Atlantic to accelerate energy efficiency in the building sector through public policy, program strategies and education. Our vision is that the region will fully embrace energy efficiency as a cornerstone of sustainable energy policy to help achieve a cleaner environment and a more reliable and affordable energy system.

In recent years, Connecticut has made tremendous strides in strengthening its policy framework to support energy efficiency. With Governor Malloy's leadership and the collaborative efforts of the Department of Energy and Environmental Protection (DEEP), the electric and gas utilities, and countless other public, non-profit and business entities, the state is moving towards the goal of capturing all cost-effective energy efficiency, under the mandate of Public Act-07-242.

Unfortunately, the Energy Efficiency Fund is not yet fully-funded, and once again the utility programs, partner vendors, and customers who depend on these programs are awaiting resolution by the Public Utilities Regulatory Authority (PURA). As a regional organization that focuses on best practices in energy efficiency programs and policies, NEEP reiterates our support for the expanded funding scenario of the C&LM.

In our May 1, 2013 comments to PURA under Dockets 13-03-02 & 12-11-05/12-08-11, NEEP made the case for swift adoption and implementation of the proposed Conservation Adjustment Mechanism (CAM) to recover program costs and lost revenues associated with implementation of the incremental energy efficiency as well as obtaining all cost effective efficiency through deeper measures. Adequate and stable funding to capture cost-effective efficiency resources is the number one thing that will allow these programs to deliver maximum benefit to potential program participants, Connecticut's utility customers, and the state's broader economy. We reiterate that the proposed level of expenditure is modest compared with neighboring states with similar goals, and the energy, economic, and environmental benefits will be significant.

¹ These comments are offered by NEEP staff and do not necessarily represent the view of NEEP's Board of Directors, sponsors or underwriters.

Moving Ahead in the ACEEE Rankings

Governor Malloy has issued the charge for Connecticut to reach the top spot in the American Council for an Energy-Efficient Economy's (ACEEE) annual State Energy Efficiency Scorecard. While the state climbed two spots from 2011 to 2012 and now sits at a respectable sixth in the nation, Connecticut lags a full nine points behind first-place Massachusetts.² There are several categories where Connecticut stands to make gains, but the single biggest opportunity is under "Utility and Public Benefits Programs and Policies." If the state is able to move forward with regulatory approval of the CAM, Connecticut will be able to "double-down" on its energy efficiency investments. Stable and sufficient funding is the biggest thing that will help Connecticut move forward with its award-winning programs and leading policies.

Two other areas where the state is poised to make gains are in support of complementary policies like building energy codes, building rating and appliance standards, and with "leading by example" efforts with state and government buildings.

Building Energy Codes

NEEP is the organization designated by the U.S. Department of Energy (DOE) to provide support to Northeast states on building energy codes, and as such, we are particularly gratified to see the emphasis on codes featured in the electric distribution companies' (EDCs) proposed plans.

As the companies have noted, changes to the energy code provide significant opportunities to capture energy savings in new construction and renovations, but can only be realized through adoption of the latest model building energy code *and* high levels of compliance with that code. To that end, the companies are proposing a number of activities focused on outreach, education and training. In addition, the companies have linked these trainings and elements of code compliance with the work they're proposing on the incentives offered as part of their new construction programs, which represents a sound, coordinated approach to building energy efficiency.³

In particular, the companies have noted that a new element of the building energy code reflected in the 2012 International Energy Conservation Code (IECC) will be requirements to test for air leakages in both the home/building as a whole, but also within duct work contained in that home or building. As these elements represent new requirements, the companies are proposing to provide incentives to offset a portion of the costs of these tests. NEEP fully supports this proposed incentive. As the companies note, this will not only better ensure a qualified pool of testers, but can help link

² With a possible 50 points, Conn. earned 34.5 while Mass. had 43.5 points. See <http://aceee.org/sector/state-policy/scorecard>

³ See Joint 2013-2015 Electric and Natural Gas Conservation and Load Management Plans, p. 166-167.

customers to other high-performance building programs that they offer, taking advantage of a significant opportunity to improve building energy efficiency at the time of construction or renovation.

Throughout the plans, the companies referenced enhanced training as being a key to ensuring high levels of compliance with the building energy code. NEEP is highly supportive of this approach. In addition, we would also encourage DEEP to once again consider a proposal offered in the fall of 2012 to undertake an enhanced assessment of code compliance in Connecticut to assist both in the state's reporting obligations to the DOE as a condition of funding received under the American Recovery and Reinvestment Act (ARRA), but to also help identify gaps in code compliance that will help the utilities best target their training efforts.

This proposal, the result of a cooperative strategy that was developed by NEEP, the utilities, and several clean energy organizations in the state, was initially presented to Deputy Commissioner Katie Dykes in October 2012.⁴ The utilities last fall identified funding they could make available through their building programs to fund this enhanced code compliance assessment, but our recommendation was not acted upon by DEEP before the conclusion of the program year in December. We would therefore request again that DEEP approve such a code assessment, for which the utilities have again promised funding. NEEP feels very strongly that without such a code compliance assessment, the effectiveness of code training is diminished, as gaps in compliance will not have been identified that can allow targeted training to be most effective.

The utilities also have proposed that they be allowed to claim savings from new appliance and product efficiency standards. We would suggest that a similar approach be taken for their work to support building energy codes. Such programs are currently underway via the utilities in both Rhode Island and Massachusetts, and supported by a significant body of research and analysis performed by NEEP and others that such work is an effective means of coordination between ratepayer-funded efficiency programs and complementary public policies that can aid the state in achieving its energy savings goals.⁵

Building Energy Labeling and Reporting

The EDCs have also referenced their intentions to cooperate with DEEP to establish a voluntary time-of-sale energy labeling program for homes in Connecticut. Such work is vitally important to helping to drive energy efficiency retrofits in the state. Because homes right now come with very little

⁴ The proposal was included as part of interrogatories by CL&P, Q-BETP-066 is found here: <https://www.box.com/s/7mi6xtsc6pw1hy851elt#/s/7mi6xtsc6pw1hy851elt/1/818584288/7590650862/1>

⁵ For example, see Rhode Island Docket 4366, "Energy Efficiency Program Plan for 2013, Settlement of the Parties, Attachment 2, p. 21-26 at [http://www.ripuc.org/eventsactions/docket/4366-NGrid-2013EEPP\(11-2-12\).pdf](http://www.ripuc.org/eventsactions/docket/4366-NGrid-2013EEPP(11-2-12).pdf). For a more comprehensive approach, see our NEEP Codes and Standards attribution report at http://neep.org/uploads/EMV%20Forum/EMV%20Products/NEEP_IMT_IEE_Codes%20Attribution%20FINAL%20Report%2002_16_2013.pdf.

information to inform potential buyers of their energy use, the relative efficiency of a home is rarely considered as part of a homebuyer's decision-making process, and, thus, is not valued by the real estate market. By providing basic information on home energy characteristics, markets will come to attach a value to energy use, and, thus, prompt owners to take advantage of opportunities to make their homes more energy efficient.

We would also hope, and expect, that the EDCs will be full partners in aiding the implementation of the commercial building energy benchmarking provisions of the comprehensive energy legislation currently being considered in Hartford that would serve to codify the recommendations made by DEEP in its recently-completed Comprehensive Energy Strategy.

Multifamily Energy Efficiency Program

NEEP fully supports the utilities' plans to provide a tiered incentive level to the owners of multifamily housing units to make those units more energy efficient. NEEP recently initiated a regional project, with support from the U.S. DOE, to examine and recommend best practices to advance retrofit opportunities in multifamily housing, consistently one of the hardest to reach markets. The proposed plan to provide incentives based upon energy performance in relation to the building code is an innovative strategy that can help keep Connecticut as a leader in energy efficiency programs and policies. NEEP looks forward to working with the EDCs and DEEP further as the multifamily program gains traction to help learn from it and share experiences from other jurisdictions with Connecticut.

Home Energy Solutions

Connecticut's Home Energy Solutions (HES) program recently won the ENERGY STAR® Partner of the Year award, and is viewed as national model of delivering comprehensive efficiency analysis, information, financing and implementation for residential customers. We commend the utilities and their delivery partners for this recognition, and support their continual efforts to reach more customers and whenever possible, to go deeper with coordinated and comprehensive efficiency solutions. As stated in prior comments, NEEP understands that going deeper does not mean going cheaper. Indeed, new federal lighting standards such as EISA are changing the program savings baseline, as are efforts to serve fossil fuel customers under HES. But by taking a portfolio approach, we are confident that these evaluated programs continue to deliver strong benefit-cost ratios for the Energy Efficiency Fund, as well as for program participants.⁶

⁶ See CT. Docket 13-03-02, Q-BETP-063 at:
<https://www.box.com/s/7mi6xtsc6pw1hy851elt/1/818584288/7590648642/1#/s/7mi6xtsc6pw1hy851elt/1/818584288>

The addition of LED lamps to the portfolio of energy saving products in the HES program will continue to increase the cost-effectiveness of the programs in the long-term. We have seen increases in efficacies of lamps to a rate of up to 30 percent per year. This was followed with a decrease in LED lamp prices of up to 75 percent to the level of \$10 per lamp, achieved last month by a leading manufacturer. As a result, we will soon see other manufacturers follow suit.

Thermal Efficiency for All Fuels

Like other Northeast states highly-reliant on delivered fuels, Connecticut has long struggled with how to help people who heat with oil or propane to tap into efficiency. Ensuring consistent funding to provide for cost-effective efficiency measures for all fuels was laid forth as a priority of the recent Comprehensive Energy Strategy. The Strategy noted that “Policymakers need to consider establishing a dedicated fund supported by fuel oil and propane customers to provide robust efficiency programs to fuel oil customers.”⁷ While the Strategy places a heavy bet on the promise of natural gas, it acknowledged that it is not possible to convert all customers.

NEEP supported HB 6650, an imperfect, but well-intentioned bill that sought to create an Oilheat and Propane Energy Efficiency Fund. This bill was the legislature’s chance to carry out the Strategy’s directive, and develop a policy framework that will help customers of all types save energy, reduce costs, and increase comfort – while also working towards the state’s ambitious weatherization and climate goals, fostering job creation, and keeping more of Connecticut’s energy dollars in-state. While NEEP still believes the best solution to reach the millions of residents and businesses who rely on delivered fuel is a dedicated funding source, we urge the Energy Efficiency Fund to support creative solutions of all kinds that will help people reduce heat loss.

Additional C&I Savings Opportunities

Past program saving results reveal that there are additional cost-effective savings opportunities to be had in the commercial and industrial (C&I) sector. Data submitted for the C&LM programs to the NEEP [Regional Energy Efficiency Database \(REED\)](#), show that the majority of electric savings in 2011 came from residential lighting and appliance programs, with about 40 percent of savings from C&I sector. The majority of Connecticut’s electricity load (~56 percent) is comprised of the C&I sector. Preliminary results from the 2012 C&LM plan provided by the Energy Efficiency Board (EEB) show C&I’s portion of electric savings to be closer to its portion of load, suggesting the programs are successfully addressing this imbalance.⁸ Strategies such as the enhanced C&I incentive programs referenced in the 2014 C&LM plan promise further improvement in the C&I sector, the most cost-effective source of savings.

⁷ See page 13, http://www.ct.gov/deep/lib/deep/energy/cep/2013_ces_final.pdf

⁸ http://www.ctenergyinfo.com/FINAL%202012%20ALR%20Pages_2_18_13.pdf

Leveraging Regional Efforts

Connecticut continues to reap the benefits of partnering with other states through collaborative efforts such as NEEP's Regional Market Initiatives⁹, the Design Lights Consortium¹⁰ the Regional Evaluation, Measurement and Verification (EM&V) Forum¹¹ and Top Ten USA¹². Shared efforts can draw on joint resources and expertise of the wider energy efficiency community, while stretching ratepayer dollars further to bring continuous improvement in programs and customer offerings. NEEP's Market Strategies team offers comments on specific areas of the 2013-15 Plan. We note that NEEP is facilitating working groups and developing regional market strategies on several business and residential product areas, and we thank Connecticut Energy Efficiency Fund and the electric and gas utilities for their support and involvement of these efforts.

Business and Consumer Electronics

We are encouraged by the participation of the EDCs in NEEP's Business and Consumer Electronic Leadership Advisory Committee, an effort to develop a regional strategy to reduce energy use from consumer electronics.¹³ NEEP appreciates Connecticut's efforts to monitor and participate in regional and national discussions regarding business and consumer electronics, with particular support of the multipronged approach that includes both market pull and market push activities.

Minimum standards for consumer electronics should be explored by the companies in 2013 and especially in 2014 when California is expected to finalize a number of minimum state efficiency standards for a group of consumer electronics products (including set-top boxes). Since DEEP is mandated¹⁴ to review any appliance and equipment standards promulgated by the state of California (or other participating states in the Multi-State Appliance Collaborative), the EDCs would be well-positioned to assist them in reviewing those specifications and determining recommendations for which products may make sense for Connecticut.

We would also recommend that the EDCs play an active role in helping DEEP to determine standards it can and should set administratively. These products may fall outside the scope that California is currently considering. We would urge the companies to seek claimed savings through any such support activities. The 2013-2015 C&LM Plan references the possibility of developing a methodology to quantify such savings, and we believe this would provide an important boost to the state's

⁹ <http://www.neep.org/efficient-products/index>

¹⁰ The DLC's Qualified Product List is widely regarded as a resource for the lighting industry: <http://www.designlights.org/>

¹¹ The Evaluation Measurement and Verification Forum conducts joint studies on behalf of member states: <http://neep.org/emv-forum>

¹² Connecticut is a partner in this effort to bring high-efficiency product info to customers: <http://www.toptenusa.org/ct>

¹³ See <http://neep.org/efficient-products/business-consumer-electronics/index> for more information.

¹⁴ [General Statutes of Connecticut, Chapter 298 \(Energy Utilization and Conservation\) Sec. 16a-48. \(Energy efficiency standards for products\)](#)

efficiency goals.¹⁵ We support the involvement of and recognition of utility partners in the state's efforts to develop efficiency standards for consumer electronics and other product areas.

Heat Pump Water Heaters

NEEP supports the EDCs in their efforts to promote heat pump water heaters (HPWHs). NEEP, with support from regional stakeholders, developed a regional strategy for HPWHs in 2012. Energy savings associated with the replacement of conventional electric resistance water heaters with heat pump water heaters are significant. We are glad to have continued participation from company representatives as part of our ongoing working group. While we support the companies' continued promotional activities for HPWHs, we would echo their assessment that HPWHs are "not always a suitable replacement" option for homeowners.¹⁶

The programs should do more to help consumer understand if they are good candidate for this technology. There is also an acknowledgment that current standards (ENERGY STAR® in particular) may not sufficiently differentiate performance among HPWHs when operated in conditions typical of Connecticut. We suggest the companies use other metrics such as compressor cut off temperature as a metric to allow certain products to be rebated. The companies need to be mindful that there may be incentivized HPWHs that are not delivering the expected savings due to their inability to operate as advertised. NEEP is working with ENERGY STAR to develop better messaging to consumers, especially for customers in colder climates.

Ductless Heating and Cooling

NEEP supports the Residential Heat Pump Initiative to provide incentives to home owners as well as training to the installation/service infrastructure.¹⁷ With our partners, we have identified this technology as an exciting regional source of significant energy savings. In order to move the ductless heating and cooling market more effectively, we encourage the EDCs to participate in NEEP's Northeast/Mid-Atlantic Ductless Heating & Cooling Strategy Leadership Advisory Committee.

¹⁵ 2013-2015 Electric and Natural Gas Conservation and Load Management Plan, pg 161

¹⁶ 2013-2015 Electric and Natural Gas Conservation and Load Management Plan, pg 196

¹⁷ 2013-2015 Electric and Natural Gas Conservation and Load Management Plan, pg 184

Residential Lighting

NEEP supports the Residential Retail Products Program's objectives to increase consumer awareness, acceptance and market share of ENERGY STAR lighting, appliances, and consumer electronics.¹⁸ The goal of increasing socket penetration of efficient lighting is an impactful metric of program performance. Through our research on the [Residential Lighting Strategy](#) and subsequent [updates](#), we support including CFLs and LEDs in the Retail Program's rebate portfolio, as there are savings still left to be achieved from CFLs. NEEP encourages Connecticut to formally adopt a statewide goal of 90 percent socket saturation of high efficiency lighting by 2020. NEEP also supports a balanced approach to the promotion of LEDs, and recommends that Connecticut carefully consider the quality of the LED products the C&LM programs are supporting, as poor quality products can have a deleterious effect on the growth and health of the efficient lighting market.

While Connecticut should only provide incentives on ENERGY STAR rated products, there may be additional quality considerations to ensure that the product is really living up to consumer expectations. NEEP encourages the state to have a clear and open dialog with the US Environmental Protection Agency/ENERGY STAR, such that when a product is delisted from ENERGY STAR, the Retail Program can delist the product immediately. We also encourage Connecticut to closely monitor the prices of CFLs and LEDs to ensure appropriate incentive levels that maximize savings but minimize program costs.

NEEP strongly supports Connecticut's efforts to educate consumers appropriately regarding their lighting options, and encourages Connecticut to be actively involved in groups such as NEEP and the LUMEN Coalition¹⁹ to ensure that the messages Connecticut promotes are consistent with national and regional messaging. NEEP agrees that the promotion of 2X halogen lamps adds an additional level of confusion and promotion of such products should stop immediately²⁰.

NEEP supports Connecticut's continued partnership with retailers to encourage sales of high efficiency products and commends Connecticut for their emphasis on staff and customer training. NEEP encourages Connecticut to expand CFL recycling operations and to collaborate with retailers, recycling centers, and municipal "hard-to-recycle" events to ensure proper disposal of CFLs. We commend Connecticut on their existing partnership with Top Ten USA to provide product information to Connecticut residents and encourage the state to expand the product categories supported by TopTen.

NEEP supports the marketing strategies detailed in the 2013-2015 Plan, and encourages Connecticut to include participation with NEEP Retail Products Working Group as a way to market programs as well as learn best practices from participants across the region. As stated above, NEEP supports

¹⁸ 2013-2015 Electric and Natural Gas Conservation and Load Management Plan, pg 156

¹⁹ <http://lumennow.org/>

²⁰ Northeast Residential Lighting Strategy: 2012-2013 Update, pg 15: <http://www.neep.org/efficient-products/high-efficiency-lighting/residential-lighting-strategy/index>

Connecticut's efforts to ensure compliance with new building energy codes, and encourages Connecticut to communicate with builders and electricians to develop best practices for uses of high efficiently lighting in new construction projects.

Shared Evaluation, Measurement and Verification Efforts

The Regional Evaluation, Measurement and Verification (EM&V) Forum, hosted by NEEP, is a collaborative of state energy regulators, efficiency program administrators and expert consultants. Since 2009, the Forum has worked to develop and support state adoption and consistent use of common protocols/guidelines and data to estimate, verify, evaluate, track and report the energy and capacity-related savings, costs and emission reductions resulting from investments in electric and gas energy efficiency resources in New England, New York and the Mid-Atlantic States.

In Connecticut, the Forum provides project management and implementation services in coordination with CEEF and the electric and gas utilities. The Forum has provided important value to support the state's EM&V efforts to date. These include:

1. **Developing savings and other data assumptions**, which leverage funds across states, to ensure consistent underlying methodology in the research approach used by all participating states;
2. **Providing a venue and discussion platform for information and data sharing** for evaluators across the region, and bringing relevant EM&V topics, issues and resources to Forum members in a timely manner;
3. Ensuring that the Forum represents Connecticut in its efforts to **monitor/inform the development of national EM&V guidance** to help support Connecticut's use of consistent national EM&V Guidelines;
4. Ensuring that efficiency savings used to **track progress towards Connecticut's statewide goals and to inform ISO-NE system planning** are consistent with EM&V methods and reporting parameters used by neighboring states/regions to inform power pool interchange and transmission planning;
5. **Reduce the risk to program administrators and state agencies in assessing the impact of EE** to meet statewide goals, system forecasts and air quality plans, as methods are clear to all parties involved; and
6. **Reduce the administrative costs for program administrators** that operate in Connecticut as well as other states by using a common set of EM&V protocols as opposed to multiple approaches.

Overall the Forum will continue to support Connecticut's energy efficiency goals by promoting appropriate policy and effective EM&V methods, especially as the state works to implement recommendations from the first-ever Comprehensive Energy Strategy for Connecticut. More information on the array of current products is at <http://neep.org/emv-forum>.

In Closing

Connecticut continues to make important strides with its traditional electric and gas efficiency programs, and increased and sustained funding will only solidify the state's gains. We applaud the work of DEEP, the EEB and the electric and gas utilities to make the programs more holistic and comprehensive, to focus on thermal efficiency and new products, and to integrate complementary policies such as building energy codes, appliance standards and building rating. To learn and move forward, the utility program administrators and their delivery partners must have the flexibility to try new things and innovate. Indeed, the freedom to try new programs and delivery models, some of which may fail, is what will allow for greatest learning and progress in the long-term.

Thank you for the opportunity to comment on the 2014 updates to the Conservation and Load Management Plan. Please consider NEEP a resource to provide advice and support to the state as you pursue clean, efficient energy solutions for Connecticut's long-term future.



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