

**2017 Update of the
Connecticut Energy Efficiency Fund's
Electric and Natural Gas Conservation and Load Management Plan for 2016 through 2018**

APPROVAL WITH CONDITIONS

Via Electronic Mail

December 30, 2016

Christopher Bernard
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As Agent for CL&P and Yankee Gas
doing business as Eversource Energy
107 Selden Street
Berlin CT 06037

Re: **2017 Update of Connecticut Energy Efficiency Fund's Electric and Natural Gas Conservation and Load Management Plan for 2016 through 2018, submitted pursuant to Connecticut General Statutes Section 16-245m (d)**

Dear Mr. Bernard:

On November 1, 2016 the Bureau of Energy and Technology Policy of the Connecticut Department of Energy and Environmental Protection (DEEP) received the 2017 Annual Update [2017 Update] of the *2016-2018 Electric and Natural Gas Conservation and Load Management (C&LM) Plan* (Plan). This Plan was submitted by Eversource Energy (Eversource), The United Illuminating Company (UI), Connecticut Natural Gas Corporation (CNG) and The Southern Connecticut Gas Company (SCG), together, "the Companies," pursuant to Connecticut General Statutes section 16-245m(d), in consultation with the Connecticut Energy Conservation and Management Board [aka Connecticut Energy Efficiency Board, or "the Board"].

On October 21, 2016 the Board submitted to DEEP a letter of support for the 2017 Update, reflecting the Board's approval of the Plan at its October 13, 2016 meeting, and noting three qualifications of that approval. Those qualifications are as follows:

1. **The Board, in its support of the 2017 Plan Update, is not taking a position on time varying rates or the Companies' discussion of time varying rates in Chapter 3 (Demand Reduction Strategies).** The Board does support the Peak Time Rebate pilot proposed by United Illuminating.

2. **The Board emphasizes its comments regarding the scope, level of effort, and timing of the residential and C&I demand reduction pilots.** The Companies should ensure that an adequate number of pilot sites across the key targeted customer segments covering the demand reduction strategies to be tested are installed and fully operational before the summer of 2017, considering the importance of the demand reduction pilots as a crucial step in addressing peak demand issues in Connecticut. The Board understands there is limited budget available for the pilots in 2017 and the Board is not recommending an increase in the pilot budgets. As one approach for stretching the available funding, the Board recommends that the Companies enroll additional customers that have existing infrastructure (i.e., controls, software, etc.) compatible with the design and focus of each pilot so that more customers can participate in the pilots and more results from the pilots are available. The Board also encourages the Companies to identify and pursue other opportunities for expanding the number of sites in the pilots, including through adding some recent participants in the energy efficiency programs to the pilots, where appropriate. All of the pilot sites focusing on summer peak demand should be fully installed in the field by the middle of May 2017 in time for testing during the summer of 2017. This timing is critical, so that the Companies, the Board, DEEP, and others can review the results of the summer 2017 pilots in September-October 2017, and then the Companies and Board can complete the planning for demand reduction activities for 2018 as part of the 2018 Plan Update process.
3. **The Board retains its opportunity to provide input and recommend adjustments to the final 2017 budget and budget reconciliation to ensure adequate savings and benefits will be achieved in 2017, prior to these Plan Update elements being filed with DEEP on March 1, 2017.** In its approval on October 13th, the Board noted that some adjustments to the final 2017 Plan Update budget may be needed in order to ensure sufficiently high savings and benefits for customers, which will not be known and finalized until part two of the Plan Update. The savings and benefits goals will be developed first by making adjustments to the 2016-2018 Plan goals and impact factors based on recent information and updates to the Program Savings Documentation, and then by prorating for 2017 based on the program incentive budgets.

DEEP has completed its review of the 2017 Update. The Connecticut Energy Efficiency Fund's 2017 Update of the 2016-2018 Electric and Natural Gas Conservation and Load Management Plan and its associated *Connecticut Program Savings Document, 12th Edition for 2017 Program Year* is approved contingent on the completion of the following conditions:

CONDITION OF APPROVAL #1 Increase Focus on Reducing Peak Demand

Due date: July 1, 2017

DEEP appreciates the discussion of Demand Reduction strategies in chapter three of the 2017 Update. DEEP also appreciates the Board's approval and support of the 2017 Update, and understands that the Board has expressed three qualifications of that approval and support in the

Board's letter dated October 21, 2016. Regarding the topics of Time Varying Rates and Demand Reduction, DEEP finds that an increased focus on reducing peak demand is warranted. Therefore:

No later than July 1, 2017, DEEP directs the Companies to quantify the system benefits of shifting peak demand to provide sufficient data to inform additional investments in peak demand reduction programs for 2018 and beyond. The companies shall consider reallocating additional budget dollars to demand reduction pilots and programs in 2018 to increase the focus of the Plan on reducing peak demand.

CONDITION OF APPROVAL #2 Increase Effectiveness of Existing Time of Use Rate in UI Region

Due date: with 2018 Update

UI has made significant investments in metering equipment and other resources to address residential peak electric demand and now serves about 70,000 customers under its time-of-use tariff, the residential time of use rate ("Rate RT"). UI is now well positioned to achieve the benefits that advanced meters and time-of-use rates can provide. With targeted communications and education, DEEP believes that customers can achieve a sustainable reduction to their electric bill under the residential time of use rate by reducing peak demand and/or shifting consumption to the off-peak. In addition to direct savings, these actions will provide sustainable peak demand reductions as well as positive environmental impacts.

Therefore, although the Peak Time Rebate pilot proposed in the 2017 Update by UI will measure customer reaction to price signals during a limited number of isolated demand reduction events, this strategy should supplement the long-term sustainable value that the residential time of use rate offers by encouraging customers to embrace the long-term behavioral modifications that accompany participation in the residential time of use rate. While rate design and advanced meters are integral to the use of Time Varying Rates, the Conservation and Load Management Plan implementation is a good means to demonstrate the effectiveness of pricing as a signal to motivate conservation by customers. Given the status of advanced meter deployment in the UI region, *in addition* to the UI Peak Time Rebate Pilot:

DEEP directs UI to also develop during 2017 a proposal to implement a broader basic Residential Peak Demand Reduction program for 2018 and implement such program in 2018. Such proposal shall be submitted in the 2018 Update of the Plan. Such proposed program shall target all customers on the residential time of use rate ("Rate RT"), utilize UI's existing meters, the data from these meters, along with the residential time of use rate to reduce peak demand and/or shift consumption to off-peak periods. The proposed program must include the following elements:

- **The Residential Peak Demand Reduction program goals must include measurable customer-specific actual demand reduction and energy targets (i.e., reducing individual peak consumption and/or shifting consumption to off-peak times);**
- **The Residential Peak Demand Reduction program must increase the number of customers on the residential time of use rate;**

- UI must submit annual reports on the effectiveness of the program's goals, and may present such data on the CT Energy Efficiency Dashboard;
- UI must establish and maintain historical and current peak demand information, aggregated for all customer classes, to be displayed on UI's website and EnergizeCT.com; and
- The program must propose a reasonable performance incentive for UI for both the Residential Peak Demand Reduction basic program and for the future program that develops from the Peak Time Rebate pilot;
- The Companies may propose reallocations to increase the budget for implementing this program.
- Such proposal shall be submitted with the 2018 Update of the Plan.

UI shall submit a summary of actions and progress as part of the 2018 Update of the Plan.

Condition of Approval #3: Increase Data Sharing Among Low-Income Programs

Due date: April 1, 2017

DEEP appreciates the Companies' ongoing efforts, including those prompted by Condition of Approval #14 of the approved Plan, to improve the coordination of the HES-Income Eligible program with other low-income energy assistance and energy efficiency programs. Improved electronic data integration is needed to advance efforts that better prioritize conservation services and continuously improve delivery of services. This includes the effort to collect energy consumption data from utilities that can be used to report estimates of the energy burden of low-income residents in Connecticut to the federal government.

Additionally, such secure data sharing regarding customer energy usage levels supports the execution of the recommendations of a January 2016 report of the Low Income Energy Advisory Board regarding implementation of Connecticut General Statutes 16a-41b. This statute required the Low Income Energy Advisory Board, which consists of the Companies and others, to recommend improvements in "the implementation of heating assistance programs, particularly those created to benefit low-income households, through coordination and optimization of existing energy efficiency and energy assistance programs." Therefore:

The Companies must develop by April 1, 2017 a secure electronic data sharing portal or reporting system that can ensure, at a minimum, the accessibility of energy consumption data for Low Income Home Energy Assistance Program (LHEAP) households to the Connecticut Department of Social Services. Such data sharing may also include other data deemed relevant to improve coordination among energy assistance and energy efficiency programs, as determined by program administrators at the Companies, DEEP, and the Connecticut Department of Social Services. Such data sharing shall be accomplished in a manner that is consistent with privacy requirements and that is acceptable to the Connecticut Department of Social Services to support the Department of Social Services in completing federal energy burden data collection and reporting requirements.

CONDITION OF APPROVAL #4: Benefit-Cost Testing

Due date: March 1, 2017

DEEP believes that further review of the benefit cost testing practices is necessary prior to implementing any changes to currently approved methodologies. DEEP notes that the reference to changes in testing and potential changes to incentives on pages 10 and 19 presupposes that benefit-cost testing changes are warranted. Instead, DEEP directs the Companies to submit, by March 1, 2017 an outline of the specific proposed changes in Benefit-Cost Testing that are proposed to be incorporated in 2017. During 2017 DEEP may assess existing approaches and consider different approaches to benefit-cost testing for 2018.

CONDITION OF APPROVAL #5 Revision of Wording Describing US DOE Grant

Due date: March 1, 2017 or when re-printing the 2017 Update

DEEP is the recipient of a U.S. Department of Energy competitive grant that is described on pages 32-34 of the 2017 Update. DEEP is familiar with the specifics of this grant, which consists of a pilot to standardize and increase the automation and transparency of energy savings and verification tools. DEEP directs the Companies to update the language on pages 32-34 to the following:

EM&V 2.0 Pilot

In 2017, the Connecticut Department of Energy and Environmental Protection, the Companies, Lawrence Berkeley National Laboratory, and the Northeast Energy Efficiency Partnerships (“NEEP”) will collaborate on an EM&V 2.0 pilot. The U.S. Department of Energy (DOE) has awarded grant funding to DEEP and its partners to acquire experience with advanced data collection and analytic tools, while developing standardized EM&V software tool protocols. These streamlined M&V practices may help provide reliable, standardized, transparent, and cost-effective approaches to quantify energy-efficiency savings.

The objectives of the pilot include:

- ***Test the use of advanced data analytics and collection tools (EM&V 2.0) and compare to traditional EM&V practices in terms of savings certainty, timeframe, and other aspects;***
- ***Assess how advanced capabilities of EM&V 2.0 tools are best integrated or coordinated with supplemental evaluation and analysis;***
- ***Track use of advanced data analytics and collection tools, and transfer knowledge to build EM&V capabilities in the region;***
- ***Develop and support transparency and adoption of acceptance criteria and standardized software testing protocols and reporting; and***
- ***Inform and coordinate EM&V 2.0 learning and pilot results with other regional energy- efficiency organizations and national efforts.***

The three-year pilot will include both residential and C&I components. Initial plans for the pilot include the following tasks:

- *For the C&I component of the pilot, the Companies and project partners will strategically identify at least thirty five candidate buildings within the EDC's service territory for pilot recruitment.*
- *For the residential component of the pilot, the Companies anticipate it will involve the application of EM&V 2.0 tools on the Companies' Residential Retrofit programs—HES and HES-Income Eligible;*
- *Quantify energy savings uncertainty at both the building and aggregated pilot levels;*
- *Document results and incorporate into a resource guide for transferability and future replication.*

The details of the EM&V 2.0 pilot are still under development, and it is not clear what impact (if any) it will have on the 2016-2018 Plan budgets or for how long. Therefore, the EM&V 2.0 pilot is not budgeted in the 2016-2018 Plan. Once the costs and funding sources of the EM&V 2.0 pilot are determined, the Companies will update the budget tables accordingly.

Comment 1: APPROVAL of conditions #4 &5: Comprehensive coordinated plan for education of the public and of students; Transition to grant process for services delivered by colleges and universities

DEEP appreciates the work of the Companies and the Board to support stakeholder engagement in the development of a statewide energy education plan. The conditions are approved. DEEP notes that it is important for the Companies to continue to collaborate with educators on the implementation of the education plan, and to report to the Board on the results of the competitive process for selecting vendors that will provide educational services.

Comment 2: APPROVAL of condition #15: Clean Energy Communities

DEEP appreciates the work of the Companies and the Board to support stakeholder engagement in the development of modifications to the Clean Energy Communities program. DEEP notes that it is important for the Companies to continue to collaborate with community organizations and municipal leaders to ensure continuous improvement in the harmonization of the Clean Energy Communities program with other municipal engagement activities that promote energy efficiency and broader municipal sustainability goals. DEEP confirms the role of the Clean Energy Communities program in serving as the primary vehicle for delivery of energy efficiency programs and concurs that the Companies are well-suited to guide Connecticut's communities in meeting their energy efficiency goals. DEEP will be monitoring the work of the Companies in providing better accessibility to municipal energy consumption data to ensure that municipalities are able to better plan for reducing energy usage in their communities.

Comment 3: HES Co-Pay

DEEP notes that the Board received several comments during the annual public input meeting regarding the HES Co-Pay and the DEEP-directed schedule of HES Co-Pay increases. We also note that the Home Energy Performance Alliance of Connecticut [HPACT] sent a letter to DEEP on November 30, 2016 proposing that DEEP revise the direction to consider mandatory reviews of the

co-pay rather than mandatory increases. DEEP has considered these comments and has also considered that the uptake of HES activity is projected to achieve between 75% and 90% (depending on individual company) of lifetime savings goals for 2016. We have determined that this is sufficient to support retaining the schedule of increases which shall remain in place. The Companies may continue to assess the appropriateness of scheduled increases as part of the 2018 Update of the Plan to consider contractor feedback, market elasticity studies, fuel prices, and other factors. If warranted, the Companies may propose an alternative approach for 2018.

Comment 4: Correction of typographical error

DEEP believes there may be a typographical error on page 80 in Chapter 5. It appears the 2019 Combined Budget Table may need to be corrected to reflect a statewide combined total of \$271,245,730. This is a difference of \$999.00 from the total shown.

DEEP appreciates the work of the Companies and the Board to collect public input, collaborate with the CT Green Bank, and continuously improve the effectiveness of the Conservation and Load Management programs. We look forward to continued collaboration as we collectively implement the Plan's investments in energy efficiency and demand reduction to ensure we increase Connecticut's energy savings to catalyze economic and environmental benefits.

If you have any questions, please contact Diane Duva, Director of DEEP's Office of Energy Demand, at 860-827-2655 or Diane.Duva@ct.gov or Walter McCree, Research Analyst of DEEP's Office of Energy Demand, at 860-827-2644 or Walter.McCree@ct.gov.

Sincerely,



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Bureau Chief

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