

New Hampshire Public Utilities Commission DE 15-137 Technical Session Guiding Principals & Messaging

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About NEEP

Mission

Accelerate energy efficiency as an essential part of demand-side solutions that enable a sustainable regional energy system

Approach

Overcome markets and transform markets via Collaboration, Education and Enterprise

Vision

Region embraces next generation energy efficiency as a core strategy to meet energy needs in a carbon-constrained world

One of six regional energy efficiency organizations (REEOs) funded by the US Department of Energy (US DOE) to link regions to US DOE guidance, products and programs





NEW HAMPSHIRE'S CONTEXT

- Numerous studies confirm significant benefits to N.H. from expanding energy efficiency
- Similar utility structure and program delivery model
- Same regional electricity grid
- High cost of energy
- RGGI participation
- Statutory authority exists to develop EERS
- PUC opened DE 15-137 to map a course forward...







NH Statute: Public Utilities

"...it shall be the energy policy of this state to meet the energy needs of the citizens and businesses of the state at the lowest reasonable cost while providing for the reliability and diversity of energy sources; to maximize the use of cost effective energy efficiency and other demand side resources..."

http://www.gencourt.state.nh.us/rsa/html/XXXIV/378/378-37.htm



NH Statute: Public Utilities

- "The commission shall review integrated least-cost resource plans in order to evaluate the consistency of each utility's plan with this subdivision, in an adjudicative proceeding. In deciding whether or not to approve the utility's plan, the commission shall consider potential environmental, economic, and health-related impacts of each proposed option... Where the commission determines the options have equivalent financial costs, equivalent reliability, and equivalent environmental, economic, and health-related impacts, the following order of energy policy priorities shall guide the commission's evaluation:
- I. Energy efficiency and other demand-side management resources;
- II. Renewable energy sources;
- III. All other energy sources."

http://www.gencourt.state.nh.us/rsa/html/XXXIV/378/378-39.htm

EERS Messaging



A successful Energy Efficiency Resource Standard embracing all cost-effective energy efficiency will align the interests of efficiency program administrators with the state's broader policy goals.

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EERS Messaging

Lowering Ratepayer Bills

- Energy efficiency is consistently viewed by leading economists as the <u>least-cost</u> energy resource.
 - Today's investments in natural gas generation cost ~\$0.07/kWh
 - Today's investments in energy efficiency cost ~\$0.028/kWh

Spurring Economic Development

Expanded cost-effective investments in energy efficiency can continue to drive New Hampshire's <u>economic</u> <u>development</u>.

Supporting New Hampshire's Environmental Goals

Investments in energy efficiency can pay a broad array of dividends, including aiding compliance with <u>environmental</u> <u>goals</u> related to the Clean Air Act.

Energy Efficiency as the Least Cost Resource



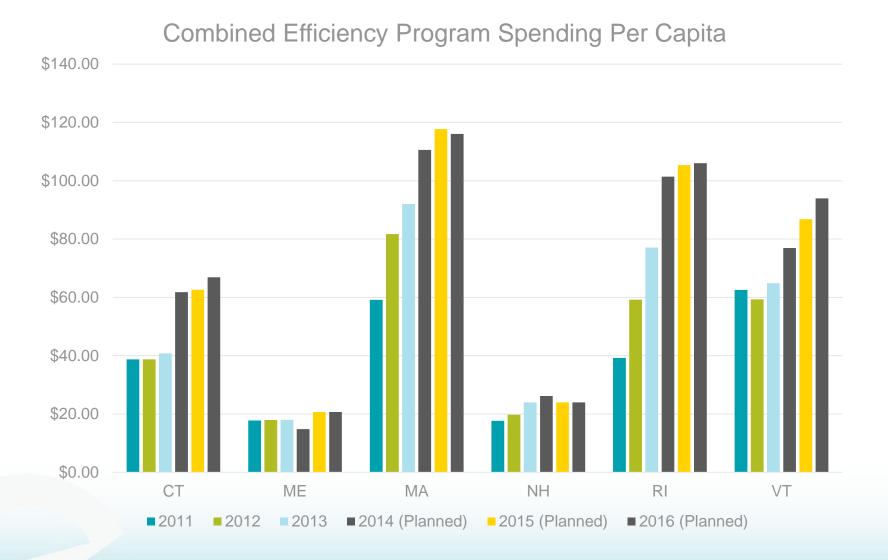
LAZARD'S LEVELIZED COST OF ENERGY ANALYSIS-VERSION 8.0

Unsubsidized Levelized Cost of Energy Comparison

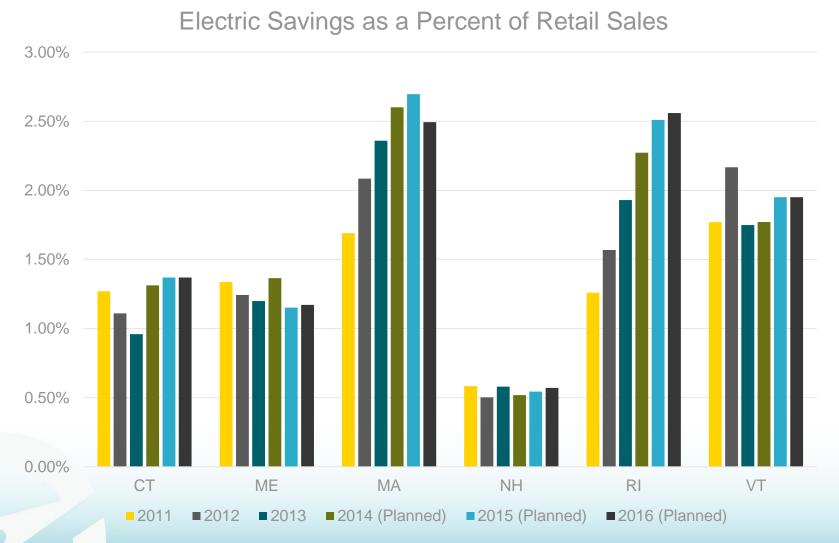
Certain Alternative Energy generation technologies are cost-competitive with conventional generation technologies under some scenarios; such observation does not take into account potential social and environmental externalities (e.g., social costs of distributed generation, environmental consequences of certain conventional generation technologies, etc.) or reliability-related considerations (e.g., transmission and back-up generation costs associated with certain Alternative Energy generation technologies)

Solar FV—Rooftop Residential 2					1	180		\$265	
Solar PV—Rooftop C&I 2				\$126	i	\$177			
Solar PV—Crystalline Utility Scale 😣		\$60 ¹² 🔶 \$	72	\$86					
Solar PV—Thin Film Utility Scale 🈣		\$60 ¹² 🔶 \$	72	\$86					
Solar Thermal with Storage 😣				\$118	\$130				
Fuel Cell 2				\$115		\$176			
Microturbine 2				\$102	\$135				
Geothermal			\$89		\$142				
Biomass Direct			\$87		5116				
Wind	\$37			\$81	\$162 ⁽⁴⁾ 🧄				
Energy Efficiency ®	\$0	\$50							
Battery Storage⊜ :					\$16S ^(k) 🥚		\$265		\$324
Diesel Generator ^{0 2}								\$297	\$332
Gas Peaking						179	\$230		
IGCC [©]					\$165 ⁴⁴	\$171			
Nuclear 🌣			\$93	2 \$124**	\$132				
Coal 😣		\$66				L			
Gas Combined Cycle		\$61		\$87 🔶	\$127(*)				
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Region's Per Capita Program Spending







Guiding Principles



Local Distribution Grid Opportunities

- Maine, Vermont, New York, and Rhode Island have implemented successful programs targeting constrained portions of the transmission and distribution grid.
 - NEEP Report on Energy Efficiency as a T&D Resource

Program Evaluation

- Independent third-party evaluation, funded by and in consultation with energy efficiency program administrators, but reporting to the Public Utility Commission.
 - Consider establishing a <u>stakeholder review process</u>

Cost-Effectiveness Screening

- An Order supporting "all cost-effective energy efficiency" would carry out the intent of RSA 378:39. This places emphasis on proper inputs for cost-effectiveness screening, which many states are now pursuing at the portfolio or sub-portfolio level, rather than the measure level.
 - NEEP Report on Cost Effectiveness Screening Principles and Guidelines

Guiding Principles



Funding Opportunities Beyond RGGI/FCM/SBC

- Several other states maintain cost trackers or other similar tariffbased mechanisms to fund energy efficiency through the rates.
 - New York will utilize a cost tracker placed within rates
 - Rhode Island & Mass: EERF, Connecticut: CAM

Performance Incentives

- Performance incentives that provide for a rate of return on energy efficiency similar to that of other assets will be vital.
 - The New York Public Service Commission <u>recently granted</u> a return on equity equal to Con Edison's overall rate of return for their BQDM project.
 - Rhode Island regulators recently focused 1/3 of shareholder incentives on peak demand targets

Private Financing

- Private financing presents potential to supplement & <u>not supplant</u> ratepayer-funded energy efficiency programming.
 - Successful Green Banks, PACE programs, and on-bill financing mechanisms are all built on base of existing EE programs.

Guiding Principles



Building on the Success of the CORE Programs

- The successful joint administration of the CORE programs position New Hampshire well to reach for greater targets.
 - Coordination across gas and electric portfolios for all customer classes
 - Leading utilities, an adequate and stable funding source, as well as incentives that align with the state's policy goals will be key to program ramp up.

Participant Outreach and Marketing

- Continued program outreach in a coordinated manner will ensure that the greatest number of participants receive benefits, achieving state policy goals.
 - Many states are focusing on the importance of community groups as conduits for program outreach.

Targets that Enable Economies of Scale

A deliberate ramp-up of targets toward goals comparable to those within the region will allow for economies of scale and drive down administrative costs as a percentage of program costs.

Sample of Recent NEEP Publications to Inform Program Design





To access these and other NEEP reports, visit www.neep.org

Other Resources



- SEE Action The State and Local Energy Efficiency Action Network
 - A project of the U.S. Department of Energy that advances state and local investment in energy efficiency. Topical working groups includes stakeholders and experts from across the country representing state and local governments, associations, business leaders, non-government organizations, and others.
- ACEEE The American Council for an Energy-Efficient Economy
- **RAP** The Regulatory Assistance Project



Thank you!

NEEP is a non-intervener, participating in this docket as an interested party. This information is provided by NEEP staff and does not reflect the opinions of our board, sponsors or funders.

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