



New England Forward Capacity Market (FCM) Developments: Encouraging or Discouraging EE?

October 17, 2019

Mark Laabs, Modern Energy

Julie Michals, E4TheFuture (for Elizabeth Titus, NEEP)



MODERN
ENERGY

About NEEP

A Regional Energy Efficiency Organization



One of six REEOs funded in-part by U.S. DOE to support state and local efficiency policies and programs.

Northeast Energy Efficiency Partnerships



“Assist the Northeast and Mid-Atlantic region to reduce building sector energy consumption 3% per year and carbon emissions 40% by 2030 (relative to 2001)”

Mission

We seek to accelerate regional collaboration to promote advanced energy efficiency and related solutions in homes, buildings, industry, and communities.

Vision

We envision the region's homes, buildings, and communities transformed into efficient, affordable, low-carbon, resilient places to live, work, and play.

Approach

Drive market transformation regionally by fostering collaboration and innovation, developing tools, and disseminating knowledge



Purpose of Presentation

- Energy Efficiency (EE) as a capacity resource is under scrutiny:
 - Two Recent Issues Confronting ISO-NE's Forward Capacity Market (FCM) and their possible implications
 - NEEP, AEE and Modern Energy among stakeholders supporting EE as a resource in the Northeast
- Discuss the EE Stakeholders' Perspective:
What is / Should Be the Future of EE in the ISO-NE Space?

Two Recent EE Issues for ISO-NE Forward Capacity Market



Gross vs Net Impacts

Assessing Peak vs 8760 Performance of EE



2018 and 2019 topics instigated from different sources
Both introduce questions about the value of the EE resource

Gross vs. Net – What happened and why?



- ISO-NE attempted to unilaterally change demand reduction values from ***adjusted gross reduction*** to ***net energy savings***
 - ***adjusted gross reduction***: energy savings from program-related actions taken by participants in an energy efficiency program.
 - Accounts for energy savings compared to baseline
 - ***net energy savings***: energy savings from program-related actions taken by participants in an energy efficiency program net of any savings from actions that would have been taken by participants if the program did not exist.
 - Accounts for only a portion of energy savings compared to baseline
- Why?

ISO-NE states (in ISO-NE Answers 15-17):

 1. To make sure participants were aware of updated net-to-gross conversion factors
 2. To ensure participants were aware of and accounting for potential federal baseline adjustment (EISA)

Gross vs. Net – Why does this matter?



A broad based coalition of energy businesses, national and regional organizations argued against the change in filed comments and petition for declaratory order before FERC, stating:

- EE is savings over a baseline by definition (AEE Petition, pg 18)
- No tariff requires or provides for a gross-to-net conversion (AEE Petition, pg 17)

Commenters highlighted that the switch from gross to net savings would:

- ... result in a market that ignores actual energy savings, over-procures other capacity resources, and harms customers by forcing them to pay more...” (Public Interest Orgs Comments, pg 10)
- distort the market by externalizing the resources. (AEE Petition, pg 18)
- “violate ISO-NE’s tariff” (Public Interest Orgs Comments, pg 4)
- be unduly discriminatory: do generators think about additionality? (AEE Petition, pg 18-19)

Gross vs. Net – How has the EE community responded?



- AEE petitioned FERC to:
 - 1) Prevent retroactive revisions to FCA 13 Qualification Packages (AEE Petition, pg 6)
 - 2) Require ISO-NE to file a 205 in order to change the standard from gross to net (AEE Petition, pg 6)
- Broader community both oppose retroactive changes and opposed changes so close to FCA 14 show of interest window (FERC order, pg 4)

Petitioners agree: ISO-NE should go through the NEPOOL process (FERC order, pg 4)

Gross vs. Net – Where are we now?

- ISO-NE now states that it will vet any proposed changes through the normal stakeholder process.
 - Specifically, ISO-NE committed that it would only implement a gross-to-net savings methodology through a section 205 filing (FERC Order, pg 8)
- Based on this commitment FERC dismissed the petition.
- The ISO has not brought the issue before NEPOOL.

Assessing Performance of Energy Efficiency at Peak vs All Hours – What Happened?



- Background:
 - Until 2014, FCM performance = peak summer and winter hours. Concern around scarcity events outside peak hours prompted **ISO-NE to propose Pay for Performance rules**
 - FERC May 2014 Order approved ISO's proposal **BUT exempted EE** on basis that EE = installed resource with predetermined amount of load reduction and does not respond to performance signals (147 FERC ¶ 61,172 at P 89)
- Labor Day 2018: heat wave results in Capacity Scarcity event during off-peak hours.
 - While EER technically exempt, **mutual insurance pool across all providers covers settlements for under/over collection for scarcity events**. EER got unexpectedly hit with paying share of insurance pool. **OVERSIGHT IN CONSTRUCT OF P4P?**
- NEPOOL Markets Committee called on the Demand Resources Working Group (DRWG) to study options for assessing EER performance in all (8760) hours of the year.

Assessing Performance of Energy Efficiency at Peak vs All Hours – What Happened?



- March 2019 – DRWG tasked by Markets Committee to:
 - Consider how EER performance in all hours could be established and what methods and reporting mechanisms are required to accommodate such a change
 - Prioritize options that require the least time and expense to develop and implement
 - DRWG Problem Statement: https://www.iso-ne.com/static-assets/documents/2019/02/a5_ee_problem_statement_and_referral.docx
- DRWG met 5x from March-July and developed final report to MC
- Parties included EE providers (utility/PA reps, market players) and expert consultants, NGOs, NESCOE (representing state commissions), generators

Assessing Performance of Energy Efficiency at Peak vs All Hours – What Happened?



- DRWG considered multiple options developed by ISO: **Single Value, Shaping (A-B), Modeling, and Bottom-Up options.**
- **Shaping Option (A)** received most DRWG support: method is to shape currently known on-peak savings estimates to all hours based on the relationship between estimated performance under on-peak system conditions (reference load) and all other performance hour system conditions.
 - Hourly EER performance as a function of established on-peak EER savings and system load levels
 - Identified as option requiring the least time and expense to develop and implement
- Generators initially supported Shaping Option A but ultimately asserted this approach can overstate performance for EERs during off peak hours – **did not support approach.**

Assessing Performance of Energy Efficiency at Peak vs All Hours – Where are we now?



- September 2019: ISO-NE presented DRWG report to MC with message “no consensus”
- Behind the scenes: several key stakeholders working together to bring proposal to upcoming MC meeting (November?)
- KEY: Will there be enough votes to support proposal put on table?
- Strategic play: Push for Shaping Option A *or* go to FERC and request clarification on exempting EER from P4P (fully treat EERs neutrally during off-peak hours). Big legal challenges on latter and risky?

See ISO-NE DRWG report to Markets Committee at:

[2019-09-18 MC A00 Meeting Materials](#)

Assessing EE Performance – Why does this matter?



- Status quo treatment of EER does not consider contributions in off-peak hours:
 - EER contributes to the insurance pool during all hours but has no way to credit the service they provide during off-peak hours. Current approach is BROKEN.
 - There is discontinuity of MW capacity provided by EER between peak and off-peak.
- Shaping Option A approach relevant to future conditions in which ISO-NE must account for Distributed Energy Resources
 - Assumes EER performance is a function of load and it reconstitutes load to account for Behind-The-Meter Solar.
- Alternatives such as a bottom up approach of metering in all hours would:
 - Incur cost-prohibitive evaluation expense and
 - Result in a market that over-procures other resources.
 - Efficiency gains would still exist even though the capacity market would ignore them.

What Next for EE Resources at ISO-NE?

Challenges

- How can EER remain relevant to ISOs?
- What is the future role of EER in wholesale markets?

Opportunities

- Tackling evolving measurement issues in forecasts, markets and DER loads
- Keeping EER in focus along with other DERs
- Others can learn from ISO-NE



For more information, contact:

mark@modern.energy

jmichals@e4thefuture.org

