

New England States Committee on Electricity

New England Energy Security Solutions

Federal Energy Regulatory Commission Public Meeting, July 15, 2019

NESCOE is New England's Regional State Committee

Governed by Managers appointed by each of the six New England Governors

advances policies that will provide electricity
 at the lowest possible price over the long term consistent with maintaining reliable electric service and environmental quality



NESCOE appreciates the opportunity to share collective questions and preliminary thoughts on ISO-NE's proposed Energy Security Improvement design.

Some NESCOE Manager comments that follow are in general points of emphasis important to each state rather than points of departure from this presentation.

States Working Diligently To Assess ISO-NE Energy Security Improvement Proposal

- Series of New England energy security measures extremely fast-tracked (see slide 5)
- Credit to ISO-NE for stepping back and in **March 2019** reformulating its energy security design based on stakeholder feedback
- We understand ISO-NE's holistic energy security design will not be complete by **October 2019**
- Stakeholders' energy security proposals in process limited time to assess those, ISO-NE proposal
- ISO-NE will not review its Quantitative and Qualitative Impact Analysis until *July 30, 2019*; it will still be preliminary at *September 2019* NEPOOL vote. Ultimate number of modeling cases and specific assumptions unclear at this point. ISO-NE encouraging state or stakeholder proposed amendments to its proposal in *mid-August*.



Consequence: In mid-July, ISO-NE's current design is still relatively new and incomplete; impact analysis not yet available. States still assessing - more questions than firm views at this point.

| Forward Capacity Market (FCM) Objectives: Procure sufficient capacity to meet the reliability requirement Attract new resources Retain existing resources without contracts Prices reflect market fundamentals | Winter Programs I-III To maintaining reliability while region addresses long-term risks associated with (1) increased dependence on natural gas and (2) resource performance during periods of stressed system conditions | Pay-for- Performance (PfP) To impose financial consequences for resources' failure to perform and to provide incentives to make investments to ensure that resources can reliably provide energy and reserves when supply is scarce | Operational Fuel Security Analysis (OFSA) To stimulate discussion with regional stakeholders and policymakers as to the degree of operational risk the region is willing to accept and whether additional changes to the market design may be necessary to address fuel security risks identified in the study | ISO-NE Energy Security Solutions (Chapters 1,2, & 3) In response to certain retirement announcements, and to address unacceptable fuel security risks to the region during the winter months, ISO- NE requested that FERC waive its Tariff to allow retention of a retiring resource for regional fuel security (Chapter 1) and temporarily provide Tariff authority to retain resources for fuel security purposes (Chapter 2). Uses same model as OFSA (now a Planning Procedure in the Tariff). ISO NE also proposes to implement a long term market-based solution to regiona energy security risks (Chapter 3). |
|---|---|---|---|---|
| Established June 2006 | Winter Program I: | Established May 2 | 2014Developed May 2)18Issued Jan 2018 | 8 |
| Effective June 2010 | Established Sept 2013 | Effective June 20 | | Chapters I&II |
| E | Effective Dec 2013 – Feb 2 | 2014 | | Established July 2018 |

Winter Program II:

Established Sept 2014 Effective Dec 2014 – Feb 2015 FERC orders stakeholder process on long-term solution ISO-NE contends program needed until Pay-for-Performance is implemented

Winter Program III:

Established Sept 2015 Effective Dec 2015 – Feb 2018 Effective June 2024 (Proposed)

Effective June 2022 – May 2024

Chapter III

In Development - Due Oct 2019

Energy Security: April 2018 – Present



ISO-NE Energy Security Solutions (Chapters 1, 2 & 3)

| NESCOE | | | | | | | Chapte | er 3: |
|---|---|---|--|---|--|--|---|---------------------|
| Requests | Chapter 1: | | Chapter 2a: | | ISO-NE | Chapter 2b: Interim Compensation | Long-7 | [erm ion |
| Problem Statement NESCOE communicates to ISO-NE the need for greater specificity with regard to the problem statement and provides principles for identifying risks and evaluating solutions | Mys Ever Cont ISO-NE Waive Tariff to ISO-N retain M 8&9 fo secun purpo Mystic cost-of-s agreen | Mystic Everett Contract ISO-NE files waiver of Tariff to permit ISO-NE to retain Mystic term 8&9 for fuel security purposes. Mystic files agreement. | | im ion iff rity) ablishes a ty study y, a short- f-service to ensure ity, and ovisions ag the costs for f-market sation | Issues Problem Statement ISO-NE defines the problem as - There may be insufficient energy available during extended cold winter weather conditions to satisfy electricity demand, given the system's evolving resource mix and fuel delivery infrastructure | Treatment ISO-NE commits to FERC to addressing impacts of retaining resource for fuel security and proposes interim compensation treatment. Objectives: Provide similar compensation to similarly situated resources and prevent uneconomic retirement bids from resources critical to winter energy security | FERC directed ISO- NE to develop a market-based solution to improve energy security in New England. ISO-NE's current proposal includes a new reserve constraint, a new seven-day ahead energy market, and a seasonal energy procurement with many details to be determined. | |
| Memo Issued April 2018 V | Vaiver Rec May 2 | quest File 2018 | Tariff Autho Filed Aug d Tariff Auth Issued D | ority Requi gust 2018 ority Orde Dec 2018 | est Problem Statement Issued Oct 2018 er | Filing March 2019 | In Devel Filing Octo | opment ober 2019 |
| Cost of | f Service A May 2 | Agreemer 2018 | nt Filed | | | | | |
| Waiver Order July 2018 | | | | | | | | |

Cost of Service Agreement Orders Issued July and Dec 2018

ISO-NE Long-Term Solution Timeframe

| June 2018 Initial discussion paused to work on Ch. 2 "Interim Solution" | | Dec 2018 ISO describes objective, impact analysis; continues M-DAM & EIRC approach | | April 2019 ISO discussion paper; reviews Problem 1 & 'energy on call' concept | | Jur review day-a options informatior Energy Imb preview o Energ | ne 2019 ahead energy call , mechanics; on GCR; review alance Reserves; f Replacement y Reserves | Sept 2 Draft II Anal Repo NEPOO | Sept 2019 raft Impact Analysis Report; EPOOL vote | |
|---|---------------------------------|--|---|--|---|---|---|---|---|---------------------|
| ← | Oct 2 ISO intro conceptua | 2018 oduced al solution | March ISO ch from E 3 n Ancillary | anges IRC to ew Services | May 2 ISO review 2, call o Gener Contingenc | 2019 s Problem ptions, ration y Reserves | July 8 – Impact Analy results fo & futur preliminary so Proposal ar | Aug 2019 sis preliminary r historical re cases; cenario results mendments. | , Oct FERC | → 2019 filing |
| | | | | | | | Detail on R | ER released. | - | 7 |

ISO-NE Long-term Solution Impact Analysis

What Is Impact Analysis?

To assist stakeholders in evaluating any major ISO-NE market initiative that affects markets design, ISO-NE must provide **Quantitative and Qualitative information on the need for and the impacts** – *including costs* – of the initiative.

- ISO-NE has retained a consultant to analyze the impacts of its long-term solution proposal to inform states and stakeholders about the expected impacts of its proposed rules on a variety of market outcomes
- Work underway focuses on quantitative analysis of the impacts of ISO-NE's proposal on energy market outcomes, including:
 - Evaluating particular winter scenarios (not probability-weighted scenarios)
 - Illustrating particular mechanisms by which the proposed solutions may change market outcomes

Preliminary Impact Analysis expected July 30, 3019; will still be preliminary at September NEPOOL vote

Impact Analysis Approach

per ISO-NE consultant, June 12, 2019 (emphasis added)

- Develop an hourly production cost model to simulate the New England day-ahead and real-time energy markets (including real-time reserves)
- Evaluate market outcomes under particular scenarios
- Scenarios reflect combinations of market conditions related to weather, natural gas demand and prices, resource mix, etc.
- Provide information on change in market outcomes under these different scenarios
- Change in economic impacts (prices, production costs, total payments)
- Changes in operational/system impacts (fuel inventory, reserve shortages)
- Provide information on incentives for improved energy security created by ESI

Why is Impact Analysis Critical to States?

 Necessary to fully understand the mechanics of the proposal, costs, operational impacts and importantly, expectations for change in resource behavior that provides regional energy security

• Some early concerns –

- analysis is limited to look at winter months compared to ISO-NE proposal to implement solution year round, and the model is highly simplified.
- without analysis, we do not know how the seasonal forward procurement will interact with the daily ancillary service procurement and cannot yet determine the preferable path forward.
- the planned Impact Analysis does not provide insight into the relative cost effectiveness of ISO-NE's proposed solution as alternative solutions are not being modelled.

To what extent do markets *already* value energy security when scarce and reward conserving resources?

Current mechanisms provide incentives and ability for resource owners to take desired actions

1. Daily forward markets for energy and natural gas

2. "Opportunity cost" bidding to conserve scarce energy

3. Capacity supply obligation and Pay-for-Performance incentives ISO-NE attempting to solve for inadequate incentives for resources to:

1. incur costs to make firmer fuel arrangements

2. forego profitable near-term opportunities to conserve fuel for future periods, over day(s)/weeks/months ahead



How will ISO-NE's proposal work with or replace current mechanisms?

Should ISO-NE plan to capture the benefit of experience? Two examples.

1) M-DAM – Provides a voluntary mechanism to let ISO-NE acquire and co-optimize energy and ancillary services over a time horizon longer than *one day ahead* which may increase energy security to the benefit of consumers.



Should ISO-NE begin with a different timeframe - and investment – such as four days and then reevaluate with the benefit of experience whether a longer horizon is necessary or incrementally beneficial to guard against unnecessarily higher consumer costs?

2) DA Market Enhancements/Seasonal Procurements provides similar objective, secure energy, but over different timeframes



What if ISO-NE was to begin with just the DA market enhancements then determine a need for a seasonal forward component or viceversa? With or with out M-DAM?

FERC needs to ensure ISO-NE's design actually and appreciably changes resource behavior, especially during extended cold snaps



Which type of resources will be affected and will it incent-desired behavior, especially during cold snaps? Will it ensure the region's resources, such as (or including) nuclear, are appropriately recognized for their contribution to fuel security?



What type of actions will these resources take as a consequence of ISO-NE design that they would not otherwise have taken? (How will we know?)



Will these actions mitigate energy security risk appreciably? Will some resources' energy security gains be offset by other resources' actions?

FERC should ensure that ISO-NE's design gets quantities and maximum prices right

- Getting **volume(s)** of ancillary services right will ensure the design does not impose a substantially higher reliability standard and cost than required
 - ISO-NE should identify quantities based on some form of probabilistic analysis so that consumers do not over-purchase resources or over-compensate resources to meet actual needs
- Using Reserve Constraint Penalty Factors (RCPFs) as the **maximum price** could lead to very high energy and ancillary services prices in circumstances when reserves are ample and reliability risk is low



Is ISO-NE's design consistent with accepted reliability standards?



Does it achieve a *reasonable balance* between the value of fuel/energy security and its potential cost? At what point can costs be lowered and not materially decrease sought after incentives?

Evaluation by Market Monitors



These proposals call for managing fuel/secure energy supply through possible high opportunity costs and limited fuel supplies, which may raise market power concerns.



Have the Internal and External Market Monitors had the opportunity to conduct in-depth review of the proposed design and provide timely analysis to stakeholders?



Will FERC have the benefit of that analysis and the ability to account for IMM or EMM recommendations in assessing ISO-NE's proposed design?

Offer Flexibility

ISO-NE has suggested that opportunity cost bidding will not be needed and may not be allowed with its M-DAM proposal



To what extent will participants be required to yield to ISO-NE existing offer flexibility to manage their resources and scarce energy?



Should resource management within the competitive market be the responsibility of competitors or market managers?

Maximizing Information and Transparency

ISO-NE has confidential fuel security information (generator plans, aggregated information on fuel stocks, etc.) and says it will reflect that as it administers the markets (co-optimize)

• Resource owners have additional confidential information not provided to ISO-NE, which may be reflected in forward prices to a great extent



What kind of information relevant to ISO-NE's design will participants have access to? What other data would benefit ISO-NE's market administration? Is there a way to bring transparency to some of that presented in way that does not violate confidentiality restrictions? What additional information can ISO-NE make available to the market on a regular and timely basis, subject to confidentiality restrictions, to enhance market efficiency?

At this point ...

ISO-NE's proposal is a major redesign of New England markets



There remain many open questions. ISO-NE design incomplete, preliminary Impact Analysis discussed July 30th; ISO-NE encourages amendments to its proposal two weeks later



Work on a long-term solution comes on the heels of fast-tracked Mystic litigation and a simultaneously fast-tracked Interim Solution process



Too much too fast, coupled with increasing complexity of market rules, can lead to unintended consequences, unnecessary consumer costs, and/or a solution that doesn't actually deliver results

It would be reasonable for FERC to reassess its schedule in this matter to determine whether it allows for filing of a fully-developed proposed solution supported by a complete analysis that states and stakeholders have had the time to consider and evaluate.