



New England States Committee on Electricity

To: ISO-NE (Attn: Stephen George)
From: NESCOE (Contact: Sheila Keane)
Date: April 5, 2024
Subject: Regional Energy Shortfall Threshold (REST) Feedback
Cc: Reliability Committee (RC)

NESCOE appreciates the opportunity to provide feedback to aid ISO-NE in the development of its initial REST proposal. First, we wish to congratulate ISO-NE on the completion of its Probabilistic Energy Adequacy Tool (PEAT), developed over the course of the last two years. PEAT has provided an innovative and insightful look at future energy adequacy considerations and is a strong foundation upon which to build a regional energy adequacy framework. We support ISO-NE's efforts to explore the development of a REST. Important features of the threshold would be consensus on the amount necessary as well as the ability to seamlessly incorporate such a threshold into the future design of the New England power markets.

While ISO-NE has posed a series of questions to stakeholders to solicit feedback, those questions give rise to more questions than answers from NESCOE's perspective. Below, we share some of the questions that we are currently thinking through in the hopes that they are helpful to inform ISO-NE and others as the region develops the REST. They are necessarily high-level and conceptual at this early stage, and we expect that our thinking will evolve with the benefit of regional dialogue.

Throughout this process, NESCOE will rely heavily on ISO-NE's expertise in, and experience with, system planning and operations as well as the experience and expertise of market participants in managing and operating their individual assets.

Metrics and Criteria

ISO-NE requested recommendations with respect to metrics and criteria that would be meaningful toward defining the REST.

The PEAT analysis provided results in terms of the probability of megawatt hours (MWh) of expected unserved energy (EUE) over a 21-day period. In thinking about a REST, it would be helpful to have ISO-NE's insight on the significance of the timing, depth, and frequency of the EUE. For example:

- Does it matter whether those MWh of EUE occur all in a single day versus a multi-day period?
- Similarly, does ISO-NE's perspective change if those MWh occur in the first seven days of the 21-day period versus the last seven days?

- For the winter season, does ISO-NE’s perspective change if the EUE occurs early versus late in the season (e.g., December vs. February)?
- Is ISO-NE considering the frequency of EUE events in addition to the duration and magnitude of such events?
- Are there other considerations beyond timing, depth, and frequency that ISO-NE believes are important?
- Does ISO-NE intend to establish a REST within zones?
- Can ISO-NE quantify the amount and timing of relief that it reasonably expects to result from various actions that it may take in the event of an anticipated energy shortfall (OP-4, etc.)?
- With respect to probability, is there any connection between existing resource adequacy standards (1 in 10 loss of load expectation) and a possible REST? If not, why?

Periodicity and Horizons

NESCOE appreciates that ISO-NE has already begun using the PEAT analysis to inform its winter outlook. At a minimum, it appears sensible to continue that practice and to potentially expand it to include analysis to support ISO-NE’s seasonal outlooks. However, we understand that additional analysis would use ISO-NE’s limited resources and thus may affect ISO-NE’s ability to perform its other work. We would like ISO-NE’s perspective on the ramifications of adding such analysis at different periodicities (or analyzing REST at a zonal level).

We also understand that there can be tension between the time horizon that is useful for an analysis compared to the time horizon market participants need to meaningfully act on the results of any such analysis. This tension has been evident in past winter discussions—the analysis is more robust closer to the season in question given ISO-NE’s increased insight into underlying considerations such as fuel inventory, weather, etc., while market participants seeking to secure fuel contracts required generally longer windows. We look forward to hearing market participants’ perspective on the periodicity and/or horizons required to take action.

Finally, we are also interested in hearing perspectives on whether and how the PEAT analysis and REST could align with any changes to the Forward Capacity Market horizon that ISO-NE is currently considering.

Additional Considerations

We appreciate ISO-NE’s consideration of a broad range of potential solutions and its recognition that demand-side measures could be an important part of any solution.¹ As a general matter, when the regional discussion shifts from setting a REST to evaluating potential solutions, NESCOE encourages ISO-NE to prioritize addressing energy shortfall issues through “in-market” programs. This would help to ensure that, to the maximum extent possible, market participants would bear investment risks rather than those risks being placed solely on

¹ ISO-NE. *Establishment of the Regional Energy Shortfall Threshold (REST)* (Dec. 2023) (stating that “solutions to reducing energy shortfall risk. . . could range from market designs to infrastructure investments” and demand-side solutions). See Slide 15 at https://www.iso-ne.com/static-assets/documents/100006/a04_rest_sow.pdf.

consumers. NESCOE is also interested in ISO-NE's perspective on whether and how the capacity market could incorporate energy shortfall risks and implications for consumers in connection with such market design changes.

NESCOE supports the work that ISO-NE is undertaking to incorporate the PEAT framework into its routine processes to provide increased visibility and insight into energy adequacy risk. We remain interested in the ability to quantify the impact that possible market reforms have on reliability risk (including energy adequacy).² To that end, we encourage ISO-NE to consider how to apply PEAT and/or the REST more broadly to quantify the reliability impact of possible market reforms.

² NESCOE. *Comments on ISO-NE's Draft 2024 Work Plan at 2* (Aug. 2023), at <https://nescoe.com/wp-content/uploads/2023/08/NESCOE-Comments-on-ISO-NE-2024-Work-Plan.pdf>.