

To: ISO New England

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Date: July 27, 2024

Subject: **NEPOOL Priorities – 2025 Annual Work Plan**

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From among the many issues identified this year to each of the six Vice-Chairs of the Participants Committee by members of their respective Sector, the Officers collectively identified the following NEPOOL business priorities. A high priority exists among NEPOOL stakeholders for each of these items and thus are presented here for consideration as ISO-NE management prepares the 2025 Annual Work Plan (AWP).

➤ **TREATMENT OF RELIABILITY MUST-RUN (RMR) RESOURCES**

*NEPOOL recommends that a key priority item to be included within the 2025 Annual Work Plan focuses on the actions necessary to ensure that consideration of capacity market price formation issues around Reliability Must-Run (RMR) agreements and the participation treatment of retained resources be addressed in time for the initial launch of the capacity market reforms.*

Although it may be reasonable to conclude that on paper today there may not be a strong likelihood/risk of RMRs in FCA 19, that is not a risk that NEPOOL has vetted, nor is it a risk that many wish take, particularly in light of the magnitude and pace of changes expected over the coming years.

The entry of new resources, including steady increases in generation from new intermittent/variable resources, significant expected demand growth due to the electrification of heating and transportation, an anticipated change to a winter peaking system in the 2030s, and the potential (or likely) retirement of large quantities of conventional resources present substantial challenges and risks for the region. ISO-NE has described all of these in its 2024 Regional Electricity Outlook as part of the “Four Pillars” needed for a successful clean energy transition. It is important to recognize and account for the region’s evolving energy supply and demand to assure that the anticipated capacity market design reforms include proper evaluation and consideration of changes to the existing treatment of RMR resources under the Tariff.

With plans underway to significantly transition the region’s capacity market structure to a prompt and seasonal auction design, coupled with the Resource Capacity Accreditation (RCA) effort, NEPOOL believes now is the time to take a holistic look at the current treatment of RMR agreements in the market and to evaluate and/or pursue potential changes to better align RMR treatment with the broad reliability contribution concerns currently in focus for the region. We, collectively, have a unique opportunity to address issues with the current treatment of RMR resources and develop potential reforms that fit into the overall capacity market design changes rather than an after-the-fact patch solution. As the ISO has indicated, *“it is possible that the assessment could identify improvements to how resources retained for reliability are treated with regards to capacity market pricing, thereby producing more efficient capacity market outcomes than the status quo.”*<sup>1</sup>

This work is particularly important as the current RMR treatment affects both existing and new resources of every fuel, technology, and vintage type. It also directly impacts the load-serving entities that must support an RMR agreement and causes significant overall ratepayer impacts. Given the substantial market disruption and consumer cost incurred from the last RMR, a solution to this issue must be on the forefront for the region.

***Currently, NEPOOL does not have a consensus position on what the solution (i.e., pricing treatment for RMR resources) should be.<sup>2</sup> There is though a broadly shared view within NEPOOL that this is an issue of critical importance and that the RMR-related participation rules should to be addressed as part of the initial scope of the capacity market reform process.***

Finally, consistent with ISO’s initial assessment of the scope of work for this requested priority item,<sup>3</sup> NEPOOL recognizes the multi-year effort that would likely be required here and as such supports this item being included as a priority on a multi-Annual Work Plan basis if needed. The important process point is not so much whether the relevant NEPOOL Committee process is completed on the issue in 2025 but that the work be completed in time for initial launch of the new capacity market design.

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<sup>1</sup> Statements and/or quotes like this from the ISO that are included in this memorandum are taken from the ISO’s initial feedback/assessment on the larger Sector-identified list of priority items. As noted by the ISO in its “Working Response” document, the initial feedback-related information provided *“should be considered in progress as this document does not reflect a complete analysis on the proposed topics.”*

<sup>2</sup> This requested effort/process may consider alternative pricing treatments that may ameliorate the pricing impacts of retained resources, such as PJM’s energy-only RMR framework, the ISO-NE’s own SATOA approach, or potentially other novel approaches that look at the reliability contribution of the resource for purposes of entering a price in the auction.

<sup>3</sup> The ISO’s initial assessment of the scope of work includes two distinct parts:

- a) *“Assess options for different auction pricing constructs for resources retained for reliability in the capacity market by evaluating the characteristics of each and tradeoffs between them. This would likely require considerable time involving market analyses of a number of options.*
- b) *Design and implement any changes that are recommended coming out of the assessment. This scope is harder to define at this time, as it could involve no further actions, relatively minor rule changes that can be easily designed and implemented, or a significant change to the capacity market rules.”*

## ➤ FURTHER IMPROVEMENTS TO TRANSMISSION & SYSTEM PLANNING PROCESSES

NEPOOL appreciates all the dedicated efforts over the past year(s) that culminated in the FERC's recent approval of the jointly filed Extended/Longer-Term Transmission Planning (LTTP) Phase 2 tariff changes. At the same time, various stakeholders across multiple Sectors have identified the ***need to further develop the longer-term transmission planning processes to ensure the most cost-effective and efficient transmission solutions.***

***NEPOOL requests that the ISO continue to prioritize in the Annual Work Plan the development and evaluation (including analyses) of further potential improvements to the region's transmission and system planning processes.***

These ongoing/future efforts and work should include the following:

- ***ISO should explore further improvements to the procurement framework, including:***
  - Further improvements to the Phase 2 procurement framework for Longer-Term Transmission Planning, including an assessment of what other potential additional benefits and selection criteria (e.g. health impacts) ISO can use for completing the cost benefit analysis as well as ensuring fair competition in the procurement and RFP process.
- ***A gap analysis on where and how grid enhancing technologies (GETs) are included or absent in assessments for transmission solutions for ACPs, interconnection network upgrades, and longer-term transmission planning***
- ***A process and objective criteria by which asset condition project (ACP) costs can be distinguished from “right-sizing” costs and evaluated accordingly.<sup>4</sup>***

With respect to the consideration of GETs, NEPOOL agrees with ISO<sup>5</sup> that to develop a scope for this initiative, the ISO may need further information on what problems the sectors are looking to solve. Further deliberations and a scope exercise may be particularly important here to ensure that all interests are included.

Separately, NEPOOL also agrees that consideration should be given as to whether any or all of the above-mentioned transmission planning related items could be addressed, in part or in whole, by FERC Order No. 1920.<sup>6</sup>

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<sup>4</sup> The ISO expects the ACP right-sizing work to continue on the path defined in the [2024 Annual Work Plan and its Update](#). As indicated in the [2024 Annual Work Plan and its Update](#), “an effort to incorporate sizing considerations into the asset-condition decision-making process is planned for discussion with ISO, NESCOE, TOs, and other stakeholders upon conclusion of the ACP process-improvements portion of the initiative (exact timing TBD), which is being led by the TOs and the states.”

<sup>5</sup> Per the ISO, “[a]n initial scope may involve stakeholder discussions to develop a consistent definition for GETs, define a problem statement that the GETs are intended to solve, and determine the benefits over other technologies and any limitations, risks, and costs.”

<sup>6</sup> As the ISO has explained, “Given the enormous breadth of the Order, compliance is likely to consume significant ISO and stakeholder time and resources over the next year and possibly beyond. FERC compliance work takes

## **A. PRIORITY ITEMS THAT ARE PART OF ONGOING OR PLANNED REGIONAL EFFORTS**

The items listed under this category are part of projects that are on the current AWP and/or an item(s) or issue(s) expected to be included as part of planned projects for the 2025 AWP. NEPOOL appreciates that the items listed here are within the scope of those ongoing/planned efforts and agrees that each one constitutes important work for the region.

- **PROMPT/SEASONAL/RCA PRIORITY: DEVELOPING A GAS MARKET CONSTRAINT**

*Request for ISO to prioritize development of a market constraint approach for accrediting gas resources within the prompt/seasonal/accreditation framework and to commit to completing the constraint design in a manner that allows ample time for stakeholder review, questions, and feedback.*<sup>7</sup>

\*As the ISO outlined in its [January 4, 2024 memo](#) to the NEPOOL Markets Committee, a gas constraint “offers a theoretically superior way to model the region’s gas infrastructure limits than other options that the region has considered.” And as indicated in the [2024 Annual Work Plan Update](#), the ISO has committed to this multi-year effort that would be developed and tested in parallel with other parts of the prompt/seasonal/accreditation effort, which would include stakeholder discussions.

- **PROMPT/SEASONAL/RCA PRIORITY: RETIREMENT NOTIFICATION TIMING**

*Request to prioritize the development of retirement related reforms early in the seasonal/prompt market design reform process to help reduce the risk of/need for Reliability Must Run (RMR) agreements, which may include developing an alternate resource retirement notification process that occurs outside of the capacity market. As part of this request, some NEPOOL members urge the ISO to conduct an analyses/assessment of the risks associated with any proposed changes to the retirement notification timing/process.*

\*The ISO has indicated that it plans to address the timing of retirement notifications, which is a necessary element related to the new capacity market design. The assessment and development of this component of the project could begin in the second part of 2024 and continue into 2025.<sup>8</sup>

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priority in the AWP. During the compliance process, ISO would keep an eye toward these sector requests. If, over time, sectors find that their requests are not being satisfied via Order No. 1920 compliance, they could consider submitting these items as separate requests in future Annual Work Plans.”

<sup>7</sup> As stated by one of the requesting Sectors, “[a]ccurately reflecting contributions of all resources to resource adequacy in the capacity market is key to ensuring regional system reliability and advancing the clean energy transition.”

<sup>8</sup> Per the ISO, “[t]he time required for assessment, development, and stakeholder discussions would depend on key design features that have not yet been determined, though the work would target a completion date that allows it to be in effect for CCP 19, consistent with stakeholder requests.”

- **PEAT/REST LONGER-TERM ANALYSIS**

The ISO is currently evaluating how it will utilize the Probabilistic Energy Adequacy Tool (PEAT) and Regional Energy Shortfall Threshold (REST) to quantify and mitigate regional energy shortfalls. ***Desired priority item here is for ISO to conduct PEAT evaluations for longer-term planning horizons (i.e., 5 to 10 years)*** because a longer-term energy adequacy study will inform infrastructure-based solutions to energy adequacy issues; horizons under five years from study date, are likely to yield solutions with only short-term market interventions.

\*As stated by ISO, the request to focus on a slightly longer-time horizon (i.e., 5 to 10 years) *“appears to be mostly in line with ISO’s thinking in terms of the general scope of the work for this project and, therefore, taking on the work associated with this longer-term informational analysis appears to be reasonable.”*<sup>9</sup>

- **LOAD REPORTING**

Many customers in New England have made investments in services and equipment that allows them to reduce load during the annual and monthly peak load hours.

The Load Reporting related request here is for ISO to:

- (1) Find a method to have revenue quality meter (RQM) data, or a close estimation, posted in real time by using an estimate of just the behind-the-meter PV (BTM PV) that is registered as an SOG; and
- (2) Publicize load-zone or dispatch-zone level real time load data.

\*The ISO has some planned initiatives that may provide stakeholders sufficient data to adjust their notification processes with their customers. The scoping of the four new data elements noted in (1) is underway and the ISO has indicated that it will communicate with stakeholders when those become available in ISO Express, estimated in Q1 of 2025.<sup>10</sup>

The ISO also noted that:

*“[a]s part of an existing effort to enhance short-term load forecasting, the ISO is planning to develop in 2024-early 2025 a new forecasting system with a dynamic modeling process that will create a real-time load data feed and incorporate real-time BTM PV data for use in forecasting. A by-product of the effort is a more granular load-zone view of the forecasted and actual system demand as well as estimated BTM PV. Consequently, the ISO is planning to publish four new 5-minute data elements, two real-time actual values consisting of real-time actual zonal demand and estimated actual zonal BTM PV, and a rolling 24-hour forecast of zonal load and BTM PV. Note that the near real-time BTM PV data the ISO is receiving by a vendor is representative and cannot be matched to the SOG registration data.”*<sup>11</sup>

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<sup>9</sup> As indicated by the ISO, “[t]his generally seems to correspond to work the ISO already has planned as part of REST and/or additional energy analysis work.”

<sup>10</sup> Timing of other initiatives and whether those can be considered for the 2025 Annual Work Plan will largely depend on ISO resourcing bandwidth.

<sup>11</sup> Stakeholders can currently find the system-wide peak in the ISO’s [weekly market reports](#) and Regional Network Load information on the [Regional Network Load reports](#). The ISO is in the preliminary stages of scoping an effort to

## **B. OTHER SECTOR-REQUESTED ITEMS**

The following additional items were identified by member representatives within one or more of the Sectors. As these items may be related to or could potentially be within the scope of ongoing or future Work Plan projects, NEPOOL leadership encourages the ISO to consider these items on a going forward basis, especially if one or more such item(s) may help to address any of the aforementioned priorities.

Note also that simply because an item is listed here should not necessarily connote that one or more of these items are more or less important to some NEPOOL members than the items listed above, and NEPOOL may revisit these items as a potential priority in the future.

- **MORE ANALYSIS ON BIDS LIMITED TO SHORT-TERM GOING FORWARD COSTS**

Expressing concern with price formation in how bids into the newly designed capacity market will be constructed/permitted, *request here is for ISO to conduct more analysis to focus on permissible bid structures and risks to bids with short-term going forward costs as a priority project under the 2025 Annual Work Plan.*

\*As interpreted by ISO, this request may include three related but distinct items for scoping:

- A. Assess what costs a resource offering competitively into the capacity market should include under a prompt capacity market and how these compare to those that it would include under the current forward construct.
- B. Assess how any such changes in what costs are included in a competitively-based offer may impact expected capacity market clearing prices.
- C. Determine what changes to the current set of allowable costs may be needed to support the move to a prompt auction. (The scope of this aspect of the work would need to be assessed using the findings from items A and B.)

Per the ISO, as this issue “*may not need to be addressed as a core part of the prompt/seasonal design that is strictly necessary to run a revised capacity market for CCP 19 at the outset, aspects of this issue may warrant further assessment and consideration in future phases of the prompt/seasonal design, which have not yet been scoped.*”<sup>12</sup>

- **MODELING OF TEMPERATURE CORRELATED OUTAGES AND AMBIENT TEMPERATURE ADJUSTMENTS**

In October 2022, ISO-NE issued a memorandum explaining that there are several major modeling design items not in scope for the Resource Capacity Accreditation (“RCA”)

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publish zonal RT SOG RQM and zonal RQM loads to the [“Weekly Market Data 53 Weeks.xlsx”](#) supplemental file that goes along with the weekly markets report materials.

<sup>12</sup> The ISO further stated that “*consideration should be given to the tradeoffs of doing this work over other areas of the design and/or the risks of not meeting the CCP 19 deadline*” and “*that these issues may be considered as separately-scoped items or initiatives for a future Annual Work Plan beyond 2025.*”

project currently underway. This list included an evaluation of correlated thermal generator outages and ambient temperature adjustments for thermal generators, among other issues. This omission from RCA project scope was a focus of one of last year's Sector-identified priority items, but ISO has not expanded the scope for RCA to address these topics. ***Members within the same Sector continue to identify this as a key priority, having previously opined that these items “will have a significant impact on RCA outcomes”.***<sup>13</sup>

The requesting Sector would like the ISO to evaluate the impact of: (A) an ambient temperature adjusted rating for each thermal resource type; and (B) a temperature correlated outage model for thermal resources on the capacity accreditation value under the MRI-based design.<sup>14</sup>

\*The ISO has stated that several RAA modeling issues have been identified as high priority under the prompt/seasonal/ accreditation effort and **items A and B** would utilize the same ISO staff assigned to work on the core design and implementation plans of the prompt/seasonal/accreditation initiative.

Further, for both items the ISO has stated that “*consideration should be given to the tradeoffs of doing this work over other areas of the design and/or the risks of not meeting the CCP 19 deadline.*”<sup>15</sup>

- **FURTHER INTERCONNECTION PROCESS IMPROVEMENTS**

***Request for ISO to develop the Order No. 2023 heatmap with early/ongoing stakeholder input and to evaluate and identify other interconnection issues related to pre-queue entry that will not be identified by the heatmap*** (e.g., voltage/stability issues, substation non-expandability). This effort should include consideration of ways to enhance the heatmap or to use other methods to provide that information. In addition, this Sector-identified priority item ***requests that ISO develop a unit cost guide detailing expected costs (including IC's initial capital costs and ongoing costs) associated with interconnection upgrades.***

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<sup>13</sup> The requesting Sector provided further as follows: “*Recognizing ISO’s resource limitations and that ISO has stated that the items in the memo were not considered “core” to the [RCA] design, we think it critical to evaluate the impact and feasibility of all of the issues identified in the October memo and outline a clear roadmap for consideration of these improvements. However, considering analysis and design work underway in other regions, we are particularly interested in an analysis of temperature correlated thermal outages and ambient temperature adjustments for thermal generators as we fear that these issues may have a significant impact on MRI values for all resource types and impact appropriate price formation in the auction. We hope that ISO-NE is able to collect data in 2024 that will help support that an effort in 2025 to evaluate, design, and develop additional modeling capabilities to account for these potentially significant impacts on MRI values.*”

<sup>14</sup> The requesting Sector members appear to desire two modeling changes for thermal resources in the resource adequacy analysis, each with two phases: an evaluation phase and a design phase.

<sup>15</sup> Per the ISO, “[c]onsideration should be given to requesting these items in a future Annual Work Plan beyond the 2025, as a separately-scoped project that would evaluate the overall modeling of thermal and/or other resources. Such a separate project likely would also include partial outage modeling and maintenance scheduling.”

\*The ISO explained that “[d]evelopment is already underway for adding capacity injection capability to the heatmap that is required by Order No. 2023. This is a significant undertaking, targeted to be in place before the first regular cluster (currently estimated to occur in the second half of 2025). Stakeholder input will be considered as part of that development process. After compliance is met, it may be possible to build on this work and add more functionality.”<sup>16</sup>

The ISO further stated that “[c]onsideration should be given to requesting additional functionality to the heatmap (beyond the FERC-mandated capacity injection capability) for a future Annual Work Plan beyond 2025, as a separately-scoped initiative.”

- **DEVELOP SOLUTIONS TO ADDRESS DEFICIENCIES IDENTIFIED BY THE PEAT/REST ANALYSIS**

Relating to the ongoing efforts to analyze/assess regional energy adequacy issues, **at least one Sector requests that the ISO prioritize development of energy and ancillary service market-based solutions to resolve deficiencies and shortfalls identified by the PEAT analysis.**

NEPOOL had identified the exploration of long-term solution(s) to address regional energy adequacy/security risks as a key priority item for the past two AWP. To date though, material progress in this area has been developing slowly. We are hopeful that the PEAT/REST effort will provide the analytical tools/information to help hasten the advancement of viable long-term solutions.

\*The ISO has stated that following the development of the REST criteria, the next step will be a determination of whether yet-to-be determined solutions are required to address potential shortfalls. “Solutions, if necessary, could range from market enhancements, responsiveness by end-use consumers, infrastructure solutions, etc. Notably, as part of the development of the REST, ISO is keenly aware of the need to develop metrics that facilitate the potential for development of solutions.”<sup>17</sup>

- **TRANSFERS OF EXISTING CAPACITY INTERCONNECTION RIGHTS**

Given the challenges for siting and permitting in the region, **at least one Sector encourages ISO to create new rules for the transfer of existing interconnection rights to new capacity resources.** This could be accomplished through new rules that more easily allow resources ready to build to contract with existing resources that if given sufficient incentives will retire and sell their interconnection rights.

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<sup>16</sup> Per the ISO, “[t]he ISO has already received the request to add representation of energy injection capability, in addition to the capacity injection capability that is required by Order No. 2023. FERC compliance takes priority in the AWP, and from a resource perspective, any further enhancements would take place after the energy capability effort.”

<sup>17</sup> The ISO explained that “[t]he development of the REST criteria must come first, and the REST criteria itself may aid in the determination of whether and what development of solutions should be high priority work item for the ISO and the region and when and how that fits into the Annual Work Plan process.”



The requesting Sector noted potential impacts on the queue and the overlapping impact tests such that buyers may still need to submit a new interconnection request for a system study. They also suggest limiting the permissible time to sell the rights, such as 12 months after deactivation (similar to PJM’s rules).

\*The ISO estimates that absent significant complications, this initiative as a stand-alone design change would be expected to take approximately 12 months, further noting that consideration should be given as to “*whether this request could be more effectively addressed through the relevant phases of the prompt/seasonal/accreditation initiative.*”<sup>18</sup>

- **CO2 EMISSION RATE IMPROVEMENTS**

In addition to the real-time estimated CO2 emissions currently published on ISO Express, ***members within at least one Sector are requesting that the ISO to find a method to also publish a real-time marginal CO2 emission rate.***

ISO’s initial assessment of the overall scope to satisfy this request identified the following steps:

1. Clarify use case(s) for the marginal emission data
2. Research and assess available methodologies and identify the gaps between the request and the existing implementation
3. Seek stakeholder direction on potential next steps that may include steps 4-6
4. Select or design a preferred methodology (including definition for boundary conditions)
5. Design and develop software to retrieve needed data and compute marginal emission rate
6. Implement

\*Significant ISO resources are needed to carry out the methodology assessment and design (tasks 1 and 2). The ISO plans to begin work on those items in 2024 internally and through the Environmental Advisory Group meetings in Q3 and/or Q4. Timing for tasks 4, 5 and 6 in 2025 would depend on the outcome of tasks 1-3, as well as the availability of ISO resources, which together would determine if it would become a priority in the 2025 AWP.

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<sup>18</sup> If the request is not satisfied through that initiative, consideration should be given to requesting this item for a future Annual Work Plan beyond 2025, as a separately-scoped initiative.