



November 3, 2023

BY ELECTRONIC FILING

The Honorable Kimberly D. Bose, Secretary Federal Energy Regulatory Commission 888 First Street, NE Washington, DC 20426

Re: Market Rule Changes to Delay Nineteenth Forward Capacity Auction and Related Capacity Market Activities, <u>Docket No. ER24-___000</u>

Dear Secretary Bose:

Pursuant to Section 205 of the Federal Power Act ("Section 205"),¹ ISO New England Inc. (the "ISO" or "ISO-NE"), joined by the New England Power Pool ("NEPOOL") Participants Committee² (together, the "Filing Parties"),³ hereby submits to the Federal Energy Regulatory Commission (the "Commission") revisions to the ISO's Transmission, Markets and Services Tariff (the "Tariff") to delay the nineteenth Forward Capacity Auction ("FCA"), including all pre-auction and post-auction activities related thereto, for one calendar year. The proposed Tariff revisions also address the timeline for conducting subsequent auctions, as well as impacts to the schedule for running the three annual balancing auctions (referred to as annual reconfiguration auctions or "ARAs") that are held between the time of the FCA and the commencement of the capacity delivery year. Finally, the proposed Tariff revisions make adjustments to the FCA qualification rules for certain resources, to prevent the delay from adversely impacting their participation in the Forward Capacity Market. The proposed Tariff changes are collectively referred to herein as the "FCA 19 Schedule Changes."

The FCA 19 Schedule Changes are supported by the testimony of Alan McBride (the "McBride Testimony"), which is sponsored solely by the ISO.⁴ As addressed in Section I of this

¹ 16 U.S.C. § 824d.

 $^{^2}$ Capitalized terms used but not defined in this filing are intended to have the meaning given to such terms in the Tariff. Section III of the Tariff is known as Market Rule 1.

³ Under New England's Regional Transmission Organization arrangements, the rights to make this filing of changes to the Tariff under Section 205 of the Federal Power Act are the ISO's. NEPOOL, which pursuant to the Participants Agreement provides the sole Participant Processes for advisory voting on ISO matters, supported the changes reflected in this filing and, accordingly, joins in this Section 205 filing.

⁴ Mr. McBride is the ISO's Director of Transmission Services and Resource Qualification.

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transmittal letter, the ISO is requesting an effective date of January 2, 2024, which is 60 days from the date of this filing. As explained in Section VI of this transmittal letter, the proposed revisions were supported by NEPOOL.

Executive Summary of the Drivers for the Proposed FCA 19 One-Year Delay

FCA 19 is currently scheduled to be held in February of 2025, and is to be preceded by a year-long qualification process that is scheduled to commence in February of 2024. FCA 19 will procure capacity for the June 1, 2028 through May 31, 2029 delivery year, or Capacity Commitment Period. By this filing, the Filing Parties are proposing to delay the auction until February of 2026, with the qualification process commencing in February 2025. The filing does not propose a change to the timing of the Capacity Commitment Period.

Delaying FCA 19 for a year will afford the region the time necessary to complete the ongoing work on a new methodology in the Forward Capacity Market ("FCM") for calculating resource capacity accreditation values, so that this methodology can be implemented for use in FCA 19. As is explained in this transmittal letter and in Mr. McBride's supporting testimony, the New England region is experiencing a transformation in its resource mix, as federal and state policies promote the development of clean energy resources that will support a significant expected increase in demand over the next decade. To ensure that this transition takes place in a manner that meets New England's resource adequacy needs, it is imperative that the region accurately value the reliability contributions of all resources, using a methodology that "accounts for the variable nature of loss-of-load events and measures capacity value for each resource in a common manner."⁵ The current methodology falls short of meeting these criteria, and in recognition of this, the ISO, the New England stakeholders, and the New England states, have been engaged in a multi-year project to overhaul the FCM's capacity accreditation methodology.

The energy transition is happening now in New England. Between now and 2029 (*i.e.*, through the end of the FCA 19 delivery period—June 2028 through May 2029), battery storage resources, solar resources, and offshore wind resources will comprise the vast majority of the proposed projects in New England's Interconnection Queue. The region is also poised to experience a significant increase in winter energy demand. The current methodology for accrediting resource contributions to resource adequacy is insufficient in the face of these changes. Of particular concern, the accreditation methodology must be updated to capture the impact of the constrained natural gas delivery system on the ability of natural gas-fired resources to deliver energy during the winter, when those constraints are greatest. It also must accurately capture resource performance during extended, multi-hour reliability events, so that the region attracts a mix of resources that is best able to serve load over the course of those events in a cost-efficient manner.

The proposed one-year delay will give the region time to complete and review the new capacity accreditation design. The ISO currently anticipates that the new design will be filed

⁵ McBride Testimony at 3.

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with the Commission sometime in the third quarter of 2024, for implementation beginning with the FCA 19 qualification period that, under the one-year delay, would begin in February of 2025.

Additional Benefits of the Proposed FCA 19 One-Year Delay

The additional time afforded by the one-year delay has other benefits that are independent of completing the capacity accreditation reforms. First, it affords the region time to evaluate other, more fundamental, changes to New England's capacity market design, namely a possible transition to a prompt market structure, with multiple seasonal auctions. For a range of reasons, the ISO as well as several stakeholders within the region have voiced support for such an evaluation. Second, it affords the region time to develop and implement changes to the interconnection study queue process that are required under the Commission's Order No. 2023, so that they can be implemented in time for FCA 19. These additional benefits are more fully discussed in Section IV.C below.

I. REQUESTED EFFECTIVE DATE

The ISO respectfully requests that the Commission accept the Tariff revisions discussed herein as filed, without suspension or hearing, to be effective on January 2, 2024, which is 60 days from the date of this filing. Implementing the FCA 19 delay at the beginning of January 2024 will help avoid the need for both the ISO and Market Participants to invest resources and time in preparing for the FCA 19 qualification process, which under the Tariff's current schedule will commence in February 2024.

The ISO and Market Participants spend a significant amount of time preparing for the FCA qualification cycle. In advance of the February start of the qualification process, the ISO must review any changes to the process to ensure internal systems have taken the revisions into account, and prepare revised training and guidance materials for stakeholders. Stakeholders must in turn prepare necessary submissions for the qualification cycle, including updated Measurement and Verification Plans,⁶ reactivation plans,⁷ as well as the preparation of Retirement and Permanent De-List Bids.⁸

Without the delay, qualification activities for FCA 19 would ramp-up quickly, with the ISO publishing the initial calculation of qualified capacity for all existing resources on February 23, 2024. Market Participants are expected to review these calculations and submit any corrections and certain changes within one week. The following week, the ISO will re-issue all of the existing capacity values, updated for any accepted corrections or changes. Then,

⁶ See Tariff Sections III.13.1.4.2.1(c) (d) (requiring Existing On-Peak Demand Resources and Existing Seasonal Peak Demand Resources to submit Updated Measurement and Verification Plans in certain circumstances no later than five Business Days after receipt of the Qualified Capacity notification).

⁷ See Tariff Section III.13.1.1.6(b) (requiring a resource that previously has been deactivated or retired pursuant to Section I.3.9 of the Tariff to submit a reactivation plan demonstrating that the resource shall return to operation no later than 10 Business Days before the Existing Capacity Retirement Deadline).

⁸ *See* Tariff Section III.13.1.10(b) (specifying that the Existing Capacity Retirement Deadline will be in March, approximately four years and three months before the beginning of the Capacity Commitment Period).

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Retirement and Permanent De-List bids – designed to be irrevocable – must be submitted by March 15, 2024. The January 2, 2024 effective date is well in advance of the scheduled commencement of the FCA 19 qualification process in late February, so that the ISO and Market Participants have certainty regarding the date for the commencement of the qualification process before they invest the resources and time preparing for a February 2024 process.

The ISO also stresses that receiving an order from the Commission accepting the delay once the qualification process has commenced could create confusion for Market Participants. This is because, during the qualification process, the Tariff mandates publication of information to the market at certain intervals for specific purposes. Under the current FCA 19 qualification schedule, the first date the ISO is required to publish upcoming auction information to Participants is on March 20, 2024, when the ISO is required to publish a summary of Retirement and Permanent De-List Bids submitted for FCA 19.⁹ Were this information to be released, and then the auction delayed, the ISO would appropriately begin the delayed FCA 19 qualification process anew, rendering the submission and publication of information received up to that date moot. The FCM qualification process has been designed to release accurate and timely information to the market at specific intervals, and the ISO is concerned that providing information that may no longer be true or correct, as it is ultimately rendered moot, would be detrimental to the overall qualification process. For these reasons, the ISO has requested an effective date of January 2, 2024, well in advance of the start of the qualification process.

II. DESCRIPTION OF THE FILING PARTIES; COMMUNICATIONS

The ISO is the private, non-profit entity that serves as the Regional Transmission Organization ("RTO") for New England. The ISO operates the New England bulk power system and administers New England's organized wholesale electricity market pursuant to the Tariff and the Transmission Operating Agreement with the New England Participating Transmission Owners. In its capacity as an RTO, the ISO has the responsibility to protect the short-term reliability of the New England Control Area and to operate the system according to reliability standards established by the Northeast Power Coordinating Council and the North American Electric Reliability Corporation.

The signatories to the New England Power Pool Agreement, which was first entered into in 1971, are referred to collectively as "NEPOOL." Currently, there are more than 530 signatories, referred either as "Participants" or "members." Participants include all of the electric utilities rendering or receiving services under the Tariff, as well as independent power generators, marketers, load aggregators, brokers, consumer-owned utility systems, demand response providers (including owners of distributed generation and aggregators of such generation), developers, end users, and merchant transmission providers. Pursuant to revised governance provisions accepted by the Commission in *ISO New England Inc., et al.*, 109 FERC ¶ 61,147 (2004), the Participants act through the NEPOOL Participants Committee. Section 6.1 of the Second Restated NEPOOL Agreement and Section 8.1.3(c) of the Participants Agreement

⁹ Pursuant to Tariff Section III.13.1.8(e), "[n]o later than three Business Days after the Existing Capacity Retirement Deadline, the ISO shall post on its website information concerning Permanent De-List Bids and Retirement De-List Bids."

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authorize the Participants Committee to represent NEPOOL in proceedings before the Commission. Through the Commission-approved Participant Processes, NEPOOL is the vehicle through which all stakeholders with business interests in New England are able to provide informed input and advice to ISO-NE.

All correspondence and communications in this proceeding should be addressed to the undersigned for the ISO as follows:

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And to NEPOOL as follows:

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*Persons designated for service.¹⁰

III. STANDARD OF REVIEW

These changes are being submitted pursuant to Section 205 of the Federal Power Act, which "gives a utility the right to file rates and terms for services rendered with its assets."¹¹ Under Section 205, the Commission "plays 'an essentially passive and reactive role"¹² whereby it "can reject [a filing] only if it finds that the changes proposed by the public utility are not 'just and reasonable."¹³ The Commission limits this inquiry "into whether the rates proposed by a

¹⁰ Due to the joint nature of this filing, the Filing Parties respectfully request a waiver of Section 385.203(b)(3) of the Commission's regulations to allow the inclusion of more than two persons on the service list in this proceeding.

¹¹ Atlantic City Elec. Co. v. FERC, 295 F.3d 1, 9 (D.C. Cir. 2002).

¹² Id. at 10 (quoting City of Winnfield v. FERC, 744 F.2d 871, 876 (D.C. Cir. 1984)).

¹³ *Id.* at 9.

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utility are reasonable – and [this inquiry does not] extend to determining whether a proposed rate schedule is more or less reasonable than alternative rate designs."¹⁴ The changes proposed herein "need not be the only reasonable methodology, or even the most accurate."¹⁵ As a result, even if an intervenor or the Commission develops an alternative proposal, the Commission must accept this Section 205 filing if it is just and reasonable.¹⁶

IV. JUSTIFICATION FOR THE FCA 19 ONE-YEAR DELAY

A. Background – The Need For a More Sophisticated Means of Measuring Contributions to New England's Resource Adequacy Needs

Under a construct that has been in place since its inception, the FCM procures capacity for the New England region using a forward annual auction framework. FCAs are held each year approximately three years and four months in advance of the year-long capacity delivery period, or Capacity Commitment Period. Each auction is preceded by a year-long qualification process. A central purpose of this qualification process is to determine the amount of capacity a resource can be expected to deliver during the Capacity Commitment Period, and thus the amount of capacity it may offer into the FCA. This value is referred to generally as the resource's capacity accreditation value, or, under the Tariff, its Qualified Capacity value.¹⁷

In accordance with the current Tariff-imposed schedule, the ISO will hold the eighteenth Forward Capacity Auction, or FCA 18, in February of 2024 for the 2027-2028 delivery year, which will run from June 1, 2027 through May 31, 2028. Under that same schedule, the qualification period for FCA 19 is to commence in February of 2024, and that auction is to be held in February of 2025 for the June 1, 2028 through May 31, 2029 delivery year.

As Mr. McBride explains in his supporting testimony, the Qualified Capacity of a capacity resource is currently calculated based on heuristics, whereby a set of practical rules approximates a resource's contribution to meeting an Installed Capacity Requirement. These heuristics differ by resource type; the Qualified Capacity of Intermittent Power Resources is generally based on historical median output in a limited number of predetermined hours,¹⁸ while

¹⁴ City of Bethany v. FERC, 727 F.2d 1131, 1136 (D.C. Cir. 1984).

¹⁵ Oxy USA, Inc. v. FERC, 64 F.3d 679, 692 (D.C. Cir. 1995).

¹⁶ *Cf. Southern California Edison Co., et al*, 73 FERC ¶ 61,219 at 61,608 n.73 (1995) ("Having found the Plan to be just and reasonable, there is no need to consider in any detail the alternative plans proposed by the Joint Protesters.") (citing *Bethany*, 727 F.2d at 1136)).

¹⁷ See Tariff Sections III.13.1.1.2.5 (Qualified Capacity for New Generating Capacity Resources), III.13.1.2.2 (Qualified Capacity for Existing Generating Capacity Resources), III.13.1.3.2 (Qualified Capacity for Existing Import Capacity Resources), III.13.1.3.2 (Qualified Capacity for Existing Import Capacity Resources), and III.13.1.4A.2.A (Qualified Capacity for Existing Distributed Energy Capacity Resources).

¹⁸ See, e.g., Tariff Sections III.13.1.2.2.2.1 and III.13.1.2.2.2.2. Summer capacity values for Intermittent Power Resources are based, primarily, on the resource's net output in hours ending 1400 through 1800 each day of the summer period (June through September). Winter capacity values are based, primarily, on hours ending 1800 and 1900 each day of the winter period (October through May).

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the Qualified Capacity of an existing non-intermittent generation resource is generally based on the resource's demonstrated maximum output capability and adjusted ambient air temperature.¹⁹

On-going changes in New England's electricity supply and demand necessitate the development of a more sophisticated measure of resource capacity accreditation. Like other regions, New England is experiencing a major transition in its resource mix combined with significant anticipated growth in demand. The past decade has brought the retirement of many nuclear, coal, and oil-fired generation resources, and the dominance of seasonally constrained natural gas-fired generation in the region's resource mix.²⁰ Ambitious state policies also support increasing clean energy resources in New England's resource mix, including substantial distributed energy generation resources.²¹ At the same time, planned efforts to electrify the region's building heating systems and the electrification of transportation systems are projected to grow peak electricity demand. Heating electrification efforts alone are forecasted to approximately double the region's winter peak load over the next two decades.²²

These on-going changes have highlighted the need to ensure that the relative contributions of different resources to meeting system resource adequacy needs are more fully recognized and compensated in the FCM. As Mr. McBride explains, the region's current capacity accreditation methodology misses a number of factors relevant to ensuring overall resource adequacy, including, for example, how resources perform during extended, multi-hour reliability events, and differences in performance during seasonal reliability events (*e.g.*, summer vs. winter).

For example, offshore wind resources generally perform better during the winter, while natural gas-fired resources generally perform worse in the winter given existing pipeline constraints; and short-duration battery storage resources do not contribute significant value during longer-duration reliability events. These nuances are not captured in capacity values under the current accreditation methodology.²³

To address these concerns, in 2021 the ISO began working with the New England stakeholders on developing a new methodology for accrediting capacity resources, with the expectation that those reforms would be implemented in time for FCA 19 under its current schedule (*i.e.*, to be held in February 2025). This new Marginal Reliability Impact ("MRI")

¹⁹ See, e.g., Tariff Sections III.13.1.2.2.1.1 and III.13.1.2.2.1.2.

²⁰ 7,000 MW of generation has retired or announced retirement plans since 2013. *See* ISO New England Inc., 2022 Regional Electricity Outlook: On the Horizon at 17 (July 2022), *available at* <u>https://www.iso-ne.com/static-assets/documents/2022/06/2022_reo.pdf.</u>

²¹ Five of the six New England States have enacted legislation setting carbon dioxide emission reduction targets at levels of at least 80% below 1990 levels by 2050. New Hampshire does not have a legislatively enacted emission target.

²² McBride Testimony at 11; *see also* Report of ISO New England Inc., *Modernizing Wholesale Electricity Market Designs*, Docket No. AD21-10-000, at 13 (filed Oct. 18, 2022).

²³ McBride Testimony at 9.

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methodology would be employed to accredit capacity values for all resources. Described in more detail in the McBride Testimony,²⁴ this methodology will take into consideration resources' operating characteristics such as maximum capability, intermittency, fuel (or other energy) limitations, and forced outages, in determining their reliability contributions, and will account for expected performance during hours when the system is at risk of not meeting load.

Mr. McBride explains several benefits of the MRI methodology as follows:

The MRI-based methodology under development will use a common approach to determine accredited capacity for all resource types; this methodology will result in resource accreditation that is more responsive to changes in the expected performance of the resource mix and expected demand. This approach allows the region to accurately weigh the relative value of each resource's contribution to meeting the region's resource adequacy needs, and better positions the region to meet those needs as new resources enter the system to meet expected demand growth and/or replace retiring resources. In addition, the new approach will adjust accredited capacity values from delivery period to delivery period as the duration and hours of loss-of-load events change, a key attribute as the system moves toward more weather-dependent resources and higher, less predictable loads. Bv extension, this more dynamic approach to accreditation also captures differences in expected resource performance and demand across seasons, recognizing that some resources perform better (or worse) in winter than in summer, another key attribute of the new methodology given the growth in demand and move toward a winter peaking system.25

After commencing in 2021, the development of the MRI capacity accreditation methodology continued through early 2023, when the ISO paused the design and stakeholder review process to evaluate certain issues discovered with the tools the ISO is using to model gas infrastructure constraints for the calculation of capacity accreditation values—a key component of the ISO's proposed design. While progress on the design effort is now continuing, it is not possible to complete the capacity accreditation reforms and file them with the Commission in time for use in FCA 19 under that auction's current timeline.

B. Why It Is Necessary to Implement the MRI Capacity Accreditation Methodology for FCA 19

Several factors point to the importance of affording the region the additional time necessary to complete and implement the new MRI capacity accreditation methodology for FCA 19. First, it is well-known that New England's natural gas delivery system faces significant constraints during the winter months, which can impede the ability of natural gas-fired generators to obtain fuel to operate, in particular during extended periods of cold weather. Without accounting for these constraints, the current resource adequacy assessment may

²⁴ Id.

²⁵ *Id.* at 12.

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underestimate the reliability risk during winter, and the current capacity accreditation methodology overvalues gas resources' reliability contributions, which likely means that the region is over-relying on natural gas-fired generators to meet peak winter demand.²⁶ With the region poised for a significant increase in winter demand,²⁷ it is important to account for gas infrastructure constraints in resource capacity accreditation values as soon as possible. A key feature of the new capacity accreditation methodology is the modeling of these constraints, which will produce a more accurate accounting of winter resource adequacy needs, and, ultimately, of natural gas-fired resources' capacity accreditation values.²⁸

Second, the region is already experiencing a significant influx of new resources, as offshore wind, solar, and battery storage resources now comprise the vast majority of resources in New England's Interconnection Queue. The ISO estimates that, between now and 2029 (*i.e.*, through the end of the FCA 19 delivery period—June 2028 through May 2029), battery storage resources will comprise approximately 43% of the proposed projects in the queue, solar resources will comprise approximately 15% of the proposed projects in the queue, and wind (predominantly offshore wind) projects will comprise approximately 40%.²⁹ As Mr. McBride explains, these resources have the potential to add significant capacity to the region's electricity system, with offshore wind making particularly notable contributions during the winter months when the existing gas infrastructure in New England is most constrained, and battery storage resources supplementing, and potentially replacing, other resources with stored fuels.³⁰

The current accreditation methodology fails to capture the relative contributions these resources make toward meeting the region's resource adequacy needs. Thus, as Mr. McBride explains, under the current construct, a two-hour battery storage resource with 40 MW of nameplate capacity can receive the same Qualified Capacity value as a four-hour or eight-hour battery storage resource with 40 MW of nameplate capacity. However, these resources are not of equal value in terms of their ability to reduce expected unserved energy in a system that is experiencing longer-duration loss-of-load events (*e.g.*, eight hours).

During such long-duration events, which can sometimes last for days, or even weeks, a short-duration battery storage resource can provide energy for only a fraction of the time needed, and likely is not able to recharge significantly over this type of shortage period. In contrast, longer-duration battery storage units can

²⁶ *Id.* at 12.

²⁷ *Id.* at 12-13; *see also* Report of ISO New England Inc., *Modernizing Wholesale Electricity Market Designs*, Docket No. AD21-10-000, at 13 (filed Oct. 18, 2022).

²⁸ McBride Testimony at 12-13; *see also* Pre-Forum Comments of ISO New England Inc., Docket AD22-9-000, at 11-12 (June 9, 2023) (describing the Resource Capacity Accreditation project's Marginal Reliability Impact methodology that will take into consideration resources' operating characteristics such as intermittency, fuel (or other energy) limitations, and forced outages in determining their reliability contributions).

²⁹ See NEPOOL Participants Committee, September 7, 2023 Meeting, Agenda Item 4: ISO New England Monthly Operations Report, at 45 (page 92 of slide deck), *available at* <u>https://www.iso-ne.com/static-assets/documents/2023/09/npc-2023-09-07-composite4.pdf</u>.

³⁰ McBride Testimony at 14.

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potentially provide significant value to the system, as they are capable of discharging for much longer periods of time.³¹

In short, as Mr. McBride concludes, "storage resources of different duration have vastly different values in terms of their contribution to the region's resource adequacy needs."³²

This analysis is not meant to single out battery storage resources, which are anticipated to play a central role in the transition of the resource mix over the next several decades. Rather, it is intended to highlight the importance of updating the accreditation methodology for FCA 19 so that capacity suppliers contemplating the development of new resources are incented to introduce projects that provide the highest value toward meeting the region's resource adequacy needs relative to the cost of the investment.³³

Finally, and of equal importance, until entry of adequate alternative capacity takes place, the New England region will remain reliant on stored fuels, including liquefied natural gas ("LNG") and fuel oil, in particular during severe cold weather when the natural gas pipeline delivery system is most constrained.³⁴ It is critical that the capacity accreditation methodology accurately capture the value of resources that can utilize such stored fuels, as incenting the entry of resources that cannot provide equivalent value could result in the inefficient retirement of these and other resources that are needed to maintain the reliable operation of the system for the foreseeable future.³⁵ As the ISO's Chief Operating Officer, Dr. Vamsi Chadalavada, has recently explained in the context of addressing wholesale revisions to the ISO's buyer-side market power mitigation rules, the immediate entry of large quantities of new resources could pose an unacceptable risk to the existing resources. Should this occur before the region is "in a position to fully ascertain and account for the reliability benefits of the retiring resources and the new resources replacing them"—and as discussed above, the capacity accreditation enhancements are critical to achieving this—these retirements "could have significant adverse

³¹ McBride Testimony at 15 (internal citations omitted). As Mr. McBride explains, the ISO has analyzed the expected loss-of-load duration events, showing that the expected duration of the majority of summer events was between one and 8 hours, and that 9.7% of LOL events lasted more than 7 hours. The implications of expected long-duration events for short-duration storage resources are significant, as these resources can only perform for some of the needed hours, and cannot recharge during the event. *See* McBride Testimony at 16-20.

³² McBride Testimony at 20.

³³ McBride Testimony at 23.

³⁴ See McBride Testimony at 23, citing Pre-Forum Comments of ISO New England Inc., Docket AD22-9-000, at 2 (June 9, 2023) ("In the near-term, the ISO's analysis demonstrates that the region remains reliant on stored fuels, including LNG and fuel oil, during severe cold weather.").

³⁵ See ISO New England Inc. and New England Power Pool Participants Committee, Revisions to ISO New England Transmission, Markets and Services Tariff of Buyer-side Market Power Review and Mitigation Reforms, Docket No. ER22-1528-000, Testimony of Dr. Vamsi Chadalavada at 11-14 (filed March 31, 2022) (discussing how the unmitigated entry of large quantities of resources could pose an unacceptable risk to the existing fleet, prompting the retirement of those resources before the region can fully ascertain and account for their relative reliability benefits).

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consequences for reliability, particularly during times when the interstate natural gas pipelines are constrained or during large contingencies."³⁶

In summary, the region's resource mix is evolving just as energy demand is increasing. This evolution is taking place now, with significant quantities of new clean energy resources seeking entry to the market between now and the end of the FCA 19 delivery year. To ensure a successful transition, it is critical that the capacity accreditation methodology be updated for FCA 19 so that the FCM can attract the optimal mix of new resources to meet the region's resource adequacy needs in a cost-efficient manner, while also maintaining the existing resources that are needed to support the region's reliability while the transition takes place.

C. The Benefits of the FCA 19 Schedule Changes Substantially Outweigh Potential Tradeoffs

While a delay of any auction is not ideal, continuing to conduct Forward Capacity Auctions under the existing rules further exacerbates the challenge of procuring the necessary resources to facilitate the region's imminent energy transition while maintaining reliability. Nevertheless, the ISO recognizes that a one-year delay to a forward auction includes tradeoffs. In theory, suppliers look to the three-and-a-half year forward auction to make investment decisions, and the forward auction timeline also can minimize the impact of resource retirements. It is important, therefore, to consider these tradeoffs, and ensure that the benefits of the delay outweigh the potential concerns. The ISO has done this evaluation, and is confident that the delay is the best course forward.

1. Tradeoffs Related to Resource Entry and Exit Do Not Outweigh Benefits

First, the delay should have little, if any, impact on new resource entry decisions. While the three year and four month forward auction construct was developed with the expectation that the auction timeline would provide a developer with adequate time between the auction and the delivery period to complete construction of its cleared resource, that expectation no longer holds true for the current mix of resources seeking entry to the FCM. Many resources—including battery storage, energy efficiency, and solar resources—often complete construction well in advance of the relevant FCA's delivery period, and in doing so often seek to take advantage of FCM rules that permit their participation in earlier delivery periods.³⁷ Other resources—namely large scale offshore wind projects or new imports—face significantly longer construction

³⁶ *Id.* at 14-18 (explaining that the current capacity accreditation framework does not account for shifting demand throughout the day and across seasons, that thermal resources provide additional uncounted benefits because of their dispatchable nature, and the potentially undesirable consequences were a large volume of new resources to clear in an upcoming auction before reforms are implemented that take these factors into account).

³⁷ Indeed, as is discussed in Section V.C below, in developing the FCA 19 Schedule Changes, several Market Participants asked the ISO to ensure that the delay would not interfere with their ability to enter their resources into the FCM prior to the FCA 19 delivery period given their plans to complete construction of those resources in 2025 or 2026—two-to-three years in advance of the FCA 19 delivery period. The ISO has accommodated this request with changes that expressly permit such resources early entry into the FCM notwithstanding the one-year delay.

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horizons, and for these resources the three year and four month auction cycle is also of limited value.³⁸ Thus, the current auction timeline bears little relationship to the investment horizon for the class of new resources seeking entry into the market, and, therefore, as Mr. McBride explains, "reducing the FCA 19 timeline by a year should have little, if any, impact on the investment decisions of the current classes of resources that are seeking entry into the FCM."³⁹

Second, the one-year delay should not have any adverse impact related to resource retirements in FCA 19. Reducing the FCA timeline by a year compresses the time available to address a reliability issue that is posed by the retirement of a resource, potentially limiting the options available to the region to address any such reliability concern and extending the out-of-market retention until the reliability issue can be addressed. As Mr. McBride explains, however, for multiple reasons "the risk that the one-year delay would increase the likelihood of an out-of-market retention is extremely limited."⁴⁰

Of particular note, the Tariff permits such a retention only for the narrow purpose of addressing a local transmission reliability issue.⁴¹ Thus, out-of-market retentions are rare in New England. In addition, even for this narrow retention trigger, "substantial investment in the New England transmission system over the last several decades has resulted in a robust transmission system, which reduces the likelihood that the retirement of a capacity resource will create a local transmission reliability issue that must be addressed."⁴² Finally, while the needs of the system are undoubtedly changing, "the ISO administers a proactive transmission planning process that optimizes the likelihood of identifying and rectifying any transmission reliability issue before a resource retirement triggers a condition that may give rise to an out-of-market retention."⁴³

³⁹ McBride Testimony at 26.

⁴⁰ McBride Testimony at 26-27.

³⁸ See, e.g., Reuters, Cost crunch prompts mass rethink of US offshore wind contracts, available at https://www.reuters.com/business/energy/cost-crunch-prompts-mass-rethink-us-offshore-wind-contracts-2023-09-13/ (Sept.13, 2023) ("Last month, Orsted said two suppliers are experiencing "challenges" that are delaying the delivery of foundations for three of its projects on the U.S. East Coast. . . . Several other developers including Equinor, Shell, EDPR, Engie and Iberdrola's Avangrid have asked for new contract terms on East Coast offshore wind projects").

⁴¹ See Tariff Sections III.13.1.2.3.1.5.1 and III.13.2.5.2.5. For FCA 18, the ISO's reliability review under these provisions was presented to the NEPOOL Reliability Committee at its August 15, 2023 meeting. See ISO New England Inc., Presentation of Reliability Review of Permanent and Retirement De-List Bids for the 2027-2028 Capacity Commitment Period, August 15, 2023, available at https://www.iso-ne.com/static-assets/documents/2023/08/a09_fca_18_perm_ret_delist_bid_reliability_reviews.pdf.

⁴² McBride Testimony at 27-30. In the past two decades, New England's proactive, open and transparent transmission planning processes have resulted in almost \$12 billion of system investments. Indeed, congestion charges in New England—representing the cost to customers of paying for more expensive energy because physical transmission line limits do not allow full delivery of least-cost energy—are significantly lower on a dollar per MWh basis than in any other jurisdictional ISO/RTO. *Id*.

⁴³ *Id.* New England's transmission planning processes look ahead ten years at changing system conditions, including targeted area-specific Needs Assessments and Planning Studies, supported by sophisticated modeling that assumes certain generating units are out-of-service during peak load, based on factors that include the number of generators in the study area, the system-wide weighted average EFORd value, unit type, unit location, unit size, and unit age. *Id.*

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Collectively, these factors address the concern that the one-year delay will increase the likelihood of, or lengthen the time for, the out-of-market retention of a retiring resource.

2. Delaying FCA 19 Affords Time for the ISO and Stakeholders to Evaluate the Forward Capacity Market Construct in Parallel

The proposed one-year delay for FCA 19 will also afford the region time to evaluate other significant changes to the capacity market. Of particular note, there has been growing interest from certain sectors within the New England stakeholder community, the ISO, as well as the ISO's External Market Monitor, in re-examining the current capacity market construct. A number of factors, including the forecasted increase in winter load levels, the anticipated change in New England's resource mix, and the acknowledged complexity of the current forward construct, have produced calls to examine whether the region should transition to a "prompt" capacity market design, in which auctions would be held close in time to the delivery period, and whether the region should replace the current procurement of an annual capacity product with the procurement of seasonal capacity products (*e.g.*, winter and summer).⁴⁴

The one-year delay will afford the region additional time to evaluate whether such changes should be pursued, and the timeline on which they should be pursued. If, after a qualitative and quantitative analysis on the costs and benefits of moving to a prompt and seasonal market construct, the region decides to pursue such changes, the ISO will file with the Commission a further modification of future auction deadlines in 2024.⁴⁵

3. The Delay Timing Aligns with Order No. 2023 Implementation

Delaying FCA 19 by one year will result in additional benefits associated with the Commission's Order No. 2023, which recently revised the standard generator interconnection procedures to improve and address process inefficiencies.⁴⁶ A significant change stemming from Order No. 2023 is the transition from a serial interconnection study queue to a cluster study construct, which provides for all interconnection requests included in a cluster to be equally-queued. Because interconnection requests will no longer be serially queued, the ISO's existing construct for the allocation of Capacity Network Resource Interconnection Service ("CNRIS") must also be revised.⁴⁷

⁴⁴ McBride Testimony at 7.

⁴⁵ See ISO-NE, Assessing FCM Commitment Horizons, presentation by Dr. Christopher Geissler to NEPOOL Markets Committee (Oct. 11-12, 2023), *available at* <u>https://www.iso-ne.com/static-assets/documents/100004/a11_mc_2023_alternative_fcm_commitment_horizons_scope_analysis_group.pdf</u>.

⁴⁶ Improvements to Generator Interconnection Procedures and Agreements, 184 FERC ¶ 61,054 (2023) ("Order No. 2023").

⁴⁷ See ISO New England Inc. and New England Power Pool, Joint Filing of Proposed Revisions to the Generator Interconnection Process and the Forward Capacity Market Participation Provisions Set Forth in the ISO New England Inc. Transmission, Markets and Services Tariff, Docket Nos. ER04-432-006, et al. (filed Oct. 31, 2008). The Commission accepted these revisions without condition or modification. See ISO New England Inc. and New England Power Pool, 126 FERC ¶ 61,080 (2009).

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Currently, to achieve CNRIS, Interconnection Customers must complete certain FCM-related milestones, including participating in an annual group study that the ISO performs as part of the FCM qualification process for capacity deliverability assessment. In that group study, CNRIS Interconnection Requests are studied in queue order relative to the other Interconnection Requests that are also seeking to qualify to participate in the same FCA. These requests are qualified to participate in the FCA if needed upgrades can be completed in time for the relevant FCA Capacity Commitment Period. CNRIS (including associated upgrade costs and responsibilities) is assigned to those resources that obtain a Capacity Supply Obligation based on a "first-cleared, first-served" construct. In other words, the allocation of CNRIS is based on the results of the market. While the ISO's Order No. 2023 compliance proposal remains under development, the ISO needs to make changes to the existing processes to provide for the allocation of CNRIS within the interconnection process, including the deliverability analyses that are presently conducted under Tariff Section III.13.1.1.2.3 as part of the FCM qualification process. A one-year delay will allow the new process to be in place in time for FCA 19 qualification.

In addition, to facilitate the shift into the new cluster construct, Order No. 2023 requires that the ISO undertake a Transition Cluster Study ("TSC"), which is anticipated to start in the summer of 2024. Under the current FCA 19 schedule, the results of the TSC will not be available in time for consideration as part of that qualification cycle. By delaying pre-auction activities by one year, however, the results of the TSC will be available during the FCA 19 qualification process, providing for timelier harmonization and alignment with the Order No. 2023 transition.

In short, updating the resource capacity accreditation methodology for FCA 19 is of paramount importance for the reasons addressed above, and the potential downsides of a one-year delay are minor at best, and are more theoretical than practical. The additional time afforded by the delay also provides the region the opportunity to make progress on other, critical projects, including an evaluation of the capacity market structure and the implementation of Order No. 2023-related reforms. Thus, the benefits of the delay clearly outweigh potential drawbacks.

V. EXPLANATION OF THE TARIFF REVISIONS

A. Interim FCA Schedule Modifications

Under the current Tariff schedule, the ISO is to begin the qualification process for FCA 19 in February 2024, concluding with the auction in February 2025 (associated with the 2028-2029 Capacity Commitment Period). The ISO proposes to delay this schedule by one calendar year, such that the qualification process would begin in February 2025, concluding with a delayed FCA 19 taking place in February 2026. As explained above, the delay to the auction will not impact the timeline for the FCA 19 Capacity Commitment Period, which will begin on June 1, 2028 and end on May 31, 2029.⁴⁸

⁴⁸ See Revised Tariff Section III.13.A.1 ("For the nineteenth Forward Capacity Auction (associated with the 2028-2029 Capacity Commitment Period), the dates, date ranges and/or deadlines for activities related to the Forward

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This delay is reflected in the Tariff in a new Section III.13.A, which states that, for FCA 19, "the dates, date ranges and/or deadlines for activities related to the Forward Capacity Auction established in or pursuant to any provision of the ISO New England Operating Documents shall not apply and shall be delayed by one calendar year."⁴⁹ This means that all other pre-auction and post-auction deadlines will remain the same during the qualification process, and following the auction, but will take place one calendar year later.⁵⁰

Delaying FCA 19 for a year also implicates the related three annual reconfiguration auctions, which are balancing auctions that are carried out in each of the three years following the FCA, and prior to the start of the Capacity Commitment Period.⁵¹ These three auctions each serve as opportunities for suppliers to acquire additional, or shed existing, Capacity Supply Obligations for the commitment period.

Delaying FCA 19 by a year removes the opportunity to carry out the first of the three annual reconfiguration auctions, which is normally held in the month of June approximately 24 months before the start of the applicable Capacity Commitment Period.⁵² Rather than compress the timeline for the three annual reconfiguration auctions, so that all three can be held following the delayed FCA 19, the ISO proposes to eliminate the first of the three annual reconfiguration auctions. Compressing the timeline to carry out the same number of reconfiguration auctions in a shortened forward period would require significant changes to the ISO systems.⁵³ Conversely, eliminating the first annual reconfiguration auction will have little to no adverse impact, given that suppliers will still have two annual reconfiguration auctions in which to acquire or shed obligations for the nineteenth Capacity Commitment Period.⁵⁴

B. Return to a Three Year Forward Auction Schedule Using 10-Month Cycles

To return to the full three year and four month auction cycle as expeditiously as possible for subsequent FCAs, the proposal would carry out the next six FCAs (*i.e.*, the six FCAs following FCA 19) using a 10-month auction schedule. This schedule is expressly set forth in

Capacity Auction established in or pursuant to any provision of the ISO New England Operating Documents shall not apply and shall be delayed by one calendar year.").

⁴⁹ Revised Tariff Section III.13.A.1.

⁵⁰ McBride Testimony at 3.

⁵¹ See Tariff Section III.13.4.2.1.2.1 (pertaining to the first and second annual reconfiguration auctions) and Section III.13.4.2.1.2.2 (pertaining to the third annual reconfiguration auction); *see also* Tariff Section III.13.4.5.1 (describing the timing of the annual reconfiguration auctions).

⁵² See Tariff Section III.13.4.5.1 ("The first annual reconfiguration auction for the Capacity Commitment Period shall be held in the month of June that is approximately 24 months before the start of the Capacity Commitment Period.").

⁵³ See Revised Tariff Section III.13.A.1.

⁵⁴ Capacity suppliers also have opportunities to shed or acquire obligations in monthly reconfiguration auctions and through Capacity Supply Obligation Bilaterals. *See* Tariff Sections III.13.4 and III.13.5.

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new Section III.13.A.1, with the following table detailing the month and year in which the FCA and each of the impacted ARAs will be held:

Capacity Commitment Period	Forward Capacity Auction Date	Revised annual reconfiguration auction Dates (as applicable)
2029-2030	December 2026	Second annual reconfiguration auction August 2028; third annual reconfiguration auction March 2029
2030-2031	October 2027	Second annual reconfiguration auction August 2029; third annual reconfiguration auction March 2030
2031-2032	August 2028	Second annual reconfiguration auction August 2030; third annual reconfiguration auction March 2031
2032-2033	June 2029	Second annual reconfiguration auction August 2031; third annual reconfiguration auction March 2032
2033-2034	April 2030	Second annual reconfiguration auction August 2032; third annual reconfiguration auction March 2033
2034-2035	February 2031	Regular annual reconfiguration auction schedule applies.

As the Commission is aware, the existing FCM qualification process is complex and tightly scheduled.⁵⁵ The proposed 10-month schedule represents a balance between the practicalities of running a compressed schedule and the need to return to the three year and four month forward schedule expeditiously. The ISO chose the 10-month schedule in large part because of its experience in using that schedule when the FCM commenced, with the first auction in February 2008. Thus, the first seven FCAs were conducted using a qualification schedule that accommodated running the auctions at 10-month intervals.⁵⁶ Accordingly, the ISO

⁵⁵ See, generally Tariff Section III.13. Delays in timely conducting FCA 16 caused additional carryover delays in the FCA 17 (and to a lesser extent FCA 18) qualification processes. See ISO New England Inc., Exigent Circumstances Filing of Revisions to Section III.13 of the Tariff, Docket No. ER22-1053-000 (filed Feb. 15, 2022), accepted by letter order on April 1, 2022; see also ISO New England Inc., Revisions to ISO New England Inc. Transmission, Markets and Services Tariff to Modify the Schedule for Forward Capacity Auction 18, Docket No. ER23-50-000 (filed Oct. 11, 2022), accepted by delegated letter order on December 1, 2022.

⁵⁶ See ISO-NE, Forward Capacity Auction Results Report, *available at* <u>https://www.iso-ne.com/static-assets/documents/2018/05/fca-results-report.pdf</u> (showing a 10-month schedule between FCAs 1-7, which were

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and New England Market Participants have experience with accommodating 10-month intervals between FCAs.

This schedule will return the region to running Forward Capacity Auctions in the month of February in 2031, for the twenty-fifth FCA (associated with the 2034-2035 Capacity Commitment Period), enabling the running of subsequent FCAs on the typical annual schedule. As with FCA 19, the ISO will not conduct the first annual reconfiguration auction for FCAs 20, 21, 22, 23 and 24.⁵⁷ This is because, as with FCA 19, the time between the FCA and the start of the Capacity Commitment Period is less than the full three years and four months that is currently relied upon for carrying out the three annual reconfiguration auctions. As with FCA 19, capacity suppliers will have two (rather than three) opportunities to acquire or shed obligations through an annual reconfiguration auction for each of these five Capacity Commitment Periods. For FCA 25, the ISO will have returned to the regular three year and four month schedule between the FCA and the start of the associated Capacity Commitment Period (although the FCA qualification period will run on a 10-month schedule), and therefore all three annual reconfiguration auctions will be held for FCA 25.

For the six FCAs that will be run on a 10-month schedule, the proposed revisions specify that the ISO shall publish the dates, date ranges and deadlines for activities related to the respective FCA "no later than six months before the applicable notification to Lead Market Participants of their Existing Capacity Resource's summer Qualified Capacity and winter Qualified Capacity values as specified in Section III.13.1.2.3(a)."⁵⁸ Existing Qualified Capacity value notifications are provided to Lead Market Participants in February, at the very start of the qualification period for the FCA.⁵⁹ Publishing the qualification timeline at least six months prior to this date will afford Market Participants ample time to prepare for participation in the auction cycle. Further, given that the qualification timeline for each FCA is specified in the Tariff, the ISO will file each of the 10-month timelines for the six FCAs with the Commission under Section 205 of the Federal Power Act.

As part of the FCA 19 Schedule Changes, the Filing Parties also propose to include a provision that allows the ISO the discretion to make minor adjustments to the auction schedules discussed herein (by no more than 10 business days) so long as these minor adjustments are provided to Market Participants with not less than 30 days' advance notice. The ISO respectfully

conducted in February 2008, December 2008, October 2009, August 2010, June 2011, April 2012, and February 2013; followed by annual auctions conducted in February or March thereafter starting with FCA 8).

⁵⁷ See Revised Tariff Section III.13.A.1 ("For the nineteenth, twentieth, twenty-first, twenty-second, twenty-third and twenty-fourth Forward Capacity Auctions (associated with the 2028-2029, 2029-2030, 2030-2031, 2031-2032, 2032-2033 and 2033-2034 Capacity Commitment Periods, respectively), the first annual reconfiguration auction as specified in Section III.13.4 that is typically held in the month of June approximately 24 months before the start of the applicable Capacity Commitment Period shall not take place.").

⁵⁸ See Revised Tariff Section III.13.A.1.

⁵⁹ See Tariff Sections III.13.1.2.3 (governing Existing Generating Capacity Resources), III.13.1.4.2.1 (governing Existing Demand Capacity Resources), III.13.1.4A.2.1 (governing Existing Distributed Energy Capacity Resources) ("no later than 15 Business Days before the Existing Capacity Retirement Deadline, the ISO will notify the resource's Lead Market Participant of the resource's summer Qualified Capacity and winter Qualified Capacity").

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submits that it would be cumbersome and administratively inefficient to seek further ministerial Tariff amendments to the auction timelines for minor adjustments to the deadlines. Moreover, the Commission has previously granted other RTOs similar flexibility so long as they provide the participants with notice.⁶⁰

C. New Capacity Resource Participation in Monthly and Annual Reconfiguration Auctions

At the request of stakeholders, the ISO has developed two additional provisions to facilitate the participation of resources in the FCM despite the one-year delay. The first of these is addressed in this Section V.C, and the second is addressed in Section V.D below.

Under the current rules, in order to participate in the FCM, New Capacity Resources must first have submitted an Interconnection Request for CNRIS and then submit a New Capacity Show of Interest Form and a New Capacity Qualification Package thereafter.⁶¹ In the New Capacity Qualification Package, the Project Sponsor must provide a critical path schedule for the project with sufficient detail to allow the ISO to evaluate the feasibility that the project will achieve all its critical path schedule milestones before the start of the relevant Capacity Commitment Period.⁶² Later in the FCA qualification process (*i.e.*, after the ISO issues qualification determination notifications), qualified New Capacity Resources have the option to elect that the ISO monitor its compliance with its critical path schedule (a process known as "electing CPS monitoring").⁶³

A New Capacity Resource may have a Commercial Operation date on its submitted critical path schedule that is before the start of that Capacity Commitment Period, and even before the start of *prior* Capacity Commitment Periods. Electing CPS monitoring allows this New Capacity Resource to participate in reconfiguration auctions for the *earlier* Capacity Commitment Periods (assuming it meets all other requirements for participating), even if it does not clear in the FCA.⁶⁴ In other words, by completing the steps of submitting required FCA

⁶⁰ See PJM Interconnection, L.L.C., 178 FERC ¶ 61,122 at P 15 (2022).

⁶¹ See Tariff Section III.13.1.1.2.1 (New Capacity Show of Interest Form) and III.13.1.1.2.2 (New Capacity Qualification Package).

⁶² *See* Tariff Section III.13.1.1.2.2.2.

⁶³ See Tariff Section III.13.3.1.1 ("A Project Sponsor that submits a critical path schedule for a New Capacity Resource in the qualification process may request that the ISO monitor that resource's compliance with its critical path schedule in accordance with the provisions of this Section III.13.3.")

⁶⁴ See, e.g., Tariff Sections III.13.4.2.1.2.1.1.1(b), III.13.4.2.1.2.1.1.2(b), III.13.4.2.1.2.1.2.1(b), and III.13.4.2.1.2.1.2.2(b) (governing Summer and Winter ARA Qualified Capacity for ARAs 1 and 2) and Sections III.13.4.2.1.2.2.1.1(b), III.13.4.2.1.2.2.1.2(b), Section III.13.4.2.1.2.2.1(b) and III.13.4.2.1.2.2.2.2(b) (governing Summer and Winter ARA Qualified Capacity for ARA 3) (allowing participation of "Any amount of capacity that has not yet achieved FCM Commercial Operation but: (i) is being monitored by the ISO pursuant to the provisions of Section III.13.3; (ii) is expected to achieve all its critical path schedule milestones prior to the start of the relevant Capacity Commitment Period; and (iii) for which the Lead Market Participant or Project Sponsor has met all relevant financial assurance requirements as described in Section III.13.1.9 and in the ISO New England Financial Assurance Policy"). This option is also available to Capacity Resources that do not qualify for a FCA because they are less than the minimum size requirement, but would otherwise qualify to participate.

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qualification materials, meeting FCA qualification requirements, and electing CPS monitoring, the Tariff allows New Capacity Resources to provide capacity for earlier Capacity Commitment Periods. A similar provision facilitates participation in monthly reconfiguration auctions, and resources that qualify for annual and monthly reconfiguration auctions may participate in Capacity Supply Obligation Bilaterals.⁶⁵

Delaying the FCA 19 qualification process would prevent a New Capacity Resource that qualified for FCA 19 with an appropriate in-service date from using these existing processes for a single year. Specifically, delaying the FCA 19 qualification process would prevent such resources from participating in reconfiguration auctions and bilateral activities that cover the later portion of the 2024-2025 Capacity Commitment Period associated with FCA 15 and a significant portion of the 2025-2026 Capacity Commitment Period associated with FCA 16. If FCA 19 were conducted under the existing rules, these resources (with early in service dates) could participate in these reconfiguration auctions and bilateral activities. With the proposed delay, a New Capacity Resource (again, with an early in-service date) would not be able to elect CPS monitoring to participate until early 2026.

To accommodate concerns with this result raised during stakeholder discussions, the ISO has included in the FCA 19 Schedule Changes an interim qualification process for New Capacity Resources. These resources must not have already acquired a Capacity Supply Obligation, intend to achieve Commercial Operation before June 1, 2026, and seek to participate in earlier annual reconfiguration auctions, monthly reconfiguration auctions and bilateral trading activities.⁶⁶

Pursuant to this section, any New Capacity Resource that has not already acquired a Capacity Supply Obligation may qualify for the reconfiguration auction, monthly reconfiguration auction and bilateral activities⁶⁷ if it provides the ISO with certain materials, including a New Capacity Show of Interest Form in April 2024 and a New Capacity Qualification package in June 2024.⁶⁸ The ISO will perform a review of the resource's ability to interconnect in time for the relevant Capacity Commitment Period, in a manner that meets the Capacity Capability Interconnection Standard. In addition, the resource's Project Sponsor must request that the ISO

⁶⁵ See Tariff Section III.13.4.2.1.4(a) ("The resource's Summer ARA Qualified Capacity or Winter ARA Qualified Capacity as adjusted pursuant to Section III.13.4.2, as applicable, for the auction month for the third annual reconfiguration auction for the relevant Capacity Commitment Period or, where the resource did not qualify for the third annual reconfiguration auction for the relevant Capacity Commitment Period, the quantity of MW either being monitored by the ISO in accordance with Section III.13.3 (provided that all applicable Financial Assurance requirements have been met and the resource is expected to achieve all its critical path schedule milestones prior to the end of the relevant Obligation Month in accordance with posted schedules) or the amount of capacity that achieved all its critical path schedule milestones after the third annual reconfiguration qualification deadline."); *see also* Tariff Section III.13.5.1 ("The qualification of resources is determined for reconfiguration auctions as specified in Section III.13.4.2.").

⁶⁶ See Revised Tariff Section III.13.A.2, Interim Reconfiguration Auction Qualification.

⁶⁷ These are more fully described in Tariff Sections III.13.4 and III.13.5.

⁶⁸ See Revised Tariff Section III.13.A.2. The ISO will post a list of the required materials on its website and a complete schedule for their submittal at least 60 days in advance.

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monitor the New Capacity Resource's compliance with its critical path schedule as described in Tariff Section III.13.3.1.1 by November 1, 2024. If these criteria are met, the ISO will qualify the resource for reconfiguration auction and bilateral activities according to the existing rules in the Tariff for such activities.

Capacity resources that have already acquired a Capacity Supply Obligation, or portions thereof, are not eligible to utilize this new provision. These ineligible resources include capacity resources that would qualify for the FCA under Tariff Section III.13.1.1.1.2 (re-powering), Section III.13.1.1.1.3 (incremental capacity), Section III.13.1.1.1.4 (de-rated capacity), and Sections III.13.1.1.1.1(c) and III.13.1.1.2.5.4 (partially cleared resources). These resources can already participate in reconfiguration auctions or bilateral activities through their existing capacity, and any qualification of new capacity from these resources is dependent on the qualification and FCA participation of that existing capacity. As a result, the FCA 19 Schedule Changes do not materially affect the ability of these resources to participate on an earlier basis.

D. Interim Clarifications Regarding Demand Capacity Resources

The second provision allows for continued participation of Demand Capacity Resources during the proposed delay. The current FCM rules tie the definition of new On-Peak and Seasonal-Peak Demand Resources to measures installed after the Existing Capacity Qualification Deadline, which occurs in June under a typical FCA qualification schedule.⁶⁹ This means that New Demand Capacity Resources can qualify to participate in an FCA only if their proposed measures go into service after the deadline in the applicable FCA. Under the FCA 19 Schedule Changes, this deadline would shift forward by approximately a year (from June 2024 to June 2025). This would create an approximately one year gap, during which installed measures that could have been associated with an On-Peak or Seasonal-Peak Demand Capacity Resource (if qualified for FCA 19 under the current rules) would no longer be permitted this association, if the FCA 19 qualification is delayed by one year.

The ISO revised this deadline as part of previous auction schedule changes related to FCA 18.⁷⁰ Accordingly, the Filing Parties propose to similarly shift this deadline for FCA 19 as part of the FCA 19 Schedule Changes, clarifying that a New Demand Capacity Resource will include an On-Peak Demand Resource consisting of measures that have not been in service prior to June 1, 2024, or a Seasonal Peak Demand Resource consisting of measures that have not been in service prior in service prior to June 1, 2024.⁷¹

⁶⁹ See Tariff Section III.13.1.4.1 ("A New Demand Capacity Resource is an Active Demand Capacity Resource that has not cleared in a previous Forward Capacity Auction, and an On-Peak Demand Resource consisting of measures that have not been in service *prior to the Existing Capacity Qualification Deadline of the applicable Forward Capacity Auction*, or a Seasonal Peak Demand Resource consisting of measures that have not been in service *prior to the Existing Capacity Qualification Deadline of the applicable Forward Capacity Auction*."). (emphasis added)

⁷⁰ See Tariff Section III.13.1.4.1 ("For the eighteenth Forward Capacity Auction (associated with the 2027-2028 Capacity Commitment Period), a New Demand Capacity Resource is an Active Demand Capacity Resource that has not cleared in a previous Forward Capacity Auction, and an On-Peak Demand Resource or Seasonal Peak Demand Resource consisting of measures that have not been in service prior to June 5, 2023").

⁷¹ See Revised Section III.13.A.2.

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E. Conforming and Clean-Up Change

As part of this filing, the Filing Parties also propose to delete obsolete language related to the revised FCA 17 schedule, which concluded with the auction in March 2023. Because FCA 17 has already occurred, this language is no longer operative.

VI. STAKEHOLDER PROCESS

The FCA 19 Schedule Changes were considered through the complete NEPOOL Participant Processes. Starting in July 2023, the Markets Committee considered various options to incorporate the new accreditation methodologies into FCA 19 and offered the ISO input. At its September 12–13, 2023 and October 11–12, 2023 meetings, the Markets Committee reviewed the specifics of the proposal filed herein. At its October 26 teleconference meeting, the Markets Committee considered and, based on a voice vote in favor, unanimously recommended that the NEPOOL Participants Committee support the FCA 19 Delay Changes.⁷² Subsequently, at its November 2, 2023, meeting, the NEPOOL Participants Committee, based on a show of hands vote, unanimously approved the FCA 19 Schedule Changes.⁷³

VII. ADDITIONAL SUPPORTING INFORMATION

Section 35.13 of the Commission's regulations generally requires public utilities to file certain cost and other information related to an examination of traditional cost-of-service rates. However, the market rule changes do not modify a traditional "rate" and the ISO is not a traditional investor-owned utility. Therefore, to the extent necessary, the Filing Parties request waiver of Section 35.13 of the Commission's regulations.⁷⁴ Notwithstanding its request for waiver, the Filing Parties submit the following additional information in substantial compliance with relevant provisions of Section 35.13 of the Commission's regulations:

35.13(b)(1) – Materials included herewith are as follows:

- This transmittal letter;
- Testimony of Alan McBride, sponsored solely by the ISO;
- Redlined Tariff sections effective January 2, 2024;
- Clean Tariff sections effective January 2, 2024; and

⁷² The following abstentions were recorded: Generation Sector -3; Supplier Sector -5; Alternative Resources Sector -1; and End User Sector -1. Note that no Markets Committee member opposed.

⁷³ The following members abstained: Accelerate Renewables, LLC (New Leaf Energy), BP Energy Company, Brookfield Renewable Trading and Marketing LP, Cross-Sound Cable Company, LLC, DTE Energy Trading, Inc., FirstLight Power Management LLC, Galt Power Inc., Generation Group Member, Mercuria Energy America, LLC, NextEra Energy Resources, LLC, SYSO Inc., Tenaska Power Services Co. and BlueWave Public Benefit Corp. No member opposed.

⁷⁴ 18 C.F.R. § 35.13 (2023).

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> • List of governors and utility regulatory agencies in Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island and Vermont to which a copy of this filing has been sent.

35.13(b)(2) – As set forth above, the ISO requests that the Tariff revisions filed herewith become effective on January 2, 2024.

<u>35.13(b)(3)</u> – Pursuant to Section 17.11(e) of the Participants Agreement, Governance Participants are being served electronically rather than by paper copy. The names and addresses of the Governance Participants are posted on the ISO's website at https://www.isone.com/participate/participant-asset-listings/directory?id=1&type=committee. A copy of this transmittal letter and the accompanying materials have also been sent to the governors and electric utility regulatory agencies for the six New England states that comprise the New England Control Area, the New England Conference of Public Utility Commissioners, Inc., and to the New England States Committee on Electricity. Their names and addresses are shown in the attached listing. In accordance with Commission rules and practice, there is no need for the Governance Participants or the entities identified in the listing to be included on the Commission's official service list in the captioned proceeding unless such entities become intervenors in this proceeding.

35.13(b)(4) – A description of the materials submitted pursuant to this filing is contained in this Section VII of this transmittal letter.

35.13(b)(5) – The reasons for this filing are discussed in Section III of this transmittal letter.

35.13(b)(6) – The ISO's approval of these changes is evidenced by this filing. These changes reflect the results of the Participant Processes required by the Participants Agreement and reflect the support of the Participants Committee.

35.13(b)(7) – Neither the ISO nor NEPOOL has knowledge of any relevant expenses or costs of service that have been alleged or judged in any administrative or judicial proceeding to be illegal, duplicative, or unnecessary costs that are demonstrably the product of discriminatory employment practices.

35.13(b)(8) – A form of notice and electronic media are no longer required for filings in light of the Commission's Combined Notice of Filings notice methodology.

35.13(c)(1) – The market rule changes herein do not modify a traditional "rate," and the statement required under this Commission regulation is not applicable to the instant filing.

35.13(c)(2) – The ISO does not provide services under other rate schedules that are similar to the wholesale, resale and transmission services it provides under the Tariff.

35.13(c)(3) – No specifically assignable facilities have been or will be installed or modified in connection with the revisions filed herein.

The Honorable Kimberly D. Bose November 3, 2023 Page 23 of 23

VIII. CONCLUSION

For the reasons set forth above, the Filing Parties respectfully request that the Commission accept the FCA 19 Schedule Changes filed herein without condition or delay to become effective on January 2, 2024, as described above.

Respectfully submitted,

ISO NEW ENGLAND INC.

NEW ENGLAND POWER POOL PARTICIPANTS COMMITTEE

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UNITED STATES OF AMERICA BEFORE THE FEDERAL ENERGY REGULATORY COMMISSION

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ISO New England Inc. and New England Power Pool Docket No. ER24-___-000

TESTIMONY OF ALAN MCBRIDE ON BEHALF OF ISO NEW ENGLAND INC.

1 I. WITNESS IDENTIFICATION

2 Q: Please state your name, title and business address.

- A: My name is Alan McBride. I am Director of Transmission Services and Resource
 Qualification with ISO New England Inc. (the "ISO" or "ISO-NE"). My business
 address is One Sullivan Road, Holyoke, Massachusetts 01040.
- 6

7 Q: Please describe your educational background and work experience.

- 8 A: I joined the ISO in June 2006 and, for the following four years, my primary responsibility
- 9 was as Project Manager of New Generation Qualification for the Forward Capacity
- 10 Market.¹ In 2010, I became the Manager, Area Transmission Planning for northern New
- 11 England, and continued in that position until 2015, when I became Director of
- 12 Transmission Services. In that position, I have been responsible for the oversight of the
- 13 ISO's interconnection process for new Generating Facilities and Elective Transmission
- 14 Upgrades. In November 2019, my responsibilities were expanded to include the

¹ Capitalized terms used but not defined in this testimony are intended to have the meaning given to such terms in the ISO-NE Transmission, Markets and Services Tariff (the "Tariff").

1		qualification of resources in the Forward Capacity Market ("FCM"), and in 2023, I also
2		became responsible for our system modeling group. My current title is Director of
3		Transmission Services and Resource Qualification.
4		
5		Before joining the ISO, I worked at Dynegy Inc. and then at Calpine Corporation. At
6		both companies, I supported various transmission-related activities associated with the
7		development, interconnection, and commercial operation of merchant generation
8		facilities. Prior to joining Dynegy, I worked at Power Technologies Incorporated (now a
9		division of Siemens Industries), where I conducted various transmission analysis studies,
10		including the system impact studies of several proposed generating facilities.
11		
12		I have 28 years of experience in various aspects of power transmission system analysis
13		and transmission services. I hold a B.S. degree in Electrical Engineering from University
14		College Dublin, in Ireland, a Master's degree in Electric Power Engineering from
15		Rensselaer Polytechnic Institute, and an M.B.A. degree from Purdue University.
16		
17	II.	PURPOSE AND OVERVIEW OF TESTIMONY
18	Q:	Please explain the purpose of your testimony.
19	A:	The ISO is proposing to delay the nineteenth Forward Capacity Auction ("FCA 19") for
20		one year. The purpose of my testimony is to explain the reason for the proposed delay,
21		why the delay will be beneficial for the operation of the New England Markets and the
22		reliability of the New England electrical system, and why these benefits outweigh
23		potential downsides of the one-year delay.

1 As I explain below in the remainder of Section II of my testimony, the New England 2 region is in the midst of a well-documented transformation in its resource mix, as federal 3 and state policies promote the development of clean energy resources that will support a 4 significant increase in demand over the next decade and replace older, retiring resources. 5 To ensure that this transition takes place in a manner that meets New England's resource 6 adequacy needs, it is imperative that the region accurately value the capacity 7 contributions of all resources, using a methodology that accounts for the variable nature 8 of loss-of-load events and measures capacity value for each resource in a common 9 manner. The current methodology falls short of meeting these criteria, and in recognition of this the ISO, the New England stakeholders, and the New England states, have been 10 11 engaged in a multi-year project to overhaul the Forward Capacity Market's capacity 12 accreditation methodology.

13

14 As I explain in Section III of my testimony, delaying FCA 19 for a year will afford the 15 region the time necessary to complete the work on the new capacity accreditation 16 methodology so that it can be implemented in time for FCA 19. The shift in the resource mix is happening now, with offshore wind, solar and battery storage resources 17 18 comprising the bulk of the resources seeking entry into the market through the end of the 19 FCA 19 delivery period in 2029, and older combined cycle and simple cycle resources 20 nearing the end of their useful life. It is critical that the region provide capacity suppliers 21 a clear signal as to which resources will (and, equally, which resources will not) provide 22 the greatest value to the system relative to their cost as resources compete for entry. 23 Doing so will help ensure that the region procures a mix of resources that can best meet

1		the region's resource adequacy needs and, of equal importance, will help prevent the
2		inefficient retirement of existing resources that continue to be needed, at the very least in
3		the short term, as the energy transition takes place. Incorporating the new capacity
4		accreditation methodology into FCA 19—and delaying that auction cycle for a year to
5		make this possible—is critical to making sure these objectives are met.
6		
7		As I explain in Section IV of my testimony, there are potential tradeoffs to this delay—in
8		theory suppliers look to the three-and-a-half year forward nature of the capacity market to
9		make investment decisions, and that timeline also can minimize the likelihood of
10		extended out-of-market resource retentions in the event of a resource retirement.
11		However, as I explain, these concerns are overstated given the nature of the resources that
12		are entering the system and the limited risk of out-of-market retentions in New England.
13		The value of the one-year delay—in terms of affording the region the time to implement
14		important improvements to the capacity market that will enhance its overall
15		effectiveness—substantially outweighs the possible concerns.
16		
17	Q:	What does it mean, in practical terms, to delay FCA 19 for a full year?
18	A:	FCA 19 is currently scheduled to take place in February of 2025, which is approximately
19		three years and four months before the start of the nineteenth capacity delivery year, or
20		Capacity Commitment Period, which runs from June 1, 2028 through May 31, 2029.
21		Under the Tariff, the auction is preceded by a year-long qualification period, during
22		which the ISO and capacity suppliers are obligated to carry out a number of pre-auction
23		activities. Some of these include, for example, the ISO's calculation and filing with the

1		Federal Energy Regulatory Commission (the "Commission") of the Installed Capacity
2		Requirement and demand curves that will be utilized in the auction, capacity suppliers'
3		submission to the ISO of de-list bids for existing capacity resources under timelines set
4		forth in the Tariff, capacity suppliers' submission to the ISO of qualification packages for
5		new and existing resources, and the ISO's review of those de-list bids and qualification
6		packages, again under timelines established in the Tariff. Once the auction is conducted,
7		the ISO files with the Commission an informational filing that details the results of the
8		auction, and then conducts a review to finalize the delivery upgrades for the new
9		resources that actually cleared the auction.
10		
11		In delaying FCA 19 for a year, the auction would be run exactly one year later than it is
12		currently scheduled—in February 2026 instead of February 2025—and each pre-auction
13		and post-auction activity specified in the Tariff would be carried out with a one-year
14		delay. Thus, any submissions and filings related to FCA 19 that are required under the
15		Tariff would also be made on a schedule that is one year after the deadline currently
16		specified in the Tariff.
17		
18	Q:	Would delaying FCA 19 for a year impact the timeline for the nineteenth Capacity
19		Commitment Period?
20	A:	No. Carrying out FCA 19 on a one-year delay does not change the timing of the delivery
21		period. FCA 19 will still procure capacity for the June 2028 through May 2029 Capacity
22		Commitment Period; however, instead of running the auction three years and four months

1		in advance of that commitment period, the ISO will run the auction two years and four
2		months before the commitment period.
3		
4	Q:	Why is the ISO proposing to delay FCA 19 for a year?
5	A:	The ISO is proposing to delay FCA 19 for a year for the primary purpose of providing the
6		ISO, as well as the New England stakeholders and the New England states, with time to
7		complete the development of reforms to the method employed in the Forward Capacity
8		Market ("FCM") for accrediting capacity resources, so that these reforms can be filed
9		with the Commission and then implemented starting with FCA 19. Secondarily, the
10		delay will also afford the region additional time to continue the evaluation of other
11		fundamental design changes to the capacity market format.
12		
13	Q:	Is this work to reform the capacity accreditation rules and evaluate other capacity
14		market design changes underway?
15	A:	Yes. In 2021, the ISO began working with the New England stakeholders on developing
16		a new methodology for accrediting capacity resources, with the expectation that those
17		reforms would be implemented in time for FCA 19 under its current schedule (i.e., to be
18		held in February 2025). That design effort continued through early 2023, when the ISO
19		paused the design process to evaluate certain issues discovered with the tools it is using
20		to model gas infrastructure constraints for the calculation of capacity accreditation

1 effort is now continuing, it is not possible to complete the market reforms and file them 2 with the Commission in time for use in FCA 19 under that auction's current timeline.² 3 4 In addition, there has been growing interest in New England, from certain sectors within 5 the stakeholder community, the ISO, as well as the ISO's External Market Monitor, in re-6 examining the capacity market construct. A number of factors, including the forecasted 7 increase in winter load levels, the anticipated change in New England's resource mix, and 8 the acknowledged complexity of the current capacity market design, have produced calls 9 to examine whether the region should transition to a "prompt" capacity market design, in 10 which auctions would be held close in time to the delivery period, and replace the current 11 procurement of an annual capacity product with the procurement of seasonal capacity 12 products (e.g., winter and summer). 13

14 Q: Please explain why the ISO is contemplating reforms to the current capacity

15 accreditation requirements?

16 A: For each resource participating in the FCM, the ISO determines a capacity value, which

- 17 reflects the amount of capacity the resource is able to provide toward meeting the
- region's resource adequacy needs, and thus the amount it may offer into the FCA. This
- 19 value is referred to as the resource's "Qualified Capacity" value, or capacity

20 "accreditation" value.

² Qualification activities for FCA 19 are currently scheduled to begin in February 2024. *See* Forward Capacity Auction 19 Schedule, *available at* <u>https://www.iso-ne.com/static-assets/documents/2022/02/fca-19-market-timeline-01-20-2022.pdf</u>.

1	The Qualified Capacity is currently calculated for each resource based on heuristics,
2	whereby a set of practical rules is employed to approximate a resource's contribution to
3	meeting an Installed Capacity Requirement. Importantly, these heuristics differ by
4	resource type. For example, the Qualified Capacity of Intermittent Power Resources is
5	generally based on historical median output in a limited number of predetermined hours. ³
6	In contrast, the Qualified Capacity of an existing non-intermittent generation resource is
7	generally based on the resource's demonstrated maximum output capability and adjusted
8	for ambient air temperature. ⁴
9	
10	As the resource mix in New England continues to evolve, it is important to use a more
10 11	As the resource mix in New England continues to evolve, it is important to use a more advanced methodology that utilizes the same fundamental marginal reliability concept for
11	advanced methodology that utilizes the same fundamental marginal reliability concept for
11 12	advanced methodology that utilizes the same fundamental marginal reliability concept for accrediting capacity values for all resources. As I discuss in more detail below,
11 12 13	advanced methodology that utilizes the same fundamental marginal reliability concept for accrediting capacity values for all resources. As I discuss in more detail below, accrediting all capacity resources through a common approach would ensure that the
11 12 13 14	advanced methodology that utilizes the same fundamental marginal reliability concept for accrediting capacity values for all resources. As I discuss in more detail below, accrediting all capacity resources through a common approach would ensure that the region can accurately measure the relative value of resource contributions toward
11 12 13 14 15	advanced methodology that utilizes the same fundamental marginal reliability concept for accrediting capacity values for all resources. As I discuss in more detail below, accrediting all capacity resources through a common approach would ensure that the region can accurately measure the relative value of resource contributions toward meeting the region's resource adequacy needs, allowing for a more accurate measure of

³ See, e.g., Tariff Sections III.13.1.2.2.2.1 and III.13.1.2.2.2.2. Summer capacity values for Intermittent Power Resources are based, primarily, on the resource's net output in hours ending 1400 through 1800 each day of the summer period (June through September). Winter capacity values are based, primarily, on hours ending 1800 and 1900 each day of the winter period (October through May).

⁴ See, e.g., Tariff Section III.13.1.2.2.1.2; see also ISO New England Inc., Installed Capacity Requirement Reference Guide, at 17–18 (September 15, 2021), available at <u>https://www.iso-ne.com/static-assets/documents/2021/06/icr-reference-guide.pdf</u>.

2

Q: Apart from your concerns with substitutability, is the ISO also concerned with the overall accuracy of capacity values under the current methodology?

3 A: Yes. The current methodology misses a number of factors relevant to ensuring overall 4 resource adequacy, including for example how resources perform during extended, multi-5 hour reliability events, and differences in performance during seasonal reliability events 6 (e.g., summer vs. winter). For example, offshore wind resources generally perform better during the winter, while natural gas-fired resources generally perform worse in the winter 7 8 given existing pipeline constraints, and short-duration battery storage resources do not 9 contribute significant value during longer-duration reliability events. These nuances are 10 not captured in capacity values under the current accreditation methodology.

11

12 Q: In light of these concerns with the current capacity accreditation methodology, what 13 is the ISO working on for a replacement methodology?

14 A: The ISO currently is working to develop a Marginal Reliability Impact ("MRI")

15 methodology, which would be employed to accredit capacity values for all resources.

16 This methodology will take into consideration resources' operating characteristics such as

17 maximum capability, intermittency, fuel (or other energy) limitations, and forced outages,

18 in determining their reliability contributions. As envisioned, calculation of reliability

19 contributions would be based on the MRI principle and a probabilistic resource adequacy

- 20 assessment. Under such an approach, resource reliability contributions to the system
- 21 generally depend on the expected performance during hours that impact the ISO's ability
- 22 to satisfy load, which in turn are determined by the resource mix and the system demand.

1		A similar methodology has been recommended by the ISO's External Market Monitor,
2		Potomac Economics. ⁵
3		
4	III.	WHY THE CAPACITY ACCREDITATION METHODOLOGY SHOULD BE
5		UPDATED FOR FCA 19
6	Q:	Why is it important to implement changes to the capacity accreditation
7		methodology in the immediate term?
8	A:	As has been well-documented, ⁶ the New England region, as with many regions of the
9		country, is undergoing a significant transformation in its resource mix. A combination of
10		federal and state environmental policy directives, historically low natural gas prices over
11		the past decade, and continual technological change have led to the retirement of many
12		nuclear, coal, and oil-fired generation resources, and the dominance of winter-constrained
13		natural gas-fired generation in the region's resource mix. ⁷ At the same time, ambitious

<u>assets/documents/2022/07/2021_economic_study_future_grid_reliability_study_phase_1_report.pdf</u>, the ongoing 2050 Transmission Study, *available at* <u>https://www.iso-ne.com/static-</u>

⁵ See Potomac Economics, 2020 Assessment of the ISO New England Electricity Markets, p. 13 (June 2021), at <u>https://www.potomaceconomics.com/wp-content/uploads/2021/06/ISO-NE-2020-SOM-Report_Final.pdf</u> ("[W]e recommend that the ISO develop capacity accreditation rules based on each resource's marginal reliability value").

⁶ Key studies include: the Future Grid Pathways Study ("Pathways Study"), *available at* <u>https://www.iso-ne.com/static-assets/documents/2022/04/schatzki-et-al-pathways-final.pdf</u>, the Future Grid Reliability Study, *available at* <u>https://www.iso-ne.com/static-</u>

<u>assets/documents/100004/a05_2023_10_19_pspc_2050_study_pac.pdf</u>, and work with the Electric Power Research Institute to develop a framework for assessing energy adequacy risks associated with adverse weather events, *available at* <u>https://www.iso-ne.com/committees/key-projects/operational-impacts-of-extreme-weather-events</u>, among other long-term planning efforts.

⁷ 7,000 MW of generation has retired or announced retirement plans since 2013. *See* ISO-NE, 2022 Regional Electricity Outlook: On the Horizon, at 17 (July 2022), *available at* <u>https://www.iso-ne.com/static-assets/documents/2022/06/2022_reo.pdf.</u>

1 state and federal policies support increasing clean energy resources in New England's resource mix as well as other advanced technologies such as battery storage resources.8 2 3 4 Coincident with this transition in the resource mix is a projected growth in peak 5 electricity demand on the New England portion of the bulk electric system. This is 6 largely the result of the states' planned efforts to electrify the region's building heating 7 systems, projected growth in electric vehicles and, more generally, the electrification of 8 transportation systems. Heating electrification efforts alone are forecasted to 9 approximately double the region's winter peak load over the next two decades. This 10 demand growth is projected to potentially shift New England's bulk electric system load 11 from a summer peaking system today to a winter peaking system within the next ten 12 years. 13 14 The on-going changes to the resource mix and the anticipated growth in demand 15 necessitate improvements to the resource accreditation process in the immediate term.

- 17 determine accredited capacity for all resource types; this methodology will result in
- 18 resource accreditation that is more responsive to changes in the expected performance of

The MRI-based methodology under development will use a common approach to

- 19 the resource mix and expected demand. This approach allows the region to accurately
- 20 weigh the relative value of each resource's contribution to meeting the region's resource
- 21 adequacy needs, and better positions the region to meet those needs as new resources

⁸ Five of the six New England States have enacted legislation setting carbon dioxide emission reduction targets at levels of at least 80% below 1990 levels by 2050. New Hampshire does not have a legislatively enacted emissions target.

1 enter the system to meet expected demand growth and/or replace retiring resources. In 2 addition, the new approach will adjust accredited capacity values from delivery period to 3 delivery period as the duration and hours of loss-of-load events change, a key attribute as 4 the system moves toward more weather-dependent resources and higher, less predictable 5 loads. By extension, this more dynamic approach to accreditation also captures 6 differences in expected resource performance and demand across seasons, recognizing 7 that some resources perform better (or worse) in winter than in summer, another key 8 attribute of the new methodology given the growth in demand and move toward a winter 9 peaking system.

10

Q: Can you provide an example of how the change in resource mix and growth in demand are heightening immediate concerns over ensuring more accurate capacity accreditation?

14 Yes. To take one example, it is well-known that New England's natural gas delivery A: 15 system faces significant constraints during the winter months, which can impede the 16 ability of natural gas-fired generators to obtain fuel to operate, in particular during 17 extended periods of cold weather. Without accounting for these constraints, the current 18 resource adequacy assessment may under estimate the reliability risk during winter, and 19 the current capacity accreditation methodology overvalues gas resources' reliability 20 contribution, which likely means that the region is over-relying on natural gas-fired 21 generators to meet peak winter demand. With the region poised for a significant increase 22 in winter demand, it is important to account for gas infrastructure constraints in resource 23 capacity accreditation values as soon as possible. A key feature of the new capacity

1		accreditation methodology is the modeling of these constraints, which will produce a
2		more accurate accounting of winter resource adequacy needs and, ultimately, of natural
3		gas-fired resources' capacity accreditation values.
4		
5		The ISO also has concerns with the overall accuracy of the current accreditation for
6		existing resources that rely on stored energy (e.g., fuel). For example, oil-fired resources
7		can play a critical role during long-duration winter events when other resources may be
8		constrained due to weather conditions or the unavailability of fuel (e.g., gas resources).
9		However, the current accreditation methodology does not differentiate between
10		accredited capacity for different quantities of oil storage capability, as reflected (for
11		example) in the varying size of oil storage tanks for different oil-fired resources.
12		
13	Q:	Is your concern only with the accuracy of the accreditation of existing resources?
14	A:	No, we are equally concerned with improving the accuracy of accreditation for new
15		resources. The region is already experiencing a significant influx of new resources, as
16		offshore wind, solar, and battery storage resources now comprise the vast majority of
17		resources in New England's Interconnection Queue. At the start of 2023, battery storage
18		resources comprised 35% of new generation projects in the region's queue, solar
19		resources comprised 12% of new projects in the queue, and wind resources comprised
20		50% of new projects in the queue, the vast majority of which were offshore wind
21		resources. ⁹ The ISO estimates that, between now and 2029 (<i>i.e.</i> , through the end of the

⁹ ISO-NE, Key Grid and Market Stats – Resource Mix, *available at* <u>https://www.iso-ne.com/about/key-stats/resource-mix</u> (citing ISO Generator Interconnection Queue as of January 2023).
1	FCA 19 delivery period—June 2028 through May 2029), battery storage resources will
2	comprise approximately 43% of the proposed projects in the queue, solar resources will
3	comprise approximately 15% of the proposed projects in the queue, and wind projects
4	will comprise approximately 40%. ¹⁰ These resources have the potential to add
5	significant capacity to the region's electricity system, with offshore wind making
6	particularly notable contributions during the winter months when the existing gas
7	infrastructure in New England is most constrained, and battery storage resources
8	supplementing, and potentially replacing, other resources with stored fuels.
9	
10	However, as with existing resources, not all new resources provide the same reliability
11	value. To take one example, under today's method for accrediting resources, a new solar
12	resource's summer Qualified Capacity as a percent of nameplate capacity is typically 50
13	percent that of a thermal resource, reflecting the former's lower average output during
14	reliability hours. However, as the system transitions to reflect high periods of demand in
15	the evenings (after the sun sets) on hot summer days, as seen in other regions of the
16	country, and during cold winter hours when it is dark in New England and winter demand
17	peaks, the actual incremental contributions to reliability of an additional PV solar
18	resource may be significantly less than the 50 percent for which it currently receives
19	credit.

¹⁰ See NEPOOL Participants Committee, September 7, 2023 Meeting, Agenda Item 4: ISO New England Monthly Operations Report, at 45 (page 92 of slide deck), *available at* <u>https://www.iso-ne.com/static-assets/documents/2023/09/npc-2023-09-07-composite4.pdf</u>

1	To take another example, shorter duration battery storage resources, which generally
2	have the ability to provide electricity to the system for no longer than a two-hour period
3	before they must recharge by consuming electricity from other resources, are of limited
4	value during longer-duration reliability events. ¹¹ During such long-duration events,
5	which can sometimes last for days, or even weeks, ¹² a short-duration battery storage
6	resource can provide energy for only a fraction of the time needed, and likely is not able
7	to recharge significantly over this type of shortage period. In contrast, longer-duration
8	battery storage units can potentially provide significant value to the system, as they are
9	capable of discharging for much longer periods of time.
10	
11	Under today's method for accrediting resource capacity values, these differences in
12	contribution toward meeting system demand are not captured in a battery storage
12 13	contribution toward meeting system demand are not captured in a battery storage resource's capacity accreditation value. Thus, a two-hour battery storage resource with
13	resource's capacity accreditation value. Thus, a two-hour battery storage resource with
13 14	resource's capacity accreditation value. Thus, a two-hour battery storage resource with 40 MW of nameplate capacity can receive the same Qualified Capacity value as a four-
13 14 15	resource's capacity accreditation value. Thus, a two-hour battery storage resource with 40 MW of nameplate capacity can receive the same Qualified Capacity value as a four-hour or eight-hour battery storage resource with 40 MW of nameplate capacity.
13 14 15 16	resource's capacity accreditation value. Thus, a two-hour battery storage resource with 40 MW of nameplate capacity can receive the same Qualified Capacity value as a four-hour or eight-hour battery storage resource with 40 MW of nameplate capacity. However, these resources are not of equal value in terms of their ability to reduce

¹¹ Potomac Economics, New England's External Market Monitor has identified concerns about this likely overestimation of reliability provided by a variety of resource types, in particular short-duration storage. *See* Potomac Economics, *2020 Assessment of the ISO New England Electricity Markets*, p. 76-82 (June 2021), *available at* https://www.potomaceconomics.com/wp-content/uploads/2021/06/ISO-NE-2020-SOM-Report Final.pdf.

¹² For example, in the winter of 2017-2018, New England experienced an extended period of extremely cold weather between December 25 and January 8. *See* ISO-NE, Cold Weather Operations, Presentation by Dr. Vamsi Chadalavada (January 16, 2018), *available at* <u>https://www.iso-ne.com/static-assets/documents/2018/01/20180112</u> cold weather ops npc.pdf.

1		battery storage resources in the Interconnection Queue has the potential to enter the
2		market with accredited capacity values that significantly overstate their contribution
3		toward meeting the region's resource adequacy needs. In addition, in the queue today,
4		some suppliers have proposed developing longer-duration battery storage resources, such
5		as four-hour batteries, likely recognizing the more limited value of the shorter-duration
6		batteries. It would be inappropriate to accredit the shorter-duration batteries equally with
7		the longer-duration batteries, as the current accreditation methodology would do.
8		
9	Q:	Has the ISO analyzed the expected duration of loss-of-load events?
10	A:	Yes. As part of its development of the new capacity accreditation methodology, the ISO
11		performed an analysis of the expected duration of loss-of-load ("LOL") events. This
12		analysis was presented to stakeholders in April 2023. ¹³
13		
14		The results provided in this analysis were developed using the GE-MARS software that
15		the ISO currently employs for its calculation of Installed Capacity Values in the FCM,
16		and which it plans to use for purposes of calculating MRI-based accreditation values.
17		The analysis was largely based upon resource and load assumptions used for the sixteenth
18		FCA for the 2025/26 Capacity Commitment Period, with the application of many of the
19		resource and load modeling enhancements proposed as part of the capacity accreditation
20		project. In this assessment, as is done each year in establishing the Installed Capacity

¹³ ISO-NE, Resource Capacity Accreditation in the Forward Capacity Market, FCA16 Baseline Case Accreditation (Apr. 11-13), *available at* <u>https://www.iso-ne.com/static-assets/documents/2023/04/a05f_mc_2023_04_11-13_rca_impact_analysis.pptx</u>

1		1-in-10 reliability criteria) by adjusting (in this case increasing) the load until the LOL
2		expectation equaled 0.1 days loss of load per year.
3		
4		The ISO is in the process of revising this analysis to reflect additional design changes and
5		more recent assumptions of expected resource mix and load, and will present the revised
6		results to stakeholders early next year.
7		
8	Q:	Does this analysis provide a reasonable indication of the expected duration of LOL
9		events?
10	A:	Yes. This analysis provides a reasonable indication of the expected duration of reliability
11		events for upcoming capacity delivery periods. Notably, however, the analysis is useful
12		only for the summer period (June to September).
13		
14	Q:	Why does this analysis only provide a reasonable indication of the expected
15		duration of LOL events during the summer period?
16	A:	As I explained above, in late April 2023, the ISO identified a problem with how winter
17		natural gas resource capability was reflected in its assessment for the capacity
18		accreditation project. This required the ISO to pause the design process on the capacity
19		accreditation initiative to correct the problem and evaluate the modeling approach being
20		used for natural gas-fired resources.
21		
22		While the ISO has continued to refine the resource and load modeling approach for both
23		the summer and winter, those refinements largely impact the modeling assumptions in the



10 probability declining thereafter, until no event was expected greater than 13 hours.¹⁴



11 The analysis also shows that 9.7% of LOL events lasted more than 7 hours, as observed

12 in the chart below.¹⁵

¹⁴ See ISO-NE, Resource Capacity Accreditation in the Forward Capacity Market, FCA16 Baseline Case Accreditation at Slide 27 (Apr. 11-13), *available at* <u>https://www.iso-ne.com/static-assets/documents/2023/04/a05f_mc_2023_04_11-13_rca_impact_analysis.pptx.</u>

¹⁵ *Id*.



Also of note, a majority of the expected load-of-load hours were observed in the summer
 between hour ending 15 and hour ending 21. The chart below shows the annual data
 presented to stakeholders in April filtered for summer months (June – September).¹⁶

Hour of Day	LOLH Probability
1	0
2 3	0
3	0
4	0
5	0
5 6 7	0
	0
8	0
9	0
10	0
11	<0.005%
12	0.02%
13	0.40%
14	2.26%
15	6.02%
16	10.75%
17	15.62%
18	21.92%
19	18.53%
20	13.86%
21	8.39%
22	2.23%
23	<0.005%
24	0

¹⁶ See id at Slide 24.

O:

What are the implications of this analysis for storage resources and their accreditation?

3 A: The implications of expected long-duration events for relatively short-duration storage 4 resources are significant. Conceptually, during LOL events that extend beyond the 5 energy storage capability of the storage resource (e.g., a two-hour storage resource and a 6 seven-hour LOL event), these resources are only able to perform fully for some of the 7 LOL hours.¹⁷ Since these are capacity scarcity hours, there is no opportunity for the 8 storage resources to recharge their energy, as this action would increase the amount of 9 expected unserved energy observed over the event.

10

1

2

Conceptually, referring to the data summarized above, a two-hour storage resource would 11 12 be able to fully cover only about 25% of the expected LOL events during the summer 13 period, while a seven-hour storage resource would be able to fully cover 90% of the expected LOL events. Under the current methodology, both of these resources have the 14 15 potential to receive an accredited capacity value that is at or close to its nameplate rating. 16 This result overvalues both resources relative to their expected performance during 17 anticipated LOL events and also fails to capture that storage resources of different 18 duration have vastly different values in terms of their contribution to the region's 19 resource adequacy needs.

¹⁷ Note that there may also be the need to utilize storage resources *in advance* of a LOL event, in order to prevent the event from occurring (or shorten its duration). Thus, for example, while a LOL event may only last two hours, storage resources may be dispatched three hours in advance of the event to limit the duration of the event. In this example, the duration of the need for energy is not two hours as implied by the LOL event duration, but could be up to five hours. Therefore, the data I present here for LOL event duration understates the actual duration of need for storage (and other resource) performance.

Q: Does this analysis provide insight into challenges with accrediting other resource types?

3 Yes. This analysis also shows the dynamic nature of when the LOL event can occur, and A: 4 the challenges with using heuristics to establish a resource's accredited capacity. For 5 example, Intermittent Power Resources currently have their performance measured in the summer during hours ending 14 through 18; however, as reflected in the data I presented 6 7 above, the majority of LOL hours fall between hours ending 15 and 21, with each hour 8 having a different frequency of occurrence. With the anticipated transformation in the 9 resource mix and the anticipated increase in demand, it is likely that the timing, length and frequency of LOL events will change. The current heuristics used for determining 10 11 capacity accreditation values cannot anticipate or incorporate such changes, and thus 12 cannot produce capacity values that reflect the needs of the changing system.

13

14 Q: Is it correct, then, that your concerns are not limited to the possible entry of short-

- 15 duration battery storage resources?
- 16 A: Yes, that is correct. Incentives for battery storage developers under the federal
- 17 Infrastructure Investment and Jobs Act enacted in 2021¹⁸ have catalyzed the already
- 18 significant growth in battery storage resources. However, as explained above, the region
- 19 also anticipates significant growth in offshore wind development. In a March 2022 filing
- 20

with the Commission, the ISO discussed the likely addition of approximately 4,700 MW

¹⁸ These incentives include grants for the support, construction, research, development and improvement of battery material processing facilities, battery component manufacturing and recycling facilities, and electric drive vehicle battery recycling and second-life applications, including the recovery of critical minerals. For more information, *see* International Energy Agency, Infrastructure and Jobs Act: Batteries, *available at* https://www.iea.org/policies/14994-infrastructure-and-jobs-act-batteries.

1	of large-scale offshore wind projects that, at the time, were in varying stages of		
2	development. The ISO discussed the risks to reliability if those resources entered the		
3	market under existing accreditation rules and displaced other, existing resources before		
4	the development of the offshore wind facilities could be completed. ¹⁹ Since that time,		
5	multiple offshore wind projects have canceled their long-term power purchase		
6	agreements, citing significant cost increases and financing concerns. ²⁰ While, as a result		
7	of these delays, these offshore wind projects have not offered their capacity into recent		
8	FCAs, it is still possible that some of these resources will seek entry into the capacity		
9	market as soon as FCA 19.		
10			
10 11	This serves to highlight the ever-shifting nature of the transition in the resource mix, as		
	This serves to highlight the ever-shifting nature of the transition in the resource mix, as investors respond to market conditions that render investment conditions ripe for one		
11			
11 12	investors respond to market conditions that render investment conditions ripe for one		
11 12 13	investors respond to market conditions that render investment conditions ripe for one resource class or another, and disfavor others. Again, ensuring that the region's capacity		
11 12 13 14	investors respond to market conditions that render investment conditions ripe for one resource class or another, and disfavor others. Again, ensuring that the region's capacity accreditation methodology properly values all resources based upon their reliability		
11 12 13 14 15	investors respond to market conditions that render investment conditions ripe for one resource class or another, and disfavor others. Again, ensuring that the region's capacity accreditation methodology properly values all resources based upon their reliability contribution is the best way to ensure that the resource mix—whatever it may be—meets		

with properly accrediting resources that are entering the system, but also with properly

¹⁹ See ISO New England Inc. and New England Power Pool Participants Committee, Docket No. ER22-1528-000, Revisions to ISO New England Transmission, Markets and Services Tariff of Buyer-side Market Power Review and Mitigation Reforms, Testimony of Dr. Vamsi Chadalavada at 35 (filed March 31, 2022).

²⁰ See, e.g., Utility Dive, Avangrid moves to cancel Park City offshore wind contracts on heels of SouthCoast termination, available at <u>https://www.utilitydive.com/news/avangrid-cancel-park-city-offshore-wind-contracts-southcoast-shell/695552/</u> (Oct. 4, 2023) (explaining recent cancellations of the Park City, SouthCoast and Commonwealth wind projects due to financing issues).

1		accrediting existing resources. Capturing the constraints in New England's natural gas			
2		infrastructure, for example, as well as other similar constraints (such as those pertaining			
3		to fuel oil storage and replenishment), are key objectives of the planned overhaul of the			
4		capacity accreditation methodology.			
5					
6	Q:	How are these concerns most likely to manifest themselves if the capacity			
7		accreditation methodology is not updated in time for FCA 19?			
8	A:	While it is difficult to predict which resources will clear in any given FCA, and thus the			
9		exact timing of the transition in the resource mix, the ISO is focused on avoiding two			
10		inter-related outcomes. It is critical to update the accreditation methodology for FCA 19			
11		so that capacity suppliers contemplating the development of new resources are incented			
12		to introduce projects that provide the highest value toward meeting the region's resource			
13		adequacy needs relative to the cost of the investment. Thus, it is important that capacity			
14		suppliers are properly evaluating the cost/benefit of developing various technology types.			
15		Without updating the capacity accreditation rules, the current accreditation methodology			
16		does not enable this evaluation to take place properly.			
17					
18		Of equal importance, until entry of adequate alternative capacity takes place, the New			
19		England region will remain reliant on stored fuels, including LNG and fuel oil, in			
20		particular during severe cold weather when the natural gas pipeline delivery system is			
21		most constrained. ²¹ It is critical, then, that the capacity accreditation methodology			

²¹ See Pre-Forum Comments of ISO New England Inc., Docket AD22-9-000, at 2 (June 9, 2023) (Explaining that, "[i]n the near-term, the ISO's analysis demonstrates that the region remains reliant on stored fuels, including LNG and fuel oil, during severe cold weather," and discussing the prudence of maintaining the Everett LNG facility given

accurately captures the value of resources that can utilize such stored fuels. Moreover,
 incenting the entry of resources that *cannot* provide equivalent value could result in the
 inefficient retirement of these existing resources with stored fuel and other resources that
 are needed to maintain the reliable operation of the system for the foreseeable future.

5

6 IV. <u>WHY BENEFITS OF THE ONE-YEAR DELAY SUBSTANTIALLY OUTWEIGH</u> 7 POTENTIAL CONCERNS

8 Q: You have focused on the concerns posed if FCA 19 is carried out before the region 9 overhauls the capacity accreditation methodology. Does the proposed one-year 10 delay in carrying out FCA 19 pose any concerns for the capacity market's ability to 11 achieve its resource adequacy objectives?

12 A: We recognize that holding the auction a year closer to the delivery period may have an 13 impact on the decisions that capacity suppliers make with respect to the entry or exit of 14 resources to or from the market. However, it is unlikely the one-year delay in running the 15 auction will adversely impact market outcomes, and in particular the ability of the market 16 to meet the region's resource adequacy needs. Further, any adverse impacts on resource 17 entry or exit are outweighed by the benefits of providing the region the time to develop 18 and implement the enhancements to the capacity accreditation methodology for FCA 19 19 that are critical to informing these entry and exit decisions.

[&]quot;the uncertainty of the pace of future winter load growth from electrification, the limited number of LNG import facilities in the region, delays in the development of new infrastructure, and other changes to the resource mix, including retirements").

2

Q: Please elaborate on why the impacts of the delay on entry of resources into the FCM are not likely to be significant.

3 The three year and four month forward auction construct was developed with the A: 4 expectation that the timing of the auction would provide a developer of a resource with 5 adequate time between the auction and the delivery period to complete construction of its cleared resource. That expectation was based on the assumption, reasonable at the time 6 7 the FCM was developed in the early 2000s, that the likely entrant to the auction would have a three-year construction timeline.²² At the time, the predominant types of new 8 9 generation proposals in the interconnection queue and in FCA applications were 10 combined cycle and simple cycle generation facilities. However, for the current mix of resources seeking entry to the FCM, the current forward auction timeline is either too 11 12 long or too short. For example, battery storage, energy efficiency, and solar resources are 13 capable of completing construction well in advance of the relevant FCA's delivery 14 period, and in doing so often seek to take advantage of FCM rules that permit their 15 participation in earlier delivery periods once they have completed construction. Indeed, in developing the FCA 19 delay proposal, several market participants asked the ISO to 16 17 ensure that the delay would not interfere with their ability to enter their resources into the 18 FCM prior to the FCA 19 delivery period given their plans to complete construction of 19 those resources in 2025 or 2026—two-to-three years in advance of the FCA 19 delivery

²² See Devon Power LLC, Explanatory Statement in Support of Settlement Agreement of the Settling Parties and Request for Expedited Consideration and Settlement Agreement Resolving All Issues, Docket Nos. ER03-563-000, -030, -055 (filed Mar. 6, 2006) at 27 ("The time between the auction and when the capacity resource supplier is obligated to produce is over three years. This three-year Planning Period is intended to provide a planning period for new entry, so that potential new capacity resources can participate in the auction and compete with incumbent resources. If a potential capacity resource wins in the auction, it has more than three years to build the necessary infrastructure needed to fulfill its capacity obligation"). (footnotes omitted)

1		period. The ISO has accommodated this request with changes that expressly permit such
2		resources early entry into the FCM notwithstanding the one-year delay.
3		
4		Other resources—namely large scale offshore wind projects or new imports—face
5		significantly longer construction horizons, and for these resources the three year and four
6		month auction cycle is also of limited value. ²³ Thus, reducing the FCA 19 timeline by a
7		year should have little, if any, impact on the investment decisions of the current classes of
8		resources that are seeking entry into the FCM.
9		
10	Q:	Please elaborate on why the impacts of the delay on exit of resources from the FCM
11		are not likely to be significant.
12	A:	The existing forward market timeline affords the region three and a half years to respond
13		
14		to the retirement of a resource from the capacity market. In theory then, reducing that
- 1		to the retirement of a resource from the capacity market. In theory then, reducing that timeline by a year compresses the time available to address any reliability issue that is
15		
		timeline by a year compresses the time available to address any reliability issue that is
15		timeline by a year compresses the time available to address any reliability issue that is posed by the retirement of a resource, potentially limiting the options available to the
15 16		timeline by a year compresses the time available to address any reliability issue that is posed by the retirement of a resource, potentially limiting the options available to the region to address any such reliability concern and extending the out-of-market retention

²³ See, e.g., WMTW News, Opponents of Maine electricity corridor won't appeal verdict allowing CMP to restart project (May 12, 2023), available at <u>https://www.wmtw.com/article/opponents-of-maine-electricity-corridor-wont-appeal-verdict-allowing-cmp-to-restart-project/43877762</u>; see also Reuters, Cost crunch prompts mass rethink of US offshore wind contracts, available at <u>https://www.reuters.com/business/energy/cost-crunch-prompts-mass-rethink-us-offshore-wind-contracts-2023-09-13/</u> (Sept.13, 2023) ("Last month, Orsted said two suppliers are experiencing "challenges" that are delaying the delivery of foundations for three of its projects on the U.S. East Coast. Several other developers including Equinor, Shell, EDPR, Engie and Iberdrola's Avangrid have asked for new contract terms on East Coast offshore wind projects").

1 Of particular note, the conditions under which the ISO may prevent the retirement of a 2 resource and retain it on an out-of-market basis to address a reliability issue are narrow. 3 The Tariff permits such a retention only in the event the ISO determines that the retention of a resource is necessary to address a local transmission reliability issue.²⁴ In that event, 4 5 the ISO may request that the resource remain in service, on an out-of-market basis, for the period of time necessary to resolve the local transmission reliability issue. Even for 6 7 this narrow retention trigger, substantial investment in the New England transmission 8 system over the last several decades has resulted in a robust transmission system, which 9 reduces the likelihood that the retirement of a capacity resource will create a local 10 transmission reliability issue that must be addressed. Finally, while the needs of the 11 system are undoubtedly changing, the ISO administers a proactive transmission planning 12 process that optimizes the likelihood of identifying and rectifying any transmission 13 reliability issue before a resource retirement triggers a condition that may give rise to an 14 out-of-market retention.

15

16 Q: Can you explain why you view the New England transmission system as robust?

17 A: Although it is difficult to say with certainty whether the retirement of any specific

18 resource would result in a local reliability need, the likelihood of a retirement triggering a

- 19 local reliability need is diminished in a system that has sufficient infrastructure to
- 20

accommodate a range of planned scenarios. In the past two decades, New England's

²⁴ See Tariff Sections III.13.1.2.3.1.5.1 and III.13.2.5.2.5. For FCA 18, the ISO's reliability review under these provisions was presented to the NEPOOL Reliability Committee at its August 15, 2023 meeting. See ISO New England Inc., Presentation of Reliability Review of Permanent and Retirement De-List Bids for the 2027-2028 Capacity Commitment Period (August 15, 2023), available at https://www.iso-ne.com/static-assets/documents/2023/08/a09 fca 18 perm ret delist bid reliability reviews.pdf.

proactive, open and transparent transmission planning processes have resulted in almost
 \$12 billion of system investments. The figure below summarizes New England's
 extensive investments in transmission system infrastructure over the past two decades, as
 well as those investments planned for the near future.²⁵



5

6 These investments have contributed to a diminished likelihood of local reliability needs, 7 for example, by impacting Local Sourcing Requirements. When the ISO determines that 8 import constraints necessitate that a minimum amount of electrical capacity be located 9 within a certain subarea, it assigns that subarea a Local Sourcing Requirement. In FCA 17, the ISO eliminated a Local Sourcing Requirement for the Southeast New England 10 11 Zone, citing reduced load and transmission improvements in the region.²⁶ This was the only area that had been assigned a Local Sourcing Requirement for several of the most 12 13 recent auctions.

²⁵ ISO New England Inc., 2023 Draft Regional System Plan at 24 ("2023 Draft Regional System Plan"), *available at* <u>https://www.iso-ne.com/static-assets/documents/100004/10-2023-draft-rsp23-public-meeting.pdf</u>.

²⁶ 2023 Draft Regional System Plan at 108.

Another indication of the robust nature of the New England transmission system is the
 level of congestion in New England, particularly as compared to other regions.
 Congestion represents the cost to customers of paying for more expensive energy because
 physical transmission line limits do not allow full delivery of least-cost energy.

As the Commission has observed, congestion charges in New England are significantly
lower on a dollar per MWh basis than in any other jurisdictional ISO/RTO. The chart
below is excerpted from the Commission's Common Metrics Staff Report, and compares
congestion charges on a dollar per MWh basis between 2014 and 2018.²⁷



10

11 The congestion cost trends identified in the chart have continued in New England, with

12 the MWh congestion costs between 0.24/MWh and 0.52/MWh from 2019 to 2022.²⁸

²⁷ Federal Energy Regulatory Commission, Docket No. AD19-16-000, 2021 Common Metrics Staff Report at 49, Figure 32 (July 2021).

²⁸ ISO New England Inc., Docket No. AD19-16-000, Revised Common Metrics Performance Data for the 2022-2023 Capacity Commitment Period, Sheet 16 "Congestion Management," (filed Sept. 27, 2023).

1		While it is important to recognize that transmission capacity is only one factor that
2		impacts congestion charges, this comparison is nonetheless illustrative of the robust
3		nature of the New England transmission system. The robust nature of the New England
4		transmission system is largely a reflection of the region's extensive and inclusive
5		planning processes.
6		
7	Q:	Please further describe the robust nature of New England's transmission planning
8		processes.
9	A:	Each year the ISO publishes a ten year Forecast of Capacity, Energy, Load and
10		Transmission ("CELT forecast"), which reflects demographic, economic, and market
11		information available for the ten year period and includes (among other things) scheduled
12		and proposed transmission changes. ²⁹ The CELT forecast underpins a Regional System
13		Plan, ³⁰ and area-specific Needs Assessments and Planning Studies. The Regional System
14		Plan, which includes area-specific studies, evaluates subareas of the region that warrant
15		study in light of changing system conditions. The inputs and assumptions underlying
16		these studies are detailed in Section 4 of the ISO-NE Transmission Planning Technical
17		Guide. ³¹

²⁹ ISO New England Inc., 2023-2032 Forecast Report of Capacity, Energy, Loads, and Transmission, *available at* <u>https://www.iso-ne.com/static-assets/documents/2023/05/2023_celt_report.xlsx</u>.

³⁰ See Tariff Section II, Attachment K (describing processes for the development of the Regional System Plan and identification of system investment needs); see also 2023 Draft Regional System Plan.

³¹ ISO-NE Transmission Planning Technical Guide (Sept. 2023) ("Transmission Planning Technical Guide"), available at https://www.iso-ne.com/static-

assets/documents/2023/09/2023_09_12_pac_transmission_planning_technical_guide_rev8_1.pdf.

1 Many of the assumptions in the Transmission Planning Technical Guide are tailored to 2 ensure a robust and reliable system, and contribute to a decreased likelihood that a 3 resource will need to be retained due to local reliability concerns. For example, planners 4 make several assumptions regarding generator outages to ensure study area load can be 5 served over a range of conditions at peak load. Like the 90/10 weather modeling used to 6 develop load forecasts, the generator outage assumptions used to establish base system 7 conditions are also designed to ensure the system can handle 90% of possible generator 8 outage conditions. This includes assuming certain generating units are out-of-service 9 during peak load, based on factors that include the number of generators in the study 10 area, the system-wide weighted average EFORd value, unit type, unit location, unit size, 11 and unit age. 12 13 Importantly, one factor used to determine whether a unit will be studied as out-of-service

for planning purposes is a unit's age, which serves as a proxy to account for the likelihood of unit retirements. In addition to the outage assumptions used to model 90% of possible generator outage conditions, any conventional unit greater than 50 years old during the study year may also be considered out-of-service, one at a time, in a study area. This assumption is designed to capture the risk of such a generator requesting to retire.

31

3

O:

Are there any other benefits to delaying FCA 19 other than affording the region additional time to complete the work on the new capacity accreditation methodology? If so, please describe them.

4 A: Yes, delaying FCA 19 by one year will provide additional benefits associated with the 5 Commission's Order No. 2023. Briefly, in Order No. 2023, the Commission revised the standard generator interconnection procedures to improve and address process 6 7 inefficiencies. A significant change stemming from Order No. 2023 is the transition from 8 a serial interconnection study queue to a cluster study construct, which provides for all 9 interconnection requests included in a cluster to be equally-queued. Because 10 interconnection requests will no longer be serially queued, the ISO's existing construct— 11 which determines Capacity Network Resource Interconnection Service ("CNRIS") on a 12 first-cleared, first-served basis resulting from a resource's qualification, participation and clearing in the FCM³²—must also be revised in parallel. While the ISO's Order No. 13 14 2023 compliance proposal remains under development, the ISO will need to make 15 changes to existing processes to provide for the achievement of CNRIS within the interconnection process, including deliverability analyses that are presently conducted 16 under Tariff Section III.13.1.1.2.3 as part of capacity market qualification. The FCA 19 17 18 delay will provide for additional time to address these changes in addition to the capacity 19 accreditation reforms.

- 20
- In addition, to facilitate the transition into the new cluster construct, Order No. 2023
 requires that the ISO undertake a Transition Cluster Study ("TSC"), which is anticipated

1		to start in the summer of 2024. The TSC required under the Order will be the first study
2		that will consider all requests equally-queued with cost sharing of applicable upgrades for
3		the allocation of interconnection service, including CNRIS. Under the current FCA 19
4		schedule, the results of the TSC will not be available in time for consideration as part of
5		that qualification cycle. By delaying FCA 19 by one year, however, the results of the
6		TSC will be available to consider during the qualification process, providing for more
7		timely harmonization and alignment with the Order No. 2023 transition.
8		
9	Q:	All-things-considered, then, is it your judgment that the value of delaying FCA 19
10		for the reasons you have outlined above outweigh the identified concerns with the
11		delay?
12	A:	Yes. Updating the resource capacity accreditation methodology for FCA 19 is of
13		paramount importance to ensuring the region attracts and retains the right resource mix-
14		that is, one that will provide optimal value toward meeting New England's resource
15		adequacy needs relative to their cost-and does so without contributing to the inefficient
16		retirement of existing resources that have a role to play toward meeting these needs, at
17		the very least in the short term. The delay will also afford the region time to assess
18		whether to pursue more foundational changes to the capacity market, which I described
19		above, and also complete and implement for FCA 19 important changes required by the
20		Commission's Order No. 2023. In contrast, the potential downsides of a one-year delay
21		are minor at best, and are more theoretical than practical. In my view, the likely benefits

1 Q: Does this conclude your testimony?

2 A: Yes.

I declare, under penalty of perjury, that the foregoing is true and correct.

Executed on November 2, 2023:

<u>/s/ Alan McBride</u> Alan McBride, ISO New England Transmission Services and Resource Qualification Department

III.13. Forward Capacity Market.

The ISO shall administer a forward market for capacity ("Forward Capacity Market") in accordance with the provisions of this Section III.13. For each one-year period from June 1 through May 31, starting with the period June 1, 2010 to May 31, 2011, for which Capacity Supply Obligations are assumed and payments are made in the Forward Capacity Market ("Capacity Commitment Period"), the ISO shall conduct a Forward Capacity Auction in accordance with the provisions of Section III.13.2 to procure the amount of capacity needed in the New England Control Area and in each modeled Capacity Zone during the Capacity Commitment Period, as determined in accordance with the provisions of Section III.12. To be eligible to assume a Capacity Supply Obligation for a Capacity Commitment Period through the Forward Capacity Auction, a resource must be accepted in the Forward Capacity Auction qualification process in accordance with the provisions of Section III.13.1.

For the seventeenth Forward Capacity Auction (associated with the 2026-2027 Capacity Commitment Period), any dates, date ranges and/or deadlines for activities related to the Forward Capacity Auction established in or pursuant to any provision of the ISO New England Inc. Transmission, Markets, and Services Tariff and all other ISO New England Operating Documents shall not apply. For the seventeenth Forward Capacity Auction, the ISO shall publish each date, date range, and/or deadline for Forward Capacity Auction activities as soon as practicable. The ISO may adjust any published date, date range and/or deadline for Forward Capacity Auction activities if needed and shall publish a revised date, date range and/or deadline as soon as practicable. The ISO shall establish and, as applicable, adjust, such published dates, date ranges and/or deadlines to provide reasonable advance notice of each date, date range, and/or deadline.

III.13.A Forward Capacity Market Interim Provisions.

III.13.A.1 Interim Forward Capacity Auction Schedules.

Notwithstanding any other any dates, date ranges and/or deadlines for activities related to the Forward Capacity Auction established in or pursuant to any provision of the ISO New England Operating Documents, for the nineteenth, twentieth, twenty-first, twenty-second, twenty-third, twenty-fourth and twenty-fifth Forward Capacity Auctions (associated with the 2028-2029, 2029-2030, 2030-2031, 2031-2032, 2032-2033, 2033-2034, and 2034-2035 Capacity Commitment Periods, respectively), the following provisions apply. For the nineteenth Forward Capacity Auction (associated with the 2028-2029 Capacity Commitment Period), the dates, date ranges and/or deadlines for activities related to the Forward Capacity Auction established in or pursuant to any provision of the ISO New England Operating Documents shall not apply and shall be delayed by one calendar year.

For the nineteenth, twentieth, twenty-first, twenty-second, twenty-third and twenty-fourth Forward Capacity Auctions (associated with the 2028-2029, 2029-2030, 2030-2031, 2031-2032, 2032-2033 and 2033-2034 Capacity Commitment Periods, respectively), the first annual reconfiguration auction as specified in Section III.13.4 that is typically held in the month of June, approximately 24 months before the start of the applicable Capacity Commitment Period, shall not be conducted.

For the twentieth, twenty-first, twenty-second, twenty-third, twenty-fourth and twenty-fifth Forward Capacity Auctions (associated with the 2029-2030, 2030-2031, 2031-2032, 2032-2033, 2033-2034, and 2034-2035 Capacity Commitment Periods, respectively), the Forward Capacity Auction, and the qualification process for each such auction, shall be conducted under a 10-month timeline in accordance with the key dates set forth in the schedule below. For each Forward Capacity Auction specified in the table below, the ISO shall publish the dates, date ranges and deadlines for activities related to the respective Forward Capacity Auction no later than six months before the applicable notification to Lead Market Participants of their Existing Capacity Resource's summer Qualified Capacity and winter Qualified Capacity values as specified in Section III.13.1.2.3(a).

<u>Capacity</u> <u>Commitment Period</u>	Forward Capacity <u>Auction Date</u>	<u>Revised annual reconfiguration auction Dates</u> <u>(as applicable)</u>
<u>2029-2030</u>	December 2026	Second annual reconfiguration auction August 2028; third annual reconfiguration auction March 2029
<u>2030-2031</u>	<u>October 2027</u>	Second annual reconfiguration auction August 2029; third annual reconfiguration auction March 2030
<u>2031-2032</u>	<u>August 2028</u>	Second annual reconfiguration auction August 2030; third annual reconfiguration auction March 2031
<u>2032-2033</u>	June 2029	Second annual reconfiguration auction August 2031; third annual reconfiguration auction March 2032
<u>2033-2034</u>	<u>April 2030</u>	Second annual reconfiguration auction August 2032; third annual reconfiguration auction March 2033
<u>2034-2035</u>	February 2031	Regular annual reconfiguration auction schedule applies.

The ISO may adjust any published date, date range and/or deadline for Forward Capacity Auction activities by 10 Business Days if needed, and shall publish a revised date, date range and/or deadline no later than 30 days in advance of such adjustment.

III.13.A.2. Interim Reconfiguration Auction Qualification.

Notwithstanding any other provision of the ISO New England Operating Documents, a New Capacity Resource that has not already acquired a Capacity Supply Obligation and intends to achieve Commercial Operation as defined in Section III.13.1.1.2.2.2(h) before June 1, 2026, may qualify for the annual reconfiguration auction, monthly reconfiguration auction and bilateral activities described in Section III.13.4 and Section III.13.5 under this section providing the following conditions are met:

- (1) The Project Sponsor submits qualification materials as described in Section III.13.1, including a New Capacity Show of Interest Form in April 2024 and a New Capacity Qualification Package in June 2024. The ISO shall post a list of the required materials on its website and a complete schedule for their submittal at least 60 days in advance; and
- (2) The Project Sponsor requests that the ISO monitor the New Capacity Resource's compliance with its critical path schedule as described in Section III.13.3.1.1 by November 1, 2024.

III.13.A.3. Interim Provisions Regarding Demand Capacity Resources.

Notwithstanding any other provision of the ISO New England Operating Documents, for the nineteenth Forward Capacity Auction (associated with the 2028-2029 Capacity Commitment Period), a New Demand Capacity Resource is an Active Demand Capacity Resource that has not cleared in a previous Forward Capacity Auction, or an On-Peak Demand Resource consisting of measures that have not been in service prior to June 1, 2024, or a Seasonal Peak Demand Resource consisting of measures that have not been in service prior to June 1, 2024.

III.13. Forward Capacity Market.

The ISO shall administer a forward market for capacity ("Forward Capacity Market") in accordance with the provisions of this Section III.13. For each one-year period from June 1 through May 31, starting with the period June 1, 2010 to May 31, 2011, for which Capacity Supply Obligations are assumed and payments are made in the Forward Capacity Market ("Capacity Commitment Period"), the ISO shall conduct a Forward Capacity Auction in accordance with the provisions of Section III.13.2 to procure the amount of capacity needed in the New England Control Area and in each modeled Capacity Zone during the Capacity Commitment Period, as determined in accordance with the provisions of Section III.12. To be eligible to assume a Capacity Supply Obligation for a Capacity Commitment Period through the Forward Capacity Auction, a resource must be accepted in the Forward Capacity Auction qualification process in accordance with the provisions of Section III.13.1.

III.13.A Forward Capacity Market Interim Provisions.

III.13.A.1 Interim Forward Capacity Auction Schedules.

Notwithstanding any other any dates, date ranges and/or deadlines for activities related to the Forward Capacity Auction established in or pursuant to any provision of the ISO New England Operating Documents, for the nineteenth, twentieth, twenty-first, twenty-second, twenty-third, twenty-fourth and twenty-fifth Forward Capacity Auctions (associated with the 2028-2029, 2029-2030, 2030-2031, 2031-2032, 2032-2033, 2033-2034, and 2034-2035 Capacity Commitment Periods, respectively), the following provisions apply.

For the nineteenth Forward Capacity Auction (associated with the 2028-2029 Capacity Commitment Period), the dates, date ranges and/or deadlines for activities related to the Forward Capacity Auction established in or pursuant to any provision of the ISO New England Operating Documents shall not apply and shall be delayed by one calendar year.

For the nineteenth, twentieth, twenty-first, twenty-second, twenty-third and twenty-fourth Forward Capacity Auctions (associated with the 2028-2029, 2029-2030, 2030-2031, 2031-2032, 2032-2033 and 2033-2034 Capacity Commitment Periods, respectively), the first annual reconfiguration auction as specified in Section III.13.4 that is typically held in the month of June, approximately 24 months before the start of the applicable Capacity Commitment Period, shall not be conducted.

For the twentieth, twenty-first, twenty-second, twenty-third, twenty-fourth and twenty-fifth Forward Capacity Auctions (associated with the 2029-2030, 2030-2031, 2031-2032, 2032-2033, 2033-2034, and 2034-2035 Capacity Commitment Periods, respectively), the Forward Capacity Auction, and the qualification process for each such auction, shall be conducted under a 10-month timeline in accordance with the key dates set forth in the schedule below. For each Forward Capacity Auction specified in the table below, the ISO shall publish the dates, date ranges and deadlines for activities related to the respective Forward Capacity Auction no later than six months before the applicable notification to Lead Market Participants of their Existing Capacity Resource's summer Qualified Capacity and winter Qualified Capacity values as specified in Section III.13.1.2.3(a).

Capacity Commitment Period	Forward Capacity Auction Date	Revised annual reconfiguration auction Dates (as applicable)
2029-2030	December 2026	Second annual reconfiguration auction August 2028; third annual reconfiguration auction March 2029
2030-2031	October 2027	Second annual reconfiguration auction August 2029; third annual reconfiguration auction March 2030
2031-2032	August 2028	Second annual reconfiguration auction August 2030; third annual reconfiguration auction March 2031
2032-2033	June 2029	Second annual reconfiguration auction August 2031; third annual reconfiguration auction March 2032
2033-2034	April 2030	Second annual reconfiguration auction August 2032; third annual reconfiguration auction March 2033
2034-2035	February 2031	Regular annual reconfiguration auction schedule applies.

The ISO may adjust any published date, date range and/or deadline for Forward Capacity Auction activities by 10 Business Days if needed, and shall publish a revised date, date range and/or deadline no later than 30 days in advance of such adjustment.

III.13.A.2. Interim Reconfiguration Auction Qualification.

Notwithstanding any other provision of the ISO New England Operating Documents, a New Capacity Resource that has not already acquired a Capacity Supply Obligation and intends to achieve Commercial Operation as defined in Section III.13.1.1.2.2.2(h) before June 1, 2026, may qualify for the annual reconfiguration auction, monthly reconfiguration auction and bilateral activities described in Section III.13.4 and Section III.13.5 under this section providing the following conditions are met:

- (1) The Project Sponsor submits qualification materials as described in Section III.13.1, including a New Capacity Show of Interest Form in April 2024 and a New Capacity Qualification Package in June 2024. The ISO shall post a list of the required materials on its website and a complete schedule for their submittal at least 60 days in advance; and
- (2) The Project Sponsor requests that the ISO monitor the New Capacity Resource's compliance with its critical path schedule as described in Section III.13.3.1.1 by November 1, 2024.

III.13.A.3. Interim Provisions Regarding Demand Capacity Resources.

Notwithstanding any other provision of the ISO New England Operating Documents, for the nineteenth Forward Capacity Auction (associated with the 2028-2029 Capacity Commitment Period), a New Demand Capacity Resource is an Active Demand Capacity Resource that has not cleared in a previous Forward Capacity Auction, or an On-Peak Demand Resource consisting of measures that have not been in service prior to June 1, 2024, or a Seasonal Peak Demand Resource consisting of measures that have not been in service prior to June 1, 2024.

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