ORDER ACCEPTING COMPLIANCE FILING AND REQUIRING
INFORMATIONAL FILINGS

( Issued December 3, 2018 )

1. On August 31, 2018, ISO New England Inc. (ISO-NE) submitted proposed revisions to its Transmission, Markets and Services Tariff (Tariff) in compliance with an order that the Commission issued on July 2, 2018. ISO-NE states that the proposed revisions establish a fuel security study methodology, a short-term cost-of-service mechanism to ensure fuel security, and related provisions governing the allocation of costs for such out-of-market compensation. As discussed below, we accept the proposed revisions effective October 30, 2018, as requested. Additionally, we direct ISO-NE to submit an annual informational filing regarding the applicability of its study triggers, study assumptions, and study scenarios compared to actual experiences, starting with the winter of 2022/23, for the duration of this interim mechanism.

I. Background

2. On May 1, 2018, in Docket No. ER18-1509-000, ISO-NE filed a petition for waiver of certain Tariff provisions to allow ISO-NE to retain two retiring generating units owned by Exelon Generation Company, LLC (Exelon), Mystic Units 8 and 9, for the 2022/23 and 2023/24 winter periods in order to maintain fuel security. The only fuel

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3 ISO-NE, Petition for Waiver, Docket No. ER18-1509-000, at 3 (filed May 2, 2018).
source for Mystic Units 8 and 9 is natural gas provided by the Distrigas Liquefied Natural Gas (LNG) terminal (Distrigas Facility) adjacent to Mystic Units 8 and 9. Exelon recently purchased the Distrigas Facility to ensure a reliable source of fuel for Mystic Units 8 and 9. In its petition for waiver, ISO-NE alleged that the retirement of Mystic Units 8 and 9 would not only deprive the ISO-NE electric system of 1,700 MW of winter generating capacity with on-site fuel but also would mean the loss of the Distrigas Facility’s biggest customer. According to ISO-NE, Distrigas’s loss of Mystic Units 8 and 9 as a customer would make it more likely that Distrigas would cease operation, thus increasing the region’s risks of reserve depletion and load shedding.

3. The Commission rejected ISO-NE’s petition for waiver, finding that ISO-NE sought not only to suspend existing Tariff provisions but also to create a new process to retain resources needed for fuel security using a cost-of-service agreement. Finding that such a process should have been filed under FPA section 205, the Commission denied the requested waiver. The Commission preliminarily found, however, that the Tariff may be unjust and unreasonable because it fails to address specific regional fuel security concerns identified in the record. The Commission expressed concern that the Tariff’s failure to sufficiently address fuel security issues could result in violation of mandatory reliability standards.

4. Accordingly, pursuant to its authority under FPA section 206, the Commission directed ISO-NE to either (1) submit by August 31, 2018, interim tariff revisions that provide for the filing of a short-term, cost-of-service agreement to address demonstrated fuel security concerns and to submit by July 1, 2019, permanent tariff revisions reflecting improvements to its market design to better address regional fuel security concerns; or (2) by August 31, 2018, show cause as to why the Tariff remains just and reasonable absent those filings.

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4 16 U.S.C. § 824d (2012); July 2 Order, 164 FERC ¶ 61,003 at P 47.

5 Id. P 49. ISO-NE issued an Operational Fuel-Security Analysis (OFSA) and also performed additional studies using the same OFSA model (the Mystic Retirement Studies) to evaluate operational risks for the 2022/23 and 2023/24 winter periods arising specifically from the retirement of Mystic Units 8 and 9. The OFSA is available at https://iso-ne.com/static-assets/documents/2018/01/20180117_operational_fuel-security_analysis.pdf. The Mystic Retirement Studies are available at https://www.iso-ne.com/static-assets/documents/2018/04/npc_20180406_addl_II.pdf.

6 July 2 Order, 164 FERC ¶ 61,003 at P 55.
II. Filing

5. On August 31, 2018, ISO-NE submitted revisions to the Tariff in compliance with the July 2 Order. ISO-NE states that the revisions establish generally-applicable provisions that allow for the retention of a resource for fuel-security reasons, enable the use of a short-term cost-of-service agreement for such resources, provide for an \textit{ex ante} cost allocation methodology, and address how such retained resources that utilize a cost-of-service option should be treated in the Forward Capacity Market (FCM).\(^7\) ISO-NE explains that its proposal establishes a system study methodology and assumptions to identify when the loss of a retiring resource creates an unacceptable reliability issue. ISO-NE adds that the proposed revisions are interim Tariff provisions, which will only be in effect for FCAs 13 through 15. ISO-NE states that it will file a long-term market solution by July 1, 2019, as directed by the Commission. ISO-NE requests that the Commission accept its proposed changes effective October 30, 2018.

III. Notice of Filing and Responsive Pleadings

6. Notice of the filing was published in the Federal Register, 83 Fed. Reg. 45,425 (2018), with interventions and protests due on or before September 21, 2018. Entities listed in Appendix A submitted notices of intervention, timely motions to intervene, and/or comments. Appendix A also identifies entities that filed answers. Brookfield Energy Marketing LP filed an untimely motion to intervene.

IV. Discussion

A. Procedural Matters

7. Pursuant to Rule 214 of the Commission’s Rules of Practice and Procedure, 18 C.F.R. § 385.214 (2018), the notices of intervention and timely, unopposed motions to intervene serve to make the entities that filed them parties to this proceeding. In addition, pursuant to Rule 214(d) of the Commission’s Rules of Practice and Procedure, 18 C.F.R. § 385.214(d) (2018), the Commission grants Brookfield Energy Marketing LP’s late-filed motion to intervene given its interest in the proceeding, the early stage of the proceeding, and the absence of undue prejudice or delay.

8. Rule 213(a)(2) of the Commission’s Rules of Practice and Procedure, 18 C.F.R. § 385.213(a)(2) (2018), prohibits an answer to a protest unless otherwise ordered by the decisional authority. We accept answers from the entities listed in Appendix A because they have provided information that assisted us in our decision-making process.

\(^7\) Transmittal at 2.
B. Substantive Matters

9. As discussed below, the Commission accepts ISO-NE’s revisions, to become effective October 30, 2018, as requested. We also direct ISO-NE to submit an annual informational filing regarding the applicability of its study triggers, study assumptions, and study scenarios compared to actual experiences, starting with the winter of 2022/23, for the duration of this interim mechanism. We address below the following issues raised by the proposal: (1) the fuel security study; (2) cost allocation; (3) the price treatment of fuel security resources in the FCM; (4) the term of the interim fuel security study; and (5) the long-term fuel security solution.

1. Fuel Security Study

a. ISO-NE Proposal

10. ISO-NE proposes a formal fuel security reliability review process (Fuel Security Study) for resources submitting Retirement De-List Bids\(^8\) for Forward Capacity Auctions (FCAs) 13, 14, and 15, which correspond to capacity commitment periods 2022/23, 2023/24, and 2024/25, respectively. The proposed Tariff revisions apply a uniform set of modeling scenarios to establish whether a resource submitting a Retirement De-List Bid is needed to maintain ISO-NE’s fuel security.

11. ISO-NE proposes to use the same underlying model developed for the Operational Fuel-Security Analysis (OFSA) and used for the Mystic Retirement Studies to assess the need to retain a resource for fuel security. The proposed Fuel Security Study evaluates the operational impacts of generator Retirement De-List Bids using pre-defined scenarios meant to test system performance under a range of scenarios and sensitivities, absent a

\(^8\) The ISO-NE Tariff specifies rules and procedures for existing FCM resources that seek to retire. Specifically, a resource must submit a Retirement De-list Bid 11 months before the associated auction (e.g., by March 2018 for FCA 13, which is scheduled to be held in February 2019). The Retirement De-List Bid specifies the minimum capacity price that a resource must receive from the FCM for it to stay in the market, rather than retire. The Internal Market Monitor (IMM) reviews all Retirement De-List Bids greater than 20 MW that are at or above the Dynamic De-List Bid Threshold, which is the price below which existing resources can opt to leave the auction without having their offers subject to a market power review by the IMM. In some instances, the IMM mitigates bids (i.e., replaces the resource’s bid with the IMM’s own estimate) to ensure the bids reflect that resource’s going forward and opportunity costs. ISO-NE Tariff § III.13.1.2.3.2.1.1.2.
retiring generator. The standard set of scenarios and assumptions that will be used in the Fuel Security Study are detailed in Appendix I of ISO-NE’s Planning Procedure 10.9

12. ISO-NE proposes static input assumptions, to be updated annually, for a number of system parameters (such as winter peak load, winter load profile, and local distribution company (LDC) natural gas demand). ISO-NE notes that a number of static input assumptions have been updated or adjusted since the OFSA and Mystic Retirement Studies were conducted, including natural gas supply and demand, and resources available for dispatch (such as renewables, state contract resources, and demand response). For example, ISO-NE states that it proposes to remove demand response resources from Operating Procedure 4 (OP-4) actions and will instead assume these resources will be dispatched prior to OP-4 actions.

13. In addition to these static inputs, ISO-NE proposes to use a range of input assumptions for three variable inputs to the model: LNG injections (the rate of LNG deliveries in billion cubic feet (Bcf) per day (Bcf/d)); electricity imports (the quantity of tie-line imports in MW); and dual fuel oil tank fill rate (the number of oil refills at dual-fuel generating units per 90-day winter season). Using variations of these input assumptions, ISO-NE’s proposed model will generate 18 pre-defined scenarios that represent different maximum levels of daily LNG injections under varying levels of electricity imports and dual-fuel inventories.

14. To measure the operational impact of a specific generator retirement, ISO-NE states that it will model its system under each scenario, absent the generator that has submitted a Retirement De-List Bid. It will model generators in descending order of their Retirement De-List Bids.10 The model will then progress through the scenarios. If the system experiences stress because of the absence of a generator, the model will progress through OP-4 actions until depletion of 10-minute operating reserves and finally load shedding under Operating Procedure 7 (OP-7).

15. ISO-NE explains that, under its proposal, a generator will be retained for fuel security purposes if one of two triggers occur after full utilization of OP-4 actions:

9 Transmittal, Attachment 5.

10 ISO-NE notes that bids with the same price will be reviewed in the order that produces the least negative impact to reliability. Where multiple bids have the same price and impact to reliability, ISO-NE states that it will review them based on their submission time. ISO-NE Transmittal at 20.
a) Reduction of 10-minute reserves below 700 MW in any hour in the absence of a contingency in more than one LNG-Gas Supply Scenario case,11 or

b) The use of load shedding in any hour under OP-712 in any one scenario.

16. ISO-NE explains that it proposes the 700 MW trigger because it intends to account for improvements in system performance between the forecast year and the operating year that are not fully accounted for in its proposed modeling approach.13 ISO-NE notes that this allowance for reduction of 10-minute reserves in the Fuel Security Study does not indicate that ISO-NE will allow for violation of North American Electric Reliability Corporation (NERC) criteria in operations. ISO-NE states that it will continue to maintain the needed generation reserves to meet mandatory reliability criteria during operation.14

b. Comments and Protests

17. Connecticut Parties support ISO-NE’s revised modeling methodology because it incorporates more recent data that would be updated annually and accounts for resources under state contracts.15 Connecticut Parties believe this approach balances conservative and optimistic approaches to avoid both over-procurement and reliability problems.16

18. Other commenters support the changes ISO-NE has made to the proposed Fuel Security Study but reiterate objections to other assumptions and call for further modifications. EDF notes that ISO-NE has corrected an important error in ISO-NE’s assumptions regarding LDC supply growth but asks that ISO-NE address the remaining

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11 The LNG Gas-Supply Scenario cases refer to where ISO-NE studied three different levels of LNG imports: 0.8 Bcf/d, 1 Bcf/d, and 1.2 Bcf/d. See Transmittal at 8.


14 Transmittal at 12-13.

15 Connecticut Parties Comments at 4.

16 Id. at 4-5.
deficiencies in the model such as refining static assumptions about LDC supply growth.\textsuperscript{17} Massachusetts AG notes that, since the original OFSA’s assumptions have been updated with stakeholder feedback, ISO-NE’s studies appropriately show decreased fuel security risk. Massachusetts AG argues that, if the model were further updated, it would show still less risk and decrease the likelihood that resources are unnecessarily retained for fuel security.\textsuperscript{18} Potomac Economics generally supports ISO-NE’s proposed study approach but notes that ISO-NE’s assumptions regarding generators’ oil-tank refills are overly conservative.\textsuperscript{19}

19. NEPOOL filed a suite of proposed amendments to ISO-NE’s proposal, some of which pertain specifically to the input assumptions in the Fuel Security Study. Multiple commenters support NEPOOL’s proposed amendments, in whole or in part.\textsuperscript{20} NEPOOL asks the Commission to direct ISO-NE to adopt these provisions and argues that its proposal meets the region’s need for fuel security while limiting the circumstances under which ISO-NE can enter into out-of-market fuel security contracts.\textsuperscript{21} NEPOOL states that, if ISO-NE had originally filed its proposal under FPA section 205 rather than section 206, the Commission would have been required to consider NEPOOL’s proposed amendments as a “jump ball” proposal on an equal footing with the ISO-NE proposal,\textsuperscript{22} and that even under section 206, the Commission has broad authority to choose a remedy

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\textsuperscript{17} EDF Comments at 2-3.

\textsuperscript{18} Massachusetts AG Protest at 9.

\textsuperscript{19} Potomac Economics Comments at 11-12. In particular, Potomac Economics argues ISO-NE’s assumption would greatly understate the potential fuel-secure output levels of heavy oil steam turbine units. However, Potomac Economic notes that for light oil combined cycle units, which have 30-day air permit restrictions not explicitly modeled in the Fuel Security Study, the availability of these units may not be understated.

\textsuperscript{20} Massachusetts AG Protest at 6; RENEW Protest at 2; FirstLight Protest at 24; ENECOS Comments at 4-5; Vistra Protest at 3; Public Interest Organizations Protest at 2-3; EDF Comments at 2-3. Public Interest Organizations additionally state that they are reiterating the arguments they made in their petition for rehearing of the July 2 Order. Public Interest Organizations Protest at 3-5.

\textsuperscript{21} NEPOOL Protest at 3, 18-19.

\textsuperscript{22} Id. at 19 (citing NEPOOL Participants Agreement, Section 11.1.5).
to unjust and unreasonable tariff provisions, including ordering ISO-NE to adopt the NEPOOL’s proposed amendments.\(^{23}\)

20. First, NEPOOL and others challenge the way the Fuel Security Study models available fuel supply. NEPOOL argues that ISO-NE models a prolonged depletion of fuel inventory, effectively assuming that resources would make an economic choice not to resupply fuel.\(^{24}\) FirstLight asserts that such a choice would cause the resource to fail to meet its capacity supply obligation. Thus, FirstLight contends that such a prolonged depletion of fuel inventory is unlikely except in cases of unanticipated disruptions.\(^{25}\) NEPOOL proposes to replace ISO-NE’s assumption with one that is consistent with a resource meeting its capacity supply obligation and not making an economic choice to forego resupplying fuel. NEPOOL states that its proposal is consistent with the Commission’s prior finding that “the Tariff imposes a strict performance obligation on capacity resources and . . . capacity resources may not take economic outages, including outages based on economic decisions not to procure fuel or transportation.”\(^{26}\) Several commenters support adopting NEPOOL’s proposed amendment.\(^{27}\)

21. NRG argues that ISO-NE’s proposal overstates the future availability of oil by assuming that resources that fuel exclusively with oil will have the same inventory four years into the future as they do now.\(^{28}\) NRG asserts that ISO-NE’s methodology uses a simplified approach to economic dispatch, which may be inappropriate when identifying resources needed for fuel security. Specifically, NRG questions ISO-NE’s proposed modeling of residual oil generators near the end of the dispatch order. Because elevated natural gas prices during winter conditions often make such oil units more

\(^{23}\) Id. at 20, 20 n.39 (citing ISO New England Inc., 143 FERC ¶ 61,150, at PP 208, 239 (2013)).

\(^{24}\) Id. at 11.

\(^{25}\) FirstLight Protest at 23-24.


\(^{27}\) See, e.g. Dominion Energy Services at 9; ENECOS Comments at 4-5; Massachusetts AG Protest at 12; Public Interest Organizations Protest at 5-6.

\(^{28}\) NRG Protest at 13.
economical, NRG argues that ISO-NE’s proposed model will undervalue the fuel security contributions of residual oil resources.\(^ {29} \)

22. In response to ISO-NE’s argument that assuming generators will buy sufficient fuel is contrary to past experience, Potomac Economics states that past outcomes are not necessarily relevant when determining whether a retained resource is necessary three years in advance.\(^ {30} \) Because ISO-NE plans to develop and implement a market mechanism to incentivize resources to arrange for fuel when necessary for reliability, Potomac Economics argues that ISO-NE should not assume that suppliers will not arrange for adequate fuel.\(^ {31} \) Massachusetts AG adds that ISO-NE did not provide any analysis demonstrating how Pay-for-Performance or market responses to winter scarcity conditions would impact the conditions modeled in the Fuel Security Study.\(^ {32} \)

23. Second, NEPOOL challenges how state renewable portfolio standard (RPS) requirements are modeled in the Fuel Security Study. NEPOOL proposes to include an assumption that the New England states will achieve 100 percent of their statutory RPS requirements.\(^ {33} \) Several commenters support NEPOOL’s proposal.\(^ {34} \) NEPOOL, Public Interest Organizations and NESCOE assert that this assumption is fully supported by data and that achievement of those requirements has been maintained even as states have increased their renewable requirements.\(^ {35} \) RENEW notes that the majority of NEPOOL

\(^{29}\) Id. at 15.

\(^{30}\) Potomac Economics Comments at 12.

\(^{31}\) Id.

\(^{32}\) Massachusetts AG Protest at 8. In 2014, the Commission largely approved ISO-NE’s proposal to implement a two-settlement capacity market design, often referred to as Pay-for-Performance, which is intended to incent capacity suppliers to provide energy during scarcity conditions. See ISO New England Inc., 147 FERC ¶ 61,172 at PP 5-6.

\(^{33}\) NEPOOL Protest at 31-32.

\(^{34}\) Massachusetts AG Protest at 15; NESCOE Comments at 9; Public Interest Organizations Protest at 5-6; RENEW Protest at 4-6.

stakeholders voted for this modification.\textsuperscript{36} APPA urges the Commission to give weight to this recommendation from NEPOOL stakeholders.\textsuperscript{37}

24. Third, in addition to challenging the assumptions used by ISO-NE in its proposed Fuel Security Study, many commenters argue that ISO-NE should also make modifications to its two proposed triggering criteria. Some commenters argue that the triggering criteria are too conservative, meaning the criteria are easily violated and will result in unnecessary out-of-market interventions. Still others argue that the triggering criteria are not conservative enough, meaning that the criteria are not easily violated and will result in an elevated risk to reliability in cold weather months. Arguing that the proposed criteria are not conservative enough, Mystic states that ISO-NE’s relaxation of NERC 10-minute operating reserve requirements is not a good planning practice and that ISO-NE’s trigger should reflect the actual NERC standard of 1,400 MW.\textsuperscript{38} In response to ISO-NE’s rationale that the relaxation of the 10-minute operating reserve requirement in its triggering criteria balances conservative assumptions elsewhere in ISO-NE’s modeling, Mystic states that whether certain assumptions are conservative or not should have no bearing on the specific trigger.\textsuperscript{39}

25. Arguing that the proposed triggering criteria are too conservative, NEPOOL proposes to reduce the number of scenarios in the Fuel Security Study model that could trigger retention of a resource.\textsuperscript{40} Several commenters support NEPOOL’s proposal.\textsuperscript{41} According to these commenters, many of the 18 scenarios examined by ISO-NE’s model use assumptions about the availability of imports, LNG injections, and fuel supplies that are too low. Commenters argue that using scenarios that rely on scarcity of these inputs is unnecessarily conservative and would ultimately foreclose the ability of ISO-NE to

\textsuperscript{36} RENEW Protest at 4-6.

\textsuperscript{37} APPA Comments at 7.

\textsuperscript{38} Mystic Protest at 3.

\textsuperscript{39} Id. at 4.

\textsuperscript{40} NEPOOL Protest at 11-12.

\textsuperscript{41} Massachusetts AG Protest 13-14; NESCOE Comments at 7.
remedy the situation without an out-of-market intervention.\footnote{Public Interest Organizations Protest at 8-9.} They argue that this is especially true because ISO-NE is attempting to forecast several years into the future. Vistra argues that the resulting tendency for ISO-NE’s criteria to over-procure fuel security resources will exacerbate price suppression.\footnote{Vistra Protest at 4.} Instead, NEPOOL and commenters propose to use only four of the 18 scenarios generated by ISO-NE’s model to evaluate whether a triggering criteria has been violated.

26. To further reduce the stringency of the triggering criteria under which a resource would be retained for fuel security, NEPOOL argues that the 10-minute operating reserve trigger should be eliminated altogether. Several commenters support NEPOOL’s proposal. These commenters propose to use load shedding as the sole triggering criteria. Specifically, commenters argue that the sole trigger should be application of ISO-NE OP-7 in any one scenario totaling at least the MWh of expected energy not served at the net Installed Capacity Requirement (Net ICR) most recently calculated for an FCA. NEPOOL maintains that the Commission “implicitly” accepted using load shedding as the sole triggering criteria when the Commission accepted the Marginal Reliability Impact demand curves (MRI Demand Curves). This is because load shedding is the standard used to develop the Net ICR as well as the marginal reliability impact of additional capacity. Some commenters claim that even this trigger may be too conservative. NESCOE argues that, when ISO-NE conducts planning studies to procure resource adequacy in the FCA, it assumes some level of load loss. NESCOE argues that ISO-NE does not explain why its proposed Fuel Security Study, which uses load loss as a triggering criteria, is inconsistent with and more conservative than its planning standard used for resource adequacy.\footnote{NESCOE Comments at 8.}

27. Last, regarding the Fuel Security Study of multiple Retirement De-List Bids, Public Interest Organizations urge the Commission to direct ISO-NE to clarify the process described in the proposal. ISO-NE’s proposed Tariff language refers to procuring the “minimum aggregate quantity required for reliability” only in the context of multiple bids from a single generating station. Public Interest Organizations claim that, instead, these standards should apply to ISO-NE’s consideration of the entire suite of units that have submitted De-List Bids. Public Interest Organizations complain that, while the Tariff language anticipates that ISO-NE will first determine whether the most expensive retiring unit is needed for reliability, it is unclear whether ISO-NE would include in that review all other resources that have submitted De-List Bids. Public Interest Organizations urge the use of a model under which ISO-NE assumes that none of
the resources that have submitted De-List Bids are retained and then adds such resources in, beginning with the least expensive, until no triggering events occur. Public Interest Organizations also assert that the proposed Tariff language needs to state that ISO-NE will retain only the minimum quantity of capacity needed to avoid a triggering event, even if that means retaining only a subset of the units at a plant for which a Retirement De-List Bid is submitted (pointing to ISO-NE’s consideration of Mystic Units 8 and 9 together, rather than evaluating whether only one of those units would be needed).\textsuperscript{45} However, Eversource supports ISO-NE’s proposed process, including performance of its fuel security assessment prior to its transmission security assessment because this approach recognizes the broader regional benefits attributable to resources needed for fuel security.\textsuperscript{46}

c. \textbf{Answers}

28. ISO-NE argues that NEPOOL’s proposed amendments to its methodology and triggering criteria, as well as supporting protests from other parties, are collateral attacks on the Commission’s finding in the July 2 Order or untimely requests for rehearing of that order.\textsuperscript{47} ISO-NE points out that, although the Commission found the methodology and assumptions reasonable, ISO-NE nonetheless revised its review to include more available energy in its assumptions where ISO-NE believes this could be reasonably and prudently done.\textsuperscript{48} Given that the Commission had already determined that the more conservative Mystic Retirement Studies and OFSA were reasonable in the July 2 Order, ISO-NE argues that the Commission cannot now find that the proposed Fuel Security Study, which is less conservative, is now too conservative.\textsuperscript{49}

29. In its answer, ISO-NE addresses several arguments raised by NEPOOL. First, ISO-NE argues that NEPOOL’s supposition that all resources have fuel or will be able to get fuel needed to meet their capacity supply obligations is not correct, and that if it were correct, this fuel security issue would not exist.\textsuperscript{50} ISO-NE states that, if it were to assume, despite actual demonstrated performance and the Commission’s own approval of

\textsuperscript{45} Public Interest Organizations Protest at 15-18.

\textsuperscript{46} Eversource Comments at 6.

\textsuperscript{47} ISO-NE October 9 Answer at 3.

\textsuperscript{48} Id. at 4.

\textsuperscript{49} Id. at 5.

\textsuperscript{50} Id. at 6-7.
additional winter reliability programs in the past, that the fleet had fuel or could obtain fuel to meet its capacity supply obligation on each day over the cold weather period, then the system would be long on capability rather than facing possible disruption of service.  

Second, ISO-NE argues that NEPOOL’s assertion that ISO-NE’s methodology contains “unrealistically low assumptions about energy imports and fuel supply” is not supported by evidence. ISO-NE presents data showing winter LNG injections over the past five years, and argues that its low LNG-supply assumption of 0.8 Bcf/day is actually optimistic in winter conditions.  

Third, ISO-NE disputes NEPOOL’s contention that ISO-NE’s proposed trigger of a 700 MW depletion in ten-minute operating reserves is overly conservative. ISO-NE argues that NEPOOL is minimizing the unacceptable reliability impacts that would result, reiterating the testimony of Mr. Brandien that: “When the system is forecast to be 700 MW deficient of 10-minute operating reserves . . . I have limited if any options available other than implementing OP-7 load shedding.”  

Fourth, ISO-NE argues that NEPOOL’s proposal to assume full compliance with state renewable energy mandates would not rigorously specify which resources the Fuel Security Study would assume to be available, given that state laws allow for various resource types and imports, as well as alternative compliance payments.  

ISO-NE argues that its approach to instead include resources with final contracts in place that will be operational by the winter of the relevant year is reasonable.

30. Mystic states in its answer that NEPOOL’s proposed modifications to the Fuel Security Study are not consistent with ensuring reliability. First, regarding NEPOOL’s proposal to not apply the triggering criteria to any scenarios modeled with low variable input assumptions for energy imports, LNG, or oil tank fills, Mystic argues that this will result in the Fuel Security Study being based on only the most optimistic scenarios. Additionally, Mystic states that NEPOOL’s proposal would ignore actual experience with

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51 Id. at 9.
52 Id. at 10-11.
53 Id. at 12-13.
54 Id. at 14.
55 Id. at 14-15.
56 Mystic Answer at 2.
57 Id. at 3.
oil tank refill rates and emergency assistance over tie lines, and instead assume more optimistic deliveries based on what may be theoretically possible.

31. Second, Mystic objects to NEPOOL’s proposal to remove the component of the trigger relating to 10-minute operating reserves, noting that even use of the proposed 700 MW level for this criterion is risky.\(^58\) Mystic explains that the proposed model is already simplified to assume that load shedding begins when reserves drop to zero. However, as a practical matter, Mystic explains that ISO-NE will start shedding load before reserves drop to zero in order to avoid violations of mandatory NERC and Northeast Power Coordinating Council (NPCC) reliability criteria. To make the Fuel Security Study consistent with the criteria used to develop the Net ICR and MRI Demand Curves, as some commenters suggest, would require the study to indicate levels of load shedding that could occur after a contingency.\(^59\) However, the Fuel Security Study assumes no contingencies. Mystic notes that, if ISO-NE revised the Fuel Security Study to reflect a contingency, the model would actually be more likely to identify a resource to be retained for fuel security.

32. FirstLight argues that in the July 2 Order the Commission merely found ISO-NE’s assumptions in the OFSA and Mystic Retirement Studies were reasonable; FirstLight claims that ISO-NE is not bound to adopt these same assumptions and methodology in the Fuel Security Study.\(^60\) FirstLight reiterates its support for the NEPOOL proposal to change the Fuel Security Study’s assumption so that it is consistent with resources meeting their capacity supply obligations.\(^61\) In response to ISO-NE’s answer, FirstLight argues that, if a resource will not contract for enough fuel, this is a problem regarding enforcement of ISO-NE’s existing Tariff. Similarly, FirstLight argues that, if resources are physically unable to access enough fuel, this is a problem with ISO-NE qualifying more winter capacity than physically can be fueled. FirstLight concludes that contracting for out-of-market fuel security resources should not serve as a substitute for either enforcement of existing Tariff provisions or assurance that the aggregate of winter capacity supply can truly be fueled in the winter.\(^62\) According to FirstLight, the fact that ISO-NE has capacity supply obligations in excess of 30,000 MW and yet struggles to meet a winter demand of 20,000 MW during periods of cold weather is evidence of a

\(^{58}\) Id. at 4.

\(^{59}\) Id. at 5.

\(^{60}\) FirstLight Answer at 4-5.

\(^{61}\) Id. at 6-7.

\(^{62}\) Id. at 8.
failure to comply with the existing Tariff rather than of a need for further Tariff provisions or out-of-market procurements.\textsuperscript{63}

33. In response to ISO-NE’s argument that NEPOOL’s proposed amendments to its methodology and triggering criteria are collateral attacks on or untimely rehearing requests of the July 2 Order, NEPOOL states that the July 2 Order did not address specific rules for performing Fuel Security Studies, but simply addressed the question of the need for such fuel security arrangements.\textsuperscript{64} NEPOOL argues that the Commission is now considering specific tariff revisions governing how ISO-NE will conduct future studies for retirement bids in the FCM. NEPOOL further states that it and ISO-NE negotiated the jump ball provision precisely to permit the Commission to evaluate competing proposals from ISO-NE and NEPOOL on an equal basis, and that if ISO-NE had originally proposed the new fuel security provisions under section 205, rather than seeking a waiver of existing provisions, ISO-NE’s proposal would have been subject to the jump ball provision. NEPOOL argues that even in ruling on a section 206 filing, the Commission’s authority is still broad enough to choose between the ISO-NE and NEPOOL proposals, because the question before the Commission is not just whether ISO-NE’s proposal is just and reasonable, but which of the proposals presented by ISO-NE and NEPOOL best complies with the Commission’s directive in the July 2 Order.\textsuperscript{65}

34. NEPOOL clarifies that its proposal does not assume that all generators would have fuel needed to meet their schedules at all times, regardless of availability. Rather, NEPOOL contends that the Fuel Security Study’s assumptions should be guided by the obligations regarding fuel that a capacity supply obligation entails.\textsuperscript{66} By assuming that resources with capacity supply obligations will procure the necessary fuel to meet those obligations, NEPOOL reiterates that its proposal avoids unnecessary retention of resources under out-of-market arrangements, and strikes a better balance between reliability needs and market efficiency.\textsuperscript{67}

\textsuperscript{63} Id. at 10.

\textsuperscript{64} NEPOOL Answer at 5-6.

\textsuperscript{65} Id. at 4.

\textsuperscript{66} Id. at 7.

\textsuperscript{67} Id. at 8-9.
d. Commission Determination

35. Multiple commenters challenge ISO-NE’s Fuel Security Study process, the assumptions used in ISO-NE’s model, and the criteria used to trigger a retention of a retiring resource for fuel security. In the July 2 Order, the Commission found that it was reasonable for ISO-NE to use a deterministic analysis in this instance. Similarly, we find here that the proposed study process, including the model assumptions and proposed trigger criteria as modified by ISO-NE from the OFSA and Mystic Retirements Studies, is just and reasonable. Nevertheless, we encourage ISO-NE to work with all interested parties, including NEPOOL, to continue to address their areas of disagreement while developing the long-term market solution.

36. In the July 2 Order, the Commission found that ISO-NE had used a rational set of assumptions in the OFSA and Mystic Retirement Studies. However, the Commission noted that fuel security analysis is an evolving field for which there are no industry standards or best practices. Specifically, the Commission noted that ISO-NE attempted to use input assumptions that reflected the best available data at the time it conducted its analysis. Similarly, we find that ISO-NE’s current proposal uses input assumptions that reflect the best available data at the time it conducted its analysis. In response to NEPOOL’s and other commenters’ objections to the assumptions used by ISO-NE regarding fuel stocks and state RPS targets, we find that ISO-NE has used historical data and past experience that are reasonable for establishing inputs to the model. We note that ISO-NE proposes to update this data annually with input from its stakeholders. Beyond its commitment to update its model annually as new data becomes available, ISO-NE has also made changes to its model’s input assumptions and scenarios based on stakeholder feedback that it has already received. We disagree with NEPOOL’s view that even in a section 206 context, the Commission should effectively consider ISO-NE’s and NEPOOL’s proposals on an equal level because of the jump ball provision which is applicable only to section 205 filings.

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68 July 2 Order, 164 FERC ¶ 61,003 at P 51.

69 Id. P 52.

70 NEPOOL Participants Agreement, Section 11.1.5 (“If the Participants Committee vote relating to an ISO Market Rule proposal results in the approval by the Participants Committee by a Participants Vote equal to or greater than 60% of a Market Rule proposal that is different from the one proposed by ISO, . . . ISO shall, as part of any required Section 205 filing, describe the alternate Market Rule proposal in detail sufficient to permit reasonable review by the Commission. . . [and t]he Commission . . . may adopt any or all of ISO’s Market Rule proposal or the alternate Market Rule proposal as it finds, in its discretion, to be just and reasonable and preferable”).
commenters here. For example, since the OFSA and Mystic Retirement Studies, ISO-NE has modified its model to reflect a greater amount of energy available from dual fuel units and state-sponsored generation resources. We expect ISO-NE to continue to seek stakeholder input in making updates and modifications to the assumptions that it uses in its modeling as conditions and data change over time.

37. Regarding the trigger for retaining a resource for fuel security purposes, the Commission found in the July 2 Order that the modeled scenarios demonstrated a pressing reliability concern that the Tariff had no mechanism to address. However, the Commission did not specify a precise threshold for when the model scenario results demonstrate a risk that warrants the retention of a retiring resource for fuel security. Here, ISO-NE proposes two criteria that trigger the determination that a resource should be retained for fuel security. These triggers are either a reduction of 10-minute operating reserves over 700 MW in two or more different LNG-Gas Supply scenarios or load shedding in any hour of any modeled scenarios. Commenters primarily address the first of the two triggers, with some arguing that the 10-minute reserve trigger criteria is too conservative, while others argue that it is not conservative enough.

38. In selecting these triggers, ISO-NE explains that it has attempted to balance the uncertainty inherent in forecasting one to three years in the future with the need to set triggering criteria that reflect a regional fuel security need that cannot be met through other means. Regarding comments that the 10-minute reserve triggering criteria is not conservative enough, ISO-NE states that its model inputs include several conservative assumptions. For example, the model does not capture price-based market dynamics, which can encourage additional reliability support in the operating horizon. In addition, we note that ISO-NE has some degree of additional day-to-day operational flexibility not modeled in the study, such as the ability to initiate emergency load relief actions or import emergency power in anticipation of extreme weather conditions. For these reasons, some relaxation of the 10-minute operating reserve requirement, for the purposes of modeling whether a resource is necessary for fuel security, will not necessarily equate to the loss of such reserves in real-time operation three years in the future. Regarding comments that the 10-minute reserve triggering criteria is too conservative, we note that ISO-NE has relaxed its 10-minute operating reserve requirement by 700 MW for the purposes of the triggering criteria and has therefore not chosen the most conservative triggering criteria. We recognize that ISO-NE has exercised its engineering judgment in setting this criteria, and we find that ISO-NE has struck a reasonable balance. We acknowledge ISO-NE’s clarification that reduction of 10-minute reserves in the Fuel Security Study does not in any way indicate that ISO-NE will allow for a violation of NERC criteria. We note however, that this reduction of reserves should not be viewed to allow pre-contingency load shed during winter peak condition as a tool to address

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71 See Brandien Testimony at 22-24 (explaining 700 MW trigger criteria).
potential violation of applicable NERC Reliability Standards, specifically TPL-001-4 and BAL-002-2.

39. Lastly, we recognize that the Fuel Security Study process, performed over the planning horizon, is a newly developed process, is based upon a number of assumptions, and is not addressed by the NERC Reliability Standards. As ISO-NE gains additional information and experience, we expect that the study assumptions, methods, scenarios, and triggers may need to be further refined and updated. We also note that, as discussed below, the Fuel Security Study process may be necessary to evaluate the impact of retiring resources on regional fuel security beyond FCA 15. In light of this potential future need for the proposed process, we direct ISO-NE to submit an annual informational filing regarding the applicability of its study triggers, study assumptions, and study scenarios compared to actual experiences, starting with the winter of 2018/19. Specifically, following the winter, we direct ISO-NE to submit an informational filing comparing the study assumptions and triggers from the modeling analysis to actual conditions experienced in the winter of 2018/19. The informational filing should also include a description of lessons learned, and explain if changes to study assumptions and triggers are necessary for future studies.

2. **Cost Allocation**

a. **Proposal**

40. Under the proposal, ISO-NE will seek to retain resources for fuel security that both submit a Retirement De-List Bid and trigger one of the two modeling outcomes specified above. ISO-NE states that it will use similar compensation rules for retaining resources for fuel security reasons that it uses when retaining resources for other reliability reasons. Fuel security resources that are selected for retention will have the option either to (1) engage in a cost-of-service agreement with ISO-NE and be entered at a zero bid into the FCA or (2) receive their Retirement De-List Bid price, as reviewed and approved by the IMM. ISO-NE proposes to allocate the costs for the cost-of-service

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72 This filing will be for informational purposes and will not be noticed for comment or subject to Commission order.

73 Transmittal at 23 (citing ISO-NE Tariff § III.13.2.5.2.5.1).
agreement that exceed the FCA price\textsuperscript{74} on a regional basis to Real-Time Load Obligation, which will be collected over a 12-month period.\textsuperscript{75}

41. ISO-NE notes that this allocation is consistent with the past cost allocation related to fuel security needs—namely, the Winter Reliability Program. ISO-NE states that its proposed Tariff revisions have the same goal as the Winter Reliability Program (i.e., to improve reliability by ensuring that adequate electric energy supply is available to meet real-time load during the winter). Therefore, ISO-NE states that the adoption of the Winter Reliability Program’s cost allocation is appropriate here.

b. **Comments and Protests**

42. Multiple commenters support ISO-NE’s proposal to allocate costs to Real-Time Load Obligation as consistent with Commission precedent, including the approved cost allocation for ISO-NE’s Winter Reliability Programs.\textsuperscript{76} Connecticut Parties agree that fuel security is a regional rather than local problem and do not object to region-wide cost allocation through Real-Time Load Obligation.\textsuperscript{77} Avangrid Networks asserts that ISO-NE’s proposal to allocate the costs of retaining fuel security resources to Real-Time Load Obligation complies with a long-standing rate design principle of matching cost responsibility with cost causation, under which rates must “reflect to some degree the costs actually caused by the customer who must pay them.”\textsuperscript{78} Avangrid Networks, Massachusetts DPU, and Eversource note that the Commission similarly allocated the costs of the 2005-2006 Winter Package and the Winter Reliability Program to real-time load because real-time load was the primary beneficiary and cost driver of those costs.

\textsuperscript{74} Under ISO-NE’s proposal, a resource retained for fuel security will receive a capacity supply obligation at the market-clearing price, and any capacity revenue will be netted against the resource’s total cost-of-service revenue requirement. *Id.* at 14.

\textsuperscript{75} This cost allocation method excludes Real-Time Load Obligation associated with Dispatchable Asset Related Demand Resources (DARD) Pumps and other electric storage based DARDs and Real-Time Load Obligation associated with Coordinated External Transactions.

\textsuperscript{76} See, e.g., Avangrid Networks Comments at 3; Connecticut Parties Comments at 6; National Grid Comments at 2; NESCOE Comments at 10-11; Massachusetts DPU at 7.

\textsuperscript{77} Connecticut Parties Comments at 6.

\textsuperscript{78} Avangrid Networks Comments at 4 (citing *Black Oak Energy, LLC v. FERC*, 725 F. 3d 230, 237 (D.C. Cir. 2013) (quoting *East Kentucky Power Cooperative, Inc. v. FERC*, 489 F. 3d 1299, 1303 (D.C. Cir. 2007))).
programs. Avangrid Networks further asserts that fuel security costs tied to the generation of electric energy are generation-related supply costs and not transmission costs; therefore, allocating fuel security costs to Regional Network Load is appropriate.

43. The Massachusetts DPU supports ISO-NE’s proposal to allocate the costs of those resources retained to maintain regional fuel security on a New England region-wide basis, rather than on a more localized basis. The Massachusetts DPU states that it agrees with ISO-NE’s position that fuel security is a regional problem. However, it disagrees with comments, as noted below, that its regulations requiring utilities to reduce their greenhouse gas emissions have caused New England’s fuel security concerns and therefore all costs associated with any resource retained for fuel security should be allocated exclusively to Massachusetts load zones, regardless of that resource’s location. The Massachusetts DPU states that its regulations also permit utilities flexibility in meeting their compliance obligations, including temporarily postponing their compliance obligations, if necessary to maintain the reliability of the grid. The Massachusetts DPU thus asserts that New England’s fuel security concerns are not solely the result of environmental limits on the operation of existing dual-fuel capability in Massachusetts.

44. New Hampshire PUC and Maine PUC disagree with ISO-NE’s assertion that resources retained for fuel security will benefit the entire region, and, thus, costs should be allocated region-wide. Maine PUC disputes that the Distrigas Facility is a regional resource because fuel from it cannot physically reach Maine. Maine PUC asserts that the


80 Avangrid Networks Comments at 5. For the Winter Reliability Program, ISO-NE distinguished Regional Network Load, which is paid by transmission owners, from Real Time Load Obligation, which is paid by load-serving entities. In ISO-NE, load-serving entities recover costs through contracts with end-users whereas transmission owners recover costs through Regional Network Service Charges. ISO New England Inc., 144 FERC ¶ 61,204 at P 55.

81 See Massachusetts DPU Comments at 4-5.

82 Id. at 10 (citing 310 Mass. Code Regs. 7.74).

83 See id. at 8-11.

84 New Hampshire PUC Comments at 13; Maine PUC Protest at 4-10.
State of Maine has not contributed to the need for fuel security and that areas other than Maine have blocked needed energy delivery infrastructure. Maine PUC argues that ISO-NE has stated that Mystic Units 8 and 9 are likely needed for both fuel security and local transmission reliability and Maine PUC asserts that, at a minimum, ISO-NE should allocate the costs partly region-wide and partly to the load zone with the local transmission reliability need. Maine PUC notes that prior Commission orders accepted local cost allocation for ISO-NE’s cost-of-service rules.

45. New Hampshire PUC asserts that Massachusetts regulations requiring generators in that state to meet a declining cap on total CO₂ emissions have effectively deterred new investment in dual-fuel capability and discouraged generators that already have dual-fuel capability from utilizing that capability. New Hampshire PUC thus argues that, to the extent that it is necessary to retain a resource out-of-market to resolve fuel security issues, any out-of-market costs should be allocated solely to the states with emissions regulations that impede the effectiveness of Pay-for-Performance. New Hampshire PUC asserts that approval of ISO-NE’s cost allocation approach would establish “a dangerous precedent that it is acceptable for states to implement policies that undermine approved market-based initiatives, including initiatives designed to assure reliability” arguing that, instead, states should bear the costs of their own policy decisions. New Hampshire PUC points to a recent Commission decision in which the Commission found that states providing support to certain preferred resources must bear the costs of that decision. New Hampshire PUC contends that ISO-NE’s cost allocation proposal is inconsistent with basic cost causation principles and would lead load serving entities to charge significant risk premiums, which would ultimately be paid by consumers.

85 Maine PUC Protest at 5-7.

86 Id. at 10-11, (citing ISO-NE, Petition for Waiver, Docket No. ER18-1509-000, at 22 (filed May 2, 2018)).

87 Id. at 4, (citing New England Power Pool, 100 FERC ¶ 61,287, at P 61 (2002)).

88 New Hampshire PUC Comments at 9.

89 Id. at 15.

90 Id. at 15-16 (citing Calpine Corp. v. PJM Interconnection, L.L.C., 163 FERC ¶ 61,236, at PP 63-72, 157-163 (2018) (Calpine)).

91 NEPOOL did not protest ISO-NE’s proposed cost allocation mechanism. It noted, however, that some NEPOOL members had argued that allocating costs to Network Load rather than Real-Time Load Obligations would be less disruptive to
46. New Hampshire PUC proposes an alternative cost allocation mechanism under which (1) the costs of retaining resources for fuel security would be allocated only to customers in states whose public policies caused those costs to be incurred, rather than to all customers in the region, and (2) the allocated costs would be collected through transmission rates based on the Regional Network Load of all transmission customers within the cost-causing states, rather than on Real-Time Load Obligation.92

47. NESCOE and New Hampshire PUC contend that the Commission’s approval of allocating costs based on Real-Time Load Obligation for ISO-NE’s Winter Reliability Program does not support ISO-NE’s proposed cost allocation here. New Hampshire PUC states that the Winter Reliability Program helped generators maintain on-site oil inventories and thus provided short-term insurance against natural gas curtailments, but the fuel security resource retention program is designed to address a different market circumstance (i.e., the combination of natural gas curtailments and the loss through retirement of one or more major non-natural gas resources). NESCOE and New Hampshire PUC note that the proposed two-year cost-of-service agreement for fuel security with a single market participant may cost more than $400 million, as compared to the $94 million for the Winter Reliability Programs.93 NESCOE and New Hampshire PUC contend that collecting the approximately $400 million cost through Real-Time Load Obligation would require consumers not only to fund these out-of-market costs but also to fund incremental amounts in the form of load serving entity risk premiums.

48. However, Avangrid Networks urges the Commission to disregard arguments that LSEs need to include risk premiums in their supply contracts with electric distribution

49. existing supply contracts between load serving entities and the electric utilities whose load they serve, on the basis that load serving entities (LSE) would need to incorporate risk premiums into their pricing to avoid the risk of underestimating the costs of fuel security-related out-of-market arrangements. NEPOOL Protest at 8. NEPOOL additionally noted, however, that some of its transmission owners stated that they had begun working with state regulators on proposals that would permit LSEs to provide default service to insulate themselves contractually from out-of-market costs associated with retained fuel security resources in their wholesale power bids, thereby eliminating a risk premium associated with such potential costs. Id. at 16. Direct Energy, however, states that no state commission has yet stated that it intends to open a proceeding on these issues and no party has specifically referenced such a proceeding; Direct Energy therefore states that this assertion in the NEPOOL protest is speculative and should be given no weight by the Commission. Direct Energy Answer at 3.

92 New Hampshire PUC Comments at 3.

93 NESCOE Comments at 11; New Hampshire PUC Comments at 17-18.
companies to mitigate unanticipated cost allocation risk. Avangrid Networks states that the Commission’s consistent response to this argument has been that LSEs have assumed Real Time Load Obligation under the ISO-NE Tariff and that those contracts “contain inherent risk associated with unforeseeable future costs,” which the Commission expects LSEs to capture in bilateral contracts with end-use customers.\textsuperscript{94} Avangrid Networks asserts that allocation of costs related to resources retained for fuel security to Real-Time Load Obligation would send a clear signal to the ISO-NE markets when energy is in short supply that will encourage market participants to work more diligently to achieve a long-term, market-based solution.\textsuperscript{95}

49. Cogentrix states that any solution should distribute the costs of measures to address fuel security to both load and generation to recognize the collective burden of fuel security upon the region.\textsuperscript{96} Verso argues that the cost recovery associated with Mystic Units 8 and 9 should be allocated across the entire region for the 90-day winter period, while the rest of the year the costs should be allocated based on those who benefit from the retention of Mystic Units 8 and 9. In both allocation cases, Versa contends that non-firm load should not be allocated any costs.\textsuperscript{97}

50. Lastly, NESCOE asks the Commission to require ISO-NE to provide states and stakeholders with quantitative and qualitative information about any performance obligation-related change that ISO-NE seeks or consents to in a cost-of-service agreement that varies from the \textit{pro forma} version found in Market Rule 1 Appendix I.\textsuperscript{98} NESCOE argues that such a requirement will ensure that all cost and consumer implications of any change in the terms agreed to by the negotiating parties are not left solely to other litigants in a Commission proceeding.

c. \textbf{Answers}

51. New Hampshire PUC, Massachusetts AG and the Massachusetts DPU filed answers regarding the proposed cost allocation. New Hampshire PUC asserts that, despite the Massachusetts DPU’s arguments to the contrary, Massachusetts state

\textsuperscript{94} Avangrid Networks Comments at 6 (citing ISO New England Inc., 115 FERC ¶ 61,145 at P15).

\textsuperscript{95} Id. at 7-8.

\textsuperscript{96} Cogentrix Protest at 2.

\textsuperscript{97} Verso Protest at 12-14.

\textsuperscript{98} NESCOE Comments at 12.
regulations effectively penalize electricity production during emergency conditions when the system is most in need of that generation, and those regulations increase the risk that new dual-fuel capability will not be developed and existing non-natural gas generation units will retire, thus increasing the risks of fuel security. The New Hampshire PUC further asserts that ISO-NE has acknowledged that the Massachusetts regulations are a “primary factor” responsible for the under-performance of the Pay-for-Performance program. New Hampshire PUC therefore reiterates its earlier view that the out-of-market costs of resources retained for fuel security should be allocated solely to customers in Massachusetts.

52. Massachusetts AG and the Massachusetts DPU, in their answers, state that New Hampshire PUC has provided no actual evidence that the Massachusetts regulations caused the Pay-for-Performance program to fail. Massachusetts AG further states that ISO-NE has stated that multiple factors have caused Pay-for-Performance to procure insufficient capacity to meet fuel security needs (including an increase in natural gas-fired generation relying on just-in-time fuel, the challenges of fuel delivery logistics during cold weather conditions; significant retirements of large, non-natural gas-fired generation (nuclear, oil, coal); and the uncertain regulatory and economic future of remaining aging oil and nuclear units). Massachusetts AG also states that ISO-NE has recognized other factors to explain why more dual fuel capacity has not been built in the region, including region-wide siting and permitting difficulties, the phased-in performance payment rate, the relatively low number of hours of winter natural gas scarcity conditions and the stop loss provision that mitigates a generator’s penalties if it fails to perform. The Massachusetts DPU, in its answer, asserts that ISO-NE has made clear that the primary obstacle to overcoming New England’s fuel security issues is the

99 New Hampshire PUC Answer at 6-7.


101 Massachusetts AG Answer at 3; Massachusetts DPU Answer at 3.

102 Massachusetts AG Answer at 3-4.

103 Id. at 4 n.15 (citing Memorandum from ISO-NE to NESCOE, July 19, 2018, at 2-3).
region’s inability to site and develop new fuel infrastructure, not the underperformance of Pay-for-Performance.\textsuperscript{104}

d. Commission Determination

53. We accept the ISO-NE proposal to allocate the out-of-market costs of resources retained for fuel security to Real-Time Load Obligation. We agree with ISO-NE that the goal of the proposed revisions is similar to that of the Winter Reliability Program and therefore should have a similar cost allocation method. When ruling on the cost allocation for the Winter Reliability Program, the Commission stated that

ISO-NE proposed the Winter Reliability Program to address generation-related reliability concerns, not transmission-related concerns, through an interim program designed to ensure sufficient energy supply to meet real-time load during the coming winter. Because real-time load is the primary beneficiary, and the primary cost-driver, of the Winter Reliability Program, we find that costs of the Program should be allocated to Real-Time Load Obligation.\textsuperscript{105}

Similarly, we find here that allocating the out-of-market costs of resources retained for fuel security to Real-Time Load Obligation is reasonable.

54. With respect to parties’ objections to ISO-NE’s proposed cost allocation, we do not believe that the cost allocation for traditional reliability must-run units to transmission customers (i.e., regional network load) under the Tariff is appropriate for the fuel security costs. As ISO-NE has explained, the fuel security needs contemplated by the proposed revisions are distinct from traditional transmission-related reliability needs. Specifically, the reliability need that triggers the proposed revisions is a depletion of 10-minute reserves to a particular level or load shedding, as opposed to the violation of local transmission reliability criteria. Additionally, unlike reliability must-run resources, the need for a fuel-secure resource is unlikely to be met by local or pool transmission upgrades. We believe these differences are sufficient to justify a different cost allocation mechanism here. With respect to commenters’ concerns that cost allocation based on Real-Time Load Obligation may cause load serving entities to include new risk

\textsuperscript{104} Massachusetts DPU Answer at 7. The Massachusetts DPU also points to new dual-fuel capacity being built in Massachusetts, \textit{id.} at 13.

\textsuperscript{105} \textit{ISO New England Inc.}, 113 FERC ¶ 61,220 at P 7.
premiums, we note that the Commission has dismissed similar arguments in the past. For similar reasons, we find those arguments unpersuasive here.

55. As ISO-NE has previously explained, multiple factors, including infrastructure limitations and the lack of transmission development to accommodate large projects, have contributed to current regional fuel security concerns. While some of these individual factors may seem local in nature, the lack of fuel security nevertheless impacts the reliability of the entire region. Consequentially, any mitigating measures benefit the entire region. Therefore, we find ISO-NE’s proposal just and reasonable and consistent with cost-causation principles.

56. Lastly, with respect to NESCOE’s request that the Commission require ISO-NE to provide states and stakeholders with quantitative and qualitative information about any change in a cost-of-service agreement that varies from the Tariff’s pro forma version, we note that all fuel-secure resources must demonstrate that such a cost-of-service agreement is just and reasonable in a filing with the Commission, subject to notice and comment. This includes demonstrating that any non-conforming changes to the cost-of-service agreement are just and reasonable.

3. Price Treatment of Fuel Security Resources in the FCM

a. Proposal

57. Under ISO-NE’s proposal, resources retained for fuel security will be entered into the FCA as price-takers (i.e., the resource is bid into the FCA at a price of zero to ensure that the resource clears the auction). ISO-NE explains that offering a fuel security resource as a price taker aligns FCA clearing prices with the marginal reliability impact of the last increment of capacity procured in the FCA without unreasonably suppressing capacity prices. ISO-NE further explains that entering a fuel security resource into the

ISO New England Inc., 144 FERC ¶ 61,204 at P 76; ISO New England Inc., 113 FERC ¶ 61,220 at P 35 (“an important purpose of the LSE supply contracts is to shift supply cost risks from [Local Distribution Companies] to the LSEs. Such risks include those from unanticipated as well as anticipated events. . . . [T]he risks associated with load-serving obligations should have been anticipated and reflected in the rates incorporated in [those] contracts”).

July 2 Order, 164 FERC ¶ 61,003 at P 54.

See Transmittal at 15-18.

See ISO-NE Filing, Attachment 2, Testimony of Christopher Geissler (Geissler Testimony) at 11-16. The objective of the MRI Demand Curve design is to set capacity
FCA as a price taker will ensure that the resource clears and avoids inflated FCA prices that would result if the cost of the last increment of capacity acquired in the FCA exceeded the marginal resource adequacy benefit it provides.\textsuperscript{110}

58. In the July 2 Order, the Commission stated that any proposal to retain a resource for fuel security should include a mechanism that addresses how such resources would be treated in the FCM.\textsuperscript{111} Noting that there are material differences between resources retained for load transmission needs and those retained for regional fuel security concerns, the Commission stated that it may be appropriate for the latter to be offered into the FCA at a price that is above zero or not offered into the FCA at all.\textsuperscript{112} ISO-NE states that it reviewed both of these alternatives and found that they created less desirable economic outcomes than treating resources retained for fuel security as price takers in the FCA.\textsuperscript{113} First, ISO-NE argues that the alternatives would result in the FCA not accounting for a retained resource’s contribution to resource adequacy and consequentially procure excess resources. It argues that this is a costly and inefficient outcome that does not occur if resources retained for fuel security are entered into the FCA as price takers. Second, ISO-NE states that, under both alternatives, the costs incurred to procure incremental capacity in the FCA would exceed its benefits.\textsuperscript{114} More specifically, ISO-NE states that by not accounting for the capacity value of a resource retained for fuel security in the FCA, the FCA will clear at a price that does not reflect the true marginal reliability impact of procured capacity.

59. ISO-NE acknowledges that its proposed price-taker approach does not compensate some resources that provide both resource adequacy and fuel security for their fuel security benefits.\textsuperscript{115} Such resources provide a fuel security benefit and are economic but will not be retained for fuel security, so they will not qualify for this additional temporary compensation. While ISO-NE acknowledges that ideally this short-term solution would

\textsuperscript{110} Id. at 15.

\textsuperscript{111} July 2 Order, 164 FERC ¶ 61,003 at P 57.

\textsuperscript{112} Id. P 57.

\textsuperscript{113} Transmittal at 16.

\textsuperscript{114} Id.

\textsuperscript{115} Id. at 4.
include a constraint in the FCA that would properly price fuel security benefits, ISO-NE states that it is not feasible to implement such a change by FCA 13. ISO-NE commits, however, to work with its stakeholders to identify a better short-term alternative that can be developed in time for FCA 14 and 15, in conjunction with its work developing a long-term proposal for fuel security.\footnote{Id. at 17-18. Among the proposals ISO-NE mentions is to allow the ISO to assess an incremental payment for resources that can help the region meet its fuel security objectives. \textit{Id.} at 18.}

b. \textbf{Comments and Protests}

60. Multiple commenters support ISO-NE’s preferred price-taker approach for fuel security resources. For example, Connecticut Parties, APPA, Public Interest Organizations, and NESCOE support the testimony of ISO-NE’s witness, Dr. Geissler, and argue that entering fuel security resources as price-takers in the FCM produces a competitive result.\footnote{APPA Comments at 6; Connecticut Parties Comments at 5; NESCOE Comments at 13; Public Interest Organizations Protest at 3, 15.} According to Public Interest Organizations, by entering the retained resources in the FCA as price-takers, ISO-NE would prevent the over-procurement of capacity and minimize the costs to customers. Public Interest Organizations contend that, if the capacity of a fuel security resource was not reflected in the FCA, ISO-NE customers would pay for more capacity than is needed and the FCA would send inaccurate price signals.\footnote{Public Interest Organizations Protest at 3, 15.}

61. These commenters do not support the two alternative solutions that the Commission set forth in the July 2 Order. For example, APPA and Connecticut Parties share ISO-NE’s concerns that adopting one of these two alternatives would not produce a competitive price, and could result in over-procurement by awarding capacity supply obligations to resources that are not needed for resource adequacy after the resource adequacy contributions of the resources retained for fuel security are considered.\footnote{APPA Comments at 6; Connecticut Parties Comments at 5.} Eversource argues that ISO-NE’s price-taker approach would avoid pricing inconsistencies by counting the capacity of a fuel security resource in the FCA.\footnote{Eversource Comments at 5.}
62. NESCOE argues that ISO-NE’s price-taker proposal is consistent with precedent relating to reliability must-run resources.\textsuperscript{121} Specifically, NESCOE relies upon two rationales for allowing reliability must-run resources to enter a capacity market at \textit{de minimis} prices to argue in favor of the price-taker proposal.\textsuperscript{122} First, NESCOE argues that reliability must-run resources are economic because they satisfy reliability requirements that market forces have not fulfilled, but they have not received sufficient market revenue, forcing such resources to retire.\textsuperscript{123} Second, NESCOE argues that revenues earned from a resource under a cost-of-service arrangement for fuel security should be reflected in the resource’s offer in the same way that revenues earned in the energy and ancillary services market reduce a resource’s going-forward costs.\textsuperscript{124}

63. Potomac Economics, ISO-NE’s external market monitor, contends that the price-taker proposal will result in efficient capacity prices.\textsuperscript{125} Potomac Economics argues that the failure of the ISO-NE wholesale markets to currently recognize the region’s fuel security needs\textsuperscript{126} is a market design flaw, not an issue of lack of installed capacity. Potomac Economics advocates for ISO-NE’s price-taker proposal as the most efficient solution, compared to the alternatives set forth in the July 2 Order.\textsuperscript{127}

64. Multiple commenters oppose ISO-NE’s proposal to enter fuel security resources as price-takers.\textsuperscript{128} These commenters primarily argue that doing so will result in unjust and


\textsuperscript{122}Id. at 13 (citing IPPNY, 150 FERC ¶ 61,214 at PP 64-65).

\textsuperscript{123}Id. at 15 (citing 2016 NYISO Order, 155 FERC ¶ 61,076 at P 83).

\textsuperscript{124}Id. at 16 (citing 2017 NYISO Order, 161 FERC ¶ 61,189 at P 55).

\textsuperscript{125}Potomac Economics Comments at 2.

\textsuperscript{126}Id. at 2.

\textsuperscript{127}Id. at 2.

\textsuperscript{128}See, e.g., Calpine Protest at 4; Dominion Energy Services Protest at 3; EPSA Protest at 1-4; NEPGA Protest at 7-8; NextEra Protest at 8-9; Verso Protest at 7-9; Vistra Protest at 3, 12-14.
unreasonable price suppression and could lead to the retirement of marginal resources that improve fuel security.

65. NEPGA notes that ISO-NE does not dispute that FCA clearing prices will be lower if Mystic Units 8 and 9 are entered as price-takers.\(^{129}\) According to NEPGA’s witness, Dr. Sotkiewicz, price suppression in FCA 13 will range from $214 to $642 million under the instant proposal.\(^ {130}\) Commenters argue that ISO-NE’s proposal to enter fuel security resources as price takers would harm the FCM by increasing the likelihood of premature retirement of older oil-fired steam generators that are needed to meet winter reliability needs.\(^ {131}\) Specifically, NEPGA argues that artificially low capacity prices could displace between 1,050 MW and 1,285 MW of capacity.\(^ {132}\) NEPGA asserts that, if ISO-NE seeks to retain some of this capacity, price suppression could result in cumulative lost capacity market revenues of $580 million to $1.75 billion.\(^ {133}\) Commenters predict that lower market prices will force these marginal resources to retire early and create a self-perpetuating cycle of retaining resources needed for reliability or fuel security, further lowering capacity prices.\(^ {134}\) Cogentrix points out that ISO-NE acknowledges that its proposal will distort market pricing such that prices are lower than they otherwise should be, potentially causing efficient units to retire and dis-incentivizing entry of needed generation.\(^ {135}\)

\(^{129}\) NEPGA Protest at 8 (citing ISO-NE Transmittal at 17).

\(^{130}\) See NEPGA Protest, Ex. 1, Testimony of Paul M. Sotkiewicz (Sotkiewicz Testimony) at 28, 32, 34; see also Calpine Protest at 4. NEPGA also quantifies its estimate that if Mystic Units 8 and 9 were entered as price-takers, it would result in a $0.51/kW-month reduction in price to $4.12/kW month, 11 percent below the competitive price of $4.63/kW-month if the Mystic Units 8 and 9 De-List Bids are simply permitted to clear the FCA and not re-priced to $0/kW-month. Sotkiewicz Testimony at 31.

\(^{131}\) See, e.g., Calpine Protest at 4; NextEra Protest at 8-9; NEPGA Protest at 7-8; Verso Protest at 7-9; Vistra Protest at 12-14.

\(^{132}\) NEPGA Protest at 11-12.

\(^{133}\) See Sotkiewicz Testimony at 28, 32, 34.

\(^{134}\) NEPGA Protest at 3; NextEra Protest at 11-12.

\(^{135}\) Cogentrix Protest at 9.
66. According to NEPGA, ISO-NE’s proposal represents another instance of administrative pricing.\(^{136}\) NEPGA states that ISO-NE already enters reliability must-run resources and resources with multi-year capacity supply obligations\(^{137}\) into the FCA as price takers. NEPGA argues that the cumulative effect of current policies and further price suppression caused by ISO-NE’s proposal will exacerbate existing fuel security concerns. To support its assertion that existing policies already suppress prices, NEPGA notes that capacity prices in ISO-NE have decreased over the past four FCAs, falling by approximately 51.5 percent from $9.55/kW-month to $4.63/kW-month between FCA 9 held in February 2015 and FCA 12 held in February 2018.\(^{138}\) According to NEPGA, capacity prices in the most recent two auctions, FCA 11 and FCA 12, were approximately 54 percent and 42 percent below Net CONE, respectively.\(^{139}\) NEPGA contends that these lower prices are causing premature retirements and deterring entry of new resources that ISO-NE needs to replace retiring resources that currently provide fuel security.\(^{140}\) Cogentrix argues that the price-taker design will impose significant fuel security costs on other non-subsidized suppliers that may also provide similar, yet uncompensated, fuel security benefits.\(^{141}\)

67. In response to ISO-NE’s over-procurement argument, NEPGA contends that resources needed for fuel security may not be able to efficiently provide resource adequacy.\(^{142}\) NEPGA argues that ISO-NE’s proposal assumes that a resource providing fuel security will also provide resource adequacy, even though ISO-NE’s proposal would displace more efficient resources from clearing in the FCA.\(^{143}\) FirstLight claims that,

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\(^{136}\) NEPGA Protest at 13-14; see also Cogentrix Protest at 8.

\(^{137}\) A new generation resource can choose (prior to the FCA being held) whether it wants to obtain a multi-year capacity supply obligation if it clears in the FCA. After clearing in the first auction, a new generation resource is entered into the FCA as a price taker for up to six subsequent years. ISO-NE Tariff, § III.13.1.2.2.4.

\(^{138}\) NEPGA Protest at 13.

\(^{139}\) \textit{Id.}

\(^{140}\) \textit{Id.} at 15.

\(^{141}\) Cogentrix Protest at 4.

\(^{142}\) NEPGA Protest at 4-5 (citing Sotkiewicz Testimony at 5-9); see also NRG Protest at 9.

\(^{143}\) NEPGA Protest at 5.
through the assumption used to calculate the Net ICR and MRI Demand Curves, ISO-NE already procures enough capacity for both summer and winter peaks. Commenters also take issue with treating a fuel security resource needed for three months like year-round resources that cleared the FCA with a capacity supply obligation. Calpine argues that such a result is inconsistent with the requirement that capacity markets select the least-cost set of resources capable of meeting resource adequacy requirements.

68. Similarly, NextEra asserts that ISO-NE’s proposal to adhere to the MRI Demand Curve should not result in harm to the market because the MRI Demand Curve is designed to produce a similar price for the same amount of reliability for different quantities of capacity. NextEra and NEPGA challenge ISO-NE’s argument that, if ISO-NE had modeled a fuel security constraint in the FCA, the resulting price would be the same as if Mystic Units 8 and 9 were price takers. NextEra argues that, because the model was not conducted market-wide, it is unduly preferential of Mystic Units 8 and 9. NEPGA further argues that Mystic Units 8 and 9’s costs exceed their marginal reliability benefit and that ISO-NE’s proposal to enter Mystic Units 8 and 9 into the FCA as price takers is the reason that the marginal reliability benefit of other resources is then decreased.

69. Cogentrix disagrees with assertions that a zero-priced offer accurately captures the costs and benefits of Mystic’s contribution towards resource adequacy. Cogentrix contends that ISO-NE arbitrarily attributes 100 percent of the out-of-market payment made to fuel security resources to the fuel security aspect, thus calculating that the cost of providing resource adequacy from these resources is zero. Cogentrix asserts that fuel

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144 FirstLight Protest at 13-21.

145 Calpine Protest at 5; Cogentrix Protest at 12; FirstLight Protest at 13-18; Verso Protest at 1-4.

146 Calpine Protest at 5-6.

147 NextEra Protest at 10.

148 NEPGA Protest at 9-10; NextEra Protest at 12.

149 NextEra Protest at 12; Vistra Protest at 12-14.

150 NEPGA Protest at 9.

151 Cogentrix Protest at 8-9.
security resources do provide resource adequacy benefits to load and, unlike a zero-priced offer, these costs should be reflected in these resource’s offers in the FCA.\textsuperscript{152}

70. NEPGA maintains that the Commission has an obligation to prevent price suppression associated with the participation of subsidized resources. NEPGA argues that these price suppressive effects will result in unjust and unreasonable rates in FCA 13 and subsequent auctions and will deprive non-subsidized resources of their ability to recover their costs, distorting market entry and exit.\textsuperscript{153} NEPGA argues that the FCA rate is just and reasonable only if generators have a reasonable opportunity to recover their costs on average over time.\textsuperscript{154} NEPGA also argues that price suppression will result in an unduly discriminatory rate, noting the Commission’s rejection of PJM Interconnection LLC’s (PJM) capacity repricing proposal on the basis that it “appears to start from the premise that resources receiving out-of-market support should obtain a capacity commitment at the expense of other resources.”\textsuperscript{155} NEPGA requests that the Commission reject ISO-NE’s proposal in order to maintain the integrity of the ISO-NE markets and prevent generation resources from receiving out-of-market payments from artificially suppressing wholesale capacity prices.\textsuperscript{156}

71. Multiple commenters challenge ISO-NE’s reliance on IPPNY to argue for price-taker treatment for resources needed for fuel security.\textsuperscript{157} Although NEPGA disputes that resources held for local transmission reliability should be allowed to be entered as price-takers, it nonetheless argues that these resources are distinct from resources retained for fuel security.\textsuperscript{158} Further, Vistra argues that reliability and fuel security are not equivalent

\textsuperscript{152} Id. at 8-9.

\textsuperscript{153} NEPGA Protest at 16 - 17.

\textsuperscript{154} Id. at 18-19 (citing Calpine, 163 FERC 61,236); see also Cogentrix Protest at 11 (citing Calpine, 163 FERC 61,236 at P 150 (finding PJM’s proposal unjust and unreasonable because “it fails to protect the integrity of competition in the wholesale capacity market against unreasonable price distortion and cost shifts caused by out-of-market support to keep uneconomic resources in operation”).

\textsuperscript{155} Id. at 18-19.

\textsuperscript{156} Id. at 19.

\textsuperscript{157} See, e.g., NextEra Protest at 13 (citing IPPNY, 150 FERC ¶ 61,214); NEPGA Protest at 20-21.

\textsuperscript{158} NEPGA Protest at 21; see also Dominion Energy Services Protest at 6.
because only one resource may be required to solve a local transmission constraint, so if that resource retires, it triggers a requirement for a transmission solution.\textsuperscript{159} In contrast, Vistra explains that many different resources can, and do, address regional fuel security needs.\textsuperscript{160} Commenters argue that ISO-NE’s proposal is unduly discriminatory because multiple resources contribute to fuel security but are not currently eligible to receive out-of-market payments.\textsuperscript{161}

72. Commenters contend that the Commission should focus on its precedent that recognizes the negative distortion caused by subsidized resources in a competitive market.\textsuperscript{162} NextEra claims that ISO-NE’s arguments supporting entering resources retained for fuel security as price takers in the FCA is inconsistent with ISO-NE’s prior statements in the Competitive Auctions with Sponsored Resources (CASPR) proceeding.\textsuperscript{163} NextEra explains that in the CASPR proceeding, ISO-NE emphasized the importance of the current Minimum Offer Price Rule in preserving competitive pricing in light of new, state-sponsored resources entering the FCM. NextEra argues that here, ISO-NE takes a position at odds with these previous statements by proposing to enter a resource with out-of-market compensation into the FCA as a price-taker.\textsuperscript{164} NextEra argues that the July 2 Order’s proposed alternative to include resources retained for fuel security at a non-zero price is consistent with the Commission’s CASPR Order, in which the Commission held that “it is our duty under the FPA to take actions necessary to assure just and reasonable rates.”\textsuperscript{165} RENEW argues that, because state sponsored resources are still subject to the minimum offer requirement, ISO-NE’s proposal gives an

\begin{enumerate}
\item[\textsuperscript{159}] Vistra Protest at 5-6.
\item[\textsuperscript{160}] Id. at 5-6.
\item[\textsuperscript{161}] See, e.g., id. at 6.
\item[\textsuperscript{162}] See, e.g., NEPGA Protest at 18-19 (citing ISO New England Inc., 162 FERC ¶ 61,205, at P 21 (2018) (CASPR Order)); EPSA Protest at 5-6 (citing CASPR Order, 162 FERC ¶ 61,205 at P 21).
\item[\textsuperscript{163}] NextEra Protest at 15. NextEra also argues that entering fuel security resources as price takers will prevent state sponsored policy resources from clearing in the initial FCA, and increase the clearing price of the substitution auction under CASPR. Id. at 16.
\item[\textsuperscript{164}] Id. at 15.
\item[\textsuperscript{165}] Id. at 7 (citing July 2 Order, 164 FERC ¶ 61,003 at PP 56-57).
\end{enumerate}
undue preference to fuel security resources when compared to state sponsored resources.\(^{166}\)

73. Multiple commenters support one or both of the alternatives proposed in the July 2 Order.\(^{167}\) NEPGA asks the Commission to require ISO-NE to bid a fuel-secure resource’s capacity at a price that reflects its actual costs (i.e., its Retirement De-List price as mitigated).\(^{168}\) NextEra advocates for either alternative proposed by the Commission in the July 2 Order.\(^{169}\) Under the first alternative, NextEra and FirstLight argue that removing a fuel security resource from the FCA properly acknowledges that a winter fuel security product needed for three months through an out-of-market fuel security agreement differs from a traditional twelve-month capacity product through the FCA.\(^{170}\)

74. Under the second alternative, commenters argue that Mystic Units 8 and 9 should be offered in the auction at their IMM-mitigated De-List Bid price.\(^{171}\) If the fuel security resource still fails to clear, NEPGA argues that ISO-NE then has three options: (1) allow the resource to operate outside of the FCM, (2) require it to offer its capacity in the annual reconfiguration auction as a price taker, or (3) require the resource to make every reasonable effort to obtain a capacity supply obligation in the monthly reconfiguration auction.\(^{172}\) Similarly NextEra contends that entering a fuel security resource through its IMM-mitigated price better reflects the principle of IPPNY that “competitive [market]

\(^{166}\) RENEW Protest at 6.

\(^{167}\) See, e.g., FirstLight Protest at 13-21; NEPGA Protest at 3; NextEra Protest at 3.

\(^{168}\) NEPGA Protest at 3.

\(^{169}\) Id. at 3.

\(^{170}\) FirstLight Protest at 13-21, 24-25; NextEra Protest at 15.

\(^{171}\) See, e.g., API Protest at 9; Cogentrix Protest at 18-19; NEPGA Protest at 23; NextEra Protest at 17-18; Verso Protest at 12-14.

\(^{172}\) NEPGA Protest at 24. NEPGA notes that this last proposal received 48 percent of stakeholder support at the NEPOOL Markets and Participants Committees. Id. See also Cogentrix Protest at 18-19.
offers are expected to reflect going-forward costs as adjusted for revenues that are consistent with revenues earned in competitive markets.”

75. Other commenters argue that ISO-NE should resort to less drastic measures than the two alternatives discussed in the July 2 Order. For example, Verso argues that ISO-NE should allow competitive market forces to respond to the retirement of Mystic Units 8 and 9. NRG similarly argues that ISO-NE should allow Mystic Units 8 and 9’s Retirement De-List Bids to stand and allow the auction to proceed accordingly. NRG contends that this approach will produce the correct marginal value for the resource adequacy product, whether or not Mystic Units 8 and 9 will receive a Capacity Supply Obligation. NRG argues that the correct time to perform the fuel security review is after the FCA, which will produce the accurate and efficient price for resource adequacy and then allow ISO-NE to enter into appropriate agreements specifically for the fuel security services.

76. Multiple commenters argue that the Commission could also remedy any FCM price suppression caused by resources retained for fuel security by requiring ISO-NE to adopt a price floor for existing generators for FCA 13 and perhaps subsequent auctions. Recognizing that the Commission disfavors price floors, EPSA points to the unusual nature of ISO-NE’s approach in this case to justify a temporary price floor that sunsets with the implementation of its longer-term market solution. Calpine argues that a transitional, one-year price floor is necessary while ISO-NE works to implement a long-term, market-based approach to ensuring fuel security. Under this proposal, Calpine explains that ISO-NE should initially run the auction with Mystic Units 8 and 9 entered in at a zero price. Calpine further explains that, at the conclusion of the auction,
all existing resources that clear the auction would be paid the higher of the clearing price or the price floor. Calpine argues that, by limiting the price floor to existing resources, (1) new resources are not sent an inaccurate signal to enter the markets; (2) those generators that are most harmed by price suppression (i.e., existing generators) are protected; and (3) limiting the price floor to existing resources will limit the cost to load. Calpine contends that this proposal is consistent with the Commission’s previous approval of a price floor as a transitional mechanism during FCA 1 through 7. Vistra urges the Commission to implement a price floor of $5.499 that represents Mystic Units 8 and 9’s De-List Bids in FCA 12. NRG argues that ISO-NE’s proposal unduly discriminates between various fuel-secure resources because the proposal compensates Mystic Units 8 and 9 for their fuel security attributes, but denies that same level of compensation to other resources that provide similar secure fuel characteristics.

c. **Answers**

77. In response to comments alleging that ISO-NE disregarded the Commission’s July 2 Order in determining price treatment for retained resources, ISO-NE argues that the Commission did not include specific price treatment requirements in its compliance directives. Rather, ISO-NE argues, the Commission recognized that there “appear” to be differences between resources retained for different reliability reasons, so a price treatment different from what the Commission has directed in the past “may” be appropriate. ISO-NE argues that it fully complied with the July 2 Order by considering the suggestions proffered by the Commission as well as other design concepts, and decided on its proposed price-taker treatment based on its analysis.

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181 *Id.* at 6.
182 *Id.* at 7.
183 *Id.* at 7.
184 Vistra Protest at 15-19.
185 NRG Protest at 11.
186 ISO-NE Answer at 16-17.
187 *Id.* at 16.
188 ISO-NE Answer *Id.* at 17.
ISO-NE disagrees with the commenters that argue the price-taker design will suppress capacity prices. ISO-NE states that the arguments regarding price suppression miss a critical point: once a resource is retained for fuel security, it is appropriate to consider its contributions to resource adequacy when determining capacity awards and prices since the retained resources will continue to contribute to resource adequacy.  

ISO-NE argues that, if it were to ignore or discount retained resources’ resource adequacy contributions for purposes of determining FCA awards and prices, the FCA clearing price would be based on an inflated estimate of capacity’s incremental contributions to resource adequacy, and this price signal would lead the region to procure more capacity than specified by its demand curves, resulting in an expensive and inefficient outcome for the region.  

ISO-NE goes on to argue that regardless of whether a resource is retained for transmission security or fuel security, the resource that is being retained will have a capacity supply obligation or short-term cost-of-service agreement that effectively requires that it is available to provide resource adequacy, and this requirement is not dependent on its De-List Bid price or how it compares to the auction clearing price.  Thus, it is appropriate to treat the resource’s capacity as a price taker in the auction to ensure it is counted for purposes of clearing the FCA and setting the auction clearing price paid for resource adequacy.

Responding to protests concerning over-procurement of capacity being overstated, ISO-NE argues that removal of approximately 1,400 MW associated with Mystic Units 8 and 9 from the capacity market will increase expected capacity prices and may therefore incent new resources to enter the market or older, less cost-effective existing resources that would otherwise retire to continue operation in response to the exit of Mystic Units 8 and 9’s capacity.  However, these new resources would not displace Mystic Units 8 and 9’s contribution to resource adequacy, because the retained units would remain in operation and continue to provide resource adequacy.  Thus, any new capacity or delayed retirements prompted by retaining Mystic Units 8 and 9 would be duplicative and represent an inefficient over-procurement for the region.

In response to the suggestion that it use a price floor to mitigate price suppression, ISO-NE argues that this approach is unnecessary because the price-taker design will not

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189 Id. at 17-18.
190 Id. at 18.
191 Id. at 19.
192 Id. at 19.
193 Id. at 20.
unduly suppress capacity prices. \textsuperscript{194} Moreover, ISO-NE argues that instituting a price floor could result in prices that greatly exceed that capacity’s incremental value and incent the entry/retention of more capacity, thereby exacerbating over-procurement. \textsuperscript{195} ISO-NE argues that the price floor design proposed by Vistra may incent “bid shading,” where resources with true costs below the price floor choose to “shade” their bids down below their true costs. \textsuperscript{196} Furthermore, ISO-NE argues the use of Annual Reconfiguration Auctions (ARAs) as proposed by Vistra would present an arbitrage concern if the ARA does not also include an equivalent price floor. \textsuperscript{197} ISO-NE argues resources could sell capacity at the (higher) FCA price before buying out of their obligation at the (lower) ARA price that is not constrained by the price floor, creating a “fictitious entry” problem. \textsuperscript{198} ISO-NE argues that the administrative solution to each potential concern creates a new concern for which another administrative solution must be developed. ISO-NE states that the notion of establishing an auction floor in the FCA in an attempt to account for the effect of a retained resource causes a succession of further distortions and administrative rules that move the FCM away from its objective of maximizing social surplus.

NEPGA submitted an answer arguing that ISO-NE does not adequately address NEPGA’s contention that treating retained resources as price takers will suppress capacity prices, impose costs on other resources, and conflates fuel security with resource adequacy and local reliability. \textsuperscript{199} NEPGA reiterates its arguments that entering retained resources as price takers in the FCA will depress capacity prices by up to $642 million, \textsuperscript{200} conflate resource adequacy for summer peak demand with fuel security for winter reliability, \textsuperscript{201} and fail to distinguish the regional nature of fuel security from the local

\textsuperscript{194} Id. at 23.
\textsuperscript{195} Id. at 20.
\textsuperscript{196} Id. at 21.
\textsuperscript{197} Id. at 22.
\textsuperscript{198} Id. at 21.
\textsuperscript{199} NEPGA Answer at 1-5.
\textsuperscript{200} Id. at 1.
\textsuperscript{201} Id. at 3.
nature of transmission reliability. NRG similarly faults ISO-NE for wrongly conflating fuel security and system adequacy, using capacity prices as a benchmark for what is really the solution to an energy or ancillary services problem (i.e., the lack of sufficient energy in certain hours), and overstating concerns about over-procurement of resources. Vistra restates its arguments that reliability and fuel security are different, that ISO-NE’s proposal is not analogous to a reliability must-run contract, and that ISO-NE’s proposal will suppress prices. Vistra argues that if the Commission must pick either price suppression and long-term market inefficiencies or short-term over-procurement, then the Commission should choose over-procurement to avoid exacerbating fuel security concerns.

d. **Commission Determination**

82. We accept ISO-NE’s proposal to enter fuel security resources into the FCM as price-takers. ISO-NE explains that procuring a fuel-secure resource in the capacity market, without ensuring that its resource adequacy contributions are counted, may result in a market outcome that inefficiently over-procures the resource adequacy product at excessive prices. We agree that the year-round resource adequacy contributions of resources retained for fuel security should be counted in the capacity market and therefore find that such resources should be entered into the FCA as price-takers to ensure that they clear.

83. This determination is consistent with our precedent. In the 2017 NYISO Order, the Commission affirmed its earlier rejection of a proposal to price reliability resources above a zero price offer. The Commission stated that “[reliability must-run] generators are needed to maintain reliability, but they have not received sufficient market revenues to continue operations and therefore seek to deactivate.” The Commission explained in the underlying order that using a non-zero price may result in a reliability must-run resource not clearing the market and allowing a resource to clear that would not have

202 Id. at 4-5.
203 NRG Answer at 2-4.
204 Vistra Answer at 4-5, 10.
205 Id. at 8.
206 2017 NYISO Order, 161 FERC ¶ 61,189 at PP 54-55, 62.
207 2016 NYISO Order, 155 FERC ¶ 61,076 at P 82.
otherwise cleared.\textsuperscript{208} The Commission found this outcome inefficient and unreasonable because it would require ratepayers to pay twice for the same capacity need and would result in over-procuring capacity.\textsuperscript{209}

84. Moreover, in \textit{IPPNY}, the Commission denied a complaint by electric power generators against the New York Independent System Operator (NYISO) that challenged market rules that offered resources retained for reliability into the capacity market as price-takers.\textsuperscript{210} In rejecting the complaint, the Commission agreed with NYISO that the reliability resources are economic because they were the lowest cost resources capable of satisfying the local reliability need.\textsuperscript{211} The Commission found that, if the reliability needs were accurately reflected in the capacity market, these reliability resources would indeed clear the auction.\textsuperscript{212} Therefore, the Commission found that it was efficient for the reliability resources to clear in the capacity market. Accordingly, the Commission agreed with NYISO’s external market monitor that any provisions that prevented the reliability resources from clearing in the capacity market under these circumstances would be unjust and unreasonable.\textsuperscript{213}

85. We find that, with respect to capacity market offers, there is no meaningful distinction between resources retained for reliability and resources retained for fuel security. If resources needed for fuel security are not entered into the FCA as price-takers, they risk not clearing in the FCA and their resource adequacy contributions to the system would not be counted.\textsuperscript{214} As the Commission stated in the 2017 NYISO Order, \hfill \hfill

\textsuperscript{208} 2017 NYISO Order, 161 FERC ¶ 61,189 at P 55.

\textsuperscript{209} Id.; see also 2016 NYISO Order, 155 FERC ¶ 61,076 at P 82 (“In this instance, ratepayers will pay twice—one for the cost of the [reliability must-run] agreement, and again for the generator that otherwise would not have cleared the market.”).

\textsuperscript{210} \textit{IPPNY}, 150 FERC ¶ 61,214 at PP 64-65.

\textsuperscript{211} Id. P 66.

\textsuperscript{212} Id.

\textsuperscript{213} Id.

\textsuperscript{214} \textit{See} Transmittal at 4 (explaining that “by entering resources retained for fuel security as price takers in the auction...the FCA clearing price will be based on an aggregate MW quantity that accounts for the resource adequacy contributions of resources retained for fuel security. This outcome results in a price that reflects capacity’s true MRI value.”); Geissler Testimony at 11-20.
such an outcome would result in a higher clearing price and a higher procurement quantity, which would create an inefficient and unreasonable market outcome.\textsuperscript{215} Even putting aside the price impact, this would result in consumers “pay[ing] twice” for capacity—“once for the cost of the RMR agreement, and again for the generator that otherwise would not have cleared the market.”\textsuperscript{216} We agree with Potomac Economics that, as long as resources are retained for fuel security purposes, including such resources in the FCM as price takers prevents an artificial and inefficient increase in FCA prices.\textsuperscript{217} The dissent points to a series of differences between resources retained for fuel security purposes and resources retained for transmission security purposes.\textsuperscript{218} The dissent, however, fails to explain why these differences are at all relevant to the pricing of capacity market offers. Absent a meaningful distinction, those differences provide no basis to depart from our precedent. Accordingly, we find that including resources retained for fuel security in the FCM as price-takers would result in efficient and reasonable FCA outcomes.

86. In the July 2 Order, the Commission noted that fuel security resources may not necessarily need to be treated the same way in the FCM as reliability resources due to potentially “material differences” between cost-of-service agreements for local reliability needs and regional fuel security concerns.\textsuperscript{219} The Commission explained that it \textit{may} be reasonable for ISO-NE to either (1) retain fuel security resources outside of the FCM construct or (2) offer fuel security resources into the FCM at a non-zero price that is still subject to mitigation by the IMM.\textsuperscript{220} ISO-NE did not adopt either of the alternatives. However, we find that ISO-NE’s explanation for not adopting either of these alternatives is reasonable.

87. Specifically, as for the first alternative, ISO-NE has demonstrated that retaining a resource outside of the FCA would not account for its contribution to meeting ISO-NE’s resource adequacy needs, would result in procuring excess capacity, and would distort the

\textsuperscript{215} 2017 NYISO Order, 161 FERC ¶ 61,189 at P 54.

\textsuperscript{216} 2016 NYISO Order, 155 FERC ¶ 61,076 at P 82.

\textsuperscript{217} Potomac Economics at 5; \textit{see also} Wilson Testimony at PP 15-31.

\textsuperscript{218} \textit{ISO New England Inc.}, 165 FERC ¶ 61,202, at 1-3 (2018) (Chatterjee, Chairman, dissenting).

\textsuperscript{219} July 2 Order, 164 FERC ¶ 61,003 at P 57.

\textsuperscript{220} \textit{Id.}
capacity price.\textsuperscript{221} We agree with ISO-NE for the reasons stated in the previous paragraphs. As for the second alternative, ISO-NE explains that offering a fuel security resource into the FCA at an IMM-mitigated Bid would also create a risk of over-procuring resources and distorting the capacity price.\textsuperscript{222} We again agree with ISO-NE. Under the second alternative, whether a fuel security resource is accounted for in determining capacity supply obligation awards and clearing prices would depend on whether that resource’s IMM-mitigated Bid clears the FCA.\textsuperscript{223} We recognize that it is not possible to avoid an impact on either the pricing in the FCA or the quantity of resources procured to satisfy resource adequacy when finding that a resource must be retained for fuel security. We find reasonable ISO-NE’s choice to protect against inefficiently over-procuring capacity resources by reflecting a fuel security resource’s contribution to resource adequacy in the FCA.\textsuperscript{224}

88. We also find that the price taker design accurately reflects a fuel security resource’s low going-forward costs. As the Commission explained in \textit{IPPNY}, the reliability resource’s low capacity market offers are consistent with a competitive market outcome because its out-of-market revenue must be accounted for in the calculation of the reliability resource’s going-forward cost.\textsuperscript{225} The Commission reasoned that “[i]n calculating the going forward costs of these [reliability] resources, it is reasonable to deduct their [reliability must-run] revenues, because the revenues do not overstate the

\textsuperscript{221} Transmittal at 16; Geissler Testimony at 5-6.

\textsuperscript{222} Geissler Testimony at 6.

\textsuperscript{223} \textit{Id.}; see also 2016 NYISO Order, 155 FERC ¶ 61,076 at P 83 (“The Commission has previously found that it is efficient for units retained under a [Reliability Support Services Agreement], a form of [reliability must-run] agreement, to clear in the ICAP market, and that any mitigation imposed on such units which would prevent them from clearing in the ICAP market would be unreasonable.” (citing \textit{IPPNY}, 150 FERC ¶ 61,214 at P 66)).

\textsuperscript{224} The dissent suggests that today’s order is “likely to compound” any fuel security problems facing New England. \textit{ISO New England Inc.}, 165 FERC ¶ 61,202, at 2 (2018) (Chatterjee, Chairman, dissenting). The dissent does not identify anything in the record suggesting that potentially marginal units are required for fuel security. The solution to addressing any potential fuel security concern is to compensate resources that provide a fuel security service. Requiring ISO-NE to distort the outcome of its FCA by over-procuring capacity conflates fuel security with resource adequacy.

\textsuperscript{225} \textit{IPPNY}, 150 FERC ¶ 61,214 at P 66.
value provided by the resources to customers.”226 The same analysis applies here. The cost-of-service agreement for resources needed for fuel security will provide the revenue that these resources need to remain available and reduce their going-forward costs to de minimis or zero.227 Accordingly, for this reason as well, we find that it is just and reasonable for ISO-NE to enter fuel security resources as price takers in the FCM.228

4. Term of the Interim Fuel Security Study

a. ISO-NE Proposal

ISO-NE proposes that the short-term fuel security reliability review process should apply for FCAs 13, 14, and 15, which corresponds to capacity commitment periods 2022/23, 2023/24, and 2024/25, respectively. ISO-NE states that it seeks to have its long-term market provisions in place before stakeholders have to make decisions for FCA 15. However, ISO-NE states that it is including FCA 15 within its interim provisions because the retirement deadline for FCA 15 is approximately nine months after the Commission’s directed compliance filing date of July 1, 2019 and due to the significance of the reliability issues involved.229

226 Id.; see also 2016 NYISO Order, 155 FERC ¶ 61,076 at P 83 (“Competitive offers are expected to reflect going-forward costs as adjusted for revenues that are consistent with revenues earned in competitive markets. If going-forward costs adjusted for revenues are very low, then it would be reasonable to expect a low capacity market offer that reflects the low going-forward costs”) (quoting IPPNY, 150 FERC ¶ 61,214 at P 66) (internal quotations omitted)).

227 The dissent suggests that this conclusion is inconsistent with the level of explanation that the Commission provided in a separate proceeding that did not involve resources needed for either transmission security or fuel security. ISO New England Inc., 165 FERC ¶ 61,202, at 3-4 (2018) (Chatterjee, Chairman, dissenting). Insofar as the dissent is suggesting that we did not adequately consider the effects of today’s order, we disagree. The Commission has weighed the evidence in the record and concluded that requiring units retained for fuel security to bid at a number that reflects their going forward cost is both the appropriate policy and consistent with Commission precedent.

228 See NESCOE Comments at 14-15; Potomac Economics at 5; Wilson Testimony at P 21.

229 Transmittal at 18-19.
b. Comments and Protests

90. Commenters argue that ISO-NE’s interim proposal should only apply for FCA 13 and 14, not FCA 15.230 NEPOOL states that its Markets Committee proposed an amendment to limit the interim solution to FCA 14, arguing that this position is more consistent with the Commission’s directive to provide for cost-of-service agreements only for a short term.231 NEPOOL and NESCOE state that, if a longer-term market-based solution to fuel security concerns cannot be implemented in time for parties to plan for FCA 15, ISO-NE and NEPOOL could work together to amend the Tariff to include FCA 15 or propose an alternative stop-gap measure.232 Massachusetts AG warns that, given the conservative fuel security retention triggers that ISO-NE is proposing, the prospect of multiple resources seeking hundreds of millions of dollars a year in out-of-market cost-of-service payments from ratepayers is a realistic threat.233

91. National Grid argues that there is no justification for extending the interim approach beyond FCA 14.234 National Grid states that the cost to New England customers under the interim mechanism could be in excess of $400 million for FCA 13 and 14 combined and that its customers could be responsible for approximately $50 million per year.

92. Public Interest Organizations state that adopting ISO-NE’s proposal through FCA 15 could create perverse incentives for existing resource owners to delay development of a longer-term market-based solution if they believe a cost-of-service agreement would be more advantageous to them and could similarly incentivize premature retirement bids for the same reason. Public Interest Organizations note that, in FCA 13 and 14, significant new non-natural gas generating capacity is expected to come online in the region that will contribute to addressing the system’s reliability needs.235 Public Interest Organizations

230 EDF Comments at 4; EPSA Protest at 7; NEPOOL Protest at 11-12; Massachusetts AG Protest at 2; National Grid Comments at 15; NESCOE Comments at 10; Public Interest Organizations Protest at 10; RENEW Protest at 2.

231 NEPOOL Protest at 11-12.

232 Id. at 29-31; NESCOE Comments at 10.

233 Massachusetts AG Protest at 10-11.

234 National Grid Comments at 15.

235 Public Interest Organizations point to procurements either under consideration or planned by Massachusetts, Rhode Island, and Connecticut amounting to 3.4 GW of additional fuel-free generation to serve regional load. Public Interest Organizations
state that these state policy commitments make an extended period for out-of-market arrangements with retiring incumbent generation unnecessary. Public Interest Organizations add that preventing incumbent units from retiring in FCA 15 could also impede implementation of the recently-approved CASPR rules in ISO-NE because it could prevent retiring resources from participating in the FCM substitution auction and thus prevent state-procured resources from securing capacity supply obligations.\footnote{Id. at 12.}

Other commenters argue that the term of ISO-NE’s interim solution should include FCA 15 but support implementing a longer-term solution as soon as possible.\footnote{Eversource Comments at 6, Connecticut Parties Comments at 7.} Eversource states it would prefer that ISO-NE’s proposed interim fuel security measures sunset after the Capacity Commitment Period for FCA 14 because this timing would put pressure on the development and implementation of the long-term energy security solution that will be submitted in July 2019. However, Eversource recognizes the potential difficulties in implementing a long-term solution, thus noting its willingness to have the interim measures continue through FCA 15.\footnote{Eversource Comments at 6.} Connecticut Parties support limiting the duration of the cost-of-service program to no longer than absolutely necessary and recognize that ISO-NE’s proposed effective term may be too long. However, Connecticut Parties suggest the Commission accept ISO-NE’s proposal as filed to avoid the need for a rushed extension in the event that a continuation of the program proves necessary for FCA 15.\footnote{Connecticut Parties Comments at 7.}

c. **Answers**

ISO-NE argues that the proposed effective period for the interim fuel security reliability review process is appropriately brief. ISO-NE points out that the fuel security reliability review for FCA 15 will begin almost a year before the actual FCA is conducted, and a longer-term market solution is due to the Commission on July 1, 2019, within several months of FCA 15 and its advanced submission windows. Thus, ISO-NE argues it is prudent to include FCA 15 in the interim provisions given the uncertainties

Protest at 11.

\footnote{Id. at 12.}

\footnote{Eversource Comments at 6, Connecticut Parties Comments at 7.}

\footnote{Eversource Comments at 6.}

\footnote{Connecticut Parties Comments at 7.}
around the details and implementation of the July 2019 filing and the reality that a fuel security review for FCA 15 is not far off.\(^{240}\)

95. NEPOOL argues that ISO-NE’s answer fails to demonstrate why it is necessary to have the Fuel Security Study provisions extend beyond FCA 14.\(^{241}\) It states that while there may be uncertainty regarding the long-term market-based solution, prudence does not require or justify imposing these provisions for longer than necessary.\(^{242}\) NEPOOL states that ISO-NE can monitor the situation of its system and, if a stop-gap measure is needed, can work with NEPOOL to develop that measure at the appropriate time. Calpine argues that ISO-NE’s interim solution does not address the longer-term difficulties of the market.\(^{243}\)

**d. Commission Determination**

96. We accept ISO-NE’s proposal to implement the Fuel Security Study process for FCAs 13, 14, and 15. Given the limited amount of time between the July 1, 2019 filing deadline for the longer-term market solution, directed by the Commission, and the close of the FCA 15 retirement submission window in March 2020, we agree that the extension of the ability to retain resources through FCA 15 is a reasonable approach. We agree that it is necessary to implement a longer-term market solution as soon as possible, as discussed by commenters that request limiting the proposal to FCA 13 and 14. This interim solution is solely a stop-gap measure to address the fuel security challenges facing the region while ISO-NE develops its long-term market-based approach. We agree with the dissent that the value of these resources must be accurately reflected in the market in order to address fuel security issues in the long term. Moving to a market-based approach as soon as possible is the best way to achieve that objective. Moreover, given our expectation that long-term market reforms addressing fuel security will be implemented by 2020, at the latest, the dissent’s concern that there will be a “vicious cycle of additional out-of-market interventions” is not supported by the record. We urge ISO-NE and NEPOOL to develop a longer-term market solution as soon as possible in order to mitigate the costs of the interim solution.

97. Although the July 2 Order required ISO-NE to file its longer-term market solution no later than June 1, 2019, ISO-NE is free to file that solution earlier and we encourage it to do so, if possible. In addition, we anticipate that the long-term market solution will

\(^{240}\) ISO-NE Answer at 15.

\(^{241}\) NEPOOL Answer at 14.

\(^{242}\) Id. at 15.

\(^{243}\) Calpine Answer at 2.
obviate the need to continue to use the interim solution approved in this order. Accordingly, ISO-NE’s filing must contain language that will remove from its tariff the short-term solution, if accepted. **Long-term Solution**

e. **Comments**

98. Several parties submitted comments on ISO-NE’s long-term solution. APPA argues that ISO-NE’s implementation of an interim measure to address fuel security concerns is evidence of the continuing disconnect between a capacity construct that does not differentiate among the types of megawatts clearing the auctions and the need for specific resource types and attributes to meet the complex challenges facing the electric grid.\(^{244}\) APPA asks the Commission and ISO-NE to be receptive to more fundamental changes to the resource adequacy construct in New England, especially as ISO-NE embarks on the development of the Commission-required longer-term solution to address fuel security concerns in the region.\(^ {245}\)

99. NRG argues that ISO-NE’s proposal here reflects an attempt to shoehorn an energy market need into its capacity market structure.\(^ {246}\) NRG asserts that the Commission should not allow ISO-NE to distort capacity prices and disrupt the capacity market, especially when what is needed is an energy or ancillary service market fix. NRG contends that any extra compensation that ISO-NE wishes to provide should be settled outside of the FCM by developing a fuel security product or taking other actions to meet the winter security energy strip that ISO-NE’s needs.\(^ {247}\) NRG adds that the Commission should delay the FCA in order to allow for a principled solution to address the impacts of units retained for fuel security in FCA 13 while not distorting pricing in the FCM.\(^ {248}\)

100. Potomac Economics states that the long-term solution to the fuel security problem is to create a market product for firm fuel generation that would coordinate the use of scarce fuel.\(^ {249}\) Potomac Economics groups potential market-based fuel-security solutions

\(^{244}\) APPA Comments at 3.

\(^{245}\) Id. at 5.

\(^{246}\) NRG Protest at 16.

\(^{247}\) Id. at 17-18.

\(^{248}\) Id. at 19.

\(^{249}\) Potomac Economics Comments at 2-3.
into three categories: operational products, seasonal products, and FCM products. Potomac Economics claims that an operational product is most appropriate because an operational product would potentially facilitate efficient generator decisions in the short-term, before the winter season, and in the long-term. Potomac Economics further states that use of an operational market product would alleviate ISO-NE’s decision to utilize overly conservative replenishment assumptions in its fuel security reliability review criteria by improving incentives for dual fuel generators to maintain necessary inventory levels.

Potomac Economics states its concern that the majority of the discussion and resources to date have focused on potential changes to the FCM or compensation schemes in the same timeframe. As Potomac Economics is concerned with the likelihood that stakeholders will develop a proposed operational product by July 2019 given the focus on the FCM, Potomac Economics requests that the Commission provide clear guidance to ISO-NE and its stakeholders to focus on an operational product, potentially coupled with a seasonal procurement, for its long-term solution.

f. **Commission Determination**

We find commenters’ request for the Commission to provide guidance on the substance of ISO-NE’s forthcoming long-term market-based solution to be beyond the scope of this proceeding. Here, ISO-NE has proposed only its required short-term solution, noting that a long-term solution will be submitted in July 2019.

The Commission orders:

(A) ISO-NE’s proposed revisions are hereby accepted, to become effective October 30, 2018, as discussed in the body of this order.

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250 *Id.* at 7. Potomac Economics explains that an operational product would procure resources to satisfy a look-ahead firm energy requirement based on a 7-day forecast of supply and demand factors that determine the required amount of firm energy inventories; a seasonal product would procure an expected quantity of firm energy availability before the winter season, and supplemental procurements could be made during the winter if inventories were depleted; and an FCM product would modify the FCM to include procurement of some amount of capacity with firm energy characteristics.

251 *Id.* at 3.

252 *Id.* at 13.
(B) We hereby direct ISO-NE to submit an annual informational filing regarding the applicability of its study triggers, study assumptions, and study scenarios compared to actual experiences, starting with the winter of 2022/23, for the duration of this interim mechanism, as discussed in the body of this order.

By the Commission. Chairman Chatterjee is dissenting in part with a separate statement attached.
Commissioner Glick is concurring with a separate statement attached.
Commissioner McIntyre is not voting on this order.

(SEAL)

Kimberly D. Bose,
Secretary.
Appendix A

Entities filing interventions, protests and/or comments, and answers are as follows:

American Petroleum Institute (API)
Acadia Center**
American Public Power Association (APPA)
Associated Industries of Massachusetts**±
Avangrid Networks, Inc. (Avangrid Networks)
Brookfield Energy Marketing LP†
Calpine Corporation (Calpine) ±
Citizens Energy Corporation*
Cogentrix Energy Power Management, LLC (Cogentrix)
Connecticut Department of Energy & Environmental Protection**
Connecticut Office of Consumer Counsel**
Connecticut Parties**
Connecticut Public Utilities Regulatory Authority**
Conservation Law Foundation*
Consolidated Edison Energy, Inc.*
Constellation Mystic Power, LLC‡ (Mystic)
Direct Energy Companies*
Direct Energy et al.**±
Dominion Energy Services, Inc.
Eastern New England Consumer-Owned Systems (ENECOS)
Electric Power Supply Association (EPSA)
Energy New England, LLC*
Environmental Defense Fund (EDF)
Eversource Energy Service Company (Eversource)
Exelon Corporation*
External Market Monitor for ISO-NE‡ (Potomac Economics)
FirstLight Power Resources, Inc. ± (FirstLight)
Gaz Metro LNG, L.P.*
Industrial Energy Consumer Group*
Maine Public Utilities Commission (Maine PUC)
Massachusetts Attorney General Maura Healey (Massachusetts AG)
Massachusetts Department of Public Utilities (Massachusetts DPU)
Massachusetts Municipal Wholesale Electric Company*
National Grid USA (National Grid)
National Rural Electric Cooperative Association*
Natural Resources Defense Council**
New England Power Generators Association, Inc. ± (NEPGA)
New England Power Pool Participants Committee± (NEPOOL)
New England States Committee on Electricity (NESCOE)
New Hampshire Electric Cooperative, Inc.*
New Hampshire Public Utilities Commission (New Hampshire PUC)
NextEra Energy Marketing, LLC**
NextEra Energy Resources, LLC (NextEra)
NRG Power Marketing LLC (NRG)
PowerOptions**±
Public Citizen, Inc.*
RENEW Northeast, Inc. (RENEW)
Sierra Club**
Sustainable FERC Project**
The Energy Consortium, Inc.**±
Verso Corporation (Verso)
Vistra Companies± (Vistra)

* Entities submitting interventions only
** Entities submitting comments or interventions as part of a coalition
± Entities submitting answers
† Entities submitting motions to intervene out of time
‡ Entities submitting comments and no motion to intervene

List of Coalitions’ Individual Members:

Direct Energy et al. ±
Direct Energy Business, LLC
NextEra Energy Marketing, LLC
Associated Industries of Massachusetts
The Energy Consortium, Inc.
PowerOptions

Connecticut Parties
Connecticut Public Utilities Regulatory Authority
Connecticut Department of Energy & Environmental Protection
Connecticut Office of Consumer Counsel

Public Systems*
Massachusetts Municipal Wholesale Electric Company
New Hampshire Electric Cooperative, Inc.

Public Interest Organizations
Sierra Club
Acadia Center
Natural Resources Defense Council
Sustainable FERC Project
CHATTERJEE, Chairman, dissenting in part:

Today’s order approves ISO New England Inc.’s (ISO-NE) proposed tariff revisions that provide an interim process for implementing cost-of-service agreements to address demonstrated fuel security concerns. As discussed in the Commission’s July 2, 2018 Order,\(^1\) ISO-NE’s Operational Fuel Security Analysis established that ISO-NE’s existing market-design framework is unable to ensure adequate fuel security for the region. I strongly supported that order’s directive that ISO-NE develop a short-term cost-of-service agreement to retain resources needed for fuel security while also working towards long-term market-based approaches to better address those concerns. I am pleased that today’s order approves an interim out-of-market process designed to mitigate regional fuel security concerns and I support many of the determinations in today’s order as just and reasonable ways to approach various aspects of the interim process.

However, I do find two elements of the proposed tariff revisions to be unjust and unreasonable, and believe the majority’s decision to accept them is unsupported by the record. First, I believe the price treatment provision – which would require ISO-NE to enter resources retained for fuel security purposes into the Forward Capacity Auction (FCA) as price takers – undermines the fundamental premise for implementing a process to support fuel security. Second, I find that the sunset provision improperly presumes that whatever market-based approach ISO-NE designs will resolve the region’s fuel security concerns as soon as it is implemented.

The proposed price taker provision is unjust and unreasonable under the Federal Power Act because it exacerbates the very problem it purports to solve. As noted above, in the July 2 Order, the Commission found that ISO-NE’s tariff fails to address specific

regional fuel security concerns identified in the record.\textsuperscript{2} In particular, the current Forward Capacity Market (FCM) construct does not value fuel security.\textsuperscript{3} In attempting to avoid over-procurement of capacity, however, ISO-NE’s price taker proposal is likely to compound the very fuel security problem it sought to address. Indeed, ISO-NE \textit{acknowledges} that its price taker proposal will result in lower FCA prices and fails to appropriately compensate resources that provide both resource adequacy and fuel security.\textsuperscript{4} These lower FCA prices will encourage marginal units – specifically those that otherwise would have received adequate capacity revenue if fuel security resources were not entered into the FCA as price takers – to retire. If these same units also are fuel-secure resources, then this price suppression could lead to a further decline in fuel security. The result could be a vicious cycle of additional out-of-market interventions for these retiring resources, further price suppression, and even more retirements, which, in turn, will only further diminish the region’s fuel security.\textsuperscript{5} If the majority’s concern is minimizing proliferation of fuel security agreements, then, considering these potential consequences, I find that accurately reflecting these resources’ value in the market is a better way to alleviate any such concern in the long term.

Further, I find unpersuasive the majority’s reliance on the fact that the Commission historically has allowed reliability must-run (RMR) units to be offered as price takers. RMR resources are distinguishable from resources retained for fuel security. They are necessary to address local reliability needs while other reliability solutions such as transmission upgrades are determined and implemented. Conversely, resources retained for fuel security are intended to address regional fuel security issues that may be more difficult to solve. Today’s order acknowledges these differences, noting that, “unlike reliability must-run resources, the need for a fuel-secure resource is unlikely to be met by local or pool transmission upgrades.”\textsuperscript{6} In addition, the order states that, “[a]s ISO-NE has previously explained, multiple factors, including infrastructure limitations and the lack of transmission development to accommodate large projects, have

\begin{itemize}
  \item \textsuperscript{2} \textit{Id.} P 49.
  \item \textsuperscript{3} \textit{Id.} P 53-54.
  \item \textsuperscript{4} ISO-NE Transmittal at 4, 17.
  \item \textsuperscript{5} Although marginal fuel-secure resources are the likeliest to retire as a result of the price suppression that the majority is requiring, they are not the only ones that will be harmed by the price taker provision. Prices will be suppressed for all resources in the FCM.
  \item \textsuperscript{6} \textit{ISO New England Inc.}, 165 FERC ¶ 61,202 at P 54 (2018).
\end{itemize}
contributed to current regional fuel security concerns. While some of these individual factors may seem local in nature, the lack of fuel security nevertheless impacts the reliability of the entire region.”

The Commission addressed the differences between fuel security and RMR resources in the July 2 Order, explaining that fuel security resources do not need to be treated the same way in the FCM as reliability resources because there are material differences between cost-of-service agreements for local reliability needs and regional fuel security concerns. The Commission went on to explain that it may be reasonable for ISO-NE to either (1) offer fuel security resources into the FCM at a non-zero price that is still subject to mitigation by the IMM or (2) retain fuel security resources outside of the FCM construct.

I believe the majority glosses over these differences, and ISO-NE disregards them, focusing primarily on the risk of over-procurement of capacity. While I recognize ISO-NE’s concern that entering retained resources into the market at a non-zero price creates a risk of over-procurement, this case necessarily requires us to choose between, on the one hand, the risk of over-procurement and, on the other hand, the risk of exacerbating the fuel security problem by accelerating resource retirements. On balance, I find it more acceptable to risk over-procurement than to risk intensifying the significant fuel security concerns that these tariff revisions are intended to address. Consistent with the market principles discussed above and the evidence in the record, I would have preferred requiring ISO-NE to use the IMM’s proxy bid price for fuel-secure resources. I believe that doing so would have ensured competitive pricing in the market.

Further, I note that the Commission previously rejected proposed PJM capacity market rules that would have allowed price-locked resources to offer as price takers because it would result in price suppression. Earlier this year, the Court of Appeals for the D.C. Circuit remanded to the Commission its subsequent decision allowing price-locked resources in ISO-NE to offer into the FCM as price takers, finding that the Commission failed to “square its decision [accepting ISO-NE’s proposal] with past precedent.” The D.C. Circuit’s opinion excoriates the Commission for failing to

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7 Id. P 55.

8 July 2 Order at P 56-57.


10 New England Power Generators Ass’n, Inc. v. FERC, 881 F.3d 202, 211 (D.C.
adequately explain why its rationale in PJM does not apply to the scheme it accepted in ISO-NE.\textsuperscript{11} Here, the majority does not even attempt to address the price suppressive effects of the price taker provision, relying instead on precedent regarding treatment of RMR agreements. But, as outlined above, these arguments are inapposite.

In addition, the proposed sunset provision should be rejected as unjust and unreasonable because it could allow the ISO-NE tariff to revert to a state without fuel security provisions, which the order simultaneously finds to be unjust and unreasonable. While I do not doubt ISO-NE’s resolve to develop an appropriate solution, history tells us that developing such programs frequently takes longer than anticipated and may require several iterations of filings before the Commission – and litigation in the courts – to achieve the desired results.\textsuperscript{12} Moreover, as we noted in the July 2 Order, ISO-NE’s tariff

\textsuperscript{11} Id. 210-213.

\textsuperscript{12} For example, ISO-NE’s development and implementation of sloped demand curves for capacity zones took several years. On January 24, 2014, the Commission ordered ISO-NE to file tariff revisions providing for a sloped demand curve by April 1, 2014 so it could be implemented prior to FCA 9 (see ISO New England Inc., 146 FERC ¶ 61,038 (2014); ISO New England Inc., 150 FERC ¶ 61,066, at P 7 (2015)). On April 1, 2014, ISO-NE filed a new system-wide demand curve, but asked the Commission for additional time to develop new demand curves for the separate capacity zones, committing to have those zonal demand curves in place for FCA 10, which request the Commission granted on May 30, 2014 (ISO New England Inc., 147 FERC ¶ 61,173, at P 41 (2014)). Additional delays, requests for extensions and Commission directives ensued before the demand curves were eventually implemented for FCA 11 (see ISO New England Inc., 153 FERC ¶ 61,338 (2015); ISO New England Inc., 155 FERC ¶ 61,319 (2016)).

Indeed, some programs can take years to implement even as planned. For example, there was an approximately four-year gap between the time the Commission issued its May 2014 order directing ISO-NE to submit a modified version of its proposed “Pay-for-Performance” program (PFP) and full implementation of PFP on June 1, 2018. See ISO New England Inc. and New England Power Pool Participants Committee, 147 FERC ¶ 61,172 (2014), petition for review dismissed, New England Power Generators Association, Inc. v. FERC, 879 F.3d 1192 (D.C. Cir. 2018). During that interim period, ISO-NE implemented a series of out-of-market, temporary programs to help ensure reliability over the winter months. See ISO New England Inc. and New England Power Pool Participants Committee, 152 FERC ¶ 61,190 (2015), reh’g denied, 154 FERC 61,133 (2016); ISO New England Inc. and New England Power Pool Participants
is but one variable in addressing the region’s fuel security challenge – “even if the ISO-NE market sends a price signal indicating that investment is needed, the states have the authority to control whether, and which, infrastructure gets built in response to that price signal.” And even assuming *arguendo* that the Commission were to accept ISO-NE’s first attempt at a market-based proposal, the majority’s decision presumes that the problem will be solved *immediately* upon filing, as if the necessary investments and infrastructure developments happen instantaneously. Consequently, I would have rejected or, at a minimum, extended the term of the sunset provision.

In addition, the majority’s decision to accept the price taker provision and the proposed sunset provision is not supported by the record. With respect to the price taker provision, as explained above, the evidence indicates that the price taker provision could *exacerbate* the problem the Commission is trying to solve. Even if one assumes that additional retirements of fuel secure resources are speculative at present, the price taker provision is likely to worsen the *very cause* of that problem – by weakening the price signal that already fails to value fuel security. Similarly, the sunset provision would cause the ISO-NE tariff to revert to a state without fuel security measures – a state that the order simultaneously concludes is unjust and unreasonable. The majority offers no explanation as to why such an outcome is just and reasonable, particularly in light of the non-trivial likelihood that the development of a permanent, market-based solution could take some time to implement.

For these reasons, I respectfully dissent in part.

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Neil Chatterjee, Chairman

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13 July 2 Order at P 54.

GLICK, Commissioner, concurring:

I join today’s order in full. I write separately to explain my support for today’s order in light of my dissents from the Commission’s previous orders in the New England fuel security saga and to identify steps that I believe ISO-NE should take to address fuel security consistent with the FPA.

I continue to believe that the Commission did not meet its burden to show that ISO-NE’s tariff is unjust and unreasonable.\(^1\) As I explained in my dissent from the July 2nd show cause order, the Commission needlessly rushed to judgment, effectively finding ISO-NE’s tariff unjust and unreasonable because it did not provide the ISO with the ability to prop up an uneconomic generator that might conceivably be needed for fuel security several years in the future.\(^2\) I continue to believe that that order was a serious misstep, both because the Commission lacked a record to support its action and because, in rushing to bail out the Mystic facility, the Commission prematurely cut off a debate that might have led to more durable solution to New England’s fuel security concerns, which the record indicates are limited to only the most extreme winter conditions.

Nevertheless, there can be more than one just and reasonable rate, meaning that my belief that the existing tariff is just and reasonable does not preclude me from finding

\(^1\) *Emera Maine v. FERC*, 854 F.3d 9, 23 (D.C. Cir. 2017) (explaining that the FPA creates a “‘broad’ range of potentially just and reasonable” rates and that the Commission may revise an existing rate only if it is outside that range); *see also Ala. Power Co. v. FERC*, 993 F.2d 1557, 1571 (D.C. Cir. 1993) (“[T]he proponent of a rate change under § 206, here FERC, has the burden of proving that the existing rate is unlawful.”).

that the proposed replacement tariff is itself just and reasonable.\(^3\) I agree that, for the reasons explained in today’s order, ISO-NE’s filing proposes a just and reasonable interim method for addressing potential fuel security concerns, with “interim” being the key word. ISO-NE has shown that a time-limited methodology for preserving certain resources that may be needed to provide fuel security is just and reasonable while it develops a more robust approach to addressing regional fuel security. New England’s potential fuel security issues do not appear to be present in any other region, especially with regard to its reliance on natural gas, limited options for fuel delivery, and the consequences of load shedding in its particularly cold winters. Accordingly, the fact that an interim measure of this sort is just and reasonable in New England does not necessarily indicate that even the exact same proposal would be just and reasonable in other regions of the country.

ISO-NE’s ultimate approach to fuel security will need to be more sophisticated than the interim approach we approve today. As Potomac Economics explained in its comments, ISO-NE’s apparent need to retain units for fuel-security is the result of a market failure. Units truly needed for fuel-security would be economic if they were fully compensated for the services they provide.\(^4\) The solution to that failure must be to reform the markets so that the services they procure reflect the region’s needs. Fuel security is best understood as a service that, to the extent it is needed at all, should be procured through the ISO’s markets, with open and vigorous competition among all resources capable of providing that service. Individual, \textit{ad hoc} contracts with particular resources whose retirement might, under the most conservative assumptions, create a fuel security concern is no way to address a region’s long-term fuel security.

In addition, to the extent that ISO-NE continues to use studies along the lines of its Operational Fuel Security Assessment, ISO-NE should work with its member states to reconsider its approach to resources procured pursuant to state public policies. As NEPOOL explains in its comments, states have met the overwhelming majority of their renewable portfolio standard targets and current prices for renewable energy credits suggest that that will continue in the years ahead.\(^5\) State public policies, including renewable portfolio standards, are likely to drive much of the new entry in New England over the next several years with resources that will reduce the region’s reliance on natural

\(^3\) See Blumenthal \textit{v.} FERC, 552 F.3d 875, 883 (D.C. Cir. 2009) (“The Supreme Court has repeatedly rejected the argument “that there is only one just and reasonable rate possible.”); Petal Gas Storage, L.L.C. \textit{v.} FERC, 496 F.3d 695, 703 (D.C. Cir. 2007) (“FERC is not required to choose the best solution, only a reasonable one.”).

\(^4\) Potomac Economics Comments at 2.

\(^5\) NEPOOL Protest at 31-34.
gas supplies—the primary driver of the ISO’s fuel security concerns. Those public policies are binding law and it is not sustainable to systematically undervalue the contributions that those laws will make to fuel security.

Finally, although today’s order addresses only the specific proposal before us, I want to reiterate the importance of taking a holistic approach to fuel security. Any market-based solution to pricing a resource’s fuel-secure attributes must also be incorporated into the evaluation of electric transmission needs. Developing new transmission facilities may ultimately prove the most cost-effective approach to addressing fuel security, making it unjust and unreasonable to pursue a generation-only fuel security solution. And while certain approaches to addressing peak demand for natural gas—such as gas demand response—may require action under state law, I urge all the relevant stakeholders to examine these options to the fullest extent possible, rather than relying solely on solutions subject to the Commission’s jurisdiction.

For these reasons, I respectfully concur.

Richard Glick
Commissioner