

171 FERC ¶ 61,235  
UNITED STATES OF AMERICA  
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Neil Chatterjee, Chairman;  
Richard Glick, Bernard L. McNamee,  
and James P. Danly.

ISO New England Inc.

Docket No. ER19-1428-003

ORDER ACCEPTING TARIFF REVISIONS

(Issued June 18, 2020)

1. On March 25, 2019, pursuant to section 205 of the Federal Power Act (FPA),<sup>1</sup> ISO New England Inc. (ISO-NE) filed revisions to the ISO-NE Transmission, Markets and Services Tariff (Tariff) to implement an inventoried energy program in the Capacity Commitment Periods associated with the 14th and 15th Forward Capacity Auctions (FCA 14 and FCA 15, respectively) to compensate resources for maintaining inventoried energy during the winter months of 2023-2024 and 2024-2025 (Inventoried Energy Program or program). On August 6, 2019, pursuant to FPA section 205, the Secretary of the Commission issued a “Notice of Filing Taking Effect by Operation of Law.”<sup>2</sup> The August 6 Notice stated that the Commission did not act on ISO-NE’s filing because of a lack of quorum and that, in the absence of Commission action on or before August 5, 2019, ISO-NE’s proposal, as amended, became effective by operation of law.<sup>3</sup> Several parties filed rehearing requests following the issuance of the August 6 Notice. On October 7, 2019, the Commission issued a “Notice of Denial of Rehearing by Operation of Law.”<sup>4</sup> Petitions for review of those notices were filed with the U.S. Court of Appeals for the District of Columbia Circuit (D.C. Circuit).<sup>5</sup> On April 14, 2020, the Commission filed a motion for voluntary remand with the D.C. Circuit to allow the Commission to

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<sup>1</sup> 16 U.S.C. § 824d (2018).

<sup>2</sup> *ISO New England Inc.*, Notice of Filing Taking Effect by Operation of Law, Docket No. ER19-1428-001 (Aug. 6, 2019) (August 6 Notice).

<sup>3</sup> *Id.*

<sup>4</sup> *ISO New England Inc.*, 169 FERC ¶ 61,013 (2019) (October 7 Notice).

<sup>5</sup> *See Belmont Mun. Light Dep’t v. FERC* (D.C. Circuit), Case Nos. 19-1224 *et al.*

issue an order addressing the filing now that the Commission has a quorum in this proceeding. On April 21, 2020, the D.C. Circuit granted the motion.<sup>6</sup>

2. In this order, we find that the Inventoried Energy Program is just and reasonable and accept the proposed Tariff revisions, to become effective May 28, 2019, as discussed below. We address the initial comments and answers filed in this proceeding as well as the arguments raised in the requests for rehearing; however, because this order is our initial order on the merits, we do not make findings on the rehearing requests.

### **I. Background**

3. On May 1, 2018, 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 2022-2023 and 2023-2024 winter periods to maintain fuel security.<sup>7</sup> In support of its waiver request, ISO-NE cited a series of studies that showed a high level of operational risk, under a variety of scenarios, associated with the retirement of Mystic Units 8 and 9 and the Everett Marine Terminal (Everett).<sup>8</sup> These studies indicated that the loss of both Mystic Units 8 and 9 and Everett<sup>9</sup> would lead to the depletion of operating reserves and load shedding.

4. On July 2, 2018, the Commission rejected ISO-NE's petition for waiver and preliminarily found that the Tariff may be unjust and unreasonable because it fails to address specific regional fuel security concerns identified in the studies presented by ISO-NE.<sup>10</sup> Pursuant to its authority under FPA section 206,<sup>11</sup> 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

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<sup>6</sup> *Belmont Mun. Light Dep't v. FERC* (D.C. Circuit), Case Nos. 19-1224 (Apr. 21, 2020).

<sup>7</sup> ISO-NE, Petition for Waiver, Docket No. ER18-1509-000, at 3 (filed May 2, 2018) (Petition for Waiver).

<sup>8</sup> *Id.* at 3 n.6.

<sup>9</sup> The only fuel source for Mystic Units 8 and 9 is natural gas purchased from Everett, which is located adjacent to the Mystic Generation Station.

<sup>10</sup> *ISO New England Inc.*, 164 FERC ¶ 61,003, at P 49 (2018) (July 2 Order).

<sup>11</sup> 16 U.S.C. § 824e.

(2) by August 31, 2018, show cause as to why the Tariff remains just and reasonable absent those filings.<sup>12</sup>

5. In response to the July 2 Order, ISO-NE submitted proposed fuel security cost-of-service Tariff provisions, which allow for the retention of resources for fuel security under a short-term, cost-of-service agreement, and the Commission accepted those revisions on December 3, 2018.<sup>13</sup> The interim Tariff revisions are only in effect for FCAs 13 through 15, which cover the Capacity Commitment Periods of 2022-2023, 2023-2024, and 2024-2025, respectively.<sup>14</sup> On August 30, 2019, the Commission granted an extension of time to April 15, 2020, for ISO-NE to submit its proposed long-term, fuel security mechanism. On March 25, 2019, ISO-NE submitted the instant filing.

## II. ISO-NE's Filing

### A. Program Components

6. ISO-NE's proposed program has five components: (1) two-settlement structure; (2) forward rate; (3) spot rate; (4) trigger conditions; and (5) maximum duration.<sup>15</sup> ISO-NE proposes a two-settlement structure under this voluntary program, under which participants may elect to participate in either the forward and spot market components of the program or just the spot market component. Participants that opt to participate in both components take on a financial obligation for inventoried energy during the program delivery period (December through February) at the forward rate in the first settlement period. Any deviations from inventoried energy maintained for each event trigger (an Inventoried Energy Day) are settled in the second settlement period at the spot rate.

7. ISO-NE proposes a fixed forward rate of \$82.49/MWh for inventoried energy sold forward during the entire delivery period, which is an estimate of the minimum rate that a natural gas-only resource would require in order to sign a winter peaking supply contract for vaporized liquefied natural gas (LNG).<sup>16</sup> ISO-NE explains that this rate is based on a simulation model that estimates a fair market value for a natural gas contract between a natural gas-only generator and an LNG storage facility.

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<sup>12</sup> July 2 Order, 164 FERC ¶ 61,003 at P 55.

<sup>13</sup> *ISO New England Inc.*, 165 FERC ¶ 61,202, at P 49 (2018) (December 3 Order).

<sup>14</sup> *Id.* P 3.

<sup>15</sup> Transmittal at 9.

<sup>16</sup> *Id.* at 11.

8. ISO-NE proposes a spot rate of \$8.25/MWh for each event trigger during the delivery period, stating that this rate represents the price at which a resource is indifferent between selling stored energy for forward settlement or spot settlement.<sup>17</sup> ISO-NE states that it calculated the spot rate by taking the forward rate of \$82.49/MWh and dividing it by the expected number of Inventoried Energy Days per winter (10 days). Resources participating in only the spot market will be compensated at the spot rate for any inventoried energy maintained for an Inventoried Energy Day.<sup>18</sup>

9. ISO-NE states that an Inventoried Energy Day is triggered for any calendar day in December through February when the average high temperature and low temperature on that day at Bradley International Airport in Windsor Locks, Connecticut is less than or equal to 17 degrees Fahrenheit.<sup>19</sup> ISO-NE explains that, because the trigger conditions rely on observed rather than forecast temperatures, whether a particular day is an Inventoried Energy Day will only be known afterwards. Therefore, ISO-NE will require participants to report their inventoried energy the morning after each Inventoried Energy Day. ISO-NE states that it will measure a participant's inventoried energy to determine its spot settlement when the event trigger conditions have been met.

10. The proposal includes a maximum duration parameter of 72 hours to cap the quantity of inventoried energy that each resource can provide. ISO-NE explains that this time period does not represent a minimum quantity to participate in the program, and that resources with less than 72 hours of inventory will be compensated for the quantity that they maintain in inventory. ISO-NE proposes this parameter for both forward and spot settlements to avoid compensating participants for inventoried energy that is unlikely to improve the region's winter energy security. ISO-NE explains that the maximum duration cap is intended to reflect the decrease in the incremental reliability benefit of an additional MWh of inventoried energy as the resource's quantity of inventoried energy increases.<sup>20</sup>

## **B. Program Objectives**

11. ISO-NE identifies three program objectives: (1) simplicity; (2) compensation for resources that provide winter energy security and improve reliability; and (3) sound

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<sup>17</sup> *Id.*

<sup>18</sup> *Id.* at 12, 18-19. ISO-NE states that its historical data indicates that approximately 10 Inventoried Energy Days per winter should be expected and thus, in turn, the spot rate is calculated as \$8.25/MWh.

<sup>19</sup> *Id.* at 13.

<sup>20</sup> *Id.* at 14.

market design.<sup>21</sup> ISO-NE states that it prioritized simplicity to ensure that the program was designed and filed quickly, so market participants could reasonably forecast potential revenue. ISO-NE explains that the program focuses on inventoried energy because the region's reliance on electric energy from natural gas-fired generators is a key contributor to the region's winter energy security challenges. ISO-NE contends that incenting resources to maintain greater inventoried energy can address the lack of inventoried energy, which can lead to winter energy security concerns due to loss-of-load events. ISO-NE argues that the program may result in greater inventoried energy levels because it: (1) incents market participants to acquire more inventoried energy than they otherwise would; (2) creates a potential opportunity cost associated with converting inventoried energy into electric energy, reducing the likelihood that resources with inventoried energy are dispatched, which helps maintain the region's inventoried energy; and (3) decreases the likelihood that such resources that maintain inventoried energy will seek to retire.<sup>22</sup>

12. Further, ISO-NE states that it seeks to adhere to sound market design principles (i.e., specifying a clearly defined product, transparently pricing the product, incenting market participants to deliver the product in a cost-effective manner, and settling any forward sale of the product against its spot delivery within a framework that is technology-neutral). ISO-NE notes, however, that, because it prioritizes simplicity, the proposal does not reflect all of these market design principles.<sup>23</sup> ISO-NE maintains that the proposal comports with the idea of "similar compensation for similar service" because it seeks to ensure that all providers of inventoried energy are similarly compensated.<sup>24</sup> But ISO-NE argues that fully incorporating the other principles<sup>25</sup> would add significant complexity to the program and implementation process and additional

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<sup>21</sup> *Id.* at 5-6.

<sup>22</sup> *Id.* at 8-9.

<sup>23</sup> *Id.* at 6.

<sup>24</sup> *Id.* at 5-6.

<sup>25</sup> ISO-NE uses the example of specifying demand for the attribute and developing a mechanism, such as a new or significantly revised auction, to sell the product at lowest cost. Transmittal at 6.

design work that may prevent ISO-NE from influencing retirement decisions for the upcoming FCA in February 2020.<sup>26</sup>

### C. Eligibility

13. ISO-NE proposes three conditions for selling inventoried energy: (1) the resource must be able to convert the inventoried energy into electric energy at ISO-NE's direction during periods of system stress; (2) the conversion of inventoried energy to electric energy must reduce the amount of electric energy the resource can produce in the future (until the inventoried energy is replenished); and (3) the participant must measure inventoried energy in MWh and report to ISO-NE on a daily basis.

14. ISO-NE explains that the following resources would meet these conditions: (1) oil, coal, nuclear, biomass, and refuse generators;<sup>27</sup> (2) some hydro and pumped-storage generators (i.e., those with water stored in a pond or reservoir); and (3) an electric storage facility, including those coupled with a wind or solar resource (noting that its inventory would be its charge that could be converted into electric energy). ISO-NE adds that demand response resources that meet these conditions would be eligible to participate in the program.<sup>28</sup>

15. Natural gas resources are eligible to participate if the resource signs a contract for firm delivery of natural gas that would allow it to produce electric energy at ISO-NE's direction. ISO-NE explains that an eligible firm contract must not have any limitations on when natural gas can be called during the day<sup>29</sup> and must not require the market participant to incur incremental costs greater than 250% of the delivery period's average forward price to exercise the contract. ISO-NE further explains that a natural gas generator could contract for LNG at one of the import facilities serving the region or with a counterparty that obtains natural gas from another source. However, ISO-NE proposes a cap of 560,000 MWh on the quantity of inventory on contracts with LNG facilities to

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<sup>26</sup> *Id.* at 6. ISO-NE states that retirement de-list bids for FCA 14, which will occur in February 2020, were due on March 15, 2019, and that any resulting retirements would occur on June 1, 2023.

<sup>27</sup> *Id.* at 15.

<sup>28</sup> *Id.* at 16. ISO-NE states that a demand response resource that is eligible is one that has behind-the-meter fossil generation that can follow ISO-NE's dispatch instructions.

<sup>29</sup> In this order, we refer to this language in revised Tariff Section III.K.1(a)(iii) as the "no limitations" language.

reflect the maximum quantity of natural gas that could be delivered through these facilities.

16. ISO-NE notes that external resources, solar, wind, and settlement-only resources would generally not be eligible to participate. Resources retained for reliability by ISO-NE that are compensated via a fuel security cost-of-service agreement are not eligible to participate either for several reasons: (1) these resources have already indicated an intent to retire; (2) the program is unlikely to impact the decisions of these generators with respect to inventoried energy that do not participate in the markets like other resources; and (3) these resources have little incentive to participate because any revenue from the Inventoried Energy Program would likely offset their fuel security cost-of-service payments.<sup>30</sup>

#### **D. Cost**

17. ISO-NE estimates that the program would cost between \$102 and \$148 million per year, which is based on program participation, resource performance, and winter severity.<sup>31</sup> ISO-NE's upper and lower bound estimates assume that 1.8 million and 1.2 million MWh of inventoried energy, respectively, would be sold forward and maintained for each Inventoried Energy Day. The upper bound estimate assumes that (1) all eligible non-natural gas resources sell their maximum quantity of inventoried energy forward; and (2) the total quantity of inventoried energy provided by natural gas generators is equal to the 560,000 MWh cap for LNG contracts. The lower bound assumes that the program does not incent any natural gas resources to sign contracts for LNG. ISO-NE adds that the program costs could ultimately fall above or below these estimates. ISO-NE proposes to allocate the program costs on a regional basis to Real-Time Load Obligation.<sup>32</sup>

### **III. Notice of Filing and Responsive Pleadings**

18. Notice of ISO-NE's filing was published in the *Federal Register*, 84 Fed. Reg. 11,965 (March 29, 2019), with interventions and protests due on or before April 15, 2019.

19. Avangrid Networks, Connecticut Department of Energy and Environmental Protection, the Connecticut Attorney General, Connecticut Office of Consumer Counsel, Consolidated Edison Energy, Dominion Energy Services Company, Electric Power

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<sup>30</sup> Transmittal at 18.

<sup>31</sup> *Id.* at 19.

<sup>32</sup> *Id.* at 20.

Supply Association (EPSA), Energy New England, LLC, the Environmental Defense Fund (EDF), Eversource Energy, Footprint Power Salem Harbor Development LP, H.Q. Energy Services (U.S.), Industrial Energy Consumer Group, Massachusetts Municipal Wholesale Electric Company, National Grid, the New England States Committee on Electricity (NESCOE), Ocean State Power LLC, PSEG Energy Resources & Trade LLC and PSEG Power Connecticut LLC, Shell Energy North America (U.S.), and Vitol filed timely motions to intervene. Algonquin Gas Transmission, API Parties,<sup>33</sup> Brookfield Energy Marketing LP (Brookfield), Calpine Corporation (Calpine), Exelon Corporation (Exelon), FirstLight Power Resources (FirstLight), Internal Market Monitor for ISO-NE (IMM), Massachusetts Attorney General Maura Healey (Massachusetts Attorney General), New England Power Generators Association (NEPGA), New England Consumer-Owned Systems (NECOS),<sup>34</sup> New England Power Pool Participants Committee (NEPOOL), New Hampshire Office of the Consumer Advocate, NRG Power Marketing LLC (NRG), Public Citizen,<sup>35</sup> RENEW Northeast Inc., Repsol Energy North America, Sierra Club, Union of Concerned Scientists, Vermont Department of Public Service (Vermont DPS), and Verso Corporation (Verso) filed timely motions to intervene and comments or protests.<sup>36</sup> Advanced Energy Economy and Vistra Energy Corporation and Dynegy Marketing and Trade LLC (Vistra) filed motions to intervene out-of-time.

20. Connecticut Public Utilities Regulatory Authority and Massachusetts Department of Public Utilities filed notices of intervention. Maine Public Utilities Commission (Maine PUC), New Hampshire Public Utilities Commission, and Vermont Public Utility Commission filed notices of intervention and comments or protests.<sup>37</sup>

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<sup>33</sup> API Parties consist of the American Petroleum Institute, Natural Gas Supply Association and Independent Petroleum Association of America.

<sup>34</sup> For purposes of their protests, NECOS consist of New England Consumer-Owned Systems; Energy New England, LLC; and Direct Energy Business, LLC. For purposes of their rehearing request described below, NECOS consist of New England Consumer-Owned System and Energy New England, LLC.

<sup>35</sup> On July 17, 2019, Public Citizen filed a second, late-filed protest.

<sup>36</sup> Calpine and Vistra filed joint comments.

<sup>37</sup> Vermont Public Utility Commission supports the April 12, 2019 protest filed by Vermont DPS that the Commission reject ISO-NE's proposed winter fuel inventory program because it is unjust and unreasonable. Vermont Public Utility Commission Comments at 1. New Hampshire Public Utilities Commission and New Hampshire Office of the Consumer Advocate filed a protest jointly as New Hampshire Parties. They state that they support the protests filed by the Maine PUC and Vermont DPS. Sierra



21. On April 30, 2019, the IMM, ISO-NE, and NEPOOL filed answers to the comments and protests. On May 14, 2019, Massachusetts Attorney General filed an answer to ISO-NE's answer. On June 27, 2019, NEPGA filed an answer to the IMM's answer.

#### **IV. Deficiency Letter**

22. On May 8, 2019, Commission staff issued a Deficiency Letter, seeking clarification on various aspects of the proposal including potential reliability benefits, the "no limitations" language in the natural gas eligibility requirements, expected effects on retirement decisions, and whether the fixed rate would incent natural gas generators to sign firm transportation contracts.

23. On June 6, 2019, in Docket No. ER19-1428-001, ISO-NE filed its response to the Deficiency Letter (Deficiency Letter Response). Notice of the Deficiency Letter Response was published in the Federal Register, 84 Fed. Reg. 27,323 (June 12, 2019), with interventions and protests due on June 27, 2019. Clean Energy Advocates, EDF, Maine PUC, Massachusetts Attorney General, NECOS, NRG, Verso, and Vistra filed comments and protests.

#### **V. Notice Of Filing Taking Effect By Operation Of Law**

24. On August 6, 2019, pursuant to section 205 of the FPA, the Secretary of the Commission issued the August 6 Notice stating that the Commission did not act on ISO-NE's filing because of a lack of quorum and that, in the absence of Commission action on or before August 5, 2019, ISO-NE's proposal, as amended, became effective by operation of law.<sup>38</sup> The August 6 Notice stated that the effective date of the proposed Tariff sheets is May 28, 2019.

25. Consistent with section 205(g)(1)(B) of the FPA, each Commissioner added to the record of the Commission a written statement explaining the views of the Commissioner with respect to the change.<sup>39</sup>

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Club, RENEW Northeast Inc., and Union of Concerned Scientists filed pleadings jointly as Clean Energy Advocates.

<sup>38</sup> August 6 Notice.

<sup>39</sup> 16 U.S.C. § 824d(g)(1)(B).

## **VI. Rehearing Requests And Further Pleadings**

26. On August 30, 2019, Massachusetts Attorney General filed a request for rehearing.<sup>40</sup> On September 4, 2019, Clean Energy Advocates, Maine PUC, NECOS, NESCOE, and New Hampshire Parties individually filed requests for rehearing.<sup>41</sup>

27. On September 5, 2019, NextEra Energy Resources, Inc. (NextEra) filed a motion to intervene out-of-time.

28. As noted above, the Secretary of the Commission issued the October 7 Notice stating that the requests for rehearing were denied by operation of law.<sup>42</sup> The August 6 Notice and October 7 Notice were appealed to the D.C. Circuit, which has now remanded this proceeding to us.<sup>43</sup>

## **VII. Discussion**

### **A. Procedural Matters**

29. Pursuant to Rule 214 of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.214 (2019), the notices of intervention and timely, unopposed motions to intervene serve to make the entities that filed them parties to these proceedings. Pursuant to Rule 214(d) of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.214(d), we grant the late-filed motions to intervene of Advanced Energy Economy and Vistra given their interest in the proceeding, the early stage of the proceeding at the

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<sup>40</sup> Massachusetts Attorney General August 30, 2019 Rehearing Request (Massachusetts Attorney General Rehearing Request).

<sup>41</sup> Clean Energy Advocates September 4, 2019 Rehearing Request (Clean Energy Advocates Rehearing Request); Maine PUC September 4, 2019 Rehearing Request (Maine PUC Rehearing Request); NECOS and Energy New England, LLC September 4, 2019 Rehearing Request (NECOS Rehearing Request); NESCOE September 4, 2019 Rehearing Request (NESCOE Rehearing Request); New Hampshire Parties September 4, 2019 Rehearing Request (New Hampshire Parties Rehearing Request). New Hampshire Parties adopt NESCOE's request for rehearing and incorporate the arguments made in that pleading. New Hampshire Parties Rehearing Request at 2. New Hampshire Parties also express support for the rehearing request filed by the Maine PUC. *Id.*

<sup>42</sup> October 7 Notice, 169 FERC ¶ 61,013 at n.3 (citing 16 U.S.C. § 825l(a) (2018); 18 C.F.R. § 385.713(f) (2019)).

<sup>43</sup> *See supra* P 2.

time of their motions, and the absence of undue prejudice or delay. We also accept Public Citizen's late-filed protest.

30. We deny NextEra's late-filed motion to intervene. In ruling on a motion to intervene out-of-time, we apply the criteria set forth in Rule 214(d) of the Commission's Rules of Practice and Procedure<sup>44</sup> and consider, *inter alia*, whether the movant had good cause for failing to file the motion within the time prescribed. When, as here, late intervention is sought after the issuance of a dispositive order,<sup>45</sup> movants bear a higher burden to demonstrate good cause for granting such late intervention.<sup>46</sup> NextEra has failed to demonstrate the requisite good cause as NextEra states that it submitted its intervention out-of-time "due to administrative oversight."<sup>47</sup> We do not find this explanation sufficient to meet the higher burden to show good cause for granting intervention following a dispositive order. Accordingly, we deny NextEra's motion for leave to intervene out-of-time.

31. Rule 213(a)(2) of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.213(a)(2) (2019), prohibits an answer to a protest unless otherwise ordered by the decisional authority. We accept the answers filed by the IMM, ISO-NE, NEPOOL, Massachusetts Attorney General, and NEPGA because they have provided information that has assisted us in our decision-making process.

## **B. Substantive Matters**

32. We find the Inventoried Energy Program is just and reasonable and accept the proposed Tariff revisions, to become effective May 28, 2019, as discussed below. We find that the Inventoried Energy Program is a reasonable short-term solution to compensating, in a technology-neutral manner, resources that provide fuel security.

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<sup>44</sup> 18 C.F.R. § 385.214(d).

<sup>45</sup> Section 205(g)(1)(A) of the FPA states that "the failure to issue an order accepting or denying the change by the Commission shall be considered to be an order issued by the Commission accepting the change for purposes of section 825/(a) of this title." 16 U.S.C. § 824d(g)(1)(A).

<sup>46</sup> *See, e.g., Midwest Indep. Transmission Sys. Operator, Inc.*, 102 FERC ¶ 61,250, at P 7 (2003); *Big Rivers Elec. Corp. v. Midcontinent Indep. Sys. Operator, Corp.*, 161 FERC ¶ 61,225, at P 12 (2017).

<sup>47</sup> NextEra September 5, 2019 Motion to Intervene Out-of-Time.

33. We agree with ISO-NE that the current market design contains a “misaligned incentives” problem,<sup>48</sup> such that fuel secure resources may not be sufficiently incented to make additional investments in energy supply arrangements, which may have adverse efficiency and reliability consequences under the existing market rules. As ISO-NE describes, misaligned incentives result from the different values that generators and society place on investments in energy supply arrangements. ISO-NE states that society places the value of such investments on the high energy price avoided, while generators value such investments based on the lower energy price they receive in the energy market as a result of the investment.<sup>49</sup> We find that, by providing additional compensation to fuel secure resources, which may allow them to secure such energy supply arrangements, the Inventoried Energy Program is a short-term solution that helps address the misaligned incentives problem that currently exists in the Tariff.

34. Although ISO-NE acknowledges that the Inventoried Energy Program may not constitute a fully market-based solution, we agree with ISO-NE that the proposal is a step in the right direction. In particular, the Inventoried Energy Program will help ISO-NE address winter energy security in light of the misaligned incentives in the market, while ISO-NE finishes developing a long-term market solution.

### **1. General Comments in Support**

35. Several commenters support the Inventoried Energy Program as a reasonable short-term solution to compensate resources that provide fuel security in a technology-neutral manner.<sup>50</sup> FirstLight supports the program’s objective to extend eligibility to all inventoried fuels and permit resources seeking forward certainty to support fuel arrangements.<sup>51</sup> API Parties commend ISO-NE for recognizing the role of natural gas-

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<sup>48</sup> ISO-NE Answer at 7 (citing ISO-NE Discussion Paper, “Energy Security Improvements,” April 2019, [https://www.iso-ne.com/static-assets/documents/2019/04/a00\\_iso\\_discussion\\_paper\\_energy\\_security\\_improvements.pdf](https://www.iso-ne.com/static-assets/documents/2019/04/a00_iso_discussion_paper_energy_security_improvements.pdf) at 11 (Energy Security Improvements Discussion Paper)).

<sup>49</sup> *Id.*

<sup>50</sup> API Parties Comments at 2; Brookfield Comments at 1-2; Calpine and Vistra Comments at 1; FirstLight Comments at 1, 3, 5. Brookfield states that the incremental compensation provided through the program provides appropriate incentives for eligible hydroelectric resources to store more water (and replenish such reserves) for conversion to electricity than would be otherwise economical during winter months. Brookfield Comments at 7.

<sup>51</sup> FirstLight Comments at 1, 3, 5.

fired generators in supporting fuel security by including them as eligible participants.<sup>52</sup> While some commenters agree that there may be a better market design for such a program or that the program could be improved,<sup>53</sup> these commenters still assert that the Commission should approve the program because it provides reasonable interim compensation and a bridge prior to development of the longer-term market solution.<sup>54</sup> FirstLight urges the Commission to resist requests to amend the proposal because such requests would be an unhelpful distraction from the long-term market design efforts.<sup>55</sup>

36. Calpine and Vistra state that the forward component of the Inventoried Energy Program is the key to winter fuel security because it incentivizes market participants to take the necessary steps to achieve fuel security, including procuring an adequate amount of fuel and fully optimizing their existing fuel infrastructure.<sup>56</sup> Calpine and Vistra also support ISO-NE's proposal to allow spot market participation for fuel arrangements that are not in place by October 1 because it will improve winter energy security and put firm natural gas purchases on more equal footing relative to fuel oil purchases that can be made after the October 1 deadline.<sup>57</sup>

37. Algonquin states that the Inventoried Energy Program demonstrates that fuel security is the primary threat to grid reliability in New England and that the region must address and find a long-term solution to this fuel security challenge.<sup>58</sup> But Algonquin contends that the long-term solution can only address New England's fuel security

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<sup>52</sup> API Parties Comments at 2.

<sup>53</sup> Brookfield Comments at 1; Calpine and Vistra Comments at 1, 6; FirstLight Comments at 1-3. Calpine and Vistra contend, for example, that the program could be improved by increasing the maximum duration cap from 72 hours to 120 hours for more robust pricing.

<sup>54</sup> Calpine and Vistra Comments at 5; FirstLight Comments at 1-3.

<sup>55</sup> FirstLight Comments at 6.

<sup>56</sup> Calpine and Vistra Comments at 5-6.

<sup>57</sup> *Id.* at 6.

<sup>58</sup> Algonquin Comments at 2-3.

challenges if it addresses the lack of firm natural gas transportation and storage in the region.<sup>59</sup>

38. NEPOOL states that neither the Inventoried Energy Program nor any other proposal had sufficient support to be approved by NEPOOL.<sup>60</sup> NEPOOL states that stakeholders discussed the need for an interim program with some parties advocating for a more dedicated focus on the longer-term market-based solutions. NEPOOL states that NEPOOL voted on: (1) two stakeholder proposals that would have established different eligibility for compensation; and (2) one proposal that would have delayed establishment of the payment rate to inventoried energy so more current data could be used in that calculation.<sup>61</sup>

39. NEPOOL asserts that the Commission should not direct specific changes that were not already addressed in the stakeholder process without full stakeholder consideration of such changes through the Commission-approved participant processes.<sup>62</sup>

## **2. FPA Section 205 Burden and Need for Reform**

### **a. Comments and Protests**

40. Several parties argue that ISO-NE has failed to meet its burden under FPA section 205 to demonstrate that the Inventoried Energy Program is just and reasonable and not unduly discriminatory or preferential.<sup>63</sup> NECOS asserts that ISO-NE relies on the interim nature of the Inventoried Energy Program to inappropriately avoid establishing the justness and reasonableness of the proposal. NECOS asserts that the Commission must reject ISO-NE's proposed program because the FPA section 205

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<sup>59</sup> *Id.* at 3. Algonquin notes that, in ISO-NE, natural gas provides 49% of total annual electric energy production and 59% on peak summer days. Algonquin Comments at 3 (citing ISO-NE 2017 Regional Electricity Outlook at 24).

<sup>60</sup> NEPOOL Comments at 1. NEPOOL provides details about the process and deliberations that preceded the submission of ISO-NE's filing.

<sup>61</sup> *Id.* at 6. NEPOOL indicates that these stakeholder amendments did not receive the requisite votes in the stakeholder process.

<sup>62</sup> NEPOOL Answer at 2-3 (citing IMM Comments; NRG Protest; Verso Comments).

<sup>63</sup> Clean Energy Advocates Protest at 1-2; Maine PUC Deficiency Letter Response Protest at 3-5; NECOS Deficiency Letter Response Protest at 2; NRG Protest at 2-3, 9-11.

burden does not permit deviation from the just and reasonable standard.<sup>64</sup> Environmental Defense Fund adds that: (1) the interim nature of the Inventoried Energy Program does not relieve ISO-NE of its obligation to support its filing; and (2) there is no provision under FPA section 205 that permits the Commission to accept filings on an interim basis.<sup>65</sup> NRG urges the Commission to resolve the fuel security issues pursuant to its directives in the FPA section 206 proceeding, in Docket No. EL18-182-000, pursuant to which ISO-NE will submit Tariff revisions to improve its market design to address regional fuel security concerns in the long-term.<sup>66</sup> NRG suggests that the Commission reject the Inventoried Energy Program as currently proposed and provide guidance for a substitute, interim fuel security proposal.<sup>67</sup>

41. In addition, several parties contend that ISO-NE has not demonstrated a need for the Inventoried Energy Program.<sup>68</sup> Massachusetts Attorney General states that the Inventoried Energy Program lacks evidentiary support and will result in arbitrary and discriminatory rates.<sup>69</sup> Maine PUC argues that, without a determination of need, there is no ability to measure the success of the Inventoried Energy Program.<sup>70</sup>

42. Moreover, several commenters contend that the Inventoried Energy Program is unjust and unreasonable because ISO-NE has failed to demonstrate that the program will benefit customers.<sup>71</sup> NECOS points out that ISO-NE states that the Inventoried Energy

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<sup>64</sup> NECOS Deficiency Letter Response Protest at 2.

<sup>65</sup> EDF Deficiency Letter Response Comments at 1-3.

<sup>66</sup> NRG Protest at 2-3.

<sup>67</sup> NRG Deficiency Letter Response Comments at 1-3.

<sup>68</sup> Clean Energy Advocates Protest at 8-9; Massachusetts Attorney General Deficiency Letter Response Comments at 1; Massachusetts Attorney General Protest at 14-16; Maine PUC Deficiency Letter Response Protest at 2-3; Maine PUC Protest at 4-6; NECOS Protest at 15; New Hampshire Parties Protest at 10-11, 18, 13-14; Public Citizen April 15, 2019 Protest at 1-3.

<sup>69</sup> Massachusetts Attorney General Protest at 14-16.

<sup>70</sup> Maine PUC Protest at 4-6.

<sup>71</sup> Clean Energy Advocates Protest at 1, 7, 11; Massachusetts Attorney General Protest at 1-2, 7, 11-13; NECOS Protest at 14; NRG Protest at 7; Public Citizen April 15, 2019 Protest at 1-3; Vermont DPS Protest at 1-3 (citing Testimony of Christopher Geissler, Attachment to Transmittal (Geissler Testimony) at 9 (noting speculative

Program “may” incent resources to take actions that they otherwise would not take, but it does not explain how that claimed incentive would work with such resources.<sup>72</sup> Clean Energy Advocates argue that ISO-NE’s continued reliance on the Operational Fuel Security Analysis (OFSA) is inadequate because the record in these proceedings establishes that ISO-NE has made changes to its fuel security review assumptions since July 2018 to project the region’s needs more accurately.<sup>73</sup>

43. Several commenters assert that ISO-NE failed to assess the quantity of inventoried energy that would be optimal to estimate demand or to provide an objective metric.<sup>74</sup> Maine PUC asserts that it is unjust and unreasonable to impose the indicative costs of the Inventoried Energy Program onto consumers because ISO-NE has not estimated what is being purchased, and that ISO-NE fails to define the requirement metric for fuel security reliability and then determine whether the Inventoried Energy Program is needed to meet this standard.<sup>75</sup> NECOS state that ISO-NE provides no quantitative analysis or other evidence substantiating a specific winter inventory in barrels of oil or MWh of stored fuel needed to provide reliability during the winter months, arguing that ISO’s proposal is unbounded, except for the proposed cap on energy deliverable from LNG contracts of 560,000 MWh.<sup>76</sup> New Hampshire Parties contend that ISO-NE’s concern that more thorough analysis would add too much complexity and consume too much time does not

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language such as “may improve,” “likely to provide,” “should decrease the likelihood,” and “may help to ameliorate”).

<sup>72</sup> NECOS Protest at 14 (citing Transmittal at 5).

<sup>73</sup> Clean Energy Advocates Deficiency Letter Response Comments at 2-4, 8-11.

<sup>74</sup> Massachusetts Attorney General Protest at 14-15; Maine PUC Protest at 7-8; NECOS Protest at 12; New Hampshire Parties Protest at 15-16. NRG also notes ISO-NE did not perform an analysis to estimate how much incremental fuel supply would have been obtained had the program been in place in one or more previous winters. NRG Deficiency Letter Response Comments at 5.

<sup>75</sup> Maine PUC Protest at 4, 7-8 (citing Motion to Intervene Out of Time and Comment of the ISO New England External Market Monitor at 9, filed on May 25, 2018, in Docket No. ER18-1509-000 (“Before designing a market mechanism to ensure fuel security, it is necessary to define a clear reliability requirement that the ISO seeks to satisfy by procuring resources”...and such a requirement “should be based on a probabilistic analysis of potential fuel supply contingencies and adopt the one-day-in-10-year standard employed in all other planning studies”).

<sup>76</sup> NECOS Protest at 12.



justify incurring unnecessary and unreasonable costs to procure far more energy security than in the past.<sup>77</sup>

44. In response, ISO-NE states that it prioritized simplicity and expedience in the program's development and that it was appropriate to forgo the complex and time-consuming development of a robust methodology to estimate the program's expected reliability benefits.<sup>78</sup> ISO-NE states that it would generally expect the most significant change in modifications to fuel storage practices and management from resources that may not maintain significant quantities of inventoried energy under the current market rules, including oil-only resources and dual-fuel (natural gas/oil) resources. ISO-NE notes that such resources may also include natural gas-only resources that choose to sign winter peaking natural gas contracts for vaporized LNG.<sup>79</sup>

45. In addition, NECOS states that its review of retirement delist bid submissions for recent FCAs (other than those of Mystic Units 8 and 9) provides no evidence that any of the types of resources included in ISO-NE's Inventoried Energy Program proposal are likely to be at risk of submitting retirement bids due to insufficient market revenues.<sup>80</sup> In response, ISO-NE states that there are up to 5,000 MW of coal and oil capacity at risk of retirement, which contributes to the region's winter energy security concerns.<sup>81</sup> ISO-NE reiterates that the program may meet its objective of improving the region's winter energy security even if it does not materially impact resource retirement decisions. ISO-NE states that it did not conduct any new energy security analyses to develop the Inventoried Energy Program, explaining that it relied on prior quantitative analyses of potential energy security issues associated with the winters of 2023-2024 and 2024-2025, including the OFSA, published by ISO-NE in January 2018.<sup>82</sup> ISO-NE states that, because it was important that participants understand the program in time to prevent irreversible retirement decisions, it was appropriate to forgo the complex and time-

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<sup>77</sup> New Hampshire Parties Protest at 15-16 (citing Transmittal at 6).

<sup>78</sup> ISO-NE Answer at 5.

<sup>79</sup> Deficiency Letter Response at 16.

<sup>80</sup> NECOS Protest at 15-16.

<sup>81</sup> ISO-NE Answer at 4 (citing ISO New England Inc. 2019 State of the Grid presentation, at slides 16 and 24, [https://www.iso-ne.com/static-assets/documents/2019/02/20190220\\_pr\\_state-of-the-grid\\_presentation\\_final.pdf](https://www.iso-ne.com/static-assets/documents/2019/02/20190220_pr_state-of-the-grid_presentation_final.pdf)).

<sup>82</sup> Deficiency Letter Response at 3, 3 n.8 (citing to the OFSA, [https://www.iso-ne.com/static-assets/documents/2018/01/20180117\\_operational\\_fuel-security\\_analysis.pdf](https://www.iso-ne.com/static-assets/documents/2018/01/20180117_operational_fuel-security_analysis.pdf)).

consuming development of a robust methodology to estimate the program's expected reliability benefits.<sup>83</sup>

46. Several commenters further assert that the Commission should not approve the Inventoried Energy Program because ISO-NE has not demonstrated that the costs are just and reasonable.<sup>84</sup> Clean Energy Advocates argue that the \$148 million per year in charges associated with the Inventoried Energy Program is not just and reasonable because ISO-NE has not demonstrated that the benefits justify the costs.<sup>85</sup> New Hampshire Parties argue that approximately \$41 million, or 35% of the estimated increase in consumer costs attributable to the program, would account for payments made to resources that provide no incremental reliability benefit.<sup>86</sup> Without an energy security needs assessment, New Hampshire Parties state that there is no way to know that the other 65% of costs associated with compensation to other resources is needed.

47. In Public Citizen's second protest, which was filed in this proceeding and Docket No. ER19-2312-000, Public Citizen asserts that, in Docket No. ER19-2312-000, ISO-NE has provided information as to the rates that will be charged under the Inventoried Energy Program.<sup>87</sup> Public Citizen contends that the filing in Docket No. ER19-2312-000 includes privileged submission of such Inventoried Energy Program rates and that under 18 C.F.R. § 388.112(b) (2019), interested intervenors must be able to access the rate data filed in Docket No. ER19-2312-000 as part of their right to evaluate rates filed in Docket No. ER19-1428-001 to ascertain whether they are just and reasonable.

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<sup>83</sup> Deficiency Letter Response at 4-5.

<sup>84</sup> Clean Energy Advocates Protest at 11; Massachusetts Attorney General Protest at 11-13; NECOS Protest at 13; New Hampshire Parties Protest at 10-11; Public Citizen April 15, 2019 Protest at 2-3; Vermont DPS Protest at 4. Public Citizen adds that programs that provide financial incentives to keep uneconomic coal and oil-fired power plants will result in increased greenhouse gas emissions and that ISO-NE provides no analysis on how it will negatively impact climate resilience.

<sup>85</sup> Clean Energy Advocates Protest at 12-13.

<sup>86</sup> New Hampshire Parties Protest at 11 (citing *Winter Energy Security: Interim Compensation Treatment Amendment, Energy New England*, Slide 12, NEPOOL Participants Committee Meeting, March 13, 2019, [https://www.iso-ne.com/staticassets/documents/2019/03/npc\\_20190313\\_composite4.pdf](https://www.iso-ne.com/staticassets/documents/2019/03/npc_20190313_composite4.pdf) (see PDF page 288)).

<sup>87</sup> Public Citizen July 17, 2019 Protest at 1-2 (citing Transmittal, Docket No. ER19-2312-000, at 5).

48. Further, several commenters argue that the program unfairly compensates resources that are unlikely to change behavior.<sup>88</sup> New Hampshire Parties argue that the Inventoried Energy Program is unjust and unreasonable because it would result in additional compensation being paid to certain resources (e.g., oil-fired, LNG-fired, nuclear, coal, biomass, and hydroelectric resources) to provide energy to the system that those resources already provide in the normal course of their operations in response to wholesale market prices. New Hampshire Parties ask the Commission to reject the ISO-NE proposal, unless it is reformed to provide compensation only to resources capable of providing incremental energy output to the system during cold winter periods, consistent with prior versions of the winter reliability program.<sup>89</sup> NECOS asserts that ISO-NE's previous winter reliability programs (in effect from 2014 through 2018) paid generating resources operated on oil and natural gas to secure firm winter fuel supplies and thereby provided load incremental benefits in terms of available energy.<sup>90</sup> Vermont DPS contends that including nuclear units increases costs to ratepayers for no change in operations during the proposed program period and for the highly speculative possibility that payments to nuclear resources could forestall their retirement.<sup>91</sup>

49. Some commenters also argue that there are less expensive alternatives, such as the previous winter reliability programs, and that the program lacks an analytical connection between the large increase in costs and an incremental improvement in regional fuel security.<sup>92</sup> NECOS and Massachusetts Attorney General point to a significantly lower cost of the previous winter reliability programs despite a similar objective to improve winter energy security.<sup>93</sup> However, ISO-NE disagrees with commenters who argue that

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<sup>88</sup> NECOS Protest at 13; New Hampshire Parties Protest at 10-11; Vermont DPS Protest at 4.

<sup>89</sup> New Hampshire Parties Protest at 2.

<sup>90</sup> NECOS notes that the Commission has previously rejected ISO-NE proposals to provide compensation to "types of resources eligible to participate in the program, [where] the record does not reflect that including the additional resource types . . . will incent any additional fuel procurement." NECOS Protest at 13 (citing *ISO New England Inc.*, 152 FERC ¶ 61,190, at P 47 (2015)).

<sup>91</sup> Vermont DPS Protest at 5. Vermont DPS notes that the Commission previously declined to accept ISO-NE's proposed expansion of eligible resources to include nuclear units in the 2015-2016 winter reliability program.

<sup>92</sup> Massachusetts Attorney General Protest at 11-13; NECOS Protest at 13; New Hampshire Parties Protest at 7-8; Vermont DPS Protest at 4;

<sup>93</sup> New Hampshire Parties Protest at 7.

ISO-NE should adopt a winter reliability program. ISO-NE asserts that, while the Inventoried Energy Program shares some of its goals with the previous winter reliability programs, its focus, approach, and design are entirely different.<sup>94</sup> In particular, ISO-NE notes that, unlike the winter reliability programs, the Inventoried Energy Program has a two-settlement design, forward component, inclusion of opportunity costs, and compensation for all resources that provide winter energy security. ISO-NE also states that the broadened eligibility of the Inventoried Energy Program is appropriate to provide similar compensation for similar service rather than to apply the program only to incremental fuel procurement as was done in the winter reliability programs. ISO-NE adds that the previous winter reliability programs were not intended to impact resource retirement decisions.<sup>95</sup>

50. Furthermore, commenters argue that the Inventoried Energy Program is not a market-based solution.<sup>96</sup> Massachusetts Attorney General asserts that the Inventoried Energy Program may not improve energy security, especially if market fundamentals change, the compensation rate becomes too low, and there is no demand-curve element to associate quantity with price.<sup>97</sup> NECOS states that the payment for the Inventoried Energy Program is neither a cost-based rate nor a market-based solution because it is product of multiple assumptions and derivations. New Hampshire Parties contend that the Inventoried Energy Program lacks conditions that encourage suppliers to compete to supply consumer demand and does not specify the consumer demand for energy security services.<sup>98</sup> Clean Energy Advocates asserts that sacrificing sound market design in the name of simplicity can only be warranted by strong evidence of urgency.<sup>99</sup>

51. ISO-NE responds that the fact that the program is not fully consistent with all market design principles does not render it unjust and unreasonable and that significant

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<sup>94</sup> ISO-NE Answer at 13-14.

<sup>95</sup> *Id.* at 16.

<sup>96</sup> Clean Energy Advocates Protest at 10-11; Exelon Comments at 3; Massachusetts Attorney General Protest at 1, 10-11, 16; NECOS protest at 13-14; New Hampshire Parties Protest at 16-17; Vermont DPS Protest at 4.

<sup>97</sup> Massachusetts Attorney General Protest at 1, 16, 10-11.

<sup>98</sup> NECOS Protest at 13-14; New Hampshire Parties Protest at 16-17.

<sup>99</sup> Clean Energy Advocates Protest at 10-11.

changes to the program would consume time better spent on developing the long-term market solution.<sup>100</sup>

**b. Rehearing Requests**

52. On rehearing, several parties reiterate the same arguments made in their underlying protests. For instance, Maine PUC, Massachusetts Attorney General, and NECOS assert that ISO-NE has not met its FPA section 205 burden to show that the proposal is just and reasonable.<sup>101</sup> NECOS asserts that it was erroneous for the Commission to accept a standard less exacting than the just and reasonable standard of FPA section 205 in allowing the rate to take effect because the rate is “interim” in nature.<sup>102</sup> Massachusetts Attorney General argues that there is no lesser burden for programs that are intended for a short duration.<sup>103</sup> Similarly, Maine PUC argues that the short-term nature of the Inventoried Energy Program does not excuse the absence of supporting evidence.<sup>104</sup> Clean Energy Advocates, Maine PUC, Massachusetts Attorney General, and NECOS also repeat arguments that ISO-NE has not demonstrated a need for the Inventoried Energy Program.<sup>105</sup> Several parties also reiterate that ISO-NE did not

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<sup>100</sup> ISO-NE Answer at 2.

<sup>101</sup> Massachusetts Attorney General Rehearing Request at 8, 24; Maine PUC Rehearing Request at 9-10; and NECOS Rehearing Request at 5.

<sup>102</sup> NECOS Rehearing Request at 5.

<sup>103</sup> Massachusetts Attorney General Rehearing Request at 24.

<sup>104</sup> Maine PUC Rehearing Request at 9-10.

<sup>105</sup> Clean Energy Advocates Rehearing Request at 10-11 (arguing that ISO-NE characterizes the Inventoried Energy Program as a “bridge to the full, market-based solution,” yet it has not demonstrated any actual need for an additional and costly interim policy for the 2023-2024 and 2024-2025 winters); Maine PUC Rehearing Request at 6 (asserting that the ISO-NE never explained why the Inventoried Energy Program is necessary or how identified fuel security concerns for the winters of 2023-2024 and 2024-2025 are not adequately addressed by the existing interim fuel security program approved in the December 3 Order); Massachusetts Attorney General Rehearing Request at 21-22 (stating that ISO-NE never determined how much inventoried energy will be needed during the 2023-2024 and 2024-2025 winters and thus has not done an assessment of the problem it seeks to resolve); NECOS Rehearing Request (asserting that ISO-NE has not demonstrated that a short-term non-market-based winter energy security program of any kind is needed before the long-term market-based solution take effect).

provide sufficient quantitative analyses to show that the proposal is just and reasonable.<sup>106</sup>

53. NECOS reiterates that the Commission erred in allowing a rate to go into effect that is neither market-based nor cost-based.<sup>107</sup> Specifically, NECOS states that, in the absence of a frame of reference in either cost or market forces sufficient to restrain pricing to just and reasonable levels, the Inventoried Energy Program lacks any basis for determining whether the rates and charges it produces are, and will remain, just and reasonable.<sup>108</sup> Clean Energy Advocates and NECOS also argue that approval of the Inventoried Energy Program is in contravention of the primary aim of the FPA, which is protecting consumers from “excessive rates and charges.”<sup>109</sup>

54. On rehearing, several parties reiterate that the Inventoried Energy Program is unjust and unreasonable because ISO-NE has failed to demonstrate that the program will benefit customers<sup>110</sup> or that the benefits of the program will justify its costs.<sup>111</sup>

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<sup>106</sup> Clean Energy Advocates Rehearing Request at 14 (asserting that ISO-NE did not attempt to quantify the benefits of broadly increasing stores of inventoried energy or claim that its existing interim cost-of-service recovery mechanism will fail to retain resources deemed necessary for fuel security for the 2023-2024 and 2024-2025 delivery years); Maine PUC Rehearing Request at 7-8 (arguing that, without any analysis of the additional level of reliability achieved by the Inventoried Energy Program, there is no basis for a determination that the program is just and reasonable); NECOS Rehearing Request at 10-11 (arguing that, in contrast to earlier ISO-NE winter reliability programs, the Inventoried Energy Program is not supported by quantitative analysis substantiating a specific winter inventory needed to provide reliability during the winter months).

<sup>107</sup> NECOS Rehearing Request at 4-5, 13.

<sup>108</sup> *Id.* at 13.

<sup>109</sup> Clean Energy Advocates Rehearing Request at 15 (citing *Xcel Energy Servs., Inc. v. FERC*, 815 F.3d 947, 952 (D.C. Cir. 2016); *Pennsylvania Power Co. v. FPC*, 343 U.S. 414, 418 (1952)); NECOS Rehearing Request at 14 (arguing that the Inventoried Energy Program is plainly indifferent to consumer protection) (citing *Xcel Energy Svcs., Inc. v. FERC*, 815 F.3d at 952; *Pennsylvania Power Co. v. FPC*, 343 U.S. at 418; *NAACP v. FPC*, 520 F.2d 432, 438 (D.C. Cir. 1975)).

<sup>110</sup> Massachusetts Attorney General Rehearing Request at 8-16, 27; NECOS Rehearing Request at 16.

<sup>111</sup> Clean Energy Advocates Rehearing Request at 10-15 (arguing that ISO-NE did not adduce substantial evidence that the Inventoried Energy Program will yield energy security benefits justifying the significant costs it will impose on New England

Specifically, Massachusetts Attorney General claims that the record shows that at least one third of the anticipated costs will achieve no incremental customer benefit.<sup>112</sup>

55. Several parties also reassert that the program unfairly compensates resources that are unlikely to change behavior.<sup>113</sup> NECOS reiterates that: (1) the Commission's long-standing policy is that incentives must be prospective and reasonably calibrated to the behavior that the incentive sought to induce; and (2) the Inventoried Energy Program fails to satisfy the calibration prong of the applicable standard.<sup>114</sup>

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consumers and that it is incorrect to rely on the ongoing FPA section 206 proceeding on winter fuel security to justify the interim payments); Massachusetts Attorney General Rehearing Request at 16-23 (arguing that ISO-NE provided an upper bound of \$148 million for what it describes as an "indicative" price for the Inventoried Energy Program, but that actual program costs could fall above or below the upper and lower bound estimates, and the information is too sparse and unreliable for the Commission to determine the actual cost of the program); NECOS Rehearing Request at 9-10 (arguing that the Inventoried Energy Program will add approximately five mills (\$0.005) per kWh in each hour that it operates and that, in the absence of any demonstration of incremental value realized as a result of the substantial expenditures of the Inventoried Energy Program, the proposed Inventoried Energy Program fails to satisfy the just and reasonable standard). Massachusetts Attorney General also argues that the Inventoried Energy Program is more costly than necessary to achieve the winter reliability benefits ISO-NE seeks and that the costs could be reduced by removing non-gas and non-oil resources from the program. Massachusetts Attorney General Rehearing Request at 18-19.

<sup>112</sup> Massachusetts Attorney General Rehearing Request at 24-25 (citing NECOS Protest at 11 which estimated \$50.7 million per year in Inventoried Energy Program payments to nuclear, coal, biomass and hydro resources).

<sup>113</sup> *Id.* at 11-15 (arguing that ISO-NE did not show that the Inventoried Energy Program will incent resources to retain more inventoried energy than they did under pre-Inventoried Energy Program rules); New Hampshire Parties Rehearing Request at 14, 16 (arguing that the Inventoried Energy Program would result in additional compensation being paid to resources to provide energy that those resources already provide in the normal course of their operations); NECOS Rehearing Request at 11-12 (arguing that there is no evidence that the inclusion of nuclear, hydro, coal or biomass will result in these resource types providing additional fuel security during the subject winter program months).

<sup>114</sup> NECOS also contends that, where the Commission does allow the use of an incentive to summon additional market response, "it must see to it that the increase is in

56. Massachusetts Attorney General, NECOS, and New Hampshire Parties argue on rehearing that approval of the Inventoried Energy Program is inconsistent with the Commission's findings in its prior decision in the "jump ball" proceeding that resulted in approval of the winter reliability program.<sup>115</sup> Massachusetts Attorney General claims that, in that proceeding, the Commission was clear that fuel security payments to coal, nuclear, and hydro resources will not result in additional winter reliability benefits.<sup>116</sup>

**c. Determination**

57. As explained above, we find that the Inventoried Energy Program is a reasonable short-term solution to compensating in a technology-neutral manner resources that provide fuel security. The interim nature of the program does not relieve ISO-NE of the need to demonstrate that the Inventoried Energy Program is just and reasonable, and we find that ISO-NE has done so.

58. Regarding arguments that ISO-NE has not demonstrated a need for the Inventoried Energy Program or program benefits, we find that a detailed cost-benefit analysis is not required for the Commission to find proposed Tariff provisions just and reasonable. The Commission does not "generally require the mathematical specificity of a cost-benefit analysis" to find a proposal just and reasonable.<sup>117</sup> Here, we find that ISO-NE's proposal to compensate fuel-secure resources is a reasonable short-term measure, which will likely provide reliability benefits, such as incenting up to 1.8 million MWh of inventoried energy to be available during stressed winter conditions, in light of the fuel security concerns presented in the OFSA and noted by the Commission in the July 2 Order.

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fact needed, and is no more than is needed, for the purpose." NECOS Rehearing Request at 14 (citing *Farmers Union Cent. Exch. v. FERC*, 734 F.2d 1486, 1503 (D.C. Cir. 1984) (quoting *City of Detroit v. FPC*, 230 F.2d 810, 817 (D.C. Cir. 1955)); *San Antonio v. United States*, 631 F.2d 831, 851-852 (D.C. Cir. 1980)).

<sup>115</sup> Massachusetts Attorney General Rehearing Request at 27-28; NECOS Rehearing Request at 11; New Hampshire Parties Rehearing Request at 15 (citing *ISO New England, Inc.*, 152 FERC ¶ 61,190 at P 47, *order on reh'g*, 154 FERC ¶ 61,133, at P 13 (2016)).

<sup>116</sup> Massachusetts Attorney General Rehearing Request at 27-28.

<sup>117</sup> *PJM Interconnection, L.L.C.*, 151 FERC ¶ 61,208, at P 49, *order denying clarification*, 152 FERC ¶ 61,064 (2015), *order on reh'g*, 155 FERC ¶ 61,157, *order denying rehearing*, 162 FERC ¶ 61,047 (2016), *petition for review denied sub nom. Advanced Energy Management Alliance v. FERC*, 860 F.3d 656 (D.C. Cir. 2017).



59. Furthermore, although parties argue that the Commission has no authority to accept interim solutions proposed by applicants under FPA section 205, we disagree. The Commission has previously acknowledged that, when addressing problems, sometimes an interim solution is appropriate and has accepted interim solutions.<sup>118</sup>

60. In addition, Clean Energy Advocates aver that the short-term outlook for winter energy security in ISO-NE has improved since the July 2 Order, but they do not explain how these improvements address the misaligned incentives problem that ISO-NE identifies as responsible for fuel security issues in New England. Further, while the Commission did not require that ISO-NE file an interim program in addition to the short-term, fuel security cost-of-service Tariff provisions, ISO-NE is within its rights under FPA section 205 to do so.

61. In response to arguments that de-list bids from recent FCAs provide no evidence that any of the types of resources included in ISO-NE's Inventoried Energy Program proposal are likely to be at risk of submitting retirement bids, de-list bid submissions for recent FCAs are not necessarily indicative of retirement risk in future FCAs. ISO-NE has highlighted that up to 5,000 MW of coal and oil capacity is at risk of retirement, which contributes to the existing winter energy security concerns in the New England region. As ISO-NE has described, the Inventoried Energy Program may both deter such retirements and create stronger incentives for existing resources not at risk of retirement to take actions that increase the likelihood that they have inventoried energy during periods of system stress.<sup>119</sup>

62. We disagree with the argument that the Inventoried Energy Program unfairly compensates resources that are unlikely to be incentivized to change behavior or provide a reliability benefit. Instead, we find that it is just and reasonable to provide similar compensation for similar service. As ISO-NE explains, the Commission intentionally limited the eligibility of the previous winter reliability programs because those programs were specifically aimed at incremental fuel procurement.<sup>120</sup> In contrast, the Inventoried Energy Program is aimed at compensating resources for a specific reliability attribute for which they are not currently compensated to address the misaligned incentives problem

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<sup>118</sup> See *Southwest Power Pool*, 109 FERC ¶ 61,008, at P 28 (2004) (accepting proposed joint operating agreement as interim solution to Southwest Power Pool's status as Regional Transmission Organization); see also *California Indep. Sys. Operator Corp.*, 155 FERC ¶ 61,224, at P 82 (accepting proposed tariff revision as "reasonable interim solution[] to address the reliability risk posed by the limited availability of Aliso Canyon"), *order on clarification and compliance*, 156 FERC ¶ 61,135 (2016).

<sup>119</sup> ISO-NE Answer at 4.

<sup>120</sup> See *ISO New England Inc.*, 154 FERC ¶ 61,133 at P 12.

that ISO-NE identified. Unlike the winter reliability programs, the Inventoried Energy Program includes a forward component that will allow resources to account for the program's revenue in making retirement and other de-list bid decisions. Accordingly, we find it just and reasonable for the program to allow broader eligibility. Moreover, we disagree with NECOS that approval of the Inventoried Energy Program is problematic because the incentives are not "reasonably calibrated to the behavior sought to be induced by the incentives."<sup>121</sup> As we note above, we agree with ISO-NE that the current market design contains a misaligned incentives problem,<sup>122</sup> such that fuel secure resources may not be sufficiently incented to make additional investments in energy supply arrangements, which may have adverse efficiency and reliability consequences under the existing market rules.<sup>123</sup> However, we find that, by providing additional compensation to fuel secure resources, the Inventoried Energy Program is a short-term solution that helps address the misaligned incentives problem that currently exists in the Tariff.

63. Further, we disagree with NECOS' assertion that the Inventoried Energy Program is neither market-based nor cost-based and, as such, cannot be deemed just and reasonable. By setting a fixed forward rate based on a winter peaking supply contract for LNG, ISO-NE estimated the minimum value that would incent program participation from a natural gas-only resource, thereby approximating the price that would occur if inventoried energy was competitively procured through a market-based mechanism where a natural gas-only resource was the marginal resource that established the price paid to all resources providing the service.<sup>124</sup> In this way, ISO-NE effectively establishes a horizontal demand curve for inventoried energy, which is one market-based approach. We recognize that it is possible that other approaches may have been more consistent with all market design principles. However, we agree with ISO-NE that finding the Inventoried Energy Program just and reasonable does not require the program to be fully consistent with all market design principles. We agree with ISO-NE that it was reasonable to forgo an assessment of the quantity of inventoried energy that would be optimal to estimate demand or to provide an objective metric. While ISO-NE did not perform an analysis to estimate demand, ISO-NE did establish a maximum duration parameter of 72 hours to effectively cap the quantity of inventoried energy that each resource can provide, consistent with ISO-NE's operational experience during the cold

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<sup>121</sup> NECOS Rehearing Request at 14.

<sup>122</sup> ISO-NE Answer at 7 (citing Energy Security Improvements Discussion Paper at 11).

<sup>123</sup> See *supra* PP 33-34.

<sup>124</sup> Geissler Testimony at 22-23.

spell in the winter of 2017-2018 when ISO-NE took action to conserve energy inventories by reducing the output of certain units for up to three consecutive days.

64. Similarly, in response to arguments about the program being unbounded in terms of compensation, we find that ISO-NE's proposal reasonably establishes the forward rate and provides a maximum duration parameter, which effectively limits the quantity of inventoried energy that ISO-NE may procure under this program. In this way, the program protects customers from excessive rates and charges. We disagree with Massachusetts Attorney General that participation only in the spot market would increase the program's direct costs, assuming New England experiences 10 Inventoried Energy Days.<sup>125</sup> If New England actually experiences either fewer or more than 10 Inventoried Energy Days, resources participating in the spot program would receive less or more revenue from the program, respectively, than they otherwise would have received from participating in the forward market. Thus, we find that ISO-NE's methodology to quantify the potential program's direct costs is reasonable.

65. Contrary to Public Citizen's view, ISO-NE's filing in Docket No. ER19-2312-000 is not pertinent to our analysis of the Inventoried Energy Program. In that filing, the IMM provided its review of certain de-list bids submitted for the next FCA to determine whether those bids meet the requirements of the Tariff. The filing includes the IMM's consideration of those bids under two assumptions: whether the Inventoried Energy Program is, or is not, accepted by the Commission. ISO-NE's filing in Docket No. ER19-2312-000 does not provide actual "Inventoried Energy Program rates" but rather simply an estimate of program revenues for purposes of FCA mitigation.

66. We are not persuaded by arguments that the Commission should consider other alternatives. The Commission is required only to assess whether a proposal is just and reasonable, not whether it is more just and reasonable than other proposals.<sup>126</sup> Although the Inventoried Energy Program shares some of its goals with the previous winter reliability programs, its focus, approach, and design are different.<sup>127</sup> Having found ISO-NE's proposal to be just and reasonable, the Commission is not required to consider

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<sup>125</sup> Massachusetts Attorney General Rehearing Request at 18.

<sup>126</sup> *Cities of Bethany v. FERC*, 727 F.2d 1131, 1136 (D.C. Cir. 1984); *Louisville Gas & Elec. Co.*, 114 FERC ¶ 61,282, at P 29, *reh'g denied*, *E. ON U.S. LLC*, 116 FERC ¶ 61,020 (2006).

<sup>127</sup> ISO-NE Answer at 14.

whether alternative proposals are superior.<sup>128</sup> Accordingly, we find comparisons to ISO-NE's previous winter reliability programs unpersuasive.

### **3. Clarification of "No Limits" Tariff Language**

#### **a. Comments and Protests**

67. Some commenters support the Inventoried Energy Program conditioned on clarification or other Commission action. Repsol and Vistra express concerns about the proposed "no limitations" language.<sup>129</sup> Repsol requests that ISO-NE clarify the Tariff language contained in revised Section III.K.1(a)(iii) that requires "no limitations" on when natural gas can be called. Repsol argues that this requirement might be misunderstood to disqualify any contract that includes a nomination deadline. Repsol requests that ISO-NE state that the proposed language does not prevent qualifying contracts from including nomination deadlines to prevent a literal reading of the requirements from leading to the exclusion of all natural gas delivered via pipeline.<sup>130</sup>

68. In its answer, ISO-NE states that a nomination deadline or other restrictions on scheduling of natural gas in the natural gas contract could make it impossible for a participating resource to actually call the natural gas when needed and, therefore, such contracts are excluded in the Inventoried Energy Program.<sup>131</sup> According to ISO-NE, requiring natural gas supply contracts to have no limitations on when natural gas can be called during the day ensures that, like other fuel types, this inventory can be converted to electric energy at ISO-NE's direction.<sup>132</sup>

69. In its comments to the Deficiency Letter Response, Vistra states that: (1) the "no limitations" qualification imposed on natural gas resources is vague; and (2) ISO-NE did not address questions regarding the "no limitations" language in the Deficiency Letter Response. Despite its support for the program, Vistra asserts that a possible interpretation of the "no limitations" language could restrict eligibility to natural gas contracts that include no-notice service, which may not be commercially available in the region. Although Vistra is confident that the "no limitations" qualification will be fully resolved with the implementation of the Inventoried Energy Program, Vistra asks the

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<sup>128</sup> See, e.g., *Cal. Indep. Sys. Operator Corp.*, 128 FERC ¶ 61,265, at P 21 (2009).

<sup>129</sup> Repsol Comments at 3; Vistra Deficiency Letter Response Comments at 4-6.

<sup>130</sup> Repsol Comments at 3.

<sup>131</sup> ISO-NE Answer at 28-29 (citing Repsol Comments at 3).

<sup>132</sup> Deficiency Letter Response at 14.

Commission to direct ISO-NE to include only natural-gas resources that have sufficient firm supply and transportation arrangements.<sup>133</sup>

**b. Determination**

70. We find that no additional clarification of the proposed natural gas eligibility requirements is necessary. As ISO-NE explains, requiring that natural gas supply contracts have no limitations on when natural gas can be called during the day ensures that natural gas, like other eligible fuel types, can be converted to electric energy at ISO-NE's direction.<sup>134</sup> We thus find that this requirement is consistent with ISO-NE's proposal that resources participating in the Inventoried Energy Program must be able to convert the inventoried energy into electric energy at ISO-NE's direction during periods of system stress, which ensures that these resources can help further winter energy security and improve reliability. Further, as discussed more fully below, ISO-NE states that contracts for the delivery of vaporized LNG that meet the requirements specified in the proposed Tariff language are commercially available.<sup>135</sup>

**4. Replacement of Mystic Fuel Security Cost-of-Service Agreement or Fuel Security Cost-of-Service Tariff Provisions**

**a. Comments and Protests**

71. Verso supports the Inventoried Energy Program on the condition that the Inventoried Energy Program replace the second year of the Mystic Units 8 and 9 fuel security agreement (i.e., in FCA 14).<sup>136</sup> Verso contends that the fuel security cost-of-service agreement between Mystic and ISO-NE filed in Docket No. ER19-1164-000 would permit ISO-NE to revoke the fuel security agreement. Verso believes that the Inventoried Energy Program has more positive attributes when compared to the fuel security cost-of-service agreement to retain Mystic Units 8 and 9 and that the program is sufficiently robust to serve as a substitute for Mystic Units 8 and 9 during FCA 14.<sup>137</sup> Therefore, Verso requests that the Commission determine: (1) the level of participation in the Inventoried Energy Program that would negate the need for Mystic Units 8 and 9

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<sup>133</sup> Vistra Deficiency Letter Response Comments at 4-6.

<sup>134</sup> Deficiency Letter Response at 14 (citing ISO-NE Answer at 28-29).

<sup>135</sup> *Id.* at 13.

<sup>136</sup> Verso Comments at 2-3.

<sup>137</sup> *Id.* at 4.

during FCA 14; and (2) direct ISO-NE to make revisions to the proposal that would ensure that level of participation.<sup>138</sup>

72. Similarly, NEPGA does not protest the Inventoried Energy Program but requests that the Commission find that the Tariff revisions allowing for a fuel security cost-of-service agreement for FCA 14 are unjust and unreasonable under the Inventoried Energy Program or otherwise. NEPGA states that a fuel security cost-of-service agreement and Inventoried Energy Program serve the same purpose. NEPGA argues that the program renders unjust and unreasonable the Tariff provisions allowing for a fuel security cost-of-service agreement because the fuel security cost-of-service agreement: (1) serves as an alternative design to meet the same goal; (2) exacerbates the missing money problem the Inventoried Energy Program is designed to solve; (3) becomes unduly discriminatory because a resource seeking to retire will potentially receive a higher rate through a fuel security cost-of-service agreement than it would under the Inventoried Energy Program; and (4) incents resources to pursue the higher rate associated with a fuel security cost-of-service agreement, which requires resources to retire at the end of the agreement.<sup>139</sup>

73. In response, ISO-NE asserts that the Commission should reject arguments that require market rule changes that contravene recent Commission orders as beyond the scope of the proceeding.<sup>140</sup> ISO-NE states that the Inventoried Energy Program does not obviate the need for the fuel security cost-of-service Tariff provisions and is not intended to act as a replacement of the Mystic Units 8 and 9 fuel security cost-of-service agreement in FCA 14.<sup>141</sup> ISO-NE contends that the Commission should reject these arguments for the same reasons provided in the December 3 Order.<sup>142</sup>

**b. Determination**

74. We find that arguments calling to replace the second year of the Mystic fuel security cost-of-service agreement or that the Tariff provisions providing for a fuel security cost-of-service agreement are unjust and unreasonable are beyond the scope of this proceeding. As discussed in the following section, ISO-NE submitted its proposed Inventoried Energy Program under FPA section 205 independent of the other Tariff

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<sup>138</sup> *Id.* at 4; Verso Deficiency Letter Response Comments at 1-2, 9.

<sup>139</sup> NEPGA Protest at 1-2, 13-14.

<sup>140</sup> ISO-NE Answer at 26, 27 (citing NEPGA Protest at 4 and 9; Verso Comments at 3-4).

<sup>141</sup> ISO-NE Answer at 28.

<sup>142</sup> *Id.* at 27 (citing December 3 Order, 165 FERC ¶ 61,202 at P 82).

provisions concerning fuel security related to the retention of Mystic Units 8 and 9. For the same reason, we disagree with Verso that ISO-NE needs to determine the level of participation in the Inventoried Energy Program that would have an impact on the need for Mystic Units 8 and 9 in the future or revise the proposal to ensure a certain level of participation.

## 5. Undue Discrimination

### a. Comments and Protests

75. Massachusetts Attorney General and Clean Energy Advocates contend that the Inventoried Energy Program is unduly discriminatory because it provides no direct compensation to some resources that provide winter energy security (e.g., wind and solar resources and natural gas plants without firm pipeline capacity) and that ISO-NE should focus on outputs (i.e., MWh) rather than inputs (i.e., fuel).<sup>143</sup> Specifically, Clean Energy Advocates state that ISO-NE defines eligible resources in a way that excludes solar and wind resources. Clean Energy Advocates argue that every additional MWh generated by a wind or solar resource is energy that no longer needs to be produced by burning imported natural gas and alleviates the drawdown of the region's fuel supplies. Clean Energy Advocates add that offshore wind could have replaced a significant percentage of the natural gas used during the cold spell of December 2017-January 2018.<sup>144</sup> Clean Energy Advocates states that, during the stakeholder process, RENEW Northeast proposed amendments to the NEPOOL Markets Committee to address the exclusion of renewable resources, which would have extended compensation to resources including renewable resources that provide energy on trigger days.<sup>145</sup> NRG argues that the Inventoried Energy Program is unduly discriminatory because the compensation offered to program participants is significantly lower than the compensation provided to other fuel security providers in New England under a fuel security cost-of-service agreement.<sup>146</sup>

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<sup>143</sup> Clean Energy Advocates Protest at 1, 7; Massachusetts Attorney General Protest at 15.

<sup>144</sup> Clean Energy Advocates Protest at 14-15.

<sup>145</sup> *Id.* at 16.

<sup>146</sup> NRG Protest at 22-23. NRG states that the Commission recently approved a payment amounting to up to \$3,077/MWh for the fuel security provided by Mystic Units 8 and 9, compared to the \$82.49/MWh ISO-NE proposes here.

76. In its answer, ISO-NE contends that the Inventoried Energy Program should not be expanded to include resources that cannot provide inventoried energy.<sup>147</sup> ISO-NE argues that it is appropriate and in no way discriminatory that suppliers not providing this reliability attribute are not directly compensated under the program. ISO-NE argues that, under Clean Energy Advocates' proposal, a resource with no inventoried energy would effectively be paid a higher rate than a resource with inventoried energy for each MWh of electric energy produced on inventoried energy days, which would be inconsistent with the Inventoried Energy Program's objective of providing similar compensation for similar service, would be inefficient, and could worsen the region's winter energy security. ISO-NE adds that ineligible resources will nonetheless benefit from the program through increased energy market prices (i.e., increased compensation for the energy they provide during periods when other resources are preserving energy inventories).<sup>148</sup>

**b. Rehearing Request**

77. On rehearing, Clean Energy Advocates and Massachusetts Attorney General reiterate that the Inventoried Energy Program is unduly discriminatory and preferential because it arbitrarily excludes most renewable resources.<sup>149</sup> Massachusetts Attorney General argues that the Commission lacks the evidence to determine that the program is not unduly discriminatory.<sup>150</sup> Clean Energy Advocates again assert that ISO-NE ignored amendments proposed by stakeholders that they allege could have ameliorated the discriminatory and preferential flaws of the Inventoried Energy Program.<sup>151</sup>

**c. Determination**

78. We find that the Inventoried Energy Program is not unduly discriminatory or preferential. We agree with ISO-NE that it is not unduly discriminatory that suppliers incapable of providing inventoried energy are not directly compensated under the program, as such an approach would undermine the intent of the program. Further, we disagree with arguments that the program is unduly discriminatory because the compensation offered to participants is significantly lower than it is for other resources in

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<sup>147</sup> ISO-NE Answer at 18-23 (citing Clean Energy Advocates Protest at 13, 16).

<sup>148</sup> ISO-NE Answer at 19-20.

<sup>149</sup> Clean Energy Advocates Rehearing Request at 16-20; Massachusetts Attorney General Rehearing Request at 5, 26-27.

<sup>150</sup> Massachusetts Attorney General Rehearing Request at 27.

<sup>151</sup> Clean Energy Advocates Rehearing Request at 18-19.



New England retained under a fuel security cost-of-service agreement. Although improving fuel security is the goal under each approach, the Inventoried Energy Program participants and resources retained under a fuel security cost-of-service agreement are not similarly situated. In the proposed Inventoried Energy Program, resources voluntarily participate in the market construct, whereas resources retained under a fuel security cost-of-service agreement do so pursuant to specific criteria, under limited circumstances, and are required to retire once the fuel security cost-of-service agreement expires. Thus, we disagree that the Commission lacks sufficient evidence to determine that the Inventoried Energy Program is not unduly discriminatory.

79. Finally, while stakeholders proposed amendments to the Inventoried Energy Program, those amendments did not receive the requisite votes in the stakeholder process, and they are not before us in this proceeding. Thus, discussion of the merits of those amendments is outside the scope of this proceeding.

## **6. Incenting Natural Gas Resource Participation**

### **a. Comments and Protests**

80. Several commenters assert that ISO-NE incorporates flawed assumptions about the availability of fuel and transportation rights. Exelon states that the forward rate is likely too low to incent an LNG supplier to enter into an LNG call option contract because it does not reflect certain LNG supplier costs (e.g., firm transportation costs and the risk associated with tank management) and is based on an unrealistic assumption that a generator will always be able to exercise its options to maximize total profits.<sup>152</sup> Similarly, NRG states that ISO-NE has not demonstrated that either the incremental commodity or transportation service needed to support the Inventoried Energy Program is available in meaningful quantities at any price, no less the modest program price.<sup>153</sup> NRG also argues that the forward rate is too low because ISO-NE erred in basing its proposed pricing on hypothetical LNG contracts rather than considering the prices that are being paid to forestall the potential retirement of and secure fuel security services from other units in ISO-NE.

81. In response, ISO-NE contends that the forward rate is consistent with actual fuel contracts.<sup>154</sup> Although ISO-NE states that the precise quantity of inventoried energy that

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<sup>152</sup> Exelon Comments at 4.

<sup>153</sup> NRG Protest at 24.

<sup>154</sup> ISO-NE Answer at 9 (citing Exelon Comments at 4).

is deliverable via natural gas contracts is uncertain, it argues that LNG terminals can serve the region, and the program may incent other types of supplies.<sup>155</sup>

82. ISO-NE states that the Inventoried Energy Program's forward rate was calculated so that, if the modeling assumptions hold, a representative natural gas-only resource that signs a winter peaking contract for vaporized LNG and that sells inventoried energy forward via the program would expect to fully recover the contract costs. ISO-NE adds that, by "breaking even," such a resource is no worse off by signing such a contract and participating in the program. ISO-NE states that this calculation assumes that the representative resource converts natural gas to electric energy at a heat rate of 7.8 MMBtu/MWh, which is representative of New England's natural gas fleet, and for natural gas-only resources that can convert natural gas to electric energy more efficiently than this representative unit (and that therefore have a lower heat rate), the "break-even" forward rate would be lower, and such resources would generally earn positive expected net revenues from participating in the program.<sup>156</sup>

83. ISO-NE adds that the forward settlement rate was calculated based on the expected net revenues that a natural gas resource may receive if it were to sign a 10-day winter peaking contract for vaporized LNG for the December through February program period. ISO-NE explains that this contract includes a reservation price of \$11.67 per MMBtu associated with the maximum quantity of natural gas that can be bought via the contract and a commodity ("strike") price of \$10.00 that is paid for each MMBtu of natural gas that is bought. ISO-NE notes that, although such contractual arrangements are typically not public or shared with ISO-NE, ISO-NE's consultant, Dr. Schatzki, indicated that these contract terms to estimate the forward settlement rate are indeed available and consistent with those he has observed and those in the public domain.<sup>157</sup>

84. Further, ISO-NE states that its consultant did not conduct a specific analysis evaluating the costs associated with signing a contract for firm transportation on natural gas pipelines that are not sourced from LNG. ISO-NE states, however, that it expects that the most economic contract for most natural gas-only resources that seek to sign a natural gas contract in order to sell inventoried energy is a peaking contract sourced from LNG. ISO-NE acknowledges that it is possible that some resources that use natural gas will choose to maintain inventoried energy via a contract for firm transport of natural gas

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<sup>155</sup> *Id.* at 11.

<sup>156</sup> Deficiency Letter Response at 5, 5 nn.13-14 (citing Geissler Testimony at 22-23; Testimony of Todd Schatzki, Attachment to Transmittal (Schatzki Testimony) at 3; Attachment B to Schatzki Testimony at 4).

<sup>157</sup> Deficiency Letter Response at 6, 6 n.16 (citing Schatzki Testimony at 5).

that is not sourced from LNG. ISO-NE notes that, because such contracts would increase the region's inventoried energy, they would also be credited under the program.<sup>158</sup>

**b. Rehearing Requests**

85. On rehearing, Massachusetts Attorney General contends that it is unclear whether inventoried energy payments will incent natural gas generators to enter into LNG contracts, particularly because the forward rate is a “break-even” rate that does not include expected profit.<sup>159</sup>

**c. Determination**

86. We find that ISO-NE's assumptions for calculating the forward rate are reasonable, and we disagree that the forward rate is too low. To establish the forward rate, ISO-NE conducted a Monte Carlo analysis to estimate the cost of a reference contract for a natural gas unit with a representative heat rate for ISO-NE's fleet. We find that the forward rate is a reasonable proxy because ISO-NE's analysis is based on historical natural gas prices, the terms of a commercially available contract, and an estimated number of Inventoried Energy Days based on historical temperature data. We find that the process and the assumptions ISO-NE used in developing the forward rate were reasonable and agree that the forward rate is sufficient to address the misaligned incentives issue to ameliorate fuel security concerns in the relevant delivery years. We note that, for natural gas resources that have a lower heat rate than ISO-NE's representative unit, the break-even forward rate would be lower than the program's forward rate, thereby providing additional economic incentive for these resources to participate.<sup>160</sup> Although there may be alternative analyses that result in higher or lower forward rates, ISO-NE's burden is only to demonstrate that its proposed rate is just and reasonable.

87. We also find that ISO-NE's proposal allows eligible contracts to take several different forms and that eligible contracts do not need to be identical to the specific winter peaking natural gas contract that ISO-NE used as a reference.<sup>161</sup> Further, while ISO-NE's assumptions regarding available contracts are reasonable—and used for purposes of estimating the break-even rate that would incent a natural gas-only resource to sign a winter peaking contract for vaporized LNG—other contractual arrangements for

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<sup>158</sup> *Id.* at 7.

<sup>159</sup> Massachusetts Attorney General Rehearing Request at 14-15.

<sup>160</sup> *See* Deficiency Letter Response at 5-6.

<sup>161</sup> *Id.* at 14.

natural gas would also qualify under the program.<sup>162</sup> In addition, as discussed above, such qualifying natural gas contracts must meet ISO-NE's eligibility requirements, which specify the type of service that ISO-NE requires to allow the resource to be called during the day to ensure that, like other fuel types, this inventory can be converted to electric energy at ISO-NE's direction.<sup>163</sup>

## 7. Deterring Retirements

### a. Comments and Protests

88. Some commenters argue that ISO-NE failed to provide credible evidence to support the view that the Inventoried Energy Program would deter energy-secure resources from pursuing retirement.<sup>164</sup> New Hampshire Parties note that ISO-NE never explicitly claims that the proposed compensation will deter any generator from retiring and did not apply a numerical value to quantify a reduction in retirements.<sup>165</sup> NRG argues that allowing for lower bids in the capacity market will simply reduce capacity market prices even further and potentially hasten retirements by resources unable to access new revenue streams.<sup>166</sup>

89. Clean Energy Advocates and Massachusetts Attorney General agree that energy and capacity market revenues play a greater role in retirement decisions than potential

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<sup>162</sup> As ISO-NE stated, "each Market Participant will make its own decision regarding...what sort of arrangements to make to maintain inventoried energy as needed. These decisions will be based on myriad resource-specific criteria and commercial considerations. It is possible that some resources that use natural gas will choose to maintain inventoried energy via a contract for firm transport of natural gas that is not sourced from LNG, and regardless of likelihood, it would not be desirable or appropriate to exclude such contracts." *Id.* at 7.

<sup>163</sup> *Id.* at 14.

<sup>164</sup> Clean Energy Advocates Protest at 11-12; Massachusetts Attorney General Answer at 2-6; Massachusetts Attorney General Protest at 7-9; NECOS Protest at 12; NRG Protest at 8; New Hampshire Parties Protest at 8-10.

<sup>165</sup> New Hampshire Parties Protest at 8-9.

<sup>166</sup> Testimony of Tanya L. Bodell, Attachment to NRG Protest at 29 (Bodell Testimony).

inventoried energy payments.<sup>167</sup> Massachusetts Attorney General contends that the incremental compensation provided by the program is so modest and short-term that other factors are more likely to drive retirement decisions.<sup>168</sup> Massachusetts Attorney General and NECOS agree that generators will likely take a “wait-and-see” approach on ISO-NE’s proposed long-term plan rather than make a quick decision to retire based on two years of incremental revenue.<sup>169</sup> Massachusetts Attorney General also argues that, if ISO-NE thought the program was necessary for resources making retirement decisions in FCA 14, ISO-NE would have filed the proposed program earlier, instead of submitting it to the Commission after the March 15, 2019 deadline to submit retirement de-list and permanent de-list bids for FCA 14.<sup>170</sup> NECOS adds that, although ISO-NE describes the Inventoried Energy Program as a way to prevent suppliers from retiring, the program simply spreads unjustified levels of revenue broadly across various types of generating resources.

90. ISO-NE addresses concerns that the forward settlement rate of \$82.49/MWh may not be high enough to impact retirement decisions by noting that a profit-maximizing market participant will expect to earn an additional \$0.50/kW-month in net revenues by participating in the Inventoried Energy Program.<sup>171</sup> ISO-NE contends that this expectation holds true whether the Inventoried Energy Program revenue represents a relatively small or large portion of the resource’s total gross revenues.<sup>172</sup> In response to NRG’s argument that the region may experience more retirements as a result of the program, ISO-NE asserts that, although lower capacity prices could occur, the region

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<sup>167</sup> Clean Energy Advocates Protest at 11-12; Massachusetts Attorney General Protest at 7-8.

<sup>168</sup> Massachusetts Attorney General Protest at 7-8. Massachusetts Attorney General estimates that the Inventoried Energy Program would only increase annual revenues for baseload units such as nuclear by an average of 1.8% and increase revenues for seasonal resources such as coal and oil by an average of seven percent (with a range from 1-20 percent).

<sup>169</sup> Massachusetts Attorney General Protest at 8-9; NECOS Protest at 12.

<sup>170</sup> Massachusetts Attorney General Protest at 9.

<sup>171</sup> ISO-NE Answer at 8.

<sup>172</sup> *Id.* at 9.

would experience fewer retirements due to the downward sloping demand curve, not more.<sup>173</sup>

91. In its answer, Massachusetts Attorney General contends that ISO-NE does not respond to the two fundamental arguments presented in the testimony of Mr. Benjamin Griffiths on behalf of Massachusetts Attorney General: (1) incremental Inventoried Energy Program revenues are unlikely to reduce retirements by at-risk generators; and (2) expectations about market fundamentals will tend to drive retirements more than expectations of incremental Inventoried Energy Program revenues.<sup>174</sup> Although Massachusetts Attorney General agrees with ISO-NE that higher revenues from the Inventoried Energy Program make it more likely that a resource's de-list bid is accepted in the capacity market, Massachusetts Attorney General avers that lower de-list bids will not necessarily result in fewer retirements because a decision whether to retire a unit is also dependent on the FCA clearing price. Massachusetts Attorney General argues that ISO-NE has not provided evidence that Inventoried Energy Program revenues are high enough to reduce de-list bids sufficiently to prevent retirement of at-risk resources. Massachusetts Attorney General also asserts that different expectations of energy market revenues could erode the benefit of incremental Inventoried Energy Program revenues to de-list bids.<sup>175</sup>

92. In response, ISO-NE states that it publishes data on the set of resources that it believes to be at risk of retirement, which includes approximately 5,000 MW of oil and coal units. ISO-NE notes that, although it expects that the Inventoried Energy Program may reduce the likelihood of retirements from at-risk resources, it has not quantitatively evaluated the extent to which the program would decrease the likelihood of retirements by resource or fuel type.<sup>176</sup> ISO-NE expects that this impact would be most significant for resources that maintain inventoried energy as part of their standard operating practices and would incur little or no incremental cost to participate in the program, suggesting that

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<sup>173</sup> *Id.* (citing Bodell Testimony at 29).

<sup>174</sup> Massachusetts Attorney General Answer at 3 (citing Griffiths Testimony at 6-14).

<sup>175</sup> *Id.* at 4-6.

<sup>176</sup> Deficiency Letter Response at 14-15, 15 n.32 (citing State of the Grid: 2019 presentation dated February 20, 2019, at slide 16, [https://www.iso-ne.com/static-assets/documents/2019/02/20190220\\_pr\\_state-of-the-grid\\_presentation\\_final.pdf](https://www.iso-ne.com/static-assets/documents/2019/02/20190220_pr_state-of-the-grid_presentation_final.pdf)).

the program is most likely to deter retirements from coal resources, nuclear resources, oil-only resources, dual-fuel resources, and hydro resources.<sup>177</sup>

**b. Rehearing Requests**

93. On rehearing, Clean Energy Advocates, Massachusetts Attorney General, and NECOS restate arguments alleging that ISO-NE failed to provide evidence, or any quantitative analysis, that the Inventoried Energy Program would discourage resources from retiring.<sup>178</sup> In addition, Clean Energy Advocates and Massachusetts Attorney General assert that decreased Forward Capacity Market (FCM) revenues resulting from the program would decrease its effectiveness at deterring retirements.<sup>179</sup> Massachusetts Attorney General also argues that the Inventoried Energy Program, filed on March 25, 2019, did not meet the March 15, 2019 due date for retirement de-list bids in FCA 14; thus, resources could not have made retirement decisions that took into consideration revenues from the Inventoried Energy Program until the Commission's August 6 Notice at the earliest.<sup>180</sup>

94. Further, Maine PUC avers that acceptance of the Inventoried Energy Program by operation of law is not supported by evidence demonstrating that the program will impact resources' retirement decisions.<sup>181</sup>

**c. Determination**

95. We find the Inventoried Energy Program is just and reasonable for the reasons described above. Although deterring retirements of fuel secure resources is not the primary goal of the program, ISO-NE states that it is an expected and beneficial outcome. As ISO-NE explains, a resource that participates in the Inventoried Energy Program can lower its capacity offer to reflect program revenues and potentially clear the FCM, potentially helping to retain an additional fuel secure resource that would have otherwise retired. Therefore, we disagree with arguments that ISO-NE's proposal is unjust and unreasonable because ISO-NE has failed to provide credible evidence to support the view

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<sup>177</sup> *Id.* at 16.

<sup>178</sup> Clean Energy Advocates Rehearing Request at 13-14; Massachusetts Attorney General Rehearing Request at 8-9, 16; NECOS Rehearing Request at 15.

<sup>179</sup> Clean Energy Advocates Rehearing Request at 15; Massachusetts Attorney General Rehearing Request at 14.

<sup>180</sup> Massachusetts Attorney General Rehearing Request at 24.

<sup>181</sup> Maine PUC Rehearing Request at 8-9.

that the Inventoried Energy Program would deter fuel-secure resources from pursuing retirement.

96. We acknowledge that there are many factors that influence a resource's retirement decision and that Inventoried Energy Program revenues will vary from resource to resource.<sup>182</sup> And, as ISO-NE asserts, the program is not intended to deter the retirement of a specific resource.<sup>183</sup> However, we find that these revenues appropriately compensate resources that contribute to winter energy security. Moreover, we agree with ISO-NE that it is important that the program be in place in time for participants considering retirement decisions for FCA 14 and FCA 15.<sup>184</sup> By March 15, 2019, the deadline for submitting retirement de-list bids, stakeholders had already voted on the final Inventoried Energy Program proposal and were aware of its final design components. Moreover, the IMM encouraged market participants to submit two retirement de-list bids on that deadline, one assuming the program is in place and one assuming it is not, which, as a result, allowed them to reflect the Inventoried Energy Program's impact on their bids.<sup>185</sup>

## **8. Impacts to Market Revenues**

### **a. Comments and Protests**

97. Some commenters address the Inventoried Energy Program's potential impact on FCM revenues to argue that the program is unjust and unreasonable. FirstLight and NRG argue that the program does not correct for FCA clearing price suppression that occurs when resources seeking retirement are held in the market for fuel security reasons and included in the FCA as price-takers.<sup>186</sup> In contrast, Calpine and Vistra argue that the Inventoried Energy Program does address recent inadequate capacity market revenue. Specifically, they contend that lower prices (and thus lower revenues) over the last several FCAs, coupled with Pay-for-Performance penalties, means that the capacity market alone will not be able to ensure fuel security while the longer-term market-based fuel security solution is being developed.<sup>187</sup>

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<sup>182</sup> ISO-NE Answer at 9.

<sup>183</sup> Transmittal at 7.

<sup>184</sup> ISO-NE Answer at 5.

<sup>185</sup> Transmittal at 7 n.101.

<sup>186</sup> FirstLight Comments at 2, 4; NRG Protest at 19.

<sup>187</sup> Calpine and Vistra Comments at 4.



98. Many commenters address FCM mitigation of Inventoried Energy Program revenues. The IMM asserts that net revenues that a participant receives from the Inventoried Energy Program should be treated like revenues received from providing ancillary services in the calculation of net going forward costs. The IMM contends that, under the existing mitigation rules in the Tariff, a resource's net going-forward costs generally include all costs avoided from not participating in the capacity, energy, and ancillary services markets less the portion of the avoided costs otherwise recovered through energy and ancillary service market revenues.<sup>188</sup> The IMM contends that a competitive bid in the FCM would account for this ancillary source of revenue and result in a lower offer in the FCA to better compete to obtain a capacity supply obligation. The IMM asserts that failure to account for this interim revenue in FCM mitigation would result in higher priced bids, and, for pivotal suppliers, bids that are not mitigated to the appropriate expected competitive price. Further, the IMM argues that not reflecting these revenues in FCA offers and mitigation contradicts the objective of the Inventoried Energy Program to avoid uneconomic retirements of fuel-secure resources. By offering relatively lower priced de-list bids that reflect the compensation from the Inventoried Energy Program, fuel-secure resources are more likely to receive a capacity award and not de-list or retire due to lack of valuation of the fuel security that they provide.<sup>189</sup>

99. Calpine and Vistra, NEPGA, and Verso disagree with the IMM's assertion that Inventoried Energy Program revenues should be mitigated in the FCM.<sup>190</sup> NEPGA argues that there is no relevant Tariff provision to support the IMM's assertion and states that resources are in the best position to determine to what extent the Inventoried Energy Program makes it competitive to provide capacity. NEPGA asserts that the IMM's opinion focuses only on the supply side of the equation, while the Commission found that the ISO-NE markets do not fully reflect the demand or value of fuel security. NEPGA concludes that reducing FCM offers would drain the wholesale markets revenues that the Inventoried Energy Program is intended to supplement, with some participating resources possibly receiving negative net revenues,<sup>191</sup> particularly if, as Exelon notes, the mitigated fuel security resource is marginal in the FCM.<sup>192</sup> New Hampshire Parties and NRG add that a lack of incremental revenues provided by the Inventoried Energy Program would

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<sup>188</sup> IMM Comments at 6-7 (citing Tariff, § III.13.1.2.3.2.1.1.1).

<sup>189</sup> *Id.* at 7-8.

<sup>190</sup> Calpine and Vistra Comments at 6-8; NEPGA Protest at 14-17; NRG Protest at 12-13; Verso Comments at 6.

<sup>191</sup> NEPGA Protest at 15-17.

<sup>192</sup> Exelon Comments at 4-5.

not encourage the desired behavior of fuel security providers and the premise of the ISO-NE filing fails.<sup>193</sup>

100. Calpine and Vistra and Verso also argue that the IMM's interpretation is a misreading of the Tariff because de-list bids in the FCM are based on revenues from energy and ancillary services markets, which do not include the Inventoried Energy Program revenues.<sup>194</sup> Many commenters also argue that the IMM's approach would neutralize the benefit of deterring retirements of fuel security resources by partially or wholly offsetting inventoried energy payments, exacerbating the "missing money" problem in ISO-NE.<sup>195</sup>

101. In its answer, the IMM states that the Tariff requires that all de-list bids submitted by resources in the FCM be mitigated to reflect their going forward costs net of expected revenue streams.<sup>196</sup> The IMM argues that the expected inventoried energy revenues must be treated as infra-marginal rent, expected cash flows, or non-capacity revenue under the Tariff or like revenue from any ancillary service in the calculation of an existing resource's net going-forward costs.<sup>197</sup> The IMM asserts that a reduction in capacity revenues is expected given the interrelationship between the capacity, energy, and ancillary services markets and that missing out on a source of extra money is different from the concept of missing money in the FCM.<sup>198</sup> ISO-NE agrees with the IMM's Tariff interpretation, adding that the Inventoried Energy Program does not include a

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<sup>193</sup> New Hampshire Parties Protest at 9-10; NRG Protest at 7.

<sup>194</sup> Calpine and Vistra Comments at 7-8 (citing Tariff, § III.13.1.2.3.2.1.2.A of Market Rule 1; Tariff, § II.4); Verso Comments at 6-8. Verso states that lower capacity market revenues have "the potential to totally nullify the benefits of this [p]rogram."

<sup>195</sup> Calpine and Vistra Comments at 7; Clean Energy Advocates Protest at 12; Exelon Comments at 4-5; Massachusetts Attorney General Protest at 9; New Hampshire Parties Protest at 9-10; NRG Protest at 12-13; Verso Comments at 7-8.

<sup>196</sup> IMM Answer at 2 (citing Tariff, § III.13.1.2.3.2.1.1 (Internal Market Monitor Review of De-List Bids)).

<sup>197</sup> *Id.* at 3 (citing Tariff, § III.13.1.2.3.2.1.2.A (Static De-List Bid and Export Bid Net Going Forward Costs); § III.13.1.2.3.2.1.1.2 (Review of Permanent De-List Bids and Retirement De-List Bids)).

<sup>198</sup> *Id.* at 3-4 (citing Calpine and Vistra Comments at 7, Exelon Comments at 4, NEPOOL Comments at 10, Verso Comments at 6-8).

proposed change to the determination of the dynamic de-list bid threshold, although it could impact the competitive bid price of some resources.<sup>199</sup>

102. NEPGA states, however, that Inventoried Energy Program revenues fit the Tariff definition of out-of-market revenues, accounting for which is not required in calculating the Net Cost of New Entry and the Offer Review Trigger Prices.<sup>200</sup> NEPGA also asserts that the Tariff and Commission precedent indicate that infra-marginal rents must include only wholesale market revenues. NEPGA states that infra-marginal rent is “calculated by subtracting all submitted cost data representing the cumulative actual cost of production from the Existing Generating Capacity Resource’s total ISO market revenues” and represents “what a unit can expect to earn in the ISO-NE markets, e.g., energy and ancillary services markets.”<sup>201</sup> NEPGA further states that the netting of infra-marginal revenues against the gross Cost of New Entry value includes only market revenues and renewable energy credit revenues. NEPGA contends that “non-capacity revenue data” does not necessarily include out-of-market revenue under the Tariff when a new capacity resource must submit such data if it wishes to offer at a price below its Offer Review Trigger Price.<sup>202</sup> NEPGA reiterates that the IMM’s Tariff interpretation would net out any benefit of the Inventoried Energy Program.

103. NRG argues that there are inconsistencies in ISO-NE’s response regarding how net Inventoried Energy Program revenues would be mitigated as part of the treatment of capacity market offers.<sup>203</sup> NRG asserts that fuel security costs were not contemplated in the development of reference pricing for new entry proxy units and, therefore, deducting such revenues to prevent duplicative payments is unjust.<sup>204</sup>

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<sup>199</sup> Deficiency Letter Response at 10, 10 nn.22-23 (citing IMM Comments at 5-9 and IMM Answer at 2-4 (citing Tariff, §§ III.13.1.2.3.2.1, III.13.1.2.3.2.1.2.A, III.13.1.2.3.2.1.1.2, III.A.21.2)).

<sup>200</sup> NEPGA Answer at 2-3 (citing Tariff Market Rule 1, § III.A.21.2(b) (“not tradable throughout the New England Control Area or that are restricted to resources within a particular [area]” or “not available to all resources of the same physical type within the New England Control Area”)).

<sup>201</sup> *Id.* at 4 (citing *ISO New England Inc.*, 128 FERC ¶ 61,266, at P 17, n.26 (2009)).

<sup>202</sup> *Id.* at 5-7.

<sup>203</sup> *Id.* at 5-6.

<sup>204</sup> *Id.* at 12-16.

104. Regarding the day-ahead and real-time energy markets, the IMM argues that the Inventoried Energy Program creates an opportunity cost in the day-ahead and real-time energy markets that must be recognized in the bid mitigation process to avoid an uncompetitive or inefficient outcome. According to the IMM, the inclusion of opportunity costs of the Inventoried Energy Program will likely result in: (1) preserving fuel-secure resources for when they are most valuable; (2) a reduced need for manual dispatch; and (3) increased day-ahead and real-time energy market prices that recognize the value of fuel-secure energy.<sup>205</sup>

105. Clean Energy Advocates and NRG contend that ISO-NE did not have or did not provide an estimate of the change in total system costs that would result from the ability to include Inventoried Energy Program-related opportunity costs in energy market offers.<sup>206</sup> NECOS argues that the cost impacts of the program are substantial and, according to ISO-NE's own estimates, would result in \$20.4 million from opportunity bidding behavior alone.<sup>207</sup>

106. ISO-NE states that it did not analyze the expected impact on total system costs that may result from the inclusion of opportunity costs from the Inventoried Energy Program in energy market offers. ISO-NE adds that such analysis may be limited in value because many factors (e.g., the duration of future winter months' cold weather spells) will affect the program's impact on energy market opportunity costs and are difficult to predict years in advance.<sup>208</sup>

107. In its answer, ISO-NE clarifies that the \$0.65/MWh average increase in winter energy market prices (i.e., \$20.4 million annually) cited by commenters does not represent a formal ISO-NE estimate of the program's expected impacts on energy market prices but rather represents an illustrative value provided by ISO-NE to stakeholders.<sup>209</sup> Massachusetts Attorney General responds that this value is the only estimate provided by ISO-NE.<sup>210</sup> Massachusetts Attorney General states that more robust estimates of the

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<sup>205</sup> IMM Comments at 4.

<sup>206</sup> Clean Energy Advocates Deficiency Letter Response Comments at 3-4; NRG Deficiency Letter Response Comments at 3-5.

<sup>207</sup> NECOS Protest at 11.

<sup>208</sup> Deficiency Letter Response at 7-8.

<sup>209</sup> ISO-NE Answer at 29-30 (citing NECOS Protest at 11, 11 n.7; Griffiths Testimony at 4).

<sup>210</sup> Massachusetts Attorney General Answer at 6 (citing ISO-NE Answer at 28; Interim Compensation Treatment: Details of ISO's Interim Winter Energy Security

program's impact on energy market prices would be welcome but until then the Commission should factor the \$20.4 million annual increase in its evaluation of the Inventoried Energy Program's cost burden to consumers.<sup>211</sup>

**b. Rehearing Requests**

108. On rehearing, Clean Energy Advocates and Massachusetts Attorney General reiterate that Inventoried Energy Program payments may provide no net incremental revenues to resources because ISO-NE's intention to factor these payments into the mitigation of bids in the FCA means that these payments may be partially or wholly offset by decreased FCM revenues.<sup>212</sup> Massachusetts Attorney General and New Hampshire Parties assert that ISO-NE did not assess the impacts that Inventoried Energy Program opportunity costs in the energy market would have on total system costs; NECOS again highlights this additional cost.<sup>213</sup>

**c. Determination**

109. We disagree that the Inventoried Energy Program is unjust and unreasonable due to its potential impacts on capacity market revenue. We agree with ISO-NE and the IMM that the net revenues from the interim program should be treated as revenue from an ancillary service in the calculation of an existing resource's net going forward costs, and those revenues from the interim program will be reflected in the FCM's de-list bid mitigation.<sup>214</sup> We disagree with protestors' Tariff interpretations and arguments that program revenues should not be mitigated in the FCM because "total ISO market revenues" should include Inventoried Energy Program revenues. Contrary to NEPGA's assertions, we find that Commission precedent does not limit infra-marginal rents to include revenues from only energy and ancillary services markets. In describing infra-

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Proposal, dated January 8, 2019, at slide 56; [https://www.iso-ne.com/staticassets/documents/2019/01/a2\\_iso\\_presentation\\_interim\\_compensation\\_treatment.pptx](https://www.iso-ne.com/staticassets/documents/2019/01/a2_iso_presentation_interim_compensation_treatment.pptx)).

<sup>211</sup> *Id.* at 6.

<sup>212</sup> Clean Energy Advocates Rehearing Request at 15; Massachusetts Attorney General Rehearing Request at 11, 14.

<sup>213</sup> Massachusetts Attorney General Rehearing Request at 12, 18; NECOS Rehearing Request at 9; New Hampshire Parties Rehearing Request at 12.

<sup>214</sup> Deficiency Letter Response at 10, 10 nn.22-23 (citing IMM Comments at 5-9 and IMM Answer at 2-4 (citing Tariff, §§ III.13.1.2.3.2.1, III.13.1.2.3.2.1.2.A, III.13.1.2.3.2.1.1.2, III.A.21.2)).

marginal rents as the amount a unit can expect to earn in the ISO-NE markets, the Commission provided an illustrative example, “e.g., energy and ancillary services markets,” rather than a comprehensive list of the types of revenues that can be considered infra-marginal rents.<sup>215</sup> Further, Inventoried Energy Program revenues do not fit the Tariff definition of out-of-market revenues as NEPGA contends because they are available to all resources of the same physical type within the New England Control Area.<sup>216</sup> While some resources of the same physical type may need to make investments or take actions to secure energy supply arrangements to be eligible, the program does not explicitly preclude participation from certain resources of the same physical type. Moreover, “out-of-market” is generally used to mean outside the ISO-NE markets,<sup>217</sup> and thus Inventoried Energy Program revenues are not out-of-market revenues but rather ISO-NE market revenues, like revenue from any ancillary service.

110. Lower relative capacity prices could occur as a result of the program because fuel secure resources can reduce their de-list bid prices to reflect expected program revenues. As a result, such resources may be more likely to clear the FCA and less likely to retire.<sup>218</sup> Although mitigation of these revenues could reduce the overall program compensation for some capacity resources, profits from providing energy and ancillary services typically reduce capacity market offers and therefore prices, resulting in lower net total capacity revenues. In a competitive market, the profits from the Inventoried Energy Program would similarly be reflected in a resource’s capacity market offer as other non-capacity market revenues are reflected. To the extent that offer mitigation is meant to maintain competitive outcomes, we see no reason that these revenues should not be reflected in a resource’s offer. Similarly, we agree with the IMM that mitigation of bids in the energy markets should reflect opportunity costs associated with the Inventoried Energy Program.<sup>219</sup>

111. Regarding FirstLight’s and NRG’s arguments that the program does not correct for the suppression of FCA clearing prices that occurs when resources seeking retirement

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<sup>215</sup> *ISO New England Inc.*, 128 FERC ¶ 61,266 at P 17, n.26 (“Infra-marginal rents is what a unit can expect to earn in the ISO-NE markets, e.g. energy and ancillary services markets and is defined as ‘annual infra-marginal rents, in dollars.’”).

<sup>216</sup> Tariff Market Rule 1, § III.A.21.2(b).

<sup>217</sup> *ISO New England Inc.*, 142 FERC ¶ 61,107, at P 30 n.18 (2013) (“The term ‘out-of-market’ capacity is generally used to refer to capacity resources that receive revenue from outside the ISO-NE markets”), *reh’g denied*, 151 FERC ¶ 61,055 (2015).

<sup>218</sup> ISO-NE Answer at 9.

<sup>219</sup> IMM Comments at 3-4.

are held in the market for fuel security reasons and included in the FCA as price-takers,<sup>220</sup> we find that these arguments are outside the scope of this proceeding. Parties have raised concerns as to possible price suppression in this manner directly in the pending rehearing requests in Docket No. ER18-2364-001, regarding the Commission's requirement that resources must offer into the capacity market as price-takers, and the Commission will address those concerns in that proceeding.<sup>221</sup>

## **9. Interactions with Other Market Rules**

### **a. Comments and Protests**

112. Some commenters assert that the fuel security cost-of-service Tariff provisions or the Pay-for-Performance market rules negate the need for the Inventoried Energy Program.<sup>222</sup> Clean Energy Advocates contends that the short-term outlook for winter energy security in ISO-NE has improved since the Commission made its FPA section 206 finding in July 2018.<sup>223</sup> Because ISO-NE is willing to operate the power system during the 2018-2019 through 2022-2023 winter periods without any additional program, New Hampshire Parties question why ISO-NE believes that its proposed Inventoried Energy Program is needed for the 2023-2024 and 2024-2025 winters.<sup>224</sup>

113. Further, several commenters contend that the Inventoried Energy Program conflicts with Pay-for-Performance.<sup>225</sup> Public Citizen and Maine PUC argue that the Inventoried Energy Program is not just and reasonable because of its dueling incentives with Pay-for-Performance and unclear need following the Commission's approval of Pay-for-Performance and Competitive Auctions with Sponsored Policy Resources (CASPR).<sup>226</sup> Maine PUC asserts that ISO-NE appears to be seeking to retain resources

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<sup>220</sup> FirstLight Comments at 2, 4; NRG Protest at 19.

<sup>221</sup> See NEPGA Request for Rehearing, Docket No. ER18-2364-001, at 2-5 (filed Jan. 2, 2019).

<sup>222</sup> Clean Energy Advocates Protest at 8-10; New Hampshire Parties Protest at 13-14.

<sup>223</sup> Clean Energy Advocates Protest at 9-10.

<sup>224</sup> New Hampshire Parties Protest at 14.

<sup>225</sup> Massachusetts Attorney General Protest at 13-14; Maine PUC Protest at 6-7; NECOS Protest at 17-18; Public Citizen April 15, 2019 Protest at 2.

<sup>226</sup> Maine PUC Protest at 7; Public Citizen April 15, 2019 Protest at 2.

that were expected to retire as a result of Pay-for-Performance.<sup>227</sup> NECOS states that the program ignores the fuel security incentives created by the Pay-for-Performance incentive and penalty structures and contends that the concurrent implementation of the Inventoried Energy Program, Pay-for-Performance regime, and the long-term fuel security market solution would saddle consumers with enormous and duplicative costs without any documented improvement in reliability.<sup>228</sup>

114. Massachusetts Attorney General avers that ISO-NE should wait and see how resources respond to Pay-for-Performance before implementing a new program, particularly because the Pay-for-Performance payment rate will rise starting June 1, 2021, and again on June 1, 2024. Massachusetts Attorney General contends that as a result of this higher penalty rate, Pay-for-Performance will likely have a greater impact on winter energy security in the Inventoried Energy Program period than Pay-for-Performance in preceding years.<sup>229</sup>

115. In contrast, ISO-NE asserts that Pay-for-Performance does not render the Inventoried Energy Program unnecessary. Rather, ISO-NE states that the Inventoried Energy Program is aimed at the same problems identified by the Commission in the proceeding regarding fuel security concerns. ISO-NE states that the incentives provided by the Inventoried Energy Program should complement those of Pay-for-Performance. ISO-NE asserts that the Inventoried Energy Program is likely to increase the region's total capacity and may therefore improve reliability year-round; however, ISO-NE explains that the impact of deterred retirements on system reliability depends on many unknown factors such as whether retirement decisions affected by the program impact other retirement decisions. ISO-NE concedes that the Inventoried Energy Program could weaken overall reliability if the program promotes the continued operation of a resource that in turn motivates the retirement of another resource that provides greater reliability contributions during Pay-for-Performance scarcity conditions. ISO-NE further states that the Inventoried Energy Program could similarly impact participation in the CASPR substitution auction.<sup>230</sup>

**b. Rehearing Requests**

116. On rehearing, Massachusetts Attorney General again argues that ISO-NE conducted no analysis of how the Inventoried Energy Program and Pay-for-Performance

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<sup>227</sup> Maine PUC Protest at 7.

<sup>228</sup> NECOS Protest at 17-18.

<sup>229</sup> Massachusetts Attorney General Protest at 14.

<sup>230</sup> Deficiency Letter Response at 11-12.



would interact, asserting that ISO-NE is aware of a risk that the Inventoried Energy Program, if it achieves retirement deterrence, might undermine Pay-for-Performance.<sup>231</sup> NECOS claims that the costs of the Inventoried Energy Program are duplicative because they will be combined with increased capacity prices resulting from Pay-for-Performance incentives and penalty rates and with the costs of the long-term market solution.<sup>232</sup> Similarly, NESCOE contends that the Commission failed to explain how the Inventoried Energy Program does not conflict with the goals of Pay-for-Performance or CASPR.<sup>233</sup>

**c. Determination**

117. We disagree with arguments that the existing fuel security cost-of-service Tariff provisions or Pay-for-Performance negates the need for the Inventoried Energy Program, or that the costs of the Inventoried Energy Program are duplicative to those of Pay-for-Performance. As discussed above, this program aims to ameliorate a misaligned incentives issue that was not resolved by the fuel security cost-of-service Tariff provisions and still exists under Pay-for-Performance.

118. In addition, we disagree that the interaction of Pay-for-Performance and CASPR with the Inventoried Energy Program renders ISO-NE's proposal unjust and unreasonable. We agree with ISO-NE that the Inventoried Energy Program should complement the incentives produced by Pay-for-Performance by providing additional incentives for resource owners to make additional investments in energy supply arrangements. With respect to Massachusetts Attorney General's request that ISO-NE wait and see how resources respond to Pay-for-Performance before implementing a new program, we note that ISO-NE has identified a misaligned incentives issue with its existing rules, as described above, and find that Massachusetts Attorney General does not provide sufficient evidence to suggest that Pay-for-Performance can address this problem, even with a higher Pay-for-Performance penalty rate. Further, the Inventoried Energy Program is designed to perform a different function than CASPR. Specifically, CASPR was designed to coordinate the entry of new Sponsored Policy Resources and the exit of retiring capacity, while the Inventoried Energy Program is designed to compensate resources that provide fuel security.<sup>234</sup> We find that CASPR can continue to perform this

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<sup>231</sup> Massachusetts Attorney General Rehearing Request at 22-23 (citing Deficiency Letter Response at 12).

<sup>232</sup> NECOS Rehearing Request at 16-17.

<sup>233</sup> NESCOE Rehearing Request at 5-6, 12.

<sup>234</sup> *ISO New England Inc.*, 162 FERC ¶ 61,205, at P 9 (2018).

coordination regardless of whether resources participating in the FCA receive inventoried energy payments.

119. We also disagree with the argument that the Inventoried Energy Program seeks to retain the very resources that were expected to retire through Pay-for-Performance and is therefore unjust and unreasonable. ISO-NE has demonstrated that Pay-for-Performance may not fully address concerns about adequately encouraging energy supply arrangements, even as the penalty levels begin to rise. While the Inventoried Energy Program also will not fully resolve this incentive problem, we also agree that it is a just and reasonable approach.

120. Lastly, it is premature to judge whether the costs of the Inventoried Energy Program are duplicative to those of the long-term market solution because the long-term solution is pending before the Commission and is not before us in this proceeding.

## 10. Setting the Forward Rate

### a. Comments and Protests

121. The IMM argues that, although administratively setting the forward and spot payment rates almost five years in advance of the delivery period may provide participating resources with revenue certainty, there is nevertheless a risk that the cost of providing the underlying inventoried energy product will differ from the previously fixed rate. The IMM contends that the risk of the inventoried energy product being mispriced likely outweighs greater revenue certainty.<sup>235</sup> The IMM recommends that ISO-NE incorporate a mechanism (such as using an LNG call option) to recalculate the forward and spot payment rates closer to the time of procurement and delivery in order to ensure consistency with the costs of providing the inventoried energy service.<sup>236</sup> Calpine and Vistra agree with the IMM that the forward rate should be updated closer to the time of delivery to capture prevailing market conditions.<sup>237</sup>

122. In contrast, Verso supports ISO-NE's proposal to set the forward rate in advance. However, Verso proposes a compromise whereby program participants would have the option to lock in the forward rate in advance; participants that choose not to lock in the

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<sup>235</sup> IMM Comments at 9.

<sup>236</sup> *Id.* at 9.

<sup>237</sup> Calpine and Vistra Comments at 8 (citing IMM Comments at 8-11).

forward rate in advance would receive a spot price adopting the same methodology used in the determination of the forward price.<sup>238</sup>

123. In its answer, ISO-NE avers that setting the rate in advance allows resources to better forecast expected program revenues when devising bids to be submitted in the FCA.<sup>239</sup> ISO-NE contends that establishing rates in advance increases the Inventoried Energy Program's effectiveness in deterring retirements by enabling participants to better forecast expected program revenues.<sup>240</sup>

124. In response, Verso clarifies that its proposal is that the market participant would elect at the time of bid submission to either the \$82.49/MWh three years forward or a rate that would be updated in the future closer to when the service would be provided. Therefore, according to Verso the market participant would choose between the guaranteed forward price of \$82.49/MWh or an updated price that can be higher or lower as it reflects natural gas prices at the time the service is to be provided.<sup>241</sup>

**b. Determination**

125. We find that the Inventoried Energy Program's forward rate, set in advance, is just and reasonable. We agree with ISO-NE that establishing rates in advance increases the Inventoried Energy Program's effectiveness in deterring retirements by enabling participants to better forecast expected program revenues even if the forward rate is not fully precise.<sup>242</sup> Accordingly, we disagree with parties suggesting that the forward rate be updated closer to the time of delivery to capture prevailing market conditions.<sup>243</sup> We also decline to adopt the alternative proposals proposed.

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<sup>238</sup> Verso Comments at 6.

<sup>239</sup> ISO-NE Answer at 23-24 (citing Calpine and Vistra Comments at 8; IMM Comments at 9-11).

<sup>240</sup> ISO-NE Answer at 24.

<sup>241</sup> Verso Response at 8-9.

<sup>242</sup> ISO-NE Answer at 24.

<sup>243</sup> Calpine and Vistra Comments at 8; IMM Comments at 8-11; Verso Comments at 6.

## 11. Trigger Conditions

### a. Comments and Protests

126. Massachusetts Attorney General argues that the Inventoried Energy Day trigger (i.e., any calendar day in the months of December, January, or February for which the average of the high temperature and the low temperature on that day, as measured at Bradley International Airport in Windsor Locks, Connecticut, is less than or equal to 17 degrees Fahrenheit) is arbitrary and subjective. Massachusetts Attorney General asserts that ISO-NE does not explain why, rather than temperature at one location, high day-ahead energy prices or ISO-NE's published days-ahead forecasts of energy or demand could not provide a better identification of the days when system conditions will be tightest and when stored fuel would be most valuable for system reliability.<sup>244</sup>

### b. Rehearing Requests

127. On rehearing, Massachusetts Attorney General reiterates that the Inventoried Energy Program's design is arbitrary because the trigger condition is subjective and untethered to system constraints and the days when inventoried energy might be most valuable for system reliability (i.e., days with the highest natural gas prices).<sup>245</sup>

### c. Determination

128. We find the trigger condition proposed by ISO-NE to be just and reasonable. As ISO-NE explains, the Inventoried Energy Program is intended to address concerns surrounding winter energy security. We find that the proposed temperature trigger is a reasonable signal for when this reliability concern is most pronounced. As Dr. Geissler explains, it is during such cold weather conditions that more of the natural gas available to the region through the interstate pipelines is being used for heating, rather than electricity generation.<sup>246</sup> Accordingly, we find that ISO-NE's proposal is a reasonable trigger condition and decline to adopt the alternative proposal proposed by Massachusetts Attorney General.

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<sup>244</sup> Massachusetts Attorney General Protest at 15.

<sup>245</sup> Massachusetts Attorney General Rehearing Request at 25-26.

<sup>246</sup> Geissler Testimony at 36-37.

## 12. Filing Taking Effect by Operation of Law

### a. Rehearing Requests

129. On rehearing, NESCOE argues that the Commission erred by failing to articulate a satisfactory explanation and otherwise engage in reasoned decision-making in accepting ISO-NE's Inventoried Energy Program because the Commission failed to respond meaningfully to the arguments before it, address substantial evidence in the record in accordance with the Administrative Procedure Act, or explain its departure from precedent.<sup>247</sup> Similarly, Maine PUC argues that the Commission erred in allowing the Inventoried Energy Program to go into effect without addressing any of the issues raised by protestors and without substantial evidence addressing the need for inventoried fuel.<sup>248</sup> Massachusetts Attorney General also asserts that the ISO-NE's proposal should be denied because approval of the proposal is not supported by substantial evidence.<sup>249</sup> The New Hampshire Parties argue that the Commission erred in permitting the Inventoried Energy Program to become effective by operation of law when there was a deficient record and lack of substantial evidence upon which any determination could be made that the proposal is just and reasonable.<sup>250</sup>

130. NECOS argues that the premise for the August 6 Notice was mistaken. NECOS contends that, in the absence of a Commission quorum, there was no properly constituted authority to determine either that: (1) ISO-NE's Deficiency Letter Response cured the deficiencies in ISO-NE's initial filing that were noted in the Deficiency Letter; or (2) waiver of the Commission's filing regulations was appropriate in order to deem ISO-NE's initial filing complete to trigger the statutory notice period under FPA section 205.<sup>251</sup> NECOS asserts that, in the absence of such authority, there is no basis for the August 6 Notice's assumption that the statutory notice period under FPA section 205 ever began to run.

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<sup>247</sup> NESCOE Rehearing Request at 12.

<sup>248</sup> Maine PUC Rehearing Request at 4-8. Maine PUC argues that a lack of quorum does not supplant the requirement that an agency decision must be based on reasoned decision-making.

<sup>249</sup> Massachusetts Attorney General Rehearing Request at 27.

<sup>250</sup> New Hampshire Parties Rehearing Request at 10-13.

<sup>251</sup> NECOS Rehearing Request at 7-9 (citing 16 U.S.C. § 824d(d)).

**b. Determination**

131. Section 205(g) of the FPA provides as follows:

With respect to a change described in subsection (d), if the Commission permits the 60-day period established therein to expire without issuing an order accepting or denying the change because the Commissioners are divided two against two as to the lawfulness of the change, as a result of vacancy, incapacity, or recusal on the Commission, or if the Commission lacks a quorum — (A) the failure to issue an order accepting or denying the change by the Commission shall be considered to be an order issued by the Commission accepting the change for purposes of section 825/(a) of this title; and (B) each Commissioner shall add to the record of the Commission a written statement explaining the views of the Commissioner with respect to the change.<sup>252</sup>

132. In accordance with this provision, the Commission issued its Notice of Filing Taking Effect by Operation of Law on August 6, 2019. The Commission acted consistent with the directives of FPA section 205 given the lack of quorum in this proceeding at that time. Now that the Commission has a quorum, we have determined that, based on a review of the evidence in the record, the proposed Tariff revisions are just and reasonable, as discussed above.

133. We also find no merit to NECOS' argument that the Deficiency Letter Response did not restart the 60-day clock. As the Commission has previously explained, submitting a response to a deficiency letter “‘resets the clock’ with respect to the Commission’s statutory obligation.”<sup>253</sup> Moreover, as discussed above, we have determined that ISO-NE has met its burden to show that the proposed Tariff revisions, as supported in its Deficiency Response, are just and reasonable.

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<sup>252</sup> 16 U.S.C. § 825(g).

<sup>253</sup> *Central Maine Power Co.*, 128 FERC ¶ 61,143, at P 89 (2009); *PJM Interconnection, L.L.C.*, 164 FERC ¶ 61,170, at P 40, n.131 (2018).

The Commission orders:

ISO-NE's proposed Inventoried Energy Program is hereby accepted, to become effective May 28, 2019, as requested, as discussed in the body of this order.

By the Commission. Commissioner Glick is dissenting with a separate statement attached.

( S E A L )

Nathaniel J. Davis, Sr.,  
Deputy Secretary.

UNITED STATES OF AMERICA  
FEDERAL ENERGY REGULATORY COMMISSION

ISO New England Inc.

Docket No. ER19-1428-003

(Issued June 18, 2020)

GLICK, Commissioner, *dissenting*:

1. I dissent from today's order because ISO New England Inc. has failed to demonstrate that the Inventoried Energy program will actually improve the region's fuel security or that any improvement, if it occurs, is likely to be worth the up to \$300 million it will cost consumers. I am particularly troubled by the evidence in the record that the program will hand out tens of millions of dollars<sup>1</sup> to nuclear, coal, and hydropower generators without any indication that those payments will cause the slightest change in those generators' behavior. Handing out money for nothing is a windfall, not a just and reasonable rate.

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2. I agree that New England has a fuel security issue. During a handful of especially cold winter days when gas demand for residential and commercial heating peaks, the region's natural gas transportation capacity can become constrained, potentially limiting the natural gas supply available to the gas-fired power plants that would otherwise help power the grid. On those days, the region tends to substitute oil and natural gas from liquefied natural gas (LNG) import terminals for natural gas that is typically delivered through the constrained pipelines.<sup>2</sup> But because oil and LNG are expensive and rarely relied upon during normal conditions, resources may not always have enough of these fuels on hand to sustain the grid over a long period of time. Although the number of

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<sup>1</sup> The record suggests that *at least* \$40 million a year would go to resources that will not change their behavior in response to those payments. *See* New Hampshire Public Utilities Commission and New Hampshire Office of Consumer Advocate Protest at 11 (New Hampshire Entities Protest); *infra* note 7.

<sup>2</sup> The fuel substitution we have observed in recent years has been the result of least-cost dispatch, not an inability to acquire natural gas. As natural gas prices rise, oil units become more competitive, making them more likely to be dispatched by the ISO. Additionally, dual-fuel units—units that can generate electricity by burning either oil or natural gas—will generate electricity from oil rather than natural gas when it becomes cheaper to do so.



these cold winter days has historically been low—and the region has never actually run out of oil or natural gas—the consequences of not being able to generate enough electricity make the region’s fuel security an issue we must take seriously.

3. But that does not mean that every proposal that purports to address fuel security is a good idea. To the contrary, taking fuel security seriously means that ISO New England, its stakeholders, and the Commission itself must ensure that efforts to address this issue actually help the region procure the services needed to operate the grid reliably. It also means that we must not waste consumers’ money on poorly designed solutions that do little, if anything, to improve fuel security.

4. Unfortunately, wasting consumers’ money is exactly what the Inventoried Energy program does. Understanding why requires a brief overview of the program. ISO New England proposes to pay certain types of resources<sup>3</sup> for maintaining “inventoried energy”—which is, essentially, onsite fuel that the resource can convert into electricity<sup>4</sup>—during two winters: 2023-2024 and 2024-2025. A resource is eligible to participate in the program in one of two ways: Either by entering a forward contract, which requires the resource to have a certain amount of “inventoried energy” onsite whenever the ISO declares a cold weather event,<sup>5</sup> or through the spot market, which allows the resource to be paid for whatever “inventoried energy” it happens to have onsite during a cold weather event. The bottom line is that, under either option, the program pays participating resources for having up to three days’-worth of “inventoried energy” onsite during certain conditions.

5. Although the simplicity of ISO New England’s proposal may, at first, seem appealing, the program contains a number of what should be fatal flaws. Most importantly, ISO New England does not point to any evidence that there is a near-term operational problem that cannot be adequately addressed by its existing rules, or any evidence that the Inventoried Energy program would address such a problem by making the region more fuel secure. Without this analysis, there is no foundation to evaluate

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<sup>3</sup> ISO New England explains that this includes all oil, coal, nuclear, biomass, and refuse generators as well as some hydroelectric and pumped storage facilities, some battery storage facilities, and demand response resources that contain behind-the-meter fossil-fuel generators. ISO New England Transmittal Letter at 15-16.

<sup>4</sup> *Id.* at 8. In the case of a hydroelectric facility, pumped storage facility, or electric battery, the “fuel” in question is the resource’s potential energy, rather than “fuel” as we typically understand that term. *Id.*

<sup>5</sup> A cold weather event for the purposes of this program occurs on any day between December and February when the temperature at Bradley International Airport outside Hartford, Connecticut, is 17 degrees Fahrenheit or below. *Id.* at 13.

whether the program will achieve its intended purpose or do so in a manner and at a cost that is just and reasonable. The Commission addresses this concern only obliquely, asserting that it is not required to perform formal cost-benefit analysis.<sup>6</sup> Even so, that does not excuse the Commission from making any effort to reckon with whether the benefits of the program come even remotely close to justifying its costs nor does it permit the Commission to authorize a multi-hundred million dollar rate increase without knowing whether it will meaningfully improve regional fuel security.

6. Short of evidence, ISO New England identifies two pathways in which the proposal might theoretically improve fuel security: By incentivizing resources to keep fuel on hand or by creating an additional revenue stream that will prevent certain resources from retiring. The record, however, contains compelling evidence that neither pathway is likely to make much of a contribution, if any, to the region's fuel security.

7. Let's begin with the "incentive" to keep fuel onsite. As an initial matter, at least a third of the capacity eligible to receive payments through the Inventoried Energy program comes from resources that will not change their behavior in response to these payments because they already maintain considerably more than three days'-worth of fuel onsite (which, as noted, is the cap on payments for "inventoried energy").<sup>7</sup> That means that at least \$40 million dollars a year is likely to be spent on resources, such as nuclear, coal, and hydro generators, that will not change their behavior in response to those payments. That is an utter waste of consumers' money. Based on the record before us, it would seem that burning that money<sup>8</sup> might contribute as much to fuel security as wasting it on entities that we know will not do anything differently.

8. ISO New England responds that it is appropriate to pay all resources that provide "inventoried energy" regardless of whether the payments will affect their behavior because doing so makes the program "technology-neutral."<sup>9</sup> But the Commission has rejected that argument in previous orders addressing a similar ISO New England proposal

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<sup>6</sup> *ISO New England Inc.*, 171 FERC ¶ 61,235, at P 58 (2020) (Order).

<sup>7</sup> New Hampshire Entities Protest at 11. That figure assumes that natural gas-only resources participate in the program. *Id.* As explained below, *infra* P 9, it is unlikely that there will be much participation by those resources and it is possible there will not be any. To the extent natural gas resources do not participate, or participate on only a small scale, an even larger percentage of the program's total cost would compensate resources that will not change their behavior.

<sup>8</sup> After all, a refuse generator, which burns waste to produce electricity, is eligible to participate in the Inventoried Energy program. *See supra* note 3.

<sup>9</sup> ISO New England Transmittal Letter at 5-7.

regarding fuel security.<sup>10</sup> The Commission explained that resources that would not take any action in response to fuel security payments were not similarly situated to resources that might take such actions<sup>11</sup>—a statement that strongly suggests that the former category of resources should not be receiving the same payments as the latter (or any payments at all for that matter). The Commission went on to explain that, where “the purpose of [a p]rogram is to ensure reliability during the winter, we do not find it necessary to include resources that do not provide any additional benefit to winter reliability for the sake of fuel neutrality alone.”<sup>12</sup> Accordingly, the Commission’s own precedent weighs against any conclusion that the pretense of fuel neutrality justifies paying money for nothing.

9. In addition, the record suggests that the Inventoried Energy program’s design will dissuade certain other resources from participating. ISO New England explains that its proposed forward rate is based on the fair market value of a fuel contract between a natural gas-only generator and an LNG storage terminal.<sup>13</sup> This suggests that the program is intended to incentivize resources to enter into backup LNG contracts. But ISO New England itself describes this forward rate as representing the “break even”

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<sup>10</sup> These orders addressed the Winter Reliability Program, which is discussed in greater detail below. *See infra* P 18.

<sup>11</sup> *ISO New England Inc.*, 154 FERC ¶ 61,133, at P 13 (2016) (“Coal, nuclear, and hydro resources are not similarly situated [to resources such as oil, LNG, etc.] . . . as the record reflects that including such resources in the Program would not provide any additional winter reliability benefit to the region.”).

<sup>12</sup> *ISO New England Inc.*, 154 FERC ¶ 61,133 at P 13. In its answer, the ISO attempts to distinguish these precedents on the basis that “fuel neutrality” was not an “explicit design goal” of the Winter Reliability Program, but is a goal of the Inventoried Energy program. ISO New England April 30th, 2019 Answer at 15-16. That is a distinction without a difference for our purposes. As noted, both the Winter Reliability Program and the Inventoried Energy program are meant to get at the same issue. The Winter Reliability Program was intended to “ensure reliability during the winter,” *see ISO New England*, 154 FERC ¶ 61,133 at P 13, and the Inventoried Energy program is intended to address “winter energy security,” ISO New England Transmittal at 5. Accordingly, the Commission’s basic insight in the earlier order—that resources that will not do anything differently in response to a particular payment are not similarly situated to those that will—applies equally to this filing. And because ISO New England has not shown that resources that will do nothing in response to Inventoried Energy payments are similarly situated to those that will change their behavior in response to such payments, the Commission’s previous conclusions apply equally here.

<sup>13</sup> ISO New England Transmittal Letter at 11.

payment associated with a backup LNG contract, meaning that, at that price, resources will be economically indifferent about whether to enter such a contract.<sup>14</sup> In other words, if ISO New England's modeling assumptions are correct, gas-only generators that enter into such a contract will not expect to make any money participating in the Inventoried Energy program. It is hard to imagine many resources freely taking on risk for no expected profit. As a result, however, there is little reason to think that the program will do anything to change the behavior of natural gas-only units, which, as noted, are the primary concern when it comes to fuel security in New England.<sup>15</sup> And while the proposal may potentially incentivize some resources (*i.e.*, oil-fired generators) to keep more fuel onsite, the program is unlikely to result in any additional investment in fuel infrastructure because many, and perhaps most, eligible resources do not need to make any infrastructure investments to participate in the program.

10. ISO New England also suggests that the Inventoried Energy program is just and reasonable because it might forestall the retirement of otherwise uneconomic resources, which might benefit the region's fuel security.<sup>16</sup> For one thing, creating a program to funnel money to uneconomic resources in order to prevent their retirement would seem to undermine a key element of the balancing act that the Commission relied upon when it found the Capacity Auctions with Sponsored Policy Resources (CASPR) program just and reasonable.<sup>17</sup> ISO New England's willingness to propose a program that will so plainly work at cross-purposes with the CASPR's substitution auction raises serious questions about the durability of the CASPR construct. But, even putting that fundamental concern aside, the ISO again does not point to any record evidence suggesting that the Inventoried Energy program will make a difference in any resource's

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<sup>14</sup> *Id.*

<sup>15</sup> *See supra* P 2.

<sup>16</sup> ISO New England Transmittal Letter at 8.

<sup>17</sup> CASPR created a secondary element as part of ISO New England's capacity market that allows state-sponsored resources, such as wind and solar resources, to "buy" a capacity commitment from a resource that clears the capacity auction, but is nevertheless willing to permanently retire in exchange for a payment from a state-sponsored resource. *See ISO New England Inc.*, 162 FERC ¶ 61,205, at P 7 (2018). If the Inventoried Energy program were to "succeed" in reducing the number of resources willing to retire, it would lessen the number of resources willing to sell a capacity obligation and retire through CASPR. In addition, Inventoried Energy payments will increase the cost that a state-sponsored resource must incur to buy a capacity commitment from an existing resource. Both effects will stymie the New England states' clean energy goals.

retirement decision. On the other hand, several commenters introduced persuasive evidence that those payments would not materially affect those decisions.<sup>18</sup>

11. In any case, even if we assume, for the sake of argument, that the Inventoried Energy program will make an incremental contribution to fuel security, ISO New England has not shown that this contribution is likely to be worth the program's considerable price tag. As noted, the ISO estimates that the program will cost New England customers between \$200 and \$300 million over just two years.<sup>19</sup> But the record does not provide a basis for making a reasoned assessment of whether the cost of that purported contribution is just and reasonable. For one thing, there is no evidence of how much incremental "inventoried energy" the ISO might get in response to those payments—*i.e.*, we do not know what New England consumers will be paying for. In addition, because the ISO did not perform any analysis of how much "inventoried energy" it needs, we have no way of knowing whether the "inventoried energy" it may procure will satisfy any need that New England may or may not have.<sup>20</sup> And without that information, we simply cannot assess what benefit, if any, New England customers will receive from the program or whether the cost for that benefit is just and reasonable.

12. Making matters worse, the Inventoried Energy program does not possess even the basic principles of an effective market-based solution, which the Commission has repeatedly instructed ISO New England to make the foundation of its approach to fuel security.<sup>21</sup> Those principles—which, according to the ISO, include (1) specifying a

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<sup>18</sup> See New Hampshire Entities Protest at 5, 8-9; NRG Protest at 8; New England Power Generators Association Protest at 6-7.

<sup>19</sup> This estimate may understate the actual cost because it does not include the impact to energy market offers of eligible resources increasing their bids to reflect the opportunity cost of consuming what could be "inventoried energy." See ISO New England Transmittal at 21. As the ISO explained in its response to Commission Staff's request for additional information, it did not analyze the expected impact on total system costs that may result from the inclusion of opportunity costs from the Inventoried Energy program in energy market offers. ISO New England Deficiency Letter Response at 7-8.

<sup>20</sup> See, *e.g.*, NRG Deficiency Letter Response Comments at 5 (observing that ISO New England did not even estimate how much incremental fuel supply would have been obtained had the program been in place in one or more previous winters).

<sup>21</sup> See, *e.g.*, *ISO New England Inc.*, 164 FERC ¶ 61,003, at P 53 (2018) ("We reaffirm our support for market solutions as the most efficient means to provide reliable electric service to New England consumers at just and reasonable rates."); see also *ISO New England Inc.*, 165 FERC ¶ 61,202, at P 96 (2018) (explaining that "[m]oving to a market-based approach as soon as possible is the best way to achieve th[e] objective" of fully valuing resources' contribution to fuel security).

clearly defined product, (2) transparently pricing the product, (3) incentivizing market participants to deliver the product in a cost-effective manner, and (4) settling any forward sale of the product against its spot delivery within a framework that is technology-neutral<sup>22</sup>—help to ensure that a program is effective, both in delivering the product in question and in ensuring that customers get what they pay for.

13. Evaluated against those principles, the Inventoried Energy program gets a failing grade. Although ISO New England defines what resources are eligible to provide “inventoried energy,” it evaluates neither the specific need for inventoried fuel nor the quantity demanded. As a result, there is no market competition for this product because every resource with the necessary attributes receives the same price. But without competition, the price-setting mechanism is untethered from market fundamentals and may produce an extremely inefficient outcome. And that is precisely what has happened here. ISO New England established a fixed price, \$82.49 per megawatt-hour for a forward contract, without making any attempt to evaluate how much “inventoried energy” it should buy at the price or how much resources might supply at that price.<sup>23</sup>

14. In fairness, the Commission’s statutory responsibility is to ensure that rates are just and reasonable and not unduly discriminatory or preferential<sup>24</sup>—a standard that does not necessarily require an effective market-based solution. The main alternative to a market-based approach, especially in exigent circumstances, has generally been a cost-of-service approach. Regulating via cost-of-service sacrifices the efficiency and innovation created by the market, but it theoretically ensures that customers are getting what they pay for by permitting the seller to recover only what is needed to serve those customers.

15. The Inventoried Energy program, however, does not provide any such protections for consumers. Instead, by compromising market principles without creating any corresponding protections, the Inventoried Energy program lacks the benefits of either a market-based or a cost-of-service ratemaking methodology. Such a worst-of-both-worlds approach, especially in the absence of any clear benefits, is a recipe for unjust and unreasonable rates, not an example of how to take fuel security seriously.

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<sup>22</sup> ISO New England Transmittal Letter at 5.

<sup>23</sup> The Commission’s suggestion that the Inventoried Energy program is market-like because ISO New England estimated what a contract for LNG would cost and then offered to purchase all “inventoried energy” at that price is borderline laughable. Order, 171 FERC ¶ 61,235 at P 63. An administratively determined single price that is available to an unlimited quantity of resources without any semblance of competition is not a market or anything even remotely close to it.

<sup>24</sup> 16 U.S.C. § 824d(a).

16. ISO New England suggests that the Inventoried Energy program is just and reasonable notwithstanding these shortcomings because a sound market design would take too long to develop and the program will last only two years: 2023-2024 and 2024-2025.<sup>25</sup> And it further suggests that it is justified in rushing to implement an operational solution that will not take effect for more than three years because it expects that the extra money associated with the program will potentially forestall the retirement of otherwise uneconomic generators in the capacity auctions associated with the 2023-2024 and 2024-2025 delivery years. As noted, however, there is no evidence in the record indicating that the payments under the Inventoried Energy program are likely to have any effect on retirements, much less an effect that could conceivably be worth a few hundred million dollars. Without such evidence, there is simply no excuse for rushing a half-baked solution that will not take effect until the middle of the decade.

17. In addition, the Inventoried Energy program may interfere with other initiatives that address reliability, including ISO New England's existing market-based approach to reliability, the Pay for Performance program (PFP).<sup>26</sup> PFP was designed to improve reliability, including fuel security, by creating an incentive for resources to be available when called upon, meaning that it rewards resources for the services that they actually provide, instead of their attributes. We have heard a lot recently about the Commission's purported reverence for markets above all else.<sup>27</sup> And yet, rather than waiting to gather evidence on how PFP's market-based approach works in practice<sup>28</sup> or seeking to further tailor the PFP parameters to address fuel security, ISO New England is now proposing a

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<sup>25</sup> ISO New England Transmittal Letter at 4; ISO New England April 30, 2019 Answer at 2 (recognizing that, in the interest of timing and simplicity, the program is "not a perfect, fully market-based solution to the region's energy security issues"). In any case, these interim programs have a history of sticking around longer than initially contemplated. The Winter Reliability Program, for example, was originally proposed to last one year and ended up being in place in one form or another for four.

<sup>26</sup> PFP rewards resources that perform during an ISO New England-declared PFP event (essentially a potential resource shortage that meets certain conditions) and penalizes those that do not. PFP was intended to incentivize resources to take steps to ensure that they are capable of producing electricity whenever a PFP event occurs. *See generally ISO New England Inc. & New England Power Pool*, 147 FERC ¶ 61,172, at PP 36-40, 63-64 (2014) (discussing PFP).

<sup>27</sup> *See, e.g., PJM Interconnection, L.L.C.*, 169 FERC ¶ 61,239, at P 7 (2019), *reh'g denied* 171 FERC ¶ 61,035 (2020).

<sup>28</sup> The Commission approved a phased-in approach to the PFP rewards and penalties that does not fully take effect until 2024. *ISO New England Inc. & New England Power Pool*, 147 FERC ¶ 61,172 at P 6 n.8.

whole new program that will interfere with PFP's objectives if it succeeds by retaining resources that can store fuel, but cannot reliably perform when needed during a PFP event.<sup>29</sup> Although Commission Staff raised this concern in seeking additional information from ISO New England,<sup>30</sup> the ISO did not directly respond, instead insisting that the Inventoried Energy program and PFP address different issues and could potentially work together.<sup>31</sup> But the *potential* for the two programs to work together is no answer to the concern that, in practice, they will interfere with each other—a result which several commenters suggested is likely.<sup>32</sup> Similarly, today's order lacks any response to the argument that the Inventoried Energy program will undermine PFP's market-based approach, tersely noting only that PFP may “not fully address concerns about adequately encouraging energy supply arrangements.”<sup>33</sup>

18. ISO New England's decision to pursue such an ill-conceived approach is all-the-more disappointing because the ISO has better options than the Inventoried Energy program to address any short-term need that might exist. These other options illustrate how ISO New England could more effectively address the region's needs while also better protecting its ratepayers. For example, consider the Winter Reliability Program, which lapsed following the 2017-2018 winter.<sup>34</sup> By taking away the downside risk of having excess fuel at the end of the winter, the Winter Reliability Program provided a proven method for incentivizing resources to procure fuel while targeting payments at resources that might actually respond to those payments. A modified version of the Winter Reliability Program might have helped to address any short-term need while providing at least some evidentiary basis, in the form of real-world experience, for the

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<sup>29</sup> See, e.g., Maine Public Utility Commission Protest at 6-7.

<sup>30</sup> Commission Staff Deficiency Letter at 9.

<sup>31</sup> ISO New England Deficiency Letter Response at 11-12.

<sup>32</sup> See Massachusetts Attorney General Protest at 13-14; Maine Public Utility Commission Protest at 6-7.

<sup>33</sup> Order, 171 FERC ¶ 61,235 at P 119.

<sup>34</sup> The last three years of the Winter Reliability Program had an average annual cost of roughly \$30 million dollars, New Hampshire Entities Protest at 11 (citing ISO New England Winter Reliability Program data for 2015/16 thru 2017/18, *available at* <https://www.iso-ne.com/markets-operations/markets/winter-program-payment-rate>)—less than one third of ISO New England's *lower* bound estimate for the cost of the Inventoried Energy program, ISO New England Transmittal Letter at 19.



Commission to evaluate whether the proposal might be effective and worth the cost—*i.e.*, whether it is just and reasonable.

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19. New England's fuel security is an important issue that deserves a serious solution. But the Inventoried Energy program is not that. Instead, it is an ill-conceived give away that acts as if throwing money at a problem is always just and reasonable. That willingness to spend customers' money without evidence of a commensurate benefit will make stakeholders, including both states and customers, suspicious of actions by the Commission and ISO New England that purport to address fuel security, potentially undermining more serious efforts to actually address the issue.

For these reasons, I respectfully dissent.

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Richard Glick  
Commissioner