158 FERC ¶ 61,138

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Cheryl A. LaFleur, Acting Chairman;
Norman C. Bay, and Colette D. Honorable.

ISO New England Inc. and New England Power Pool Participants Committee — Docket No. ER14-1639-005

ORDER ON REHEARING

(Issued February 3, 2017)

I. Background

1. ISO New England Inc. (ISO-NE) administers a Forward Capacity Market (FCM), in which capacity resources compete in an annual forward capacity auction (FCA) to provide capacity for a one-year capacity commitment period three years in the future.[1] Suppliers of the capacity that clears each FCA are committed to, and receive payment for, providing capacity for that one-year period.[2]

2. To prevent the exercise of buyer-side market power in the FCM that would reduce capacity prices below the otherwise competitive level, ISO-NE adopted a minimum offer price rule, or MOPR, that requires new capacity resources to offer their capacity at prices that are at or above a price floor (the resources' net cost of new entry, or Net CONE).[3]

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[1] *See ISO New England Inc.*, 151 FERC ¶ 61,056, at P 2 (2015).

[2] *See id.* P 2; https://www.iso-ne.com/static-assets/documents/2016/02/20160229_fca10_finalresults.pdf. For example, FCA 10 took place in February 2016 and procured capacity for the 2019-2020 Capacity Commitment Period.

[3] *ISO-New England Inc.*, 135 FERC ¶ 61,029, at PP 165-166 (2011) (Buyer Market Power Order), *reh'g denied in pertinent part*, 138 FERC ¶ 61,027 (2012).

On May 30, 2014, pursuant to section 205 of the Federal Power Act (FPA),[4] the Commission approved a package of revisions to the FCM that included a system-wide sloped demand curve and a limited exemption from the minimum offer price rule for certain renewable resources (renewables exemption).[5] In any FCA, up to 200 MW of renewables can enter the auction without being subject to the minimum offer price rule.[6] Any unused portion of that 200 MW can carry forward for up to three years (two additional FCAs) for a possible maximum of 600 MW of capacity from exempt renewable resources capacity in any given FCA.[7] Since acceptance of the renewables exemption, ISO-NE has conducted two FCAs: FCA 9 and FCA 10.[8]

[4] 16 U.S.C. § 824d (2012).

[5] *ISO New England Inc*., 147 FERC ¶ 61,073, at P 81 (2014) (Demand Curve Order), *reh'g denied*, 150 FERC ¶ 61,065 (2015) (Demand Curve Rehearing Order). To qualify for the Renewable Technology Resource exemption, a resource must (1) receive an out-of-market revenue source supported by a state- or federally-regulated rate, charge, or other regulated cost recovery mechanism and (2) qualify as a renewable or alternative energy generating resource under any New England state's mandated renewable or alternative energy portfolio standards or, in states without a standard, qualify under that state's renewable energy goals as a renewable resource. The resource must qualify as a renewable or alternative energy generating resource in the state in which it is geographically located. ISO New England Inc. Transmission, Markets and Services Tariff (Tariff) § III.13.1.1.1.7.

[6] Tariff § III.13.1.1.12.10(b).

[7] Tariff § III.13.1.1.2.10(c). *See also ISO New England, Inc.*,155 FERC ¶ 61,023, at P 10 & n.22 (2016) (Remand Order) (citing ISO New England Inc., Attachment to Transmittal, Docket No. ER14-1639-000 (Testimony of Dr. Robert G. Ethier) at 37-38 (Ethier Testimony)). Dr. Ethier explained that, if no resources qualify for the exemption for four straight FCAs in a row, the limit will stay at 600 MW and will not exceed 600 MW going forward; if in any FCA the total 600 MW limit is met, the following FCA will return to a 200 MW limit. *Id*.

[8] *See ISO New England Inc.*, 150 FERC ¶ 61,021, at PP 16-17 (2015) (accepting FCA 9 informational filing); *ISO New England Inc*., 155 FERC ¶ 61,273, at P 14 (2016) (accepting as just and reasonable the FCA 10 results filing). FCA 9 used vertical system-wide and zonal demand curves; FCA 10 used a system-wide sloped demand curve and

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3. NextEra Energy Resources, LLC (NextEra), the PSEG Companies (PSEG)[9] and the NRG Companies (NRG)[10] (together, Generators) sought review of the renewables exemption in the United States Court of Appeals for the District of Columbia Circuit (D.C. Circuit). In response to the Commission's unopposed motion for voluntary remand, the D.C. Circuit remanded the case to the Commission.[11]

4. On April 8, 2016, the Commission issued the Remand Order, reaffirming its decision that it is just and reasonable and not unduly discriminatory or preferential to exempt annually up to 200 MW of renewable resources from the minimum offer price rule in the FCM, with the carryover described above. On May 9, 2016, the Generators filed a request for rehearing, asserting that the Commission – by retaining its decision that annually up to 200 MW of renewable resources may be exempt from buyer-side market power mitigation and allowed to bid below actual costs – failed to engage in reasoned decision-making, contradicted its own precedent, and disregarded substantial record evidence. We deny rehearing, as explained below.

II. Procedural Issue

5. On June 3, 2016, the New England States Committee on Electricity (NESCOE) filed a motion to answer and limited answer to Generators' rehearing request. Rule 713(d)(1) of the Commission's Rules of Practice and Procedure[12] prohibits answers to a request for rehearing. Accordingly, we reject NESCOE's answer.

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vertical zonal demand curves; and FCA 11 onwards will use sloped system-wide and zonal demand curves.

[9] PSEG is PSEG Power LLC, PSEG Power Connecticut LLC, and PSEG Energy Resources & Trade LLC.

[10] NRG is NRG Power Marketing LLC, GenOn Energy Management, LLC, Connecticut Jet Power LLC, Devon Power LLC, Middletown Power LLC, Montville Power LLC, Norwalk Power LLC, NRG Canal LLC, and Energy Curtailment Specialists Inc.

[11] *See* Remand Order, 155 FERC ¶ 61,023 at P 22 & nn.55-56 (citations omitted).

[12] 18 C.F.R. § 385.713(d)(1) (2016).

III. Discussion

A. Introduction

6. We reaffirm the Commission's finding that ISO-NE has shown, based on substantial record evidence, including expert testimony and economic theory, that the renewables exemption from the minimum offer price rule is just and reasonable and not unduly discriminatory or preferential.[13] While our initial decision and affirmation are based on the evidence in the record at the time when we accepted the renewables exemption in 2014, as we explain at various points in this order below, subsequent information gleaned from FCA 9 and FCA 10 and the qualification filing for FCA 11 substantiate the reasonableness of the Commission's original determination.

7. The Commission has acknowledged the right of states to pursue their own policy interests but must be mindful of state regulatory actions that impinge on FERC-jurisdictional market mechanisms to set price.[14] In the Buyer Market Power Order, the Commission "recognize[d] that states and state agencies may conclude that the procurement of new capacity . . . will further specific legitimate policy goals, and therefore, argue that [such capacity should be exempted from the Minimum Offer Price Rule]. Whether to grant an exemption is based on each case's unique facts."[15] Here, we conclude that ISO-NE's inclusion of a limited renewables exemption in its capacity market design reasonably accommodates the states' policy goals, while still maintaining ISO-NE's ability to fulfill its reliability obligations.

8. In the proceeding before us here, Generators argue that, if all else is held constant, offering exempt renewable resources at prices below their costs (i.e., one that does not reflect state subsidies) shifts the supply curve to the right and reduces FCM capacity prices.[16] We agree. However, Generators go further by arguing that the renewables exemption *unreasonably* suppresses capacity prices.[17] In doing so, Generators fail to acknowledge that, in proposing this exemption, ISO-NE recognized that states are

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[13] Remand Order, 155 FERC ¶ 61,023 at PP 23-29, 32-36, 39-44, 46-47, 52-53, 56-57, 62-65, 67-68, and 70-71.

[14] *Id*. PP 3-5 and Buyer Market Power Order, 135 FERC ¶ 61,029 at PP 170-71.

[15] Buyer Market Power Order, 135 FERC ¶ 61,029 at P 171.

[16] *See* Rehearing Request at 2, 11-13, 27 and 40.

[17] *Id.*

making policy decisions to develop renewable resources, and sought to accommodate these policy decisions by allowing a limited portion of renewable resources to submit bids into the capacity market that are exempt from the minimum offer price rule.[18] We also reaffirm that the renewables exemption is a just and reasonable market design because, while acknowledging state policy considerations,[19] it nevertheless enables the FCM to fulfill its function of procuring sufficient capacity to meet reliability targets, on average, over time, at just and reasonable prices to customers.

9. While the Commission is responsible for maintaining well-functioning markets, states have jurisdiction over generation and set renewable resources targets and renewable portfolio standards. One purpose of capacity markets is to send appropriate price signals regarding where and when new resources are needed. If renewable resources are being built, but are not reflected in the FCM, then the FCM may send an incorrect signal to construct new capacity that is not needed. Not only would the capacity market send an incorrect signal, but customers would have to pay for capacity twice – first, for renewable resources via out-of-market mechanisms and second, for additional capacity that is procured because the capacity market has sent the incorrect signal that additional capacity is needed.[20]

10. Additionally, the purpose of the minimum offer price rule is to mitigate the exercise of buyer-side market power. Although the Commission previously agreed with arguments that uneconomic capacity suppresses prices, regardless of intent, and that such uneconomic entry can result in unjust and unreasonable capacity prices, the Commission

[18] Ethier Testimony at 39 (stating that the renewables exemption "acknowledges that these state sponsored resources do or will exist and reasonably addresses the inherent conflict between certain legitimate state actions and setting appropriate prices in the FCM").

[19] We note that in *Hughes v. Talen Energy Mtkg., LLC*, 136 S.Ct. 1288 (2016), the Supreme Court recently found that a state program subsidizing development of generation that was required to bid into PJM in a manner that would effectively determine PJM's capacity price violated the FPA. As the Court held, a state may not "set[] an interstate wholesale rate [in contravention of] the FPA's division of authority between state and federal regulators." *Id*. at 1297. The Court noted, however, that its holding was limited, and did not "foreclose . . . [states] from encouraging production of new or clean generation" so long as such state initiatives did not "condition payment of [state] funds on capacity clearing a [FERC-jurisdictional] auction." *Id*. at 1298.

[20] Remand Order, 155 FERC ¶ 61,023 at P 33.

also explained in those cases that "parties [had] not provided sufficient specificity to allow us to approve an appropriately narrow exemption."[21] In this proceeding, ISO-NE proposed under section 205 of the FPA a renewables exemption that appropriately balances competing generator and customer interests, and ISO-NE presented substantial evidence that, even with the renewable resources exemption, the FCM would be able to fulfill its function of procuring capacity at just and reasonable prices.[22] We reiterate that the Commission's acceptance of the renewable resources exemption is consistent with precedent involving other regional transmission organizations in which we determined that intermittent renewable resources with low capacity factors[23] and high development costs have limited or no incentive and ability to exercise buyer market power to artificially suppress capacity market prices.[24]

11. In assuring just and reasonable rates, the Commission must strike a balance between setting a price that will provide an incentive to develop and retain a sufficient level of capacity to ensure reliability, and protecting customers from overpaying for that capacity.[25] In accepting the renewables exemption, the Commission recognized the potential of such an exemption to suppress capacity prices and based its acceptance in

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[21] *Id*. P 36 & n.77 (citing Buyer Market Power Order, 135 FERC ¶ 61,029 at P 171).

[22] *Id*. P 36; Ethier Testimony at 38-41; *see also* discussion, *infra* PP 19-29 concerning substantial evidence.

[23] The net "capacity factor" of a power plant is the ratio of (a) its average output to (b) its maximum potential output at nameplate capacity, over the same period of time. For example, a generating facility that operates at an average of 33 percent of its normal full-power capacity over a measured period has a capacity factor of 0.33 for that period. *See* http://www.eia.gov/tools/glossary/index.cfm?id=C.

[24] *See* Remand Order, 155 FERC ¶ 61,023 at P 33 (citing *N.Y. Pub. Serv. Comm'n v. N.Y. Indep. Sys. Op., Inc.*, 153 FERC ¶ 61,022, at PP 47, 51 (2015), *reh'g denied*, 154 FERC ¶ 61,088 at PP 13-14 (2016); *PJM Interconnection LL.C.*, 143 FERC ¶ 61,090, at P 26 (2013)).

[25] *Id*. P 34 & n. 73 (citing *New England Power Generators Ass'n, Inc.*, 146 FERC ¶ 61,039 at P 52 (2014)). *See also FPC v. Hope Natural Gas Co*., 320 U.S. 591, 603 (1944) (evaluating whether end result of agency's balancing customer interests with utility's "legitimate concern with financial integrity of the company" resulted in reasonable rates).

part on factors that would limit the price impact.[26] We reiterate that ISO-NE's use of sloped demand curves (including the updated system-wide and zonal sloped demand curves) will generally result in the renewables exemption having a smaller impact on price for any changes in quantity than would have been the case under the vertical demand curve that ISO-NE employed before the renewables exemption was accepted.[27] We also reiterate that capping the renewables exemption at 200 MW annually (and limiting the carryover to 600 MW triennially) tempers the price impact.[28] And, even if load growth in New England to date has not been as robust as anticipated, significant completed and expected retirements will similarly reduce the potential of the renewable exemption to reduce prices in the capacity market.[29]

12. While a limited exemption of renewables from the minimum offer price rule is one way to reconcile the differences between state policy goals and the FCM's function of meeting reliability targets, there may be other market designs to achieve this result. We note that a working group of New England stakeholders has recently been discussing other methods for accommodating state environmental goals within FERC-jurisdictional markets. We encourage ISO-NE and its stakeholders to continue exploring these issues.[30]

13. We now turn to the specific arguments that Generators raise on rehearing.

B. Generators' Arguments

14. Generators make three main arguments challenging the renewables exemption. First, they assert that the Commission contradicted its own precedent and undercut the market design by accepting the renewables exemption and that the Commission cannot set rates without quantifying the extent of price suppression that the exemption will cause. Second, they allege that the mitigating factors that the Commission relied on to accept the renewables exemption as just and reasonable do not justify the price

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[26] Remand Order, 155 FERC ¶ 61,023 at P 27.

[27] *Id*. P 28.

[28] *Id*. PP 26-28.

[29] *See generally* https://www.iso-ne.com/about/regional-electricity-outlook/grid-in-transition-opportunities-and-challenges/power-plant-retirements.

[30] Information about New England's Integrating Markets and Public Policy (IMAPP) stakeholder process can be found here (http://nepool.com/IMAPP.php).

suppression caused by the exemption. Third, they argue that the Commission erred by not setting the renewables exemption for hearing. Generators assert that, in accepting the renewables exemption, the Commission violated the FPA[31] and the Administrative Procedure Act (APA);[32] failed to engage in reasoned decision-making with respect to precedent, record evidence, and responding to objections; and neglected to make a decision based on substantial evidence. We disagree and deny rehearing, as explained below.

C. Price Suppression and Undue Discrimination

1. Substantial Evidence

a. Request for Rehearing

15. Generators' chief contention is that the renewables exemption will result in unjust and unreasonable price suppression and undue discrimination.[33] They fault the Commission for neither acknowledging that price suppression will occur, nor evaluating the extent to which it will lower the FCM capacity prices.[34] They assert that the Commission cannot rationally determine a rate is just and reasonable without determining what the rate impact will be – that is, without quantifying the amount of price suppression that the renewables exemption may cause.[35] They assert that the only evidence in the record on this issue, "as opposed to vague, unsubstantiated, and unqualified opinions," is the expert evidence offered by protestors. Specifically, they claim that the Commission failed to rebut substantial evidence that the renewables exemption will result in as much as $370 million worth of price suppression in any given year[36] and that this evidence contradicts the Commission's finding that the

[31] Rehearing Request at 7 (citing 16 U.S.C. § 824d (2012)).

[32] *Id*. (citing 16 U.S.C. § 825*l* (b) (2012)).

[33] *Id*. (citing *New England Power Generators Ass'n v. FERC*, 757 F.3d 283, 294 (D.C. Cir. 2014) (*NEPGA v. FERC*)).

[34] *Id*. at 1-2, 10.

[35] *Id*. at 7 (citing *Hope Natural Gas Co.*, 320 U.S. at 602; *Jersey Cent. Power & Light Co.*, 810 F.2d at 1177).

[36] *Id*. at 1 (figures are based on the system-wide demand curve at the time the Remand Order issued).

price suppression will be "limited," "tempered" or "mitigated." They assert that the Commission's decision to ignore what they allege is the only evidence that quantifies the price impact of the renewables exemption renders its decision unsupported by substantial evidence.[37]

16. Generators further assert that numerous protestors explained that the renewables exemption would result in price suppression, despite the adoption of a sloped demand curve. They state that, as New England Power Generators Association (NEPGA) expert witness Dr. Hunger pointed out, prices are a function of the interplay between the demand and supply curves, and cheap supply (such as the exempt renewable resources) pushes the supply curve to right, causing it to intersect the demand curve at a lower clearing price, lowering aggregate capacity revenues.[38] Citing *NEPGA v. FERC*, Generators argue that this simple analysis confirms what the Commission and D.C. Circuit have long held: a resource offered into the auction at zero will displace a higher priced resource that would have set the clearing price, resulting in a lower clearing price, which is "definitional market distortion in favor of buyers."[39]

17. Generators state that, although the demand curve is no longer vertical, the supply curve remains very steep at the margins where it intersects the demand curve. Generators allege that the entry of 200 MW of exempt renewable resources in one year would suppress revenues by eight percent or $370 million; and, if 600 MW of exempt renewable resources entered a single FCA under the carry-forward provision, the entry of those 600 MW would suppress revenues by 23 percent or $1.028 billion.[40] They state that, as there is no cumulative limit to the renewables exemption, other than the 600 MW

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[37] *Id*. at 10-11.

[38] *Id*. at 11-12.

[39] *Id*. at 10, 11 & n.29 (citing *NEPGA v. FERC*, 757 F.3d at 294).

[40] *Id*. at 12, referring to figures from Table 1. Generators state that Dr. Hunger prepared Table 1 using the representative supply curve developed by ISO-NE's own witness, Dr. Ethier. *Id*. at 12 & n.33 (citing NextEra Protest at 12 & Hunger Aff. ¶¶ 18-19). Generators point out that, while both Dr. Hunger and another witness, Mr. Schnitzer (who provided testimony for generator Exelon) found that the renewables exemption would depress capacity prices "$0.50 to $1.50 per KW-month or more," *id*. at 13, they reached different results as to the amount of uneconomic entry increased because Mr. Schnitzer used a flatter supply curve than the one ISO-NE and Dr. Hunger used. *Id*.

cap on new out-of-market entry in a single auction, the price-suppressive effects of the exemption will continue "for years to come."[41]

18. Generators further complain that, in approving the renewables exemption, the Commission failed to take into account that demand curves can change over time. Generators point out that in Docket No. ER16-1434-000, ISO-NE proposed a new system-wide demand curve and sloped zonal curves.[42] They argue that, under the new demand curves, which will be in place for FCA 11, the 200 MW renewables exemption could suppress prices by approximately $1.32/kW-month, which, according to Generators, would result in a 42 percent increase in price suppression, as compared with the amount of price suppression associated with the sloped system-wide demand curve in place in FCA 9 and FCA 10. Generators assert that the new demand curves could lower capacity revenues by more than $500 million in a single auction.[43] Generators argue that the price impact is much greater in Northern New England. According to Generators, while 600 MW of uneconomic entry would result in roughly a $4/kW-month price decrease in the system-wide price, in an export-constrained zone like Northern New England a 600 MW increase in supply due to uneconomic entry would cause a roughly $9/kW-month decrease in that zone's (zonal) price.[44]

b. Commission Determination

19. We deny rehearing. Contrary to Generators' contention, the Commission's determination that the renewables exemption is just and reasonable and not unduly

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[41] *Id*. at 12.

[42] *Id*. at 13 & n.38 (citing ISO New England Inc., Docket No. E16-1434-000, Demand Curve Design Improvements (filed Apr. 16, 2016)). We note that the Commission accepted that filing effective June 29, 2016. *ISO New England Inc.*, 155 FERC ¶ 61,319 (2016) (Demand Curve Design Improvements Order).

[43] Rehearing Request at 13. We note that, while the system-wide sloped demand curve accepted in the Demand Curve Order eliminated the need for administrative pricing rules at the system-wide level, constrained zones were still subject to a vertical demand curve. The tariff revisions accepted in Docket No. ER16-1434-000 implemented zonal sloped demand curves and revised the system-wide sloped demand curve to reflect the marginal improvement in reliability associated with adding capacity in constrained zones versus adding capacity to the remainder of the system, or Rest-Of-Pool. *See* Demand Curve Design Improvements Order, 155 FERC ¶ 61,319 at PP 30-33.

[44] Rehearing Request at 14.

discriminatory or preferential and that it does not unreasonably lower FCM capacity prices is grounded in expert testimony and economic theory. This constitutes substantial evidence.[45]

20. While Generators fault the Commission for not recognizing that the renewables exemption "will suppress prices,"[46] the Commission repeatedly acknowledged that the renewables exemption has "the *potential* to suppress capacity prices, and based its acceptance of the exemption in part on factors that would limit its price impact."[47] For instance, the Commission reiterated that the price impact of the renewables exemption is related to a number of factors, including the slope of the demand curve, the amount of exempt renewable resources participating in the FCM, load growth, and retirements.[48] As ISO-NE's witness, Dr. Ethier, testified, "as long as exempted renewable entry does not exceed average annual load growth and consequent growth in the installed capacity requirement, there will not be systematic downward pressure on prices."[49] Dr. Ethier

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[45] The substantial evidence standard "requires more than a scintilla, but can be satisfied by less than a preponderance of evidence." *La. Pub. Serv. Comm'n v. FERC*, 522 F.3d 378, 395 (D.C. Cir. 2008) (citation omitted); *Murray Energy Corp. v. FERC*, 629 F.3d 231, 235 (D.C. Cir. 2011) ("[s]ubstantial evidence is such relevant evidence as a reasonable mind might accept as adequate to support a conclusion") (quoting *Col. Inter. Gas v. FERC*, 599 F.3d 698, 704 (D.C. Cir. 2010)).

[46] Rehearing Request at 2.

[47] *See* Remand Order, 155 FERC ¶ 61,023 at P 27 (emphasis added); *see also id*. P 32; *id*. P 46 (recognizing sloped demand curve was important to help mitigate price suppression). *See also* Demand Curve Order, 147 FERC ¶ 61,173 at P 83 (finding that sloped demand curve "will limit the impact of price suppression as compared to the existing vertical demand curve"); *id*. P 84 (rejecting concerns that exemption would significantly suppress energy market prices). *See also* Demand Curve Rehearing Order, 150 FERC ¶ 61,065 at PP 20-21. According to ISO-NE's expert witness, Dr. Ethier, the downward sloping demand curve "will significantly reduce the expected impacts" associated with an exemption for renewable resources." Demand Curve Filing, Ethier Testimony at 40.

[48] *See, e.g.*, Demand Curve Order, 147 FERC ¶ 61,173 at PP 83-84; Demand Curve Rehearing Order, 150 FERC ¶ 61,065 at PP 18, 20-24; Remand Order, 155 FERC ¶ 61,023 at PP 26-28, 41, 48, and 53.

[49] Ethier Testimony at 41. He similarly stated that renewable resource entry "even in the unlikely event that it occurs up to the cap value, can be expected primarily

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also testified that a significant amount of future retirements are expected.[50] Furthermore, the Commission relied on expert testimony to conclude that the demand curve's slope and shape, the magnitude of Net CONE, and features of the renewables exemption, such as qualification and proration rules, would also help offset price impacts resulting from the renewables exemption.[51] The Commission also recognized that the steepness of the slope of the supply curve (as determined by the quantity of MW of supply offered into the FCM) would affect the FCM capacity price.[52] The fact that experts disagreed on how steep the supply curve would be in the future does not show that the Commission lacked substantial evidence.[53]

21. Generators argue that, if all other factors remain unchanged, adding a 200 MW renewables exemption shifts the supply curve to the right and reduces prices. Although

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to displace the new entry required to meet load growth." *Id.* He concluded that "even in the unlikely event that [renewable resource entry] occurs up to the cap value" then "an FCM in equilibrium would still be expected [to] clear near Net CONE, and merchant entry would be required to meet new retirements, which are expected to be significant – by some estimates, retirements in New England may exceed 6,500 MW by 2020." *Id.*

[50] Dr. Ethier stated in 2014 that "retirements in New England may exceed 6,500 MW by 2020." *Id.* ISO-NE more recently updated this forecast by stating that "[b]etween winter 2013/2014 and 2014/2015 alone, the region lost over 1,000 MW of non-gas capacity from Salem Harbor Station, Mount Tom Station, and Vermont Yankee Nuclear Power Station. 'At risk' for closing are another 6,000 MW from additional coal- and oil-fired generators. . . . In total, about 30% of the region's generating capacity could be gone by 2020." https://www.iso-ne.com/about/regional-electricity-outlook/grid-in-transition-opportunities-and-challenges/power-plant-retirements.

[51] *See* Demand Curve Order, 147 FERC ¶ 61,173 at PP 81-89; *see also* NESCOE Comments, Docket No. ER14-1639-000, at 7 & nn.18-20 (Table 1: New CONE Values in Eastern ISO/RTO Capacity Markets) (filed April 22, 2014).

[52] Remand Order, 155 FERC ¶ 61,023 at P 40.

[53] *See, e.g., Consolo v. Fed. Mar. Comm'n*, 383 F.2d 607, 620 (1966) (the possibility of drawing two inconsistent conclusions from the evidence does not prevent the agency's finding from being supported by substantial evidence); *accord Fla. Gas Transmission Co. v. FERC*, 604 F.3d 636, 645 (D.C. Cir. 2010) ("[W]e do not ask whether record evidence could support the petitioner's view of the issue, but whether it supports the Commission's ultimate decision.").

this is a possible outcome,[54] it is not a foregone conclusion for every auction. For example, it is conceivable that the supply curve could be horizontal over a range of quantities because a number of generators bid in at the same offer price.[55] In such a case, if the demand curve intersects the supply curve over this horizontal range (which is at least coextensive with the amount of renewable resources that clears in the capacity auction), then shifting the curve to the right for the renewables exemption would not lower the clearing price.[56] Furthermore, Generators' contention relies on the (unrealistic) assumption that all other factors remain unchanged. However, in the real world, factors do not remain constant. System conditions, the location, fuel-type and volume of new merchant entry, de-list bids, retirements, load growth or decline, the price of natural gas, offer bids, state environmental rules, energy efficiency, demand response, and other variables all impact the FCM price and change over time. Indeed, Generators' expert witness, Dr. Hunger, predicted the impact of the renewables exemption on capacity prices, based on assumptions, including the steepness of the supply curve. Although Dr. Hunger predicted that the renewables exemption would annually lower capacity market prices by up to eight percent, his analysis also provided a range of possible outcomes.[57]

22. Furthermore, although he uses The Brattle Group (Brattle) data, Dr. Hunger's supply curves are exceptionally steep around the clearing price, and, in part because he does not take into account future retirements, he forecasts that capacity prices would increase by $3.00/kW-month or more if ISO-NE attempted to procure an additional

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[54] *NEPGA*, 757 F.3d at 294.

[55] *See* Remand Order, 155 FERC ¶ 61,023 at P 40. As we noted before, "for a given auction, the characteristics of the FCA supply curve may be such that the renewables exemption has little to no impact on the FCA clearing price," such as when new capacity is needed, the market is competitive, and several generators bid in at Net CONE. The actual results of FCA 10 are consistent with a relatively horizontal (flat) supply curve around the FCA clearing prices – and an additional 1,000 MW of supply was available at prices within $1.50/kW-month of the clearing price. *See infra* discussion at P 37 and footnote 95.

[56] *See* Remand Order, 155 FERC ¶ 61,023 at P 41 ("Load growth and retirements should ensure that, in years where new entry is needed, the supply curve is relatively flat at the point of intersection (i.e., the point of intersection will occur on the portion of the supply curve that reflects new entrants.")).

[57] *See* Rehearing Request at 12, Table 1 & n.33 (citing Hunger Aff. ¶¶ 18-19).

100 MW of capacity. However, in FCA 9, ISO-NE would have needed to procure an additional 500 to 600 MW of supply to yield a clearing price that was about $1.50 higher than what actually occurred. This would suggest that Dr. Hunger's estimates were significantly higher than the actual events of FCA 9.[58] This illustrates how different experts have different opinions, and, in light of the results of FCA 9 and FCA 10, Dr. Hunger's estimates were not as close an approximation to how the renewables exemption actually functioned as Dr. Ethier's (ISO-NE).

23. Addressing the issue of price impact, courts have found it acceptable for the Commission to rely on well-articulated economic theory,[59] and we continue to find that ISO-NE adequately supported the renewables exemption, given that its impact on price would be limited by the sloped demand curve and the 200 MW annual limit (with the carryover up to the 600 MW limit).[60] ISO-NE's expert witness, Dr. Ethier, testified how prices would likely evolve over time. Recognizing that load growth, retirements, and new entry are likely to change over time, he did not hold these factors constant. He concluded that, "even in the unlikely event [that exempt renewable resource entry] occurs up to the cap value, it can still be expected primarily to displace . . . new entry."[61] He explained how load growth and retirements would likely offset exempt renewable resources and testified that "an FCM in equilibrium would still be expected to clear near Net CONE."[62] Because Dr. Ethier testified that the FCM clearing price on average over time – (near) Net CONE – would be roughly the same as it had been without the renewables exemption, the Commission reasonably concluded that the FCM with the renewables exemption would yield a just and reasonable capacity price.[63]

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[58] *See infra* discussion at P 37 and footnote 96.

[59] *See Sacramento Mun. Util. Dist. v. FERC*, 616 F.3d 520, 531 (D.C. Cir. 2010) (FERC is not prohibited from "making findings based on 'generic factual predictions' derived from economic research and theory."); *see also Cent. Hudson Gas & Elec. Corp. v. FERC*, 783 F.3d 92, 109 (2d Cir. 2015); *Assoc. Gas Distrib. v. FERC*, 824 F.2d 981, 1008-09 (D.C. Cir. 1987).

[60] Remand Order, 155 FERC ¶ 61,023 at P 39; *see also Central Hudson*, 783 F.3d at 109.

[61] Ethier Testimony at 41.

[62] *Id.*

[63] *See* Demand Curve Order, 147 FERC ¶ 61,173 at P 83; *see also* Remand Order, 155 FERC ¶ 61,023 at PP 27-28, 32-36. We note that ISO-NE submitted the renewables

(continued ...)

24. Moreover, as Generators acknowledge, the overarching purpose of the FCM is to enable ISO-NE to procure sufficient capacity to meet its reliability needs.[64] In contrast to Dr. Ethier's method, Dr. Hunger held all factors (i.e., load growth and retirements) constant, except for the renewables exemption. Under this approach, at any point in time as well as over time, adding a renewables exemption (or any zero-priced entry) (usually) lowers prices. Thus, differing expert views were presented to the Commission, and the difference between the experts' methodologies for evaluating the impact of the renewables exemption on prices is at least in part responsible for the disagreement surrounding whether and, if so, how much, the renewables exemption is likely to lower FCM capacity prices.

25. We disagree with Generators' contention that protestors' evidence is the only evidence in the record on this issue and remains unrebutted. Generators ignore the fact that the Commission evaluated ISO-NE's and protestors' (including Generators) conflicting estimates of how greatly prices would be affected under the renewables exemption.[65] These estimates varied depending on assumptions concerning the steepness of the supply curve.[66] Ultimately, the Commission agreed with the assessment of the grid operator, ISO-NE, the entity responsible for balancing supply and demand and ensuring reliability, regarding the assessment of the steepness of the supply curve at the point of

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exemption under section 205 of the FPA, so ISO-NE only needed to show that with the exemption, FCM capacity prices would be just and reasonable; ISO-NE did not need to show that without the exemption, FCM capacity prices were unjust and unreasonable or unduly preferential and discriminatory.

[64] *See* Rehearing Request at 24 & n.69 ("The purpose of the New England FCM is to attract and retain sufficient capacity to maintain ISO-NE's Installed Capacity Requirement, and to do so, FCM capacity prices will need to average out of time to the cost of new entry.") (quoting *ISO New England Inc.*, 125 FERC ¶ 61,102, at P 43 (2008), *reh'g denied*, 130 FERC ¶ 61,089 (2010)).

[65] Remand Order, 155 FERC ¶ 61,023 at P 40 & n.86 (quoting Ethier Testimony at 40) (quotation omitted).

[66] *See id.* P 43 & n.93 (indicating the lack of uniformity in protestors' evidence of the renewables exemption's downward impact). Despite similar analyses, Mr. Schnitzer's conclusion (roughly five to ten percent decrease in capacity market prices) differed from Dr. Hunger's conclusion (roughly up to eight percent annual decrease) because Mr. Schnitzer and Dr. Hunger used different assumptions as to the slope of the supply curve (Dr. Hunger used a steeper supply curve).

intersection.[67] While we nevertheless acknowledge that Dr. Hunger's analysis indicates a range of possible amounts by which the renewables exemption could reduce FCM capacity prices, as discussed in detail below, we conclude that his range errs on the high side because it does not appear to take into account the substantial amount of forecasted retirements in New England.[68]

26. As the record reflects, ISO-NE sought to accommodate New England state laws and regulations that provide incentives for development of renewable resources outside of the FCM. To the extent that resources built pursuant to state incentive programs contribute toward meeting the region's resource adequacy requirements, the renewables exemption decreases the likelihood that customers must pay for more resources than are necessary to provide for resource adequacy or that the capacity market will provide a false signal that new investment is needed when this is not the case.

27. In addition, the sloped demand curve helps buffer the price impact of any shifts in the supply curve.[69] The sloped demand curve, in conjunction with the 200 MW renewable resource limit and retirements, will help mitigate any price impacts associated with the renewables exemption, which is designed to achieve a reasonable balance between market-based procurement and acknowledgment of state public policies.

28. Generators argue, in essence, that the renewables exemption will harm the FCM because it will continue to lower FCM capacity prices indefinitely as there is no limit to the duration of the exemption.[70] We disagree. First, Generators have not shown that the renewables exemption will, in fact, suppress prices over time such that the capacity market is unable to perform its function of attracting and retaining sufficient capacity to maintain reliability in New England at a just and reasonable price. Indeed, participation in the FCAs has been and continues to be robust.[71] Second, New England

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[67] *Id*. PP 40-41.

[68] *See infra* P 34; *see also infra at* PP 78-83.

[69] *See* Newell-Spees Testimony at 23 ("the sloped curve shows a much better-behaved profile with a smooth distribution of prices around Net CONE and only 6.4% of prices at the cap," less price volatility, and less susceptibility to market power because it is less sensitive to small shifts in supply or demand).

[70] Rehearing Request at 12.

[71] For example, for FCA 11, ISO-NE states that it intends to procure 34,075 MW (the net Installed Capacity Requirement) and 34,505 MW of existing capacity and

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is facing significant retirements, which are expected to more than offset the impact of the renewables exemption on the FCM capacity price.[72] Third, ISO-NE committed to revisit the cap on the renewables exemption, depending on load growth.[73]

29. Similarly, Generators object that the Commission failed to take into account the fact that demand curves can change over time and the new sloped zonal demand curve could result in as much as a 42 percent increase in price suppression as compared with the current demand curve. We agree that the new zonal sloped demand curves, at both the system-wide and zonal level, could reduce FCM capacity prices – all things being equal – if the supply curve is vertical.[74] However, the new demand curves were designed to reflect more accurately the locational marginal reliability impact of capacity.[75] The Commission accepted these revised curves as just and reasonable, and that order is final, but parties always have the opportunity to contest future rule changes

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5,958 MW of new capacity have qualified to participate in the FCA. If all Static, Export and Administrative Export De-List Bids clear, there will be 38,841 MW of supply offered into the auction. *See* ISO New England Inc., Docket No. ER17-321, Transmittal Letter at 4-5 (filed Nov. 8, 2016). The fact that nearly 6,000 MW of new capacity sought to qualify to participate in FCA 11 indicates that these resources anticipate sufficiently high capacity prices to make it worthwhile to go through the expense of preparing to build a new resource, i.e., planning, siting, getting into the interconnection queue, obtaining permits, etc.

[72] *See infra* PP 78-83.

[73] Remand Order, 155 FERC ¶ 61,023 at P 20 & n.51 (citing Demand Curve Rehearing Order, 150 FERC ¶ 61,065 at P 22).

[74] Generators' assertion – that under the new demand curves the 200 MW of exempt renewable resources could suppress capacity prices by approximately $1.32/kW-month – assumes a nearly vertical supply curve. Under the actual FCA 10 supply curve, for example, 200 MW of exempt renewable resources would result in a reduction in capacity prices that is a fraction of the approximately $1.32/kW-month that Generators assert will occur under the new system-wide sloped demand curve. *See infra* footnote 95 (for example, there is 1,043 MW of additional supply available at prices less than $1.47/kW-month above the clearing price; if the supply curve is approximately linear over this range, 200 MW of additional supply would be associated with less than a $0.30/kW-month reduction in capacity prices – (($1.47/kW-month)/(1,043 MW))*(200 MW) =$0.28/kW-month).

[75] Demand Curve Design Improvements Order, 155 FERC ¶ 61,319 at P 5.

on a going forward basis. Additionally, even if the FCM capacity prices resulting from the revised system-wide and zonal sloped demand curves are lower than was previously the case, those prices more accurately reflect the contribution to reliability of all resources available to provide resource adequacy and demonstrate that the FCM is working as intended. In short, contrary to Generators' assertions, prices are not automatically unjust and unreasonable simply because they may be lower than they would be absent the renewables exemption.

2. Contrary Record Evidence

a. Request for Rehearing

30. Generators contend that, despite the Commission's statements to the contrary,[76] no evidence conflicts with the expert opinions in the record. Generators argue that the logic and facts that the Commission mustered to support its position are "fatally flawed."[77] They state that Dr. Hunger used the same supply curve that Brattle formulated and modeled for ISO-NE. They add that, while the supply curve Mr. Schnitzer (Exelon's witness) calculated was less steep than ISO-NE's curve (indicating less price suppression than what ISO-NE even acknowledged), it also showed that the renewables exemption would result in substantial price suppression.[78] Next, they contend that ISO-NE did not offer competing estimations of price effect. Generators state that protestors, including Generators, provided the only record evidence quantifying the price impact of the renewables exemption.

31. Generators emphasize that Brattle's demand curve modeling and testimony in support of ISO-NE's filing did not examine the specific effects of the renewables exemption because the exemption was proposed to stakeholders after the analysis was prepared.[79] Generators assert that ISO-NE only offers the unsupported conclusion that the sloped demand curve would "improve[]" the price suppressive effects of the renewable exemption as compared with the vertical demand curve.[80] They add that

[76] Rehearing Request at 15-16 (quoting Remand Order, 155 FERC ¶ 61,023 at P 40).

[77] *Id*. at 15.

[78] *Id*. at 16.

[79] *Id*. at 16 & n.42 (citing ISO-NE Answer, Docket No. ER14-1639-000 (filed May 1, 2014) (ISO-NE Answer) at 16).

[80] *Id*. at 16 & n.43 (quoting Ethier Testimony at 40:3-10).

Dr. Ethier conceded there will not always be "significant price differences between sloped and vertical demand curves"[81] and that "when the market is long . . . renewable entry would be expected to slow the market's return to equilibrium."[82] Generators say that this means that exempt renewable resources will perpetuate suppressed prices whenever there is a capacity surplus, which, they insist, does not justify price suppression.

32. Next, Generators address the Commission's determination that the supply curve is not likely to be steep at the margin where it intersects the demand curve. Generators argue that the underlying design of the new system-wide demand curve will be significantly steeper at the margin where it intersects whatever supply curve is in effect, offsetting the mitigating impact from the relatively flatter supply curve that the Commission assumed when approving the renewables exemption. Generators state that, in order for the intersection between supply and demand to not be steep, there must be a deep pool of competitive entrants on an ongoing, long-term basis with offer prices very close together, for which there is no evidence. They argue that there is no evidence in the prior two auctions (FCA 9 and FCA 10) that supports the conclusion that the supply curve will be relatively flat where it intersects the demand curve and that Brattle's supply curve from the earlier auctions contradicts the Commission's conclusion.[83]

b. Commission Determination

33. We disagree with Generators' contention that the record lacks evidence contradicting their experts' opinions. As Generators acknowledge, there is conflicting evidence in the record, even among their experts. While their experts used the same data as ISO-NE, each expert made different assumptions about the steepness of the supply curve at the point that it intersects with the demand curve. Consequently, ISO-NE and protestors, including Generators, presented conflicting estimates of how greatly prices would be affected under the renewables exemption.[84]

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[81] *Id*.

[82] *Id*. at 16-1 & n.44 (quoting Ethier Testimony at 42:4-6).

[83] *Id*. at 17.

[84] Remand Order, 155 FERC ¶ 61,023 at P 39; Ethier Testimony at 40.

34. We further disagree with Generators' contention that ISO-NE did not offer competing estimations of price effect. ISO-NE's expert witness, Dr. Ethier, explained how a renewable resource exemption will affect prices under a sloped demand curve:

> Under the ISO sloped demand curve, the same scenario – all resources offering as price takers at a quantity equal to [the net installed capacity requirement] (which implies that there is no new merchant entry) – results not in a zero price, but in a price of approximately $13.00/kW-month – the price at which the demand curve crosses [the net installed capacity requirement]. This is a substantial improvement in pricing that will significantly reduce the expected impact of subsidized renewables entering the market.[85]

Dr. Ethier also explained that "an FCM in equilibrium would still be expected to clear near Net CONE, and merchant entry would be required to meet retirements, which are expected to be significant – by some estimates, retirements in New England may exceed 6,500 MW by 2020."[86] Moreover, as we previously noted, the Commission "may permissibly rely on economic theory . . . to support its conclusions, so long as it has applied the relevant economic principles in a reasonable manner and adequately explained its reasoning."[87]

35. We disagree with Generators' contention that ISO-NE's conclusion – that a sloped demand curve would ameliorate the price-reducing effects of a vertical demand curve – is "unsupported." As Dr. Hunger states, the slope of the demand curve is a "critical parameter[] in estimating the marginal effect of moving 200-600 MWs from the uneconomic portion of the supply curve to the front of the supply curve," and "moving from a vertical to a sloped demand curve reduces the price suppressive effect."[88] While it may be the case that, as Dr. Ethier acknowledged, the difference between the price that results from a vertical demand curve and the price that results from a sloped demand curve may sometimes be small, that would typically occur only when the New England region needed to procure a significant amount of capacity to meet reliability targets, so that almost all of the capacity participating in the auction would be taken. At times when there is excess capacity in New England, on the other hand, the difference between the

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[85] Ethier Testimony at 40.

[86] *Id*. at 41.

[87] *Cent. Hudson Gas & Elec. Corp. v. FERC*, 783 F.3d 92 at 109.

[88] Hunger Aff. at ¶ 18.

price that results from a vertical demand curve and the price that results from a sloped demand curve would be greater, and thus, the capacity price would send the accurate price signal that additional capacity is not needed. Sending this signal is one of the more important objectives of the FCM. Thus, while Generators may be correct that exempt renewable resources will contribute to relatively lower prices whenever there is a capacity surplus, this is not a reason to find the renewables exemption inconsistent with the purposes of the FCM.

36. Generators' arguments concerning the "deep pool" of competitive resources and the results of FCAs 9 and 10, is misleading. In accepting the renewables exemption, the Commission stated that "[f]or auctions in which new capacity is needed and there is a deep pool of competitive entrants, the part of the supply curve that the demand curve intersects will be relatively flat (elastic)" because "in a deep, competitive pool, we would expect several suppliers with offers near [N]et CONE." [89] This does not constitute a statement by the Commission that it anticipates that there will, in fact, be a deep pool of competitive entrants in every auction; rather, it is an analysis of how the Commission expects the FCM to operate generally over time. And in fact, contrary to Generators' concerns,[90] as evidenced by the results of FCA 9 and FCA 10 (which took place in 2015 and 2016, respectively) and the qualification filing for FCA 11 (which will take place in 2017), ISO-NE has had a "deep, competitive pool" of new entry available to it to meet its reliability targets. In FCA 9, over 1,000 MW of new generation cleared the FCA and nearly 1,500 MW of new generation cleared in FCA 10.[91] As to FCA 11, more

[89] Remand Order, 155 FERC ¶ 61,023 at P 40 & n.85 (citing Ethier testimony at 8-9).

[90] Generators state that "there is no evidence in the record that supports this conclusion in the prior two auctions." Rehearing Request at 17. Presumably this is a reference to FCAs 7 and 8, which took place in February 2013 and 2014, respectively.

[91] These totals do not count imports, and nearly all imports are classified as "new" in each auction, even if the resources backing the imports had previously supplied, or qualified to supply, capacity in ISO-NE in a prior FCA. For FCA 9, *see* ISO New England Inc. Forward Capacity Auction Results Filing, Docket No. ER15-1137 (Feb. 27, 2015) at Attachment A. *See also* ISO New England Forward Capacity Auction #9 Results Summary at 2, available at https://iso-ne.com/static-assets/documents/2015/02/fca_9_cso_flow_diagram.pdf. For FCA 10, *see* ISO New England Inc. Forward Capacity Auction Results Filing, Docket No. ER16-1041 (Feb. 29, 2016) at Attachment A. *See also* ISO New England Forward Capacity Auction #10 Results Summary at 2, available at https://iso-ne.com/sttic.assets/documents/2016/02/fca_10_cso_flow_diagram.pdf.

capacity entered the qualification process to participate in FCA 11 than ISO-NE will need to meet reliability targets,[92] which will contribute to flattening the supply curve. Furthermore, as we previously noted, ISO-NE estimated that retirements in New England may exceed 6,500 MW by 2020, which is far in excess of the (cumulative) MW of renewable resources that could conceivably clear in the capacity markets due to the renewables exemption between now and 2020. Since merchant entry (not subject to the renewables exemption) is likely to be required to meet reliability requirements, an FCM in equilibrium will still be expected to clear near Net CONE over time.[93]

37. In addition, actual auction results from FCA 9 and FCA 10 show that the supply curves are much flatter than Generators assumed in their price suppression analyses. For example, Generators presented an analysis showing that 600 MW of uneconomic entry would result in capacity prices $4/kW-month lower than without the uneconomic entry.[94] However, in FCA 10 there were more than 1,000 MW available in the "Rest of Pool" at prices less than $1.50/kW-month above the clearing price. In other words, even if there were 1,000 MW of uneconomic entry included in the supply curve at an offer price of $0/kW-month, the clearing price in FCA 10 was less than $1.50/kW-month lower than if those 1,000 MW were removed from the supply curve.[95] The actual price effect for FCA

[92] Transmittal, *ISO New England Inc.*, Docket No. ER17-321-000 (November 8, 2016) at 4-5 (in FCA 11, ISO-NE will need to procure 34,075 MW, and 34,505 MW of existing generation and 5,958 MW of new resources will compete to clear the auction).

[93] Ethier Testimony at 41.

[94] Rehearing Request at 14. We also note that Generators' analysis only holds under the unique circumstance where the supply curve is vertical over at least the range of prices where the supply and demand curves cross before and after the addition of 600 MW of uneconomic entry. *See supra* PP 22-23 (noting that supply has to be very tight with total supply offers very close to or below the net installed capacity requirement).

[95] In FCA 10, the auction closed in the fourth round with 35,788 MW of supply clearing at a price of $7.03/kW-month. The third round ended with 36,831 MW of supply offered at a price of $8.50/kW-month (demand at that price was 35,098.5 MW and there was 1,732.6 MW of excess supply; 35,098.5 + 1732.6 = 36,831.1). *See* ISO-NE Forward Capacity Market (FCA 10) Result Report, available at https://iso-ne.com/static-assets/documents/2016/02/fca_10_result_report.pdf at pp. 1-2. Thus, there was an additional 1,043 MW (36,831 - 35,788 = 1,043) of supply available at $1.47/kW-month above the clearing price (8.50 - 7.03 = 1.47). If the supply curve were linear, a 600 MW shift in the supply curve would correspond to prices approximately $0.85/kW-month

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10 is likely less than one-quarter of the price effect Generators calculated. The results for FCA 9 also showed a much smaller price effect than Generators calculated: there were over 500 MW of additional supply available at prices less than $1.50/kW-month above the clearing price.[96]

3. Past Uneconomic Entry

a. Request for Rehearing

38. Generators allege that the sole quantitative effort the Commission relied on "to approximate the price impact of the [renewables] exemption" is a *post hoc* justification whereby ISO-NE posited that 1,100 MW of past uneconomic entry in the supply curve anticipated or mitigated the effect of 200-600 MW of exempt renewable resource entering annually in the future.[97] They paraphrase the Commission's reasoning as "the Commission let in 1,100 MW of uneconomic entry in the past; 600 MW is less than 1,100 MW, so there is no harm in allowing in another 600 MW."[98] They argue that this

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higher, which is less than one-quarter of the $4.00/kW-month effect Generators estimated.

[96] In FCA 9, the auction closed in the third round with 35,032 MW of supply clearing at a price of $9.55/kW-month. The second round ended with 35,566 MW of supply offered at a price of $11.00/kW-month (demand at that price was 34,373 MW and there was 1,193 MW of excess supply at that price: 34,373 + 1,193 = 35,566). *See* ISO-NE Forward Capacity Market (FCA 9) Result Report, available at https://iso-ne.com/static-assets/documents/2015/02/fca_9_result_report.pdf, at pp. 1-2. Thus, there was an additional 534 MW (35,566 - 35,032 = 534) of supply available at $1.45/kW-month above the clearing price (11.00 - 9.551 = 1.449). If the supply curve were linear, a 600 MW shift in the supply curve would correspond to prices approximately $1.64/kW-month higher, which is less than one-half of the $4.00/kW-month effect Generators estimated. *See also* https://www.iso-ne.com/about/key-stats/markets (results of the annual capacity auctions).

[97] Rehearing Request at 18 & n.47 (citing Remand Order, 155 FERC ¶ 61,023 at PP 56-57). Generators state that ISO-NE conceded that its demand curve modeling did not examine the renewables exemption, as it did not exist yet, but rather used "historical entry" of "over 1100 MW of zero-priced state-sponsored natural gas entry that would be prohibited under today's minimum offer price rules." They state that ISO-NE argued that this past uneconomic entry is "a more than adequate proxy for the expected renewable entry under the proposed exemption." *Id*. at 18 (quoting ISO-NE Answer at 16).

[98] *Id*. at 18.

does not substitute for "doing the basic math" to calculate the price suppressive effects of uneconomic entry, particularly when these calculations have already been done and are thoroughly supported in the record.[99]

39. Generators state that they previously explained that:

> The 1,100 MWs reflected by Brattle are already part of the zero portion of the offer curve and will remain there as existing resources; they have nothing to do with new entry. Our objection to the renewables exemption is that new resources will offer into the FCA at zero and suppress prices beyond the pre-existing price impact of the 1,100 MWs. The fact that zero-priced new entry was allowed to go unmitigated into the capacity auctions in the past does not justify permitting renewable capacity to go unmitigated into future capacity auctions. The fact that past auction results were improperly suppressed cannot justify permitting future price suppression.[100]

Generators state that the Commission nevertheless found that "ISO-NE's inclusion of 1,100 MW of zero-priced state-sponsored entry in its modeling adequately addresses concerns that the renewables exemption would severely suppress prices under a sloped demand curve."[101] And, on rehearing, the Commission remained satisfied that the "amount of zero-priced entry of Renewable Technology Resources in any year will not exceed 600 MW, a figure significantly below the 1,100 MW figure for zero-priced entry modeled by [Brattle]."[102] They take issue with the Commission's statement in the Remand Order that Generators "misunderstand the manner in which ISO-NE used the 1,100 MW of zero-priced entry in question."[103] Generators insist that there was no misunderstanding and contend that in lieu of offering an explanation to refute their understanding, the Commission cited to three pages of the Newell-Spees testimony that does not mention the 1,100 MW of zero-priced entry or explain why it would be an

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[99] *Id*.

[100] *Id*. at 19 & n.51 (quoting NextEra et al. Rehearing Request at 18-19 (emphasis added in Rehearing Request)).

[101] *Id*. at 19 & n.52 (citing Demand Curve Order, 147 FERC ¶ 61,173 at P 84).

[102] *Id*. at 19 & n.53 (citing Demand Curve Rehearing Order, 150 FERC ¶ 61,065 at P 23).

[103] *Id*. at 19 & n.54 (citing Remand Order, 155 FERC ¶ 61,023 at P 56).

"adequate proxy" for the renewables exemption."[104] They point to the Commission's statement that the Commission finds that, in light of the inclusion of 1,100 MW of zero-priced entry in ISO-NE's modeling "no further modeling of the renewables exemption is necessary to approximate the price impact of the exemption."[105] Generators argue that it is arbitrary and capricious to disregard substantial record evidence about the price suppressive impact of the renewables exemption and instead rely upon an irrelevant proxy to assert that there is no need for the calculation of the amount of price suppression at all.

b. Commission Determination

40. Generators are correct that Brattle's demand curve modeling incorporated data on historical entry during FCAs 1-7[106] but did not incorporate any data reflecting the renewables exemption, as it did not yet exist. According to ISO-NE, "this historical entry (and therefore Brattle's modeling) . . . include[d] over 1100 MW of zero-priced state-sponsored natural gas entry that would be prohibited under today's minimum offer price rules."[107] ISO-NE also stated that: "These substantial additions of zero-priced capacity were considered in the development of the demand curve and were reflected in its parameters. They are more than an adequate proxy for the expected renewable entry under the proposed exemption."[108] The Commission understood this to mean that the data Brattle used to estimate the demand curve already approximated the price impact of 1,100 MW of zero priced entry, and therefore the Commission agreed with ISO-NE that these 1,100 MW of historical zero-priced entry were an adequate proxy for the impact of the renewables exemption on FCM prices.[109] Upon further reflection, however, we understand Generators' point that these 1,100 MW of zero-priced state-sponsored entry

[104] *Id.* at 20 & n.55 (citing Remand Order, 155 FERC ¶ 61,023 at P 57 (citing Newell-Spees Testimony at 14-16)).

[105] *Id.* at 20 & n.56 (citing Remand Order, 155 FERC ¶ 61,023 at P 57).

[106] Newell-Spees Testimony at 15.

[107] ISO-NE May 1, 2014 Answer at 16.

[108] *Id.*

[109] Based on ISO-NE's Answer, in prior orders we stated that this 1100 MW of past uneconomic entry is a reasonable proxy for the impact of the renewables exemption on FCM prices. Demand Curve Order, 147 FERC ¶ 61,173 at P 84; Demand Curve Rehearing Order, 150 FERC ¶ 61,065 at P 23; Remand Order, 155 FERC ¶ 61,023 at P 57.

were already taken into account when defining the demand curve and, therefore, if all else is held constant, this 1,100 MW of zero-priced historical entry does not indicate what impact the renewables exemption will have on FCA prices going forward. Nevertheless, we maintain that further modeling of the demand curve (i.e. to reflect the renewables exemption) is unnecessary because all else will not remain constant. We reiterate that the significant amount of recent and expected retirements will likely offset the impact of the renewables exemption,[110] and that ISO-NE has shown that the renewables exemption will not reduce capacity prices to a level that will make ISO-NE unable to meet its reliability targets, on average, over time at just and reasonable prices.

4. Commission Rate-Setting Authority and Rate Impacts

a. Request for Rehearing

41. Citing *Hope Natural Gas*, Generators argue that the Commission cannot set rates without examining the impacts of its decision.[111] Generators note that the Commission states several times in its decision that it is balancing competing interests, such as states' interest in pursuing renewable programs with the potential harms caused by price suppression in Commission-jurisdictional markets.[112] Generators argue that it is impossible to balance these competing goals without calculating the harm of price suppression that the renewables exemption causes. Generators contend that the Commission does not "support its decision with enough data to enable an adversely affected party, and by extension a reviewing court, to understand its calculation of the comparison rate upon which it would rely, as well as the underlying assumptions."[113]

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[110] *See infra* discussion at PP 79, 81, and footnotes 211-212.

[111] Rehearing Request at 20 & n.58 (citing *Hope*, 320 U.S. at 602; *Jersey City Power & Light Co.*, 810 F.2d at 1177 (collecting cases)).

[112] *Id*. at 20 & n.57 (citing Remand Order, 155 FERC ¶ 61,023 at PP 23-25, 62).

[113] *Id*. at 20-21 & n. 59 (quoting *Sithe/Independence Power Partners, L.P. v. FERC*, 165 F.3d 944, 951 (D.C. Cir. 1999)). Generators also cite *Keyspan-Ravenswood, LLC v. FERC*, 474 F.3d 804, 812 (D.C, Cir. 2007) (*KeySpan*) (remanding orders where, despite "uncertainty regarding the effect of NYISO's [rate] methodology on the price of capacity, the Commission offered no reasons for rejecting [petitioners'] extensive economic analysis."). *Id*.

42. Noting the Commission's rejection of a bright line for the amount of acceptable price suppression,[114] Generators argue that the Commission is nevertheless statutorily obligated to set just and reasonable rates that are not unduly discriminatory. Generators fault the Commission for denying that price suppression will occur and refusing to credit the only price suppression evidence in the record, which showed that the renewables exemption would cause "significant detrimental impacts on rates paid to existing resources."[115] Generators further argue that the renewables exemption "shifts the costs of state-mandated renewables from constituent consumers to existing suppliers or potential new suppliers," and that the price suppression resulting from the renewables exemption "means that such subsidization is effectively paid for by third party suppliers who would otherwise realize competitively-set market-clearing prices."[116]

b. Commission Determination

43. The Commission's determinations reflect its evaluation of all the arguments and evidence put forth by all parties, including Generators. We disagree with Generators' assertion that the only way to evaluate the justness and reasonableness of the renewables exemption is to quantify the potential price impact that the Commission's policy decision has on suppliers. The Commission may appropriately rely on economic theory to justify its decisions, and may reasonably consider the impact external circumstances, such as state renewable resource development policies, have on the justness and reasonableness of FERC-regulated rates, together with the need to enable the FCM to procure sufficient resources to maintain reliability.[117] States continue to support the development of renewable resources,[118] which customers pay for through out-of-market mechanisms. The Commission, in balancing generators' and customers' interests, reasonably recognized how these developments, over time, have tipped the scales, and accepted

[114] *Id.* at 21 & n.60 (citing Remand Order, 155 FERC ¶ 61,023 at P 39).

[115] *Id.* at 21.

[116] *Id.* at 3, 28-29, n.85 (citing Kalt Aff., Appendix A to NextEra Protest at 16:2-6).

[117] *See, e.g., Cent. Hudson Gas & Elec. Corp.*, 783 F.3d at 109; *Sacramento Mun. Util. Dist.*, 616 F.3d at 531. Remand Order, 155 FERC ¶ 61,023 at P 62.

[118] The total Renewable Portfolio Standard obligation (in MWh) across all New England States grew by 34 percent between 2010 and 2014, or six percent annually. *See* U.S. Dep't of Energy, Lawrence Berkeley Nat'l Lab., RPS Compliance Data (Feb. 2016), https://emp.lbl.gov/sites/all/files/RPS%20Compliance%20Data_Feb%202016.xlsx.

a narrowly tailored exemption to reduce the likelihood that customers will have to pay for redundant capacity.[119]

44. We further disagree that the Commission made no effort to quantify the price impact of the renewables exemption; rather, the Commission relied on expert testimony that, on average and over time, FCA prices with the renewables exemption would still clear near Net CONE. And, as we have explained, Dr. Hunger's evidence – or, more accurately, prediction – of price suppression is not the only record evidence pertaining to the impact the renewables exemption will have on rates. As ISO-NE's witness Dr. Ethier stated:

> Under a demand curve, as long as exempted renewable entry does not exceed average annual load growth, and consequent growth in the installed capacity requirement, there will not be systematic downward pressure on prices. The Renewable Technology Resources limit is therefore set at the ISO's estimate of average annual load growth (net of energy efficiency) of 189 MW, . . . resulting in 200 MW as a reasonable Renewable Technology
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> Resources cap that also accommodates the states' renewable energy goals. . . . Renewable Technology Resources entry, even in the unlikely event it occurs up to the cap value, can be expected primarily to displace the new entry required to meet load growth. In such a circumstance, an FCM in equilibrium would still be expected clear near Net CONE, and merchant entry would be required to meet retirements, which are expected to be significant – by some estimates, retirements in New England may exceed 6,500 MW by 2020.[120]

45. Dr. Hunger's analysis arrived at different conclusions, but was based on different assumptions – including an extremely steep supply curve – which have not been borne

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[119] *See South Carolina Pub. Serv. Auth. v. FERC*, 762 F.3d 41, 96 (D.C. Cir. 2014) ("[I]t is within the scope of the agency's expertise to make . . . a prediction about the market it regulates, and a reasonable predictions deserves our deference notwithstanding that there might also be another reasonable view.") (internal quotation marks and citations omitted); *Blumenthal v FERC*, 552 F.3d 875, 885 (D.C. Cir. 2016) (electricity market "presents 'intensely practical difficulties' demanding a solution from FERC . . . and the Commission must be given latitude to balance the competing considerations and decide on the best resolution") (citation omitted).

[120] Ethier Testimony at 41.

out over time in the auctions that have run.[121] Additionally, his analysis also held certain features (such as retirements) constant, which may not be the case going forward.[122] As has been previously stated, "[r]ate design 'is less a science than it is an art,' and the Commission needs to balance a variety of factors in exercising its discretion to determine both whether an existing rate design has been rendered unjust and unreasonable and whether a particular or alternative rate design is just and reasonable."[123] In crediting Dr. Ethier's analysis, rather than Dr. Hunger's, the Commission exercised its discretion and came to a reasonable conclusion.[124] This proceeding is distinguishable from the *Keyspan-Ravenswood* case cited by Generators[125] because the Commission considered the evidence filed by protestors and their experts and explained why it concluded that ISO-NE's expert's assumptions were more compelling than alternative analyses.[126]

46. Finally, Generators assert that the renewables exemption is unduly discriminatory because absent the exemption they would be receiving a higher FCM price, thus they are essentially paying for the exemption.[127] We disagree. Customers (not generators) are paying for the development of the exempt resources via state policy mechanisms. Generators are not "paying for" the exemption; rather, they are receiving an auction price that more accurately reflects the amount of capacity they must supply to the ISO-NE region, given the fact that additional capacity is being provided to the region via these

[121] *See supra* footnote 74; *see also* https://www.iso-ne.com/about/key-stats/markets.

[122] *See supra* PP 21, 23; *see also infra* PP 71-75.

[123] *Buckeye Power, Inc*., 142 FERC ¶ 63,007, at P 141 (2013) (citing *PJM Interconnection, L.L.C.*, 122 FERC ¶ 61,082, at P 17 (2008)).

[124] *South Carolina*, 762 F.3d at 96.

[125] Rehearing Request at 21 & n.59 (citing *Keyspan*, 474 F.3d at 812). *See supra* footnote 113.

[126] For example, we have explained that Dr. Hunger's assumptions involve steep supply curves that, in fact, resulted in a two-fold higher predicted impact on the FCA than the results of FCA 9 indicate.

[127] Rehearing Request at 3, 28-29, n.85 (Kalt Aff., Appendix A. to NextEra Protest at 16:2-6, stating that price suppression caused by exempt renewable resources, is "effectively paid for by . . . suppliers who would otherwise realize competitively-set market-clearing prices").

state policy mechanisms. Further, generators have provided no actual evidence that the renewables exemption has operated tantamount to a narrow version of buyer-side market power by reducing payments to generators. Furthermore, the price that generators receive in the FCM with the exemption is the appropriate price because it elicits sufficient entry into the FCM to maintain reliability at least cost, as well as providing a balance between supplier and customer interests. Therefore, we continue to find that ISO-NE's proposed renewables exemption, together with protections against price suppression contained in that proposal, does not unduly discriminate among FCM participants.[128]

5. Intent

a. Request for Rehearing

47. Generators state that, instead of calculating the price suppression caused by the renewables exemption, the Commission focused on the lack of intent or incentives that renewable resources have to suppress prices.[129] Generators point out, however, that the Commission had previously determined that all "[out of market] entry suppresses prices regardless of intent."[130] Generators contend that lack of intent to suppress prices does not justify failing to quantify price suppression, particularly when there are "obvious incentives to suppress wholesale prices by shifting the costs of state-sponsored renewables policies from ratepayers to capacity suppliers."[131] In response to the Commission's statement that "given the small capacity value of solar and wind resources, such resources are poorly suited for intentionally suppressing prices when compared to natural gas-fired resources,"[132] they contend that "[i]t is plain error for the Commission to refuse to mitigate uneconomic entry when that is the goal of a [state] subsidy."[133]

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[128] Remand Order, 155 FERC ¶ 61,023 at P 62.

[129] Rehearing Request at 2, 8, 21-23.

[130] *Id.* at 21 & n.62 (quoting Buyer Market Power Order, 135 FERC ¶ 61,029 at P 170, *reh'g denied in pertinent part*, 138 FERC ¶ 61,027; *NEPGA v. FERC*, 757 F.3d at 290-291 ("The Commission also found that uneconomic entry, regardless of resource and regardless of intent, 'can produce unjust and unreasonable prices by artificially depressing capacity prices.'").

[131] *Id.* at 24.

[132] *Id.* at 23 & n.66 (citing Remand Order, 155 FERC ¶ 6,023 at P 33).

[133] *Id.* at 23-24 & n.68 (quoting *Talen*, 136 S.Ct. 1288).

Generators further argue that the Commission's suggestion that the renewables exemption is not intended to lower prices "makes no sense" and "it is beyond dispute that the intent of the renewable exemption is purely economic."[134]

b. Commission Determination

48. Generators are correct that the Commission has acknowledged that exemptions can reduce prices, regardless of intent.[135] But the Commission has also recognized that "intermittent renewable resources with low capacity factors and high development costs have limited or no incentive and ability to exercise buyer-side market power to artificially suppress [capacity] market prices."[136] In evaluating the reasonableness of exempting 200 MW of renewable resources from the minimum offer price rule, the Commission may reasonably consider the relationship between the minimum offer price rule and renewable resources. The purpose of the minimum offer price rule is to prevent net buyers, in general, from bidding resources in such a manner as to suppress FCM prices. Because renewable resources are expensive to build and have relatively low capacity factors,[137] they are not an efficient way to lower capacity market prices. Furthermore, Generators have not provided any evidence that the state renewable resource policies are designed to suppress FCM prices. Renewable resources are going to be built to meet

[134] *Id.* at 3 ("Even if the intent of building renewable resources is to reduce carbon emissions, it is beyond dispute that the intent of the renewable exemption is purely economic. . . . [T]he purpose of the exemption is to ensure that renewable resources will enter the capacity market at a zero price without regard to actual costs").

[135] *See NEPGA v. FERC*, 757 F.3d at 290-91.

[136] *N.Y. Pub. Serv. Comm'n v. N.Y. Indep. Sys. Op., Inc.*, 153 FERC ¶ 61,022 at PP 47, 51, *reh'g denied*, 154 FERC ¶ 61,088 at PP 13-14.

[137] The capacity factor is calculated by dividing the total amount of energy the plant produced during a period of time by the amount of energy the plant would have produced at full nameplate capacity. According to the Energy Information Administration, for example, in January 2016, nationwide, the capacity factor of nuclear facilities was 98.8 percent, whereas the capacity factor for wind was 34.2 percent and solar was 17.9 percent; in July 2016, the capacity factor of nuclear facilities was 94.7 percent, wind was 32.0 percent and solar energy was 34.8 percent. https://www.eia.gov/electricity/monthly/pdf/epm.pdf Table 6.7.B at 159.

state environmental objectives, with or without the renewables exemption.[138] As a result, in balancing customers' and generators' interests to ensure just and reasonable FCM prices, it is reasonable for the Commission to provide a limited exemption for state-subsidized resources that are not intended to suppress capacity prices (even if they may do so), so that customers may avoid having to pay for duplicative capacity. Otherwise, without the renewables exemption, the capacity market would signal that new resources are needed when, in actual fact, they are not.

49. Contrary to Generators' contention, the Commission did examine the rate impact of its approval of the renewables exemption. It considered conflicting evidence in the record regarding the degree of impact that the renewables exemption would have on auction clearing prices.[139] It reasonably relied on the testimony of ISO-NE's witness, Dr. Ethier, that the combination of load growth and retirements would offset the downward pressure that the renewables exemption might have on auction clearing prices.[140] Additionally, the Commission approved the renewables exemption once ISO-NE, in conjunction with stakeholders, developed a sloped demand curve in order to reduce the potential for price suppression in the FCM.[141] Indeed, before this proceeding,

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[138] *See* U.S. Dep't of Energy, Lawrence Berkeley Nat'l Lab., RPS Compliance Data (Feb. 2016), https://emp.lbl.gov/sites/all/files/RPS%20Compliance%20Data_Feb%202016.xlsx.

[139] Remand Order, 155 FERC ¶ 61,023 at P 40. Furthermore, as Generators acknowledge, how the curves will operate is based on assumptions – which Generators' expert has also had to make – and, when making predictions about rates, the Commission is not required to have a perfect crystal ball, as long as its predictions are reasonable based on substantial record evidence, which we have here.

[140] *Id*. P 52 & n.120 (quoting Ethier Testimony at 41) (stating that as long as the renewables exemption did not exceed ISO-NE's estimate of 189 MW of annual load growth, plus an adjustment for the reserve margin, there would not be systematic downward pressure on capacity market prices; plus, (additional) merchant entry would be required to meet significant expected retirements, which may exceed 6,500 MW by 2020).

[141] *See ISO New England Inc*., 142 FERC ¶ 61,107, at P 97 (2013) (encouraging ISO-NE to spearhead a stakeholder process to develop a renewables exemption which could include a downward sloping demand curve); *see also* Demand Curve Order, 147 FERC ¶ 61,073 at P 83 (stating that the proposed exemption is "coupled with a sloped demand curve that will limit the impact of price suppression as compared with the existing vertical demand curve").

the Commission twice rejected efforts to implement a renewables exemption, in part because the proposals did not include a sloped demand curve.[142] Those prior efforts also involved a complaint under section 206 of the FPA (which required the complainant to show that the tariff is unjust and unreasonable without the exemption), rather than a tariff filing under section 205 of the FPA. Section 205 of the FPA requires a showing that including the exemption in the tariff results in a tariff that is just and reasonable and not unduly discriminatory or preferential, arguably a more modest standard. In contrast to the prior proceedings, here, ISO-NE proposed under section 205 of the FPA a renewables exemption that appropriately balances competing generator and customer interests. ISO-NE also presented substantial evidence that, even with the renewable resources exemption, the FCM would be able to procure sufficient capacity to meet reliability targets on average, over time.[143] The Commission reasonably concluded that capping the renewables exemption at 200 MW annually in a roughly 35,000 MW market would temper the renewables exemption's potential price suppressive effects.

D. Consistency with Precedent

50. Generators argue that by permitting price suppression, the Commission contradicted its own precedent and undercut the market design. Generators assert that the Commission erred by failing to account for its prior and contemporaneous holdings with respect to the FCM, the effects of out-of-market resources entering those markets, and its prior rejection of a proposed exemption similar to the renewables exemption. They argue that, in so doing, the Commission has violated the APA, ignored its prior holdings, and failed to respond meaningfully to legitimate objections.

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[142] Buyer Market Power Order, 135 FERC ¶ 61,029 at P 171 (finding that parties had not provided sufficient specificity to allow Commission to approve an appropriately narrow exemption), *reh'g denied in pertinent part*, 138 FERC ¶ 61,027; *N.E. States Committee on Elec. v. ISO New England Inc*., 142 FERC ¶ 61,108, at PP 12, 35 (2013) (*NESCOE*) (denying complaint alleging that without a renewables exemption the minimum offer price rule would result in unjust and unreasonable prices), *reh'g denied*, 151 FERC ¶ 61,056 (2015). We note that the Commission also held ISO-NE to its promise to implement zonal sloped demand curves in constrained zones, in order to better reflect the reliability value of capacity.

[143] Remand Order, 155 FERC ¶ 61,023 at P 36; Ethier Testimony at 38-41; *see also* discussion, *supra* PP 19-29 concerning substantial evidence.

1. Accurate Price Signals Essential to the New England FCM

a. Request for Rehearing

51. Generators quote the Commission's declaration that "[t]he purpose of the New England FCM is to attract and retain sufficient capacity to maintain ISO-NE's Installed Capacity Requirement, and to do so, FCM capacity prices will need to average out over time to the cost of new entry."[144] They argue that unmitigated out-of-market entry destroys accurate price signals.[145] They assert that maintaining a robust minimum offer price rule and ensuring appropriate price signals has special importance in New England, noting the significant challenges the market faces due to the high number of retirements and difficulties resulting from the need for gas-electric coordination.

[144] Rehearing Request at 24 & n.69 (citing *ISO New England Inc.* 125 FERC ¶ 61,102, at P 43 (2008), *reh'g denied*, 130 FERC ¶ 61,089 (2010)). Generators also cite *PJM Interconnection, L.L.C.*, 117 FERC ¶ 61,331, at P 44 (2006) (modifying capacity price in PJM because, among other things, the current "price does not reflect the differing values of capacity in different locations, and does not incent new capacity in that location, thereby threatening reliability" and the "current capacity market does not provide sufficient revenue to stimulate construction of new capacity or retention of current capacity"), *order on reh'g*, 119 FERC ¶ 61,318, *reh'g denied*, 121 FERC ¶ 61,173 (2007); *Blumenthal v. ISO New England Inc*., 117 FERC ¶ 61,038, at PP 82-87 (2006), *order on reh'g*, 118 FERC ¶ 61,205 (2007), *petition for review denied sub. nom. Blumenthal v. FERC*, 552 F.3d 875 (D.C. Cir. 2009).

[145] Rehearing Request at 25 & n.72 (citing *ISO New England Inc*., 135 FERC ¶ 61,029, at P 15 (2011) ("Allowing [out-of-market] capacity to clear creates a significant design issue for the FCM; all other things being equal, it suppresses the clearing prices below competitive levels.")); *id*. at 25 & n.73 (citing *NESCO*, 142 FERC ¶ 61,108 at P 35 ("In order to promote efficient markets, ISO-NE [developed] a MOPR whose objective is to prevent uneconomic entry and the associated suppression of capacity prices.")); *PJM Interconnection, L.L.C.*, 153 FERC ¶ 61,066, at P 39 (2015) ("The purpose of the [PJM] MOPR . . . is to protect the market from the exercise of buyer-side market power."), *appeal docketed sub nom. NRG Power Mktg., LLC v. FERC*, Nos. 15-1452 and 15-1454 (D.C. Cir. Dec. 14, 2015)); *id*. at 25 & n.74 (citing *N.J. Bd. of Pub Utils. v. FERC*, 744 F.3d 74, 97 (3d Cir. 2014) (Minimum Offer Price Rules ensure that the new resource is economical, i.e., needed by the market, and that its sponsor cannot exercise market power by introducing a new resource into the auction at a price that does not reflect its costs and lowers the auction clearing prices)).

b. Commission Determination

52. We agree that the purpose of the FCM is to enable ISO-NE to procure sufficient capacity to ensure reliability. We also recognize that to do so, the FCM will need to clear, on average, over time, at or near Net CONE. The Commission concluded, based on Dr. Ethier's testimony, that the narrowly-tailored renewables exemption would not preclude the FCM from fulfilling that purpose, and we reaffirm this conclusion based on subsequent events. As the results of each FCA held since the renewables exemption was accepted indicate, the FCM with the renewables exemption has enabled ISO-NE to procure sufficient capacity.[146] While the Commission previously stated that "out-of-market entry can suppress prices regardless of intent,"[147] we have also stated that we would consider renewable exemptions on a case-by-case basis. We continue to find the renewables exemption to be just and reasonable because in balancing the harms and benefits to customers that could inure from the renewables exemption, ISO-NE "took steps to limit the amount of price suppression so as to enable the FCM to continue procuring sufficient capacity to meet reliability targets[.]"[148] These steps include limiting the amount of renewable resources subject to the exemption annually and over a three-year period, as well as providing system-wide and zonal slope demand curves, updated annually to enable capacity prices to reflect more accurately the value of resources depending on their location. In addition, to qualify for the renewables exemption, resources must be defined as renewable portfolio standards-eligible as of January 1, 2014,

[146] In FCAs 9 and 10, sufficient capacity was procured to satisfy the Installed Capacity Requirement as accepted by the Commission in advance of each auction. *ISO New England Inc.*, 150 FERC ¶ 61,003 (2015); *ISO New England Inc.*, 151 FERC ¶ 61,226 (2015); *ISO New England Inc.*, 154 FERC ¶ 61,008 (2016); *ISO New England Inc.*, 155 FERC ¶ 61,273. In FCA 9, insufficient capacity qualified in the import-constrained SEMA/RI zone; however, this was subsequently resolved in the first annual reconfiguration auction, when ISO-NE decreased this zone's Local Sourcing Requirement due to greater transmission transfer capability into the zone. *ISO New England, Inc.*, 154 FERC ¶ 61,057. *See also* ISO-NE and NEPOOL Participants' Committee Joint Filing of Installed Capacity Requirements, etc., Docket No. ER16-446-000, at 11 (Dec. 1, 2015). Since then, all zones in FCA 10 have cleared, and the qualification and ICR filings suggest this will be the case in FCA 11. *ISO New England Inc.*, Docket No. ER17-321-000 (December 6, 2016) (delegated letter order). *See also* ISO-NE Informational Filing for Qualification in the FCM, Docket No. ER17-321-000, at 4–5 (filed Nov. 8, 2016).

[147] Remand Order, 155 FERC ¶ 61,023 at P 69.

[148] *Id.*

and must receive an out-of-market revenue source supported by a state- or federally-regulated rate, charge, or other regulated cost recovery mechanism.[149] Additionally, ISO-NE, like other regions, is expecting significant retirements.

2. The Renewables Exemption and New "Missing Money"

a. Request for Rehearing

53. Generators argue that the Commission approved robust capacity markets in eastern regional transmission organizations to address the "missing money" problem and to forestall market failure. They point out that the Commission found PJM's prior capacity construct to be unjust and unreasonable in part because it did not provide for sufficient revenue to assure reliability, given the constraints imposed by price caps and mitigation. Generators explain that the constraints imposed by price caps and mitigation created the "missing money" problem. They quote the Commission's statement that a "competitive capacity market would provide annual revenues over time that, on average, would approximate [Net CONE]. If annual revenues were significantly lower, prospective developers would not enter the market, because they would not expect to recover the costs of investments over time."[150] Generators argue that the renewables exemption creates new missing money, and the Commission is "simply wrong that the market will still work 'as long as load growth exceeds the entry of renewable resources.'"[151] They assert that the Commission's theory is that a little price suppression will not matter, whereas a little bit here and there quickly adds up. They argue that the New England capacity market is small and cannot dilute uneconomic entry. They state that the capacity market must clear on average and over time at the cost of new entry or it will fail. They argue that the renewables exemption will limit or largely diminish the incentive for private developers to develop projects for the FCM.

[149] *See* Market Rule 1, § III.13.1.1.1.7.

[150] Rehearing Request at 26 & n.79 (*quoting PJM Interconnection, L.L.C.*, 137 FERC ¶ 61,145, at P 25 (2011). Generators also cite *Devon Power, LLC*, 109 FERC ¶ 61,154, at P 22 (2004) ("the objective of the demand curve" in ISO New England's Locational Installed Capacity market proposal (LICAP) "is to assure that revenues from all markets over the long run will equal the cost of new entry.")).

[151] *Id.* at 27 (quoting Remand Order, 155 FERC ¶ 61,023 at P 52).

b. Commission Determination

54. We do not agree that all suppliers will necessarily fail to recover the "missing money" (or rather, an amount of money that enables them to recover Net CONE on average, over time) due to the renewables exemption. On the contrary, the Commission concluded, based on Dr. Ethier's testimony and economic theory, that even with the renewables exemption, the FCM will continue to clear at or near Net CONE on average over time.[152] The renewables exemption is limited, and the amount of capacity subject to the exemption will be less than the total amount of new capacity that New England will need in the future, due to retirements and load growth.[153] Indeed, ISO-NE was able to procure sufficient capacity to meet its reliability targets in the two FCAs that ISO-NE has conducted since implementation of the renewables exemption in 2014.[154] Finally, we note that the Commission is only required to ensure that Generators have an opportunity to recover their costs – it need not guarantee recovery of costs.[155]

3. Counterbalancing Price Suppression

a. Request for Rehearing

55. Generators complain that the Commission never explains how existing generators are supposed to make up the "new" missing money – i.e., the "missing money" that Generators attribute to the renewable exemption's price suppression. They contend that existing generators effectively pay for the renewable resources without having any opportunity to recover these new costs. They emphasize that this suppression of capacity prices through out-of-market entry is unjust and unreasonable because it constitutes an unduly discriminatory preference that requires competitive merchant generation resources that are already in the market to bear the cost of new entry by uneconomic resources. While acknowledging the importance of renewable generation, they assert that the renewables exemption is a clumsy and unreasonable way to achieve it. They argue that the price suppression caused by the renewables exemption transfers a significant amount of money from generators to ratepayers. They assert that subsidizing states' renewable policy goals by expropriating competitive generators' capacity revenues through the renewables exemption is unduly discriminatory and preferential. They argue that, in the

[152] Ethier Testimony at 41.

[153] *See id.*

[154] *See supra* PP 36-37 and accompanying footnotes.

[155] *See Bridgeport Energy, LLC*, 113 FERC ¶ 61,311, at P 29 (2005) (*Bridgeport*).

long-run, forced subsidization of private capacity suppliers will drive out and turn away efficient suppliers, threatening reliability.

56. Generators state that, on remand, the Commission makes the point that "[t]he renewable exemption fulfills the Commission's statutory mandate by protecting consumers from paying for redundant capacity." They fault the Commission for not making clear that this is because the renewables exemption reduces compensation to incumbent generators when compared to the compensation they would receive absent the renewables exemption. They further fault the Commission for neglecting its precedent that "redundant capacity" is the result of the states' decision to require procurement of uneconomic generation and not the capacity market's rules requiring those resources to offer their capacity at cost.[156]

57. Generators argue that, if the Commission recognized and quantified price suppression, then it could conceivably counterbalance it with other design features. They suggest that it could shift the demand curves by the same amount of the price suppression, thus creating a "but for" capacity price in the auction. They assert that the Commission could allow generators to include a "renewable exemption premium" in their offers or some other adjustment.

b. Commission Determination

58. As we have explained, we are not persuaded that there is substantial evidence that FCM capacity prices will be so low as to prevent sufficient entry into the FCM to meet ISO-NE's reliability targets, on average over time. Thus, we consider Generators' assertions that the renewables exemption will result in an inappropriate wealth transfer – i.e. that Generators will be effectively paying for the cost of the renewable resources – to be a misunderstanding of the purpose of the FCM. It is the purpose of the FCM to attract and retain sufficient capacity to meet ISO-NE's reliability targets on average over time, at least cost to customers, given the renewable generation that will enter as a result of state programs. No individual supplier has an entitlement to a specific capacity price. The Commission's aim when using competitive markets as a regulatory mechanism is to protect competition to ensure just and reasonable rates, not to protect individual competitors.[157] Contrary to Generators' contention, we have recognized that the

[156] Rehearing Request at 30 & n.89 (citing *NESCOE*, 142 FERC ¶ 61,108 at P 34 ("[I]f the states choose to build uneconomic resources . . . to further various policy interests, the states, not the [FCM] are responsible for procuring redundant capacity.")).

[157] *Bridgeport*, 113 FERC ¶ 61,311 at P 29 ("[T]he Commission has no obligation in a competitive marketplace to guarantee Bridgeport its full traditional cost-of-service.

(continued ...)

renewables resources development results from state policy decisions, and our position has evolved since *NESCOE*. Even if states procure additional capacity, the renewables exemption will reduce the likelihood that customers will pay for duplicative capacity.

59. We also see no need to counterbalance the renewables exemption with other design features because, as Dr. Ethier testified, even with the exemption, the FCA is expected to clear at Net CONE on average over time.[158]

4. The Commission Justified Departing from Precedent

a. Request for Rehearing

60. Generators state that, to conclude that the renewables exemption was just and reasonable, the Commission departed from core principles of prior orders, namely, that the markets must clear at Net CONE on average and over time or they will fail to attract and retain sufficient capacity and that all uneconomic entry suppresses prices regardless of intent. Generators argue that these are not holdings from which the Commission can deviate, because they reflect fundamental economic truths. They argue that departing from these principles undercuts markets.[159]

61. Generators point out that the Commission failed to abide by its 2013 rejection of a similar exemption that the New England States Committee on Electricity (NESCOE) sought. They assert that, in the Demand Curve Order, the Commission sought to minimize its rejection of the exemption in *NESCOE*[160] by explaining that in *NESCOE* "complainants filed to show that the existing Tariff without an exemption was unjust and unreasonable" and that "[n]othing in that proceeding prevents ISO-NE from itself proposing an exemption under section 205 of the FPA."[161]

Rather, in a competitive market, the Commission is responsible only for assuring that Bridgeport is provided the opportunity to recover its costs.").

[158] Ethier Testimony at 41.

[159] Rehearing Request at 31-33.

[160] 142 FERC ¶ 61,108 at P 35.

[161] Rehearing Request at 31 & n.91 (citing Demand Curve Order, 147 FERC ¶ 61,173 at P 86).

62. Generators argue that the Commission failed to justify departing from *NESCOE*. They state that first, in NESCOE, the Commission recognized that "[e]xempting renewables whose costs exceed the market price would result in the uneconomic entry of renewables and thereby reduce capacity prices."[162] They argue that the Commission erred by not following or explaining its departure from this finding.

63. Second, Generators state that in *NESCOE*, the Commission distinguished the proposed exemption from the PJM minimum offer price rule because "[t]he effect of an exemption for renewables would likely be much greater in New England than in PJM."[163] They point out that the Commission stated that this was due to two characteristics: (1) the ISO-NE market is substantially smaller than the PJM market; and (2) ISO-NE has a vertical demand curve.[164] Generators state that, while the vertical demand curve has been replaced, the New England market remains substantially smaller than the PJM market and "the effect of a given amount of additional capacity has a greater depressing effect on prices in New England than in PJM."[165] They further highlight the Commission's statement in *NESCOE* that "[a]ny new proposal must do more than rely on findings specific to PJM and address the above-described characteristics of ISO-NE's market."[166]

64. Generators emphasize that neither ISO-NE nor the Commission made any effort to address market size and the fact that "a given additional quantity of capacity will have a larger effect on capacity prices in the smaller New England market compared with the larger PJM market."[167] They assert that this is true under either a vertical or a sloped demand curve. They contend that this omission cannot be squared with the Commission's statement in the Demand Curve Order that "allowing such an exemption

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[162] *Id.* at 32 & n.93 (citing *NESCOE*, 142 FERC ¶ 61,108 at P 35). Generators also cite *ISO New England Inc.*, 138 FERC ¶ 61,027 at P 29 ("We do not believe that [out-of-market] capacity that has not justified an offer floor exemption should be allowed to clear the FCA, since the result would either suppress capacity prices or impose an extra cost on New England load. Neither result is just and reasonable.").

[163] *Id.* at 32 & n.94 (citing *NESCOE*, 142 FERC ¶ 61,108 at P 35).

[164] *Id.* at 32 & n.95 (quoting *NESCOE*, 142 FERC ¶ 61,108 at P 35).

[165] *Id.* at 32 & n.96 (quoting *NESCOE*, 142 FERC ¶ 61,108 at P 35).

[166] *Id.* at 32 & n.97 (quoting *NESCOE*, 142 FERC ¶ 61,108 at P 37).

[167] *Id.* at 32 & n.98 (quoting *NESCOE*, 142 FERC ¶ 61,108 at P 37).

is consistent with the Commission's acceptance of a similar exemption in the PJM capacity market."[168]

65. Third, Generators highlight the Commission's statement in *NESCOE* that "while NESCOE argues that its alternative proposal will have a limited price-suppression impact, it has failed to provide any evidentiary support for this claim."[169] Generators argue that here, ISO-NE has similarly failed to provide the evidentiary support for its claims and so its exemption ought to share the same fate as NESCOE's. They point out that, under FPA sections 205 and 206, the proponent of a rate change bears the burden of proof. They state that ISO-NE not only failed to provide evidentiary support, but it justified the exemption based on load growth, and that underlying basis turned out to be wrong.

66. Generators add that the Remand Order contravenes capacity market fundamentals that the Commission recognized in the proceedings that led to directing ISO-NE to develop a minimum offer price rule. They state that, in those proceedings, the Commission found the existing buyer market power mitigation mechanism, which allowed out-of-market resources to offer into the market at uneconomically low rates, to be unjust and unreasonable. They highlight the Commission's finding that "any new self-supplied capacity that clears (through a zero-price offer rather than at full net entry cost) would distort the market clearing price."[170] They note the Commission's reiteration of its concern that the then existing and proposed mitigation rules "fail[ed] to fully adjust for the effect of [out-of-market] investment on capacity price."[171] They note that the Commission also stated that exemptions from the minimum offer price rule should be granted sparingly.[172] Generators assert that the Remand Order runs afoul of all these principles.

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[168] *Id.* at 32-33 & n.99 (citing Demand Curve Order, 147 FERC ¶ 61,173 at P 81).

[169] *Id.* at 33 & n.100 (quoting *NESCOE*, 142 FERC ¶ 61,108 at P 34).

[170] *Id.* at 33-34 & n.104 (quoting *ISO New England Inc.*, 135 FERC ¶ 61,029 at P 232). They also quote the Commission's statement that "Allowing [out-of-market] capacity to clear creates a significant design issue for the FCM; all other things being equal, it suppresses the clearing price below competitive levels." *Id.* at 33 & n.103 (quoting *ISO New England Inc.*, 135 FERC ¶ 61,029 at P 14).

[171] *Id.* at 33 & n.105 (quoting *ISO New England Inc.*, 135 FERC ¶ 61,029 at P 14) (quoting *ISO New England Inc.*, 131 FERC ¶ 61,065, at P 85 (2010)).

[172] *Id.* at 34 & n.106 (citing *ISO New England Inc.*, 135 FERC ¶ 61,029 at P 171).

b. Commission Determination

67. We continue to disagree with Generators' contention that our acceptance of the renewables exemption contravenes ISO-NE capacity market fundamentals and prior precedent. As we explained in the Remand Order, the Commission's view on the renewables exemption evolved, and the Commission explained this evolution.[173] Both in the proceedings leading to issuance of the Buyer Market Power Order and in *NESCOE*, the Commission allowed for the possibilities that states might seek to implement policies favoring renewable generation,[174] and that a party might file a complaint under section 206 of the FPA[175] and demonstrate that the existing tariff was unjust and unreasonable without a renewables exemption.[176] In comparing ISO-NE with PJM, which exempts renewable resources from the minimum offer price rule, the Commission noted that PJM utilizes a sloped demand curve.[177] In an order issued contemporaneously with the Commission's denial of NESCOE's complaint, the Commission continued to encourage ISO-NE to work with stakeholders to develop a renewables exemption proposal, which could include a downward sloping demand curve.[178] ISO-NE now has put into place sloped demand curves both system-wide and for individual zones, as discussed in the Demand Curve Design Improvements Order. Generators also point to the Commission's statement in *NESCOE* that, because the New England region is smaller than PJM, the price-suppressive effect of an exemption for renewables would be greater. The Commission recognized this as a difficulty, however, at a time when the FCM capacity

[173] Remand Order, 155 FERC ¶ 61,023 at P 68 (footnotes omitted) ("[T]he Commission noted [in prior orders] that it would evaluate any future exemption requests for specific resources on their own merits . . . [and] the Commission's view on the question of a broad (i.e., not resource-by-resource) exemption for renewable resources has evolved. In the specific circumstances of this case, where ISO-NE sought to balance both the harms and the benefits to customers from an exemption that might result in some price suppression, and took steps to limit the amount of price suppression so as to enable the FCM to continue procuring sufficient capacity to meet reliability targets, we find the renewables exemption to be just and reasonable").

[174] Buyer Market Power Order, 135 FERC ¶ 61,029 at P 170.

[175] 16 U.S.C. § 824e (2012).

[176] *NESCOE*, 142 FERC ¶ 61,108 at PP 35-37.

[177] *Id.* P 35.

[178] *ISO New England Inc.*, 142 FERC ¶ 61,107 at P 97.

price was the result of vertical demand curves at both the system and zonal levels. Now that the Demand Curve Design Improvements have been implemented so that each zone can have a separate sloped demand curve, as necessary to reflect constraints in that zone, the Commission's earlier concern about the smaller size of the ISO-NE region is less significant. Dr. Ethier further pointed out that in comparing ISO-NE's renewables exemption to PJM's similar exemption, PJM's greater size makes a broader exemption appropriate, and thus, an exemption capped at 200 MW annually is more appropriate for New England:

> While PJM does not limit the amount of solar and wind resources that are exempted annually from its minimum offer price rules, the smaller size of the New England market relative to the likely amount of renewable entry makes limiting prospective Renewable Technology Resources entry an important piece of balancing state interest and market efficiency in the FCM.[179]

68. Moreover, not only has the Commission's view of the relationship between state-sponsored renewable resources and the capacity market evolved over time, but in the five years since the Commission accepted the minimum offer price rule to mitigate buyer-side market power, New England states have continued to intensify their renewable resource development.[180] The Commission does not regulate in a vacuum. We recognize that, as ISO-NE stated in its original filing, it is seeking to balance its need to retain and attract capacity with its obligation to meet customers' needs in an economically-efficient manner. [181] We continue to find that the narrowly-tailored renewables exemption, in combination with ISO-NE's sloped demand curves, balances our responsibility to promote economically-efficient prices, while accommodating states' ability to pursue legitimate policy objectives.[182]

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[179] Ethier Testimony at 40.

[180] *See* ISO New England Inc., *2016 Regional Electricity Outlook* (March 2016), http://www.iso-ne.com/static-assets/documents/2016/03/2016_reo.pdf.

[181] Ethier Testimony at 38 ("[I]f resources are to be built pursuant to state-sponsored initiatives, it would be economically inefficient not to include them as counting toward meeting regional capacity requirements, because excluding them would require the building of a second, redundant set of resources to meet the same need").

[182] *See NESCOE*, 142 FERC ¶ 61,108 at P 35.

E. Mitigating Factors

69. Generators argue that it is irrational for the Commission to respond to their argument that the price suppression caused by the renewables exemption is per se unjust, unreasonable, and unduly discriminatory cost-shifting by contending that price suppression will be reduced by certain mitigating factors.[183] They add that there is no substantial evidence establishing the price impacts of these proposed mitigating factors, each of which they assert is inherently flawed. Specifically, Generators argue that the following factors that the Commission relied on do not mitigate or justify the price suppression imposed by the renewables exemption: (1) load growth; (2) forecasted retirements; (3) new demand curves; and (4) the fact that the 200 MW cap is not likely to be reached.

1. Load Growth

a. Request for Rehearing

70. First, Generators contend that load growth does not justify price suppression because load growth does "*absolutely nothing*" to mitigate the price suppressive effects of the renewables exemption.[184] They point out that, while the Commission relied on load growth to deflect the price-suppressive effect of the 200 MW per-year renewables exemption, new entry bidding below cost will translate directly into less need for MW bidding at actual cost and will thus suppress prices.[185] They state that, if additional resources beyond any exempt new renewable resources are needed to clear, this merely means that prices will not be zero, which is what they are likely to be if load growth is less than the amount of uneconomic renewable entry each year. Additionally, citing ISO-NE's 2015 and 2016 load forecasts and ISO-NE's parameters for FCA 10 and the reconfiguration auctions, Generators further assert that load growth will be (and has been), significantly less than ISO-NE previously estimated.[186]

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[183] Rehearing Request at 4-7; 34-45.

[184] *Id*. at 35 (emphasis in original).

[185] Generators agree that it is technically true that "if load growth exceeds exempt renewable entry, other new entry will be required." Generators assert, however, that this "entirely misses the point." *Id*. at 34-35.

[186] *Id*. at 35 & n.108 (citing www.iso-ne.com/static-assets/documents/2015/02/2015_reo.pdf); *See also id*. at 35-36 & nn.109-115 (citations omitted).

b. Commission Determination

71. The renewables exemption was set at 200 MW based on ISO-NE's estimate of 189 MW of average annual load growth (net of energy efficiency), plus an adjustment for the reserve margin required to meet installed capacity requirements.[187] It was set at this level on the basis that the entry of renewable resources was likely, in most cases, only to displace the new entry required to meet load growth.[188] In such case, on average and over time, the FCM would still clear at or near Net CONE.[189]

72. Generators are correct that, post-implementation of the renewables exemption, load growth in New England has been lower than expected. Nevertheless, the Commission had substantial evidence in the record that load in New England would grow at a rate equivalent to the 200 MW exemption.[190] The 189 MW of load growth represented ISO-NE's best estimate of average annual load growth at the time it submitted the Demand Curve Changes filing in 2014,[191] and no party provided a different estimate of average annual load growth. ISO-NE has been the system operator for years, charged with balancing load and generation and ensuring reliability. The fact that subsequent events did not fully bear out ISO-NE's predictions for the future does not undermine the reasonableness of the Commission's reliance on ISO-NE's representation. Even though Generators argued in 2014 that load growth would likely be less than ISO-NE forecasted,[192] "reasoned decision-making does not require complete prescience."[193]

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[187] Demand Curve Order, 147 FERC ¶ 61,173 at P 83; Ethier Testimony at 41.

[188] Demand Curve Order, 147 FERC ¶ 61,173 at P 83; Ethier Testimony at 41. As Dr. Ethier explained, if renewable entry occurs up to the cap, "an FCM in equilibrium would still be expected [to] clear near Net CONE, and merchant entry would be required to meet retirements, which are expected to be significant – by some estimates, retirements in New England may exceed 6,500 MW by 2020." *Id*.

[189] *See* Ethier Testimony at 41.

[190] *See supra* P 44 and footnote 120; P 71 and footnote 187.

[191] Remand Order, 155 FERC ¶ 61,023 at P 52 & n.120 (quoting Ethier Testimony at 41).

[192] Rehearing Request at 35.

[193] *Fla. Gas Trans. Co. v.* FERC, 604 F.3d 636, 645 (D.C. Cir. 2010).

73. Moreover, Generators' arguments also do not recognize that retirements continue to more than make up for the deficit in load growth. As ISO-NE explained in the Demand Curve Filing,[194] "the combination of load growth and retirement of existing resources would have to be less than 200 MW in order to result in suppression of prices when the market is at or near equilibrium."[195] According to ISO-NE, there were 152.5 MW of retirements in the time period that affected bidding for FCA 9, and 661.1 MW of retirements that impacted bidding for FCA 10.[196] Meanwhile, only 72 MW of renewables actually *cleared* under the renewables exemption in FCA 9 and FCA 10 *combined*.[197] These 72 MW are only approximately 0.2 percent of the total 35,567 MW procurement for FCA 10 (2019-2020),[198] and it is unlikely that an amount that small will "substantially suppress prices," as Generators allege. Furthermore, ISO-NE is a roughly 35,000 MW market. We note that ISO-NE stated in 2016 that more than 4,200 MW of the region's non-gas generating capacity has retired or plans to retire soon, and an additional 6,000 MW is at risk of retiring. In total, about 30 percent of the

[194] ISO New England Inc. and New England Power Pool, Docket No. ER14-1639-000, Demand Curve Changes (filed Apr. 1, 2014) (Demand Curve Filing).

[195] Demand Curve Filing, Transmittal at 13. *See also* Ethier Testimony at 41.

[196] http://www.iso-ne.com/static-assets/documents/2016/08/retirement_tracker_external.xlsx; http://www.iso-ne.com/staticassets/documents/markets/othrmkts_data/fcm/cal_results/ccp13/fca13/fca3_monthly_ob_v2.xls. We note that this does not include demand response.

[197] *See* https://www.iso-ne.com/static-assets/documents/2015/09/FCA_Parameters_Final_Table.xlsx, row 14 "Available Capacity Amount for Renewable Technology Resources (MW)." In FCA 10, up to 384 MW of renewable resources could have cleared under the renewables exemption. In FCA 11, up to 528 MW could have cleared under the renewables exemption. Thus, 16 MW cleared in FCA 9 under the renewables exemption (since FCA 9 was the first auction with the renewables exemption, 200 MW, at most, could have carried forward to FCA 10). Since up to 384 MW could have cleared under the renewables exemption in FCA 10, then 184 MW carried forward and 16 MW cleared under the exemption in FCA 9. Similarly, up to 400 MW could have carried forward to FCA 11 (from FCA 9 and FCA 10); since 528 MW could have cleared in FCA 11, then 328 MW carried forward from FCA 9 and FCA 10.

[198] *See* ISO New England Inc., Forward Capacity Market, FCM Parameters, available at http://www.iso-ne/com/market/forward-capacity-market.

region's generating capacity could retire soon.[199] Anticipated retirements above 200 MW annually are likely to ameliorate the impact that lack of load growth might have on the FCM capacity price.

74. ISO-NE has also pledged to revisit the cap if load growth does not meet expectations.[200] We would expect ISO-NE to revisit the cap if it believes that the 200 MW cap – whether due to load growth, retirements or other factors – will prevent ISO-NE from procuring sufficient capacity through the FCM to meet its reliability targets on average, over time.

75. Finally, Generators argue that load growth cannot mitigate the impact of the renewables exemption because "supply and demand fundamentals and basic auction mechanics mean that every megawatt of new entry bidding below cost will translate directly into less need for megawatts bidding at actual cost."[201] While Generators correctly describe the mechanics of an auction, they disregard the Commission's obligation to balance customer and supplier interests.[202] The function of the FCM is not to maintain specific prices for suppliers; it is to maintain prices at a level that will enable ISO-NE to meet its reliability targets on average, over time. As the results of FCAs 9 and 10, and the level of interest in participating in FCA 11, demonstrate, the FCM has met that test when it is operating under market rules that include the 200 MW exemption. Thus, the Commission appropriately found that the exemption is just and reasonable.

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[199] Remand Order, 155 FERC ¶ 61,023 at P 53 n.123 (citing ISO New England Inc., *2016 Regional Electricity Outlook* (March 2016), http://www.iso-ne.com/static-assets/documents/2016/03/2016_reo.pdf). ISO-NE states that more than 4,200 MW of non-gas-fired resources retired recently or plans to retire soon, *and an additional* 6,000 MW of coal and oil-fired units are "at risk" because they have been displaced by gas-fired units in the energy market, although they are still needed to meet winter demand. *Id*.

[200] Remand Order, 155 FERC ¶ 61,023 at P 53 n.129 (citing Demand Curve Rehearing Order, 150 FERC ¶ 61,065 at P 22 (citing ISO-NE Answer at 16)).

[201] Rehearing Request at 35. Stated another way, the renewables exemption "reduces compensation to incumbent generators when compared to the compensation they would receive in an efficient and competitive market." *Id*. at 30.

[202] Remand Order, 155 FERC ¶ 61,023 at P 33 ("The Commission must balance competing goals to assure just and reasonable rates.").

2. Retirements

a. Request for Rehearing

76. Generators argue that, while the Commission believes that retirements of existing resources will mitigate the effect of the renewables exemption, the retirements of resources are instead evidence of market design flaws. They assert that the price uncertainty caused by the renewables exemption may be an "important contributing factor" to some resources' decision to retire prematurely.[203]

77. Additionally, Generators assert that the Commission's view that retirements will mitigate the price-suppressive effect of the renewables exemption is dependent on two assumptions, neither of which is valid. First, Generators argue that, while the Commission takes the view that an exempt renewable resource will never affect the marginal unit that sets the capacity price, market rules do not prevent that outcome. Second, Generators assert that the Commission believes that no export constrained zones will exist, but, if one does exist, no capacity subject to the renewables exemption will enter a constrained zone.[204] Generators assert that this second assumption cannot be true since the Commission has previously recognized that the current Northern New England zone (Maine, Vermont, and New Hampshire) is an export-constrained zone. They add that, contrary to the Commission's assumptions, the most likely region for siting new wind resources is in the export-constrained Northern New England zone.

b. Commission Determination

78. We disagree with Generators' contention that retirements are due to market design flaws. The main reason why resources, primarily nuclear, coal, and oil-fired units, are retiring is because they have become uneconomic due to market factors, including the low price of natural gas, and environmental regulations that increase the cost of operating fossil fuel generation.[205] But regardless of the reason for these retirements, they have had

[203] Rehearing Request at 38.

[204] *Id*. at 39.

[205] *See, e.g.*, ISO-NE, Internal Market Monitor, 2014 Annual Markets Report, May 20, 2015, at 3, available at http://www.iso-ne.com/static-assets/documents/2015/05/2014-amr.pdf. *See also* ISO-NE, 2015 Annual Markets Report, May 25, 2015, at 37 ("The age of coal and oil generators coupled with . . . economic drivers (new cleaner and more efficient technology, low natural gas prices, increasing emissions costs and environmental regulations) have contributed to generator retirements."), available at http://www.iso-ne.com/static-

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and will continue to have an impact on the FCM capacity price. As long as the combined impact of retirements and load growth exceed the amount of exempt renewable resources that clear in the capacity auction, there will be a need for additional new entry. The likelihood that the entry of new exempt renewable resources – which have supplied less than one percent of ISO-NE's capacity in an approximately 35,000 MW market – may be causing some resources to retire prematurely, is low. While it is possible that, in constrained zones, the entry of between 200 and 600 MW under the exemption could have a greater impact on price and therefore a greater possible impact on retirement decisions as well, the possibility of such a situation arising (especially solely as a result of the exemption) is, at this point, entirely speculative. Indeed, only 72 MW of renewables have cleared in FCA 9 and FCA 10 combined under the renewables exemption.[206] Despite the current natural gas transportation pipeline capacity constraints in New England, it is relatively low natural gas prices during most of the year that have made non-gas-fired resources uneconomic in New England.[207] Also, the introduction of the system-wide and zonal sloped demand curves for FCA 11 is designed to reduce price volatility,[208] a factor that will facilitate rational long-term decision-making, such as deciding when to invest or retire.

79. With regard to Generators' assertion that only "now" does the Commission assert that renewable resources will meet not only load growth, but also retirements, we note

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assets/documents/2016/05/2015_imm_amr_final_5_25_2016.pdf.

[206] In FCA 10, up to 384 MW of renewable resources could have cleared under the renewables exemption. In FCA 11, up to 528 MW could have cleared under the renewables exemption. Thus, 16 MW cleared in FCA 9 under the renewables exemption, and 56 MW cleared in FCA 10 under the renewables exemption (72 MW total in FCA 9 and FCA 10). *See* https://www.iso-ne.com/static-assets/document/2015/09/FCA_Parameters_Final_Table.xlsx, row 14 "Available Capacity Amount for Renewable Technology Resources (MW)."

[207] ISO-NE, 2015 Annual Markets Report, May 25, 2015, at 40 ("Natural gas generating resources accounted for 78 percent of new additions to capacity. Newer, cleaner and more efficient technology, combined with low natural gas prices, increasing emissions costs, and environmental regulations has contributed to more investment in new natural gas generators."), available at http://www.iso-ne.com/static-assets/documents/2016/05/2015_imm_amr_final_5_25_2016.pdf.

[208] Transmittal, ISO New England Inc., Docket No. ER16-1434-000, at 9 (April 15, 2016).

that Dr. Ethier referenced the amount of generation that is anticipated to retire in his original testimony.[209] Moreover, the Commission previously acknowledged in the Demand Curve Rehearing Order that "[m]erchant entry would still be needed in order to meet anticipated retirements, which are expected to be significant over the next several years, resulting in the FCM still clearing near [Net CONE]."[210] Additionally, ISO-NE's map of retired and prospective retiring units shows that units have retired and are anticipated to retire throughout the New England states (and in most, if not all, zones).[211]

80. We also disagree with Generators' assertion that our view that retirements will mitigate the impact of the renewables exemption is entirely dependent on two invalid assumptions: (1) exempt renewable resources will "never affect" the marginal unit that sets the FCM capacity price; and (2) the Commission's alleged belief that there is no export constrained zone, but if there is one – i.e., Northern New England (Maine, Vermont and New Hampshire) – no capacity subject to the renewables exemption will enter in the constrained zone.

81. As to the first point, based on recent and forecasted retirements,[212] we do not believe it likely that exempt renewable resources will significantly lower FCM capacity prices. The amount of exempt renewables (up to 600 MW in a given auction, depending on how many MW are carried over) is small relative to the amount of new entry that will be needed to offset the expected retirements (approximately 4,200-10,000 MW), in a capacity market that needs to procure roughly 35,000 MW annually. In addition, if the supply curve is flat (horizontal) where the supply and demand curves intersect, then a

[209] *See* Ethier Testimony at 41.

[210] Demand Curve Rehearing Order, 150 FERC ¶ 61,065 at P 21.

[211] ISO New England Inc., 2016 Regional Electricity Outlook (March 2016), http://www.iso-ne.com/static-assets/documents/2016/03/2016_reo.pdf, at 11. As shown here, units that are closed or retiring include Vermont Yankee in Vermont; Mt. Tom, Salem Harbor, Pilgrim and Brayton Point in Massachusetts; and Norwalk and Bridgeport Unit 2 in Connecticut. Units at risk of retirement include Yarmouth in Maine; Merrimack, Newington and Schiller in New Hampshire; Mystic, West Springfield and Canal in Massachusetts; and Middletown, Montville, Bridgeport Unit 3 and New Haven in Connecticut.

[212] ISO New England Inc., 2016 Regional Electricity Outlook (March 2016), http://www.iso-ne.com/static-assets/documents/2016/03/2016_reo.pdf, at 3 ("By 2020, resources representing about 30 percent of regional capacity have committed to cease operation or are at risk of retirement").

shift in the supply curve attributable to the renewables exemption would not affect the capacity price. Even if, in any given year, the capacity price is lower than it would have been without the exemption, due to the "lumpiness" of new entry and the sporadic timing of retirements, we nevertheless expect that capacity market prices will, on average, over time, result in Net CONE, enabling ISO-NE to meet its reliability targets, on average over time.

82. As to the second assumption, we disagree with Generators' contention that "the Commission believes that . . . no capacity subject to the renewables exemption will enter a constrained zone."[213] It is possible that, as Generators point out, significant amounts of wind generation may seek to enter Northern New England over the next several years. However, ISO-NE anticipates that this is unlikely to occur unless sufficient transmission is built to enable that wind generation to be delivered outside of the Northern New England zone [214]– and once that transmission is developed, Northern New England is likely to no longer be export-constrained. Because ISO-NE annually identifies constrained zones prior to each FCA, once Northern New England is no longer export (or import) constrained, it will become part of the Rest-of-Pool zone. When new transmission upgrades are constructed and new resources are interconnected, then FCM prices will likely ultimately fall – which is how the FCM is supposed to work to meet customers' needs in the most efficient manner.

83. Finally, even if Generators' assumptions regarding the effect of the exemption on the supply curve prove correct, the FCM rules in effect will temper the impact of these renewable resources on the FCM capacity price. First, these new renewable resources would still have to qualify for participation in the FCM, and, as we previously noted, even if resources representing a significant number of new MW are constructed in northern New England, it is unlikely that all of the capacity provided by those resources would qualify for the exemption.[215] Additionally, as noted above, historically, only a

[213] Rehearing Request at 39.

[214] ISO New England Inc., 2016 Regional Electricity Outlook (March 2016), http://www.iso-ne.com/static-assets/documents/2016/03/2016_reo.pdf, at 4 ("Connecting and delivering more wind power from northern New England . . . as well as more hydropower from Canada, will first require the region to cooperate on substantial transmission upgrades").

[215] Demand Curve Order, 147 FERC ¶ 61,173 at P 85; Remand Order, 155 FERC ¶ 61,023 at P 18 (noting that, although approximately 1,751 MW of new capacity has been proposed in Maine, "since ISO-NE qualifies wind and solar resources for capacity market participation at approximately 20 percent of their nameplate capacity, at least

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portion of the renewable resource capacity that qualifies for the exemption actually clears in the FCA. Finally, other regions in New England will likely qualify resources, leading to proration under the proration rule; thus, all 200 MW (or up to 600 MW) are unlikely to be located in the export constrained zone.[216]

3. Sloped Demand Curve

a. Request for Rehearing

84. Although Generators acknowledge that sloped zonal demand curves can reduce short-term price volatility, they assert that significant price suppression still occurs under a sloped demand curve. Generators further contend that the sloped demand curve remains very steep. Generators allege that the record demonstrates that, under the system-wide sloped demand curve, 100 MW of renewable resource entry could suppress the annual revenues by 4 percent or $188 million; 200 MW would suppress revenues by 8 percent or $370 million; and 600 MW could suppress revenues by 23 percent of $1.028 billion.[217] Generators further assert that, under the sloped demand curves the Commission recently accepted,[218] the 200 MW exemption could suppress capacity prices by approximately $1.32/kW-month – a 42 percent increase over the current system-wide curve – and could lower capacity prices by more than $500 million in a single auction.[219]

85. Generators assert that price suppression is exacerbated in a local capacity zone as compared with the entire region, particularly in the export-constrained Northern New England zone where renewable resources continue to enter annually through the renewables exemption even though there may be no need for additional resources in that zone. They estimate that 200 MW of new renewable resource entry in Northern New England would decrease prices in the local capacity zone by $3/kW-month in a single year up to $9/kW-month should 600 MW clear in a single year. They add that the entire 200 MW would not have to clear in a single capacity zone for substantial price

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1,000 MW of renewable resources would have to qualify in Maine for that zone to take up the entire renewables exemption").

[216] Demand Curve Order, 147 FERC ¶ 61,173 at P 85.

[217] Rehearing Request at 12, 40.

[218] Demand Curve Design Improvements Order, 155 FERC ¶ 61,319.

[219] Rehearing Request at 40.

suppression to occur because load growth in any single capacity zone will be substantially less than 200 MW.

b. Commission Determination

86. We agree with Generators that under the zonal sloped demand curves, which are steeper than the system-wide sloped demand curve, additional supply concentrated in a single export-constrained zone has a greater potential price suppressive effect than the same amount of supply would have system-wide. However, the zonal and system-wide sloped demand curves, which were developed to better reflect the incremental reliability impact of capacity,[220] are less steep than the previous vertical zonal supply curves. As Generators acknowledge, a sloped demand curve will limit the impact of price suppression as compared with a vertical demand curve,[221] and as we have explained before, "[t]he less steep the slope of a demand curve, the less impact any exemption will have."[222]

87. Generators cite figures from Dr. Hunger's affidavit, which are based on ISO-NE's filing, and do not take into account the significant amount of retirements that are expected to offset the effect of the renewables exemption.[223] If retirements exceed the 200 MW renewables exemption cap, then, in addition to renewable resources that enter the market through the renewables exemption, merchant entry will also be needed for ISO-NE to meet its reliability targets. The net effect would be to reduce and possibly eliminate the price suppressive impact of the renewables exemption shown in Dr. Hunger's affidavit.

88. Second, Generators' figures, while illustrative of potential FCM outcomes, do not reflect the probability that they will occur. Not only do these figures fail to reflect the likelihood that significant retirements will take place, they assume that the amount of renewable resources permitted by the cap will enter the auction each year. Additionally, Generators highlight the impact of 600 MW of exempt renewable resources on the FCM

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[220] Demand Curve Design Improvements Order, 155 FERC ¶ 61,319 at P 7.

[221] Demand Curve Order, 147 FERC ¶ 61,173 at P 83 ("As ISO-NE explains, if all resources offered as price takers, under the vertical demand curve the market clearing price would be zero at a quantity equal to net ICR; under a sloped demand curve, the market-clearing price would be approximately $13/kW-mo.").

[222] Demand Curve Rehearing Order, 150 FERC ¶ 61,065 at P 20.

[223] *See* Hunger Aff. at ¶ 16 *et seq.* (no mention of retirements in affidavit).

capacity price, and downplay (or are silent on) the fact that, if 600 MW were to clear in one year under the renewables exemption, that means that no exempt renewable resources would have cleared in the prior two years. In contrast, in the first eight FCM auctions combined (when there was no exemption), approximately 400 MW of Qualified Capacity cleared in the FCA from wind and solar resources.[224] In FCA 9 and FCA 10 combined, only 72 MW of Qualified Capacity cleared in the FCM under the renewables resources exemption.[225]

89. Moreover, even under Dr. Hunger's analysis, the price reduction from the 72 MW that actually cleared in FCA 9 and FCA 10 combined under the renewable resource exemption results in (much) less than a four percent price reduction.[226]

4. Unlikely To Reach 200 MW Cap

a. Request for Rehearing

90. Generators argue that the Commission's assertion that the 200 MW cap is unlikely to be reached does not justify the price suppression that it will cause.[227] Generators argue that it is arbitrary and capricious for the Commission to assume that the (relatively small) amount of renewables that cleared in FCA 9 and FCA 10 (the first two years of the renewables exemption) is a reasonable proxy for the future amount of renewable entry. Generators contend that the Commission's reading of Dr. Hunger's and Dr. Schnitzer's testimony is disingenuous because neither expert predicted the precise amount of suppression that would result in FCA 9 and/or FCA 10. Rather, they expressed their opinion that the exemption would allow substantial amounts of subsidized resources to enter in the FCM and they quantified the price effects from various levels of subsidized entry. They contend that the fact that price suppression "may have been less than five percent" in each of FCA 9 and FCA 10 is "hardly a good fact for supporters of the exemption," since, according to Dr. Hunger's calculations, five percent is the

[224] Demand Curve Order, 147 FERC ¶ 61,173 at P 78 & n.87 (citing ISO-NE Answer at 15).

[225] *See supra* footnote 197.

[226] *See* Rehearing Request at 12.

[227] *Id.* at 42, pointing out that in the Remand Order, the Commission defends the renewables cap as not likely to be reached "because there is a large gap between the capacity value of renewable resources and their nameplate capacity." (quoting Remand Order, 155 FERC ¶ 61,023 at P 43).

equivalent of $188 million. They contend that the renewable exemption's potential price suppressive effects are not ameliorated because only 79 MW and 71 MW entered in two consecutive auctions; this means that up to 450 MW of renewables could enter in the subsequent auction.[228]

91. They assert that the Commission's logic is flawed. They assert that it is unreasonable to defend the justness and reasonableness of the cap on the basis that the cap is not likely to be reached, or that the full potential to do harm may be realized only in part. They state that such argument implies that unjust and unreasonable price suppression could result if the caps are reached. They insist that the renewables exemption will send a clear signal to build up to 200 MW of renewables per year because those 200 MW will not be subject to mitigation. They assert that there is no justification in theory or in practice to assert that market participants will ignore this signal.

92. Generators add that the Commission contradicts the logic that it adopted in approving expansive new retirement bid restrictions earlier this year. They argue that, despite no evidence that any supplier had ever retired to manipulate ISO-NE capacity prices, the Commission nevertheless agreed that "it is irrelevant whether suppliers have previously used physical withholding through retirement as a means to exercise market power."[229] Generators assert that, to be logically consistent, the fact that as few as 71 MW have utilized the exemption when the rules allow up to 600 MW at a time should also be irrelevant. Generators assert that ISO-NE's argument is also inconsistent with the Commission's statement last year that "additional capacity associated with meeting the New England [Renewable Portfolio Standards] through 2021 will exceed load growth in New England over the same period."[230] They assert that it is also inconsistent with ISO-NE's prior statement regarding the extensive anticipated growth of renewables in New England. Finally, Generators assert that more than 4,000 MW of wind is in the ISO-NE interconnection queue waiting to be built, and the six New England states will invest in $1.1 billion annually in energy efficiency programs. They assert that growth in peak demand is down by more than 70 percent from normal, slowing from 1.1 percent to 0.4 percent, due to adoption of energy-efficient lighting, appliances, cooling and building operation.

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[228] *Id.* at 43 & n.136 (noting that only 56 MW *cleared* in FCA 10).

[229] *Id.* at 44 & n.137 (citing *ISO New England Inc.*, 155 FERC ¶ 61,029, at P 31 (2016)).

[230] *Id.* at 44 & n.138 (citing 142 FERC ¶ 61,108 at P 35).

b. Commission Determination

93. We agree with Generators that, standing alone, the argument that the cap is not likely to be reached does not justify the cap. However, this 200 MW limit was set at approximately ISO-NE's estimate of average annual load growth in order to prevent systematic downward pressure on prices.[231] As noted above, this estimate was reasonable at the time it was made, and, while load growth has been flat, retirements have made up, and we expect will continue to make up, for the lack of load growth.

94. The fact that the cap has not been reached also shows that, contrary to Generators' contention, the 200 MW cap has not been a sufficient incentive on its own for 200 MW of qualified capacity from exempt renewable resources to come on line annually. It also shows that Generators' concerns about price suppression tend to be overstated, and the figures they choose to emphasize in their pleading are arguably overstated as well.

95. As to logical consistency with the Retirement Bid Mitigation Order, Generators seek to compare apples and oranges. In the Retirement Bid Mitigation Order, the Commission was concerned about the intentional exercise of market power – the premature retirement of existing resources to drive up capacity market prices.[232] Here, although Generators allege that the renewable resources may seek to exercise market power for the purposes of lowering prices,[233] as we have previously explained, intermittent renewable resources with low capacity factors and high development costs have limited or no incentive and ability to exercise market power to artificially suppress capacity market prices.[234]

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[231] Demand Curve Order, 147 FERC ¶ 61,173 at P 63.

[232] *ISO New England Inc.*, 155 FERC ¶ 61,029 at P 5.

[233] *See* Rehearing Request at 40.

[234] *See N.Y. Pub. Serv. Comm'n v. N.Y. Indep. Sys. Operator, Inc.*, 153 FERC ¶ 61,022 at PP 47, *reh'g denied*, 145 FERC ¶ 61,088 at PP 13-14 (applying buyer-side market power mitigation to certain renewable resources that have limited or no incentive and ability to artificially inflate capacity market clearing prices is unjust and unreasonable or unduly discriminatory or preferential); Remand Order, 155 FERC ¶ 61,023 at P 33 & n.71 ("Similarly, in *N.Y. Pub. Serv. Comm'n v. N.Y. Indep. Sys. Operator, Inc.*, the Commission determined that low capacity values and high development costs of renewable resources provide their developer with limited or no incentive and ability to exercise market buyer-side market power to artificially suppress capacity market prices.").

96. Generators' assertion that justifying the cap based on the small amount of renewable resources that have cleared in the capacity market is also inconsistent with statements that ISO-NE and the Commission have made regarding increases in renewable resources in New England, and misrepresents the Commission's reasoning. The Commission did not accept the renewables exemption simply because the cap was unlikely to be reached. Rather, the Commission accepted the cap because it balanced competing goals of maintaining reliability, preventing overpayment for capacity, and reducing price volatility to assure just and reasonable rates.[235] The Commission found that limiting the amount of renewable resources that may qualify for the exemption each year (200-600 MW), paired with the downward-sloping demand curve, mitigated concerns about potential price suppression.[236]

97. While Generators are correct that neither Dr. Hunger nor Mr. Schnitzer pinpointed a precise amount of price suppression, we disagree with Generators' contention that the Commission misused their testimony. While their data indicated a range of possible outcomes,[237] none indicate that the FCM capacity price would be so low as to impair reliability or prevent the opportunity for recovery of Net CONE, on average, over time.

F. Hearing or Stakeholder Input

1. Rehearing Request

a. Request for Rehearing

98. Finally, Generators reiterate that the Commission erred by not setting the renewables exemption for hearing or for stakeholder input.[238] They assert that the Commission violated the FPA and the Administrative Procedure Act,[239] ignored record

[235] *See, e.g.*, Remand Order, 155 FERC ¶ 61,023 at PP 33-35.

[236] *Id.* PP 35-36.

[237] *See id.* P 43 & n.93 (explaining that Mr. Schnitzer performed a similar analysis to Dr. Hunger, but concluded that capacity prices would decrease by roughly five to ten percent (as opposed to eight percent) because he used different assumptions as to the slope of the supply curve – i.e., a flatter curve) (citing Schnitzer Aff. at 6).

[238] Rehearing Request at 8 (citing Remand Order, 155 FERC ¶ 61,023 at PP 70-71); *id.* 45-46.

[239] 16 U.S.C. § 824d; 5 U.S.C. § 706(2) (2012).

evidence and failed to respond meaningfully to legitimate objections. They argue that, among other things, a hearing could have aided in resolving: (1) the extent of price suppression, because, they assert, a hearing would permit cross examination on the key issue of price impacts; (2) whether inclusion of 1,100 MW of historical uneconomic entry can serve as a proxy for future uneconomic entry, including examination of how ISO-NE included this amount in its modeling; (3) whether disputed load growth estimates have been proven wrong; and (4) whether the evidence of retirements offsets entry of renewables and whether the renewables exemption is contributing to the increased retirement estimates.

b. Commission Determination

99. We deny Generators' request for rehearing on this issue. The decision whether to conduct a hearing falls squarely within the Commission's discretion.[240] As we explained in the Remand Order, the Commission is not required to hold a hearing if the disputed material fact "may be adequately resolved on the written record."[241] The record in place when the Commission accepted the renewables exemption sufficiently supports the exemption. Cross-examination was not necessary to ascertain whether the renewables exemption would result in unjust and unreasonable price suppression or to discern the propriety of using the 1,100 MW of historical uneconomic entry in shaping the supply curve. The factual record was sufficient to evaluate these concerns, which are matters of expertise and judgment, involving future predictions that are not reducible to a single, irrefutable answer.[242]

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[240] *See, e.g.*, *Central Maine Power Co. v. FERC*, 252 F.3d 34 (1st Cir. 2001) (stating that "the reasons for deference [on matters of procedure] are especially strong where the decision is entangled with the agency's expert judgment regarding forward-looking industry-wide regulation); *see also Minisink Residents for Env'tl Preserv. and Safety v. FERC*, 762 F.3d 97, 114-15 (D.C. Cir. 2014); *Blumenthal v. FERC*, 613 F.3d 1142, 1144 (D.C. Cir. 2010).

[241] Remand Order, 155 FERC ¶ 61,023 at P 70 & n.159 (citing *Cajun Elec. Power Coop. v. FERC*, 28 F.3d 173, 177 (D.C. Cir. 1994)); *see also PacifiCorp*, 149 FERC ¶ 61,057, at P 19 & n.32 (2014) (citing *Cajun*, 28 F.3d at 177) (quoting *Moreau v. FERC*, 982 F.2d 556, 568 (D.C. Cir. 1993)); *Ark. Elec. Energy Consumers v. FERC*, 292 F.3d 362, 360-70 (D.C. Cir. 2002).

[242] *Ala. Elec. Coop., Inc. v.* FERC, 684 F.2d 20, 27 (D.C. Cir. 1982) ("Ratemaking is, of course, much less a science than an art."); *see also Sacramento Mun. Util. Dist.*, 616 F.3d at 531 (citing *Envt'l Action v. FERC*, 939 F.2d 1057, 1069 (D.C. Cir. 1991)).

100. Similarly, the retirement estimates are matters of public record, based on the best information available.[243] While we recognize that these estimates may shift over time,[244] cross-examination would not aid in predicting future changes in retirement estimates, nor would it necessarily further elucidate the relationship between retirement estimates and the renewables exemption. Additionally, as noted above, the fact that the passage of time has shown that the estimates of load growth that the Commission relied on were higher than actual load growth turned out to be does not vitiate the validity of the load growth estimates that the Commission relied on at the time the renewables exemption was accepted.[245]

101. Nevertheless, recognizing the challenges that state renewable policies present for organized electricity markets, we note that other forums exist for addressing these concerns. These include the IMAPP stakeholder proceedings in New England, noted

[243] *See* ISO New England Inc., *2016 Regional Electricity Outlook* (March 2016), http://www.iso-ne.com/static-assets/documents/2016/03/2016_reo.pdf. *See also* https://www.iso-ne.com/static-assets/documents/2016/08/retirement_tracker_external.xlsx; http://www.iso-ne.com/static-assets/documents/markets/othrmkts_data/fcm/cal_results/ccp13/fca13/fca3_monthly_ob_v2.xls.

[244] We note that, in the Remand Order, the Commission relied on ISO-NE's 2006 Regional Electricity Outlooks, *see* Remand Order, 155 FERC ¶ 61,023 at P 53 & n.123. Subsequently, ISO-NE's Vice President for Operations, Peter Brandien, said that "this winter will be the last before the region loses large portions of its nuclear, coal and oil-fired power generations capacity and ramps up its gas-fired generation capacity without expanding its gas pipeline infrastructure." He also noted that more than 4,200 MW of generating capacity in coal, oil and nuclear resources has retired or plans to retire in New England, and another 6,000 MW of coal and oil resources could retire in the coming years, and ISO-NE plans to use gas-fired and LNG resources to meet this need. *See* http://www.ferc.gov/CalendarFiles/20161109081104-transcript-10-20-16.pdf, at 32-33; *see also* Brandien Remarks, FERC Panel Discussion, Winter 2016-2017 Operations and Market Performance in Regional Transmission Organizations and Independent System Operators, Docket AD16-24-000, at 4-5 (filed Oct. 20, 2016). ISO-NE's President and Chief Executive Officer, Gordon van Welie, has made similar comments: https://www.iso-ne.com/static-assets/documents/2016/09/gvw_nec_9_28_2016.pdf.

[245] *Fla. Gas Trans. Co. v.* FERC, 604 F.3d 636, 645 (D.C. Cir. 2010).

above,[246] and we encourage Generators and other stakeholders interested in improving harmonization between state renewable policies and wholesale (capacity and electricity) markets to continue to participate in those discussions and proceedings.

The Commission orders:

Generators' request for rehearing is denied, as discussed in the body of this order.

By the Commission. Commissioner Bay is concurring with a separate statement attached.

(S E A L)

Kimberly D. Bose,
Secretary.

[246] *See supra* footnote 30; *see also* http://www.nepool.com/IMAPP.php.

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

ISO New England Inc. and New England Power Pool Participants Committee — Docket No. ER14-1639-005

(Issued February 3, 2017)

BAY, Commissioner, *concurring*

Today, the Commission affirms a prior order that exempts 200 MW of renewable resources from the minimum offer price rule (MOPR) in ISO-NE's capacity market and allows any unused portion to carry forward for up to three years and 600 MW. I concur with this result but would go further in reconsidering the MOPR's rationale and applicability in the wholesale electricity markets. Despite the best intentions of the Commission, in my view, the MOPR has turned out to be unsound in principle and unworkable in practice. No other market in the United States is subject to the same construct in which a federal agency reviews state action and imposes an administrative price floor on supply offers from certain resources that have received state support. This places the Commission in direct and recurring conflict with the states, ignores the pervasiveness of state and federal policies that support resources in one fashion or another, and represents a significant intervention in the market that raises costs to consumers.

It is first important to understand the reach of the MOPR. The MOPR was initially designed to mitigate exercises of asserted "buyer-side market power." But this label – buyer-side market power – is imprecise and somewhat of a misnomer, for it has come to have a far broader meaning than what its name might otherwise suggest. True attempts to exercise buyer-side market power (or monopsony power) would constitute anti-competitive behavior and should be addressed. Over time, the Commission's theory of the MOPR has changed, morphing from an examination of monopsony power to an examination of whether states have provided support or a subsidy to a resource that is selling into the capacity market. Such subsidies are viewed as harmful to the market, resulting in application of the MOPR, which forces the resource to offer its capacity at a price above the level it would be willing to accept absent the MOPR.

The premise of the MOPR appears to be based on an idealized vision of markets free from the influence of public policies. But such a world does not exist, and it is impossible to mitigate our way to its creation. The fact of the matter is that all energy

resources receive federal subsidies, and some resources have received subsidies for decades.[1] Yet the MOPR is only concerned with state subsidies, not federal ones, though both can have a similar impact on markets. And even with respect to state conduct, the MOPR's review is incomplete at best. The MOPR does not mitigate the wholesale offers of utilities located in vertically integrated states. Nor does the MOPR examine whether existing resources have previously benefited from a state subsidy. In short, the MOPR suffers from a troubling lack of coherence that calls into question the soundness of its underlying rationale.

Given the pervasiveness of public policies that support resources, I believe the MOPR has proven to be unworkable in practice. It has developed in an *ad hoc* fashion, without specifying a clear test for the amount of state support that triggers mitigation. Yet all state action that increases or decreases electricity supply has an impact on the wholesale markets. A prompt siting decision or a favorable zoning exemption may provide more economic benefit than a subsidy but only the subsidy is likely to result in application of the MOPR. While these state actions may be more significant than the subsidies subject to the MOPR, they are lawful.[2] The Supreme Court has now made clear that states are permitted to enact a wide range of policy choices that can affect the wholesale market.[3] After the decision in *Hughes*, the Commission cannot defend the MOPR on the grounds that the states have overstepped their authority except in the rare situation where the state action impermissibly interferes with wholesale rates.

Nor has the Commission been consistent about when it will stand in the way of state action and when it will not. There is wide variation among the eastern market

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[1] U.S. Energy Information Administration, Direct Federal Financial Interventions and Subsidies in Energy in Fiscal Year 2013 (2015), *available at* https://www.eia.gov/analysis/requests/subsidy/pdf/subsidy.pdf.

[2] *See Hughes v. Talen Energy Mktg., LLC*, 136 S. Ct. 1288, 1299 (2016) (holding that federal law preempts state actions that "intrude on FERC's authority over interstate wholesale rates").

[3] *Id.* at 1299 (declining to address "the permissibility of various other measures States might employ to encourage development of new or clean generation, including tax incentives, land grants, direct subsidies, construction of state-owned generation facilities, or re-regulation of the energy sector" and noting that "[n]othing in this opinion should be read to foreclose Maryland and other States from encouraging production of new or clean generation through measures 'untethered to a generator's wholesale market participation'").

operators on the resources subject to the MOPR. In ISO-NE, all new resources are subject to the MOPR except for 200 MW per year of renewable resources. NYISO's MOPR applies to all resources entering a limited number of mitigated capacity zones and continues to apply until that resource has cleared in 12 monthly spot auctions, unless the resource qualifies for an exemption. In PJM, the MOPR only applies to new natural gas resources, not to renewable resources.

The theory underlying the MOPR also rests on multiple assumptions – assumptions that remain untested. The MOPR is not applied to the state, which may not actually be a buyer and which is acting on behalf of its citizenry, but to the resource, which is offering to sell capacity to the market and which may be a commercial entity. The theory, in other words, assumes such a congruence of interests between the state and the resource that the resource is mitigated for the conduct of the state. Tellingly, while the Commission applies elaborate screens to detect the exercise of seller market power, it does not apply similar screens to detect buyer-side market power in capacity markets. The Commission simply assumes it exists. The Commission has not explored or tested these assumptions in its orders, and it does not know whether they are true.

Not surprisingly, as an institutional matter, imposition of the MOPR places the Commission in constant tension with the states. While there are times when the Commission must check state action that impermissibly interferes with the wholesale markets, it should endeavor to do so only when necessary. I believe that respect for federalism requires no less. In our constitutional order, states are rightly celebrated for being laboratories for experimentation.[4] Among other things, those laboratories may incentivize the development of needed energy infrastructure, the deployment of innovative technologies, or the establishment of Renewable Portfolio Standards. Given their plenary police powers, states are free to use their authority to act on behalf of their citizens, as long as they do not "intrude on FERC's authority over interstate wholesale rates."[5] The Commission should be especially mindful of state policy when it comes to

[4] *New State Ice Co. v. Liebmann*, 285 U.S. 262, 310 (1932) (Brandeis, J., dissenting).

[5] *Hughes*, 136 S. Ct. at 1298. *See also PPL Energyplus, LLC v. Solomon*, 766 F.3d 241, 255 (3rd Cir. 2016) ("The states may select the type of generation to be built – wind or solar, gas or coal – and where to build the facility. Or states may elect to build no electric generation facilities at all. The states' regulatory choices accumulate into the available supply transacted through the interstate market. The Federal Power Act grants FERC exclusive control over whether rates are 'just and reasonable,' but FERC's authority over interstate rates does not carry with it exclusive control over any and every force that influences interstate rates."), *cert. denied*, 136 S. Ct. 1728 (2016).

electric generation because section 201(b)(1) of the Federal Power Act denies FERC jurisdiction "over facilities used for the generation of electric energy."

A resource receiving any amount of state support now faces a considerable degree of legal uncertainty. The Commission has not sought to explain, let alone reconcile, the relationship between the MOPR and preemption. As a result, one hurdle to the development of state-supported resources is the prospect of preemption and an examination of whether the state conduct impermissibly interferes with the Commission's authority over the wholesale markets. Even if this hurdle is crossed, however, the resource could still be subject to the MOPR. This places material, if not untenable, risk on the resource, for its offers in the capacity market may be raised to a level that prevents the resource from clearing the auction. Resources and states are deserving of as much regulatory certainty as the Commission can provide to them. Instead, as a practical matter, the Commission has erected a double hurdle for resources that receive state support, without providing sufficient guidance on when the MOPR is triggered or how it can be overcome.

An examination of other areas of the law is instructive, because it demonstrates the anomalous nature of the MOPR in according so little deference to federalism concerns and in impeding legitimate state policies. Under the Constitution, for example, the dormant commerce clause forbids states from discriminating against out-of-state commerce. This prevents states from placing undue burdens on interstate commerce and promotes competition in the marketplace.[6] But even here there is an important exception for states when they are acting as market participants. This exception is, in large part, grounded in federalism concerns. "Restraint in this area is . . . counseled by considerations of state sovereignty, the role of each State 'as guardian and trustee for its people.'"[7] States, if they wish, may act as a market participant to benefit their citizens, even if they favor their own at the expense of others and market efficiency.[8]

Notably, a similar respect for federalism and the role of the states in our

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[6] *H.P. Hood & Sons, Inc. v. DuMond*, 336 U.S. 525, 539 (1949) ("[E]very consumer may look to the free competition from every producing area in the Nation to protect him from exploitation by any.").

[7] *Reeves, Inc. v. Stake*, 447 U.S. 429, 438 (1980) (quoting *Heim v. McCall*, 239 U.S. 175, 191 (1915)).

[8] *Id.* at 442-47 (upholding South Dakota resident-preference program for cement manufactured at state-owned facility).

constitutional order can be seen in antitrust law. While federal antitrust law forbids anti-competitive conduct, there is an important exception for "States when acting in their sovereign capacity."[9] This exception, known as the *Parker* doctrine, "represents an attempt to resolve conflicts that may arise between principles of federalism and the goal of antitrust laws, unfettered competition in the marketplace."[10] The Supreme Court has explained that "[i]f every duly enacted state law or policy were required to conform to the mandates of the Sherman Act, thus promoting competition at the expense of other values a State may deem fundamental, federal antitrust law would impose an impermissible burden on the States' power to regulate."[11] As a result, in deference to federalism, competition law provides a specific exception for state action, even if the state action has anti-competitive effects.

Beyond the recurring cost to FERC's relationship with states, it is important to recognize the economic costs of the MOPR as well. While the MOPR is often characterized as a pro-market policy, correcting the intrusions of the states, this assumes that a market can and should be free from out-of-market influences; there is the judgment that such influences are undesirable and that they can be managed through administrative review and mitigation. In point of fact, out-of-market influences are everywhere. Supply-side resources face a diverse range of costs and benefits that are the result of a myriad of public policies and choices by state and federal agencies. In the vast majority of situations, we should let those costs and benefits simply pass through our markets and have an impact on supply and demand.

Instead, the MOPR not only frustrates state policy initiatives, but also likely requires load to pay twice – once through the cost of enacting the state policy itself and then through the capacity market. If states have chosen to provide out-of-market revenue to some resources, the resulting capacity market price should send a signal consistent with the actual capacity needed in light of such revenue. In contrast, a capacity price that is based on an administratively-determined MOPR may not send an efficient signal for entry and exit. Administrative attempts to remove such revenue could result in inefficiently high capacity prices that signal the need for new capacity when no such need exists.

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[9] *N.C. State Bd. of Dental Exam'rs v. F.T.C.*, 135 S. Ct. 1101, 1110 (2015).

[10] *S. Motor Carriers Rate Conference, Inc. v. United States*, 471 U.S. 48, 61 (1985).

[11] *N.C. State Bd. of Dental Exam'rs*, 135 S. Ct. at 1109.

For example, assume a state has partially subsidized 200 MW of capacity in a 10,000 MW capacity market. If that 200 MW resource is willing to offer capacity at a lower cost as a result, then the cost minimizing outcome, which is by definition efficient, is to allow that resource to offer in to the market at the lowest price it is willing to accept. Is this offer and resulting clearing price "artificially suppressed"? If the starting point is the theoretically economic ideal of an outcome free from the impacts of state and federal policy, then the answer may be yes. But, if the starting point recognizes the reality in which we live, then the price is appropriate. The pervasiveness of public policies that provide subsidies or impose costs on resources makes it futile to attempt to unwind them all. Assuming that it is even possible to determine a "subsidy-free offer," any attempt to unwind completely all subsidies and added costs necessarily assumes that some regulatory entity is capable of calculating the correct offer that resources must submit to the market. The clearing price from such a process could not credibly be called a market-based outcome. If a wholesale market operator tried to create an *ex ante* market free from the influence of public policy and the myriad of state and federal actions that impact supply and demand, this would create the most administrative construct of all. In short, the cure would be worse than the alleged disease.

I would approve of a MOPR to address monopsony power or when a state action would otherwise be preempted under *Hughes*. What the Commission should really be saying when it applies the MOPR is that a state has impermissibly interfered with wholesale rates. And when that happens, the state's action must be mitigated. For that reason, I would harmonize the reach of the MOPR with the law of preemption under the Federal Power Act. The Commission should only apply the MOPR in the uncommon situation when state action is not permitted under federal law. States, no less than industry, are entitled to as much regulatory certainty as the Commission can provide them and an appropriate level of deference under principles of federalism. This, in turn, may result in a better functioning capacity market with less complexity and administrative pricing in its operation.

Relaxing the MOPR could stand alone as a policy change or it could be coupled with other market designs that better harmonize state and federal policy goals with wholesale markets and promote just and reasonable rates and reliability. One option would be to transition towards a decentralized capacity market with a voluntary capacity auction. Reliability is protected because the wholesale market operator would still have to set a reserve margin; load serving entities (LSEs) would be required to procure the needed capacity. States could play a role here or they could allow their LSEs to rely upon the voluntary auction or sign bilateral capacity contracts. This design provides more flexibility to states and accommodates their choices. It allows states to attach value to energy in a way that the eastern markets do not. It is also fairly simple and straightforward. The Commission has found capacity market designs with these features to be just and reasonable.

The most market-oriented solution with the greatest transparency, simplicity, and, perhaps, efficiency would be to transition over time to an energy-only market. Assuming the scarcity pricing level is set at the appropriate level (the value of lost load), it addresses the "missing money" problem and eliminates the need for a capacity market. But I recognize that it would be a big step for a wholesale market operator to propose an energy-only market – only ERCOT has adopted this design – and that some may be concerned about the politics of scarcity pricing. The trade-off for critics concerned about costs, however, is that there would not be a capacity market. A decade ago, in the aftermath of the Western Power Crisis, there would have been little appetite for an energy-only market. Now, however, the wholesale market operators, market monitors, and FERC do much better market monitoring, FERC has an anti-manipulation authority, and natural gas is abundant and low priced, so there should be less price volatility in most regions.

For all those reasons, I respectfully concur.

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Norman C. Bay
Commissioner