

163 FERC ¶ 61,236
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Kevin J. McIntyre, Chairman;
Cheryl A. LaFleur, Neil Chatterjee,
Robert F. Powelson, and Richard Glick.

Calpine Corporation, Dynegy Inc., Eastern
Generation, LLC, Homer City Generation,
L.P., NRG Power Marketing LLC, GenOn
Energy Management, LLC, Carroll County
Energy LLC, C.P. Crane LLC, Essential
Power, LLC, Essential Power OPP, LLC,
Essential Power Rock Springs, LLC,
Lakewood Cogeneration, L.P., GDF SUEZ
Energy Marketing NA, Inc., Oregon Clean
Energy, LLC and Panda Power Generation
Infrastructure Fund, LLC

Docket Nos. EL16-49-000

v.

PJM Interconnection, L.L.C.

PJM Interconnection, L.L.C.

ER18-1314-000
ER18-1314-001

PJM Interconnection, L.L.C.

EL18-178-000
(Consolidated)

ORDER REJECTING PROPOSED TARIFF REVISIONS, GRANTING IN PART AND
DENYING IN PART COMPLAINT, AND INSTITUTING PROCEEDING UNDER
SECTION 206 OF THE FEDERAL POWER ACT

(Issued June 29, 2018)

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1. Over the last few years, the integrity and effectiveness of the capacity market administered by PJM Interconnection, L.L.C. (PJM) have become untenably threatened by out-of-market payments provided or required by certain states for the purpose of supporting the entry or continued operation of preferred generation resources that may not otherwise be able to succeed in a competitive wholesale capacity market.¹ The amount and type of generation resources receiving such out-of-market support has increased substantially. What started as limited support primarily for relatively small renewable resources has evolved into support for thousands of megawatts (MWs) of resources ranging from small solar and wind facilities to large nuclear plants. As existing state programs providing out-of-market payments continue to grow, more states in the PJM region are considering providing more support to even more resources, based on an ever-widening scope of justifications.

2. These subsidies enable subsidized resources to have a suppressive effect on the price of capacity procured by PJM through its capacity market, called the Reliability Pricing Model (RPM). Out-of-market payments, whether made or directed by a state, allow the supported resources to reduce the price of their offers into capacity auctions below the price at which they otherwise would offer absent the payments, causing lower auction clearing prices. As the auction price is suppressed in this market, more generation resources lose needed revenues, increasing pressure on states to provide out-of-market support to yet more generation resources that states prefer, for policy reasons, to enter the market or remain in operation. With each such subsidy, the market becomes less grounded in fundamental principles of supply and demand.

3. This order addresses two proceedings initiated in response to increasing out-of-market support. The first is a complaint against PJM pursuant to section 206 of the

¹ Out-of-market payments include, for example, the zero-emissions credits (ZEC) programs and Renewable Portfolio Standards (RPS) programs on which we base our determination in this order that PJM's Open Access Transmission Tariff (OATT or Tariff) is unjust, unreasonable, and unduly discriminatory or preferential. As explained below (*see infra* section V.C), we seek comment on the appropriate definition of out-of-market payments for purposes of the replacement rate. We emphasize that we cannot, and need not, address at this time all of the possible ways a state might provide out-of-market support for its preferred generation resources. We need only address the forms of state support that we find, in this proceeding, render the current Tariff unjust and unreasonable—i.e., out-of-market revenue that a state either provides, or requires to be provided, to a supplier that participates in the PJM wholesale capacity market.

Federal Power Act (FPA),² filed by Calpine Corporation, joined by additional generation entities (collectively, Calpine), in Docket No. EL16-49-000 (Calpine Complaint). The crux of the Calpine Complaint is that PJM's Tariff and more specifically, the Tariff's Minimum Offer Price Rule (MOPR), is unjust and unreasonable because it does not address the impact of subsidized existing resources on the capacity market. Calpine proposes interim Tariff revisions for immediate implementation that would extend the MOPR to a limited set of existing resources, and it asks the Commission to direct PJM to conduct a stakeholder process to develop and submit a long-term solution.

4. The second proceeding addressed in this order is PJM's recent filing of proposed revisions to its Tariff, pursuant to section 205 of the FPA,³ in Docket Nos. ER18-1314-000, *et al.* PJM's filing consists of two alternate proposals designed to address the price suppressing effects of state out-of-market support for certain resources.⁴ PJM's first, preferred approach is comprised of a two-stage annual auction, with capacity commitments first determined in stage one of the auction and the clearing price set separately in stage two (Capacity Repricing). PJM's second, alternative approach, to be considered only in the event the Commission determines that Capacity Repricing is unjust and unreasonable, revises PJM's MOPR to mitigate capacity offers from both new and existing resources, subject to certain proposed exemptions (MOPR-Ex).

5. We find, based on the record before us, that it has become necessary to address the price suppressive impact of resources receiving out-of-market support. PJM's existing MOPR does not do so, because it applies only to new, natural gas-fired resources. The rationale for that narrow MOPR was that, given the short development time required to bring such resources on-line, they could be used to suppress capacity prices, and indeed certain states had proposed making out-of-market payments to facilitate the entry of new natural gas-fired resources.⁵ Although the role of the MOPR, in PJM, originally was

² 16 U.S.C. § 824e (2012).

³ 16 U.S.C. § 824d (2012).

⁴ PJM asserts that, after a lengthy stakeholder process, neither alternative could gain the two-thirds affirmative sector vote needed for endorsement under PJM's rules. *See* Filing at 17.

⁵ *See PJM Interconnection, L.L.C.*, 135 FERC ¶ 61,022, at PP 2, 141, 153 (2011) (2011 PJM MOPR Order).

limited to deterring the exercise of buyer-side market power,⁶ its role subsequently expanded to address the capacity market impacts of out-of-market state revenues.⁷ However, because the current MOPR applies only to new natural gas-fired resources,⁸ it fails to mitigate price distortions caused by out-of-market support granted to other types of new entrants or to existing capacity resources of any type.

6. Based on the combined records of the Calpine Complaint proceeding and the PJM section 205 filing, we find PJM's Tariff is unjust and unreasonable. We therefore grant the Calpine Complaint, in part, and *sua sponte* initiate an FPA section 206 proceeding in Docket No. EL18-178-000.⁹

⁶ See *PJM Interconnection, L.L.C.*, 117 FERC ¶ 61,331, at P 103 (2006) (2006 PJM MOPR Order).

⁷ 2011 PJM MOPR Order, 135 FERC ¶ 61,022 at PP 139-43.

⁸ *Id.* P 153; PJM Tariff, Attach. DD, § 5.14(h)(1).

⁹ The Commission frequently consolidates the record in related proceedings under FPA sections 205 and 206. Prior MOPR reform proceedings have followed this pattern. See 2011 PJM MOPR Order, 135 FERC ¶ 61,022, *order on reh'g*, 137 FERC ¶ 61,145 (2011) (2011 PJM MOPR Rehearing Order), *aff'd sub nom. New Jersey Bd. of Pub. Utils. v. FERC*, 744 F.3d 74 (3rd Cir. 2014) (*NJBPU*); *ISO New England, Inc.*, 131 FERC ¶ 61,065 (2010), *order on reh'g and clarification*, 132 FERC ¶ 61,122 (2010), *order on paper hearing*, 135 FERC ¶ 61,029 (2011) (2011 ISO-NE MOPR Order), *reh'g denied*, 138 FERC ¶ 61,027 (2012), *aff'd sub nom. New Eng. Power Generators Ass'n v. FERC*, 757 F.3d 283 (D.C. Cir. 2014) (*NEPGA*). Consolidation is particularly appropriate when a rate proposal under FPA section 205 fails to remedy the harm identified under FPA section 206. See, e.g., *Monongahela Power Co.*, 162 FERC ¶ 61,129, at P 71 (2018) (*Monongahela*). A rate proposal proceeding may also be transformed into Commission-initiated complaint proceeding when the record indicates that is necessary or appropriate. See, e.g., *Western Resources, Inc. v. FERC*, 9 F.3d 1568, 1579 (D.C. Cir. 1993) (*Western Resources*); *Pub. Serv. Comm'n of State of N.Y. v. FERC*, 866 F.2d 487, 491 (D.C. Cir. 1989) (*PSCNY*). And the Commission may find that its acceptance of a rate proposal under FPA section 205 alters circumstances such that it becomes necessary to change other related rate or tariff provisions under FPA section 206. See *Advanced Energy Management Alliance v. FERC*, 860 F.3d 656, 664 (D.C. Cir. 2017) (*AEMA*).

7. Although we agree with Calpine and PJM that changes to the PJM Tariff are required, we do not accept the changes that have been proposed by either Calpine or PJM. Consequently, we deny the proposed remedy in the Calpine Complaint. We also reject both of PJM's proposals because we find that they have not been shown to be just and reasonable, and not unduly discriminatory or preferential. However, we are unable to determine, based on the record of either proceeding, the just and reasonable rate to replace the rate in PJM's Tariff.

8. As a result, we are consolidating our newly-established proceeding in Docket No. EL18-178-000 (into which the record of Docket Nos. ER18-1314-000, *et al.* is incorporated) with the Calpine Complaint in Docket No. EL16-49-000. We are setting those consolidated proceedings for a paper hearing to address a proposed alternative approach in which PJM would modify two existing aspects of the Tariff. Specifically, this approach would (i) modify PJM's MOPR such that it would apply to new and existing resources that receive out-of-market payments, regardless of resource type, but would include few to no exemptions; and (ii) in order to accommodate state policy decisions and allow resources that receive out-of-market support to remain online, establish an option in the Tariff that would allow, on a resource-specific basis, resources receiving out-of-market support to choose to be removed from the PJM capacity market, along with a commensurate amount of load, for some period of time. That option, which is similar in concept to the Fixed Resource Requirement (FRR) that currently exists in the Tariff, is referred to in this order as the FRR Alternative. Unlike the existing FRR construct, the FRR Alternative would apply only to resources receiving out-of-market support. Both aspects of the proposed replacement rate are more fully explained below.¹⁰

¹⁰ Under PJM's existing rules, the FRR option is available to a load-serving entity, at its election, to satisfy its obligation to provide unforced capacity outside of PJM's capacity auction. *See* Reliability Assurance Agreement Among Load Serving Entities in the PJM Region at Schedule 8.1. In this proceeding, the Commission does not propose to eliminate or change the existing FRR option, but instead to add a new resource-specific option with distinct characteristics. However, if changes to the existing FRR option are necessary, we encourage PJM and its stakeholders to consider and discuss any potential changes.

I. Background

A. PJM's MOPR

9. PJM established its MOPR in 2006 to address concerns that certain resources may have the ability to suppress market clearing prices by offering supply at less than a competitive level.¹¹ PJM's MOPR is designed to protect against this ability by setting a minimum offer level to operate as a price floor. PJM's MOPR requires that all new, non-exempted natural gas-fired resources offer at or above that floor, equal to the Net Cost of New Entry (Net CONE) for the applicable asset class (by generator type and location). A seller, however, may seek a unit-specific review of its sell offer to justify an offer price below the default offer floor.

10. The existing review procedures require the seller to submit a written request for review to both PJM and PJM's Independent Market Monitor (Market Monitor) to demonstrate why the unit is able to offer below the default minimum price. Specifically, the resource must submit documentation on its fixed development, construction, operation, and maintenance costs.¹²

11. Prior to 2011, PJM's Tariff excluded from the MOPR new entry sponsored by a state, under certain conditions (State Mandate Exemption), namely, "any Planned Generation Capacity Resource being developed in response to a state regulatory or legislative mandate to resolve a projected capacity shortfall in the Delivery Year affecting that state, as determined pursuant to a state evidentiary proceeding that includes due notice, PJM participation, and an opportunity to be heard." In a filing submitted by PJM, in Docket No. ER11-2875-000, PJM proposed to replace its State Mandate Exemption with a new requirement providing that a request for a MOPR exception, based on state policy grounds, must be approved by the Commission pursuant to a section 206 authorization, subject to a showing that the relevant sell offer was "based on new entry

¹¹ See 2006 PJM MOPR Order, 117 FERC ¶ 61,331 at P 103; *see also PJM Interconnection, L.L.C.*, 123 FERC ¶ 61,037 (2008); *PJM Interconnection, L.L.C.*, 126 FERC ¶ 61,275 (2009); 2011 PJM MOPR Order, 135 FERC ¶ 61,022; 2011 PJM MOPR Rehearing Order, 137 FERC ¶ 61,145; *PJM Interconnection, L.L.C.*, 143 FERC ¶ 61,090 (2013) (2013 PJM MOPR Order), *order on reh'g & compliance*, 153 FERC ¶ 61,066 (2015), *vacated & remanded sub nom. NRG Power Mktg., LLC v. FERC*, 862 F.3d 108 (D.C. Cir. 2017) (*NRG*).

¹² See PJM Tariff, Attach. DD, § 5.14(h)(5).

that is pursuant to a state-mandated requirement that furthers a specific legitimate state objective and that the Sell Offer would not lead to artificially depressed capacity prices or directly and adversely impact [the Commission's] ability to set just and reasonable rates for capacity sales in the PJM Region or any affected Locational Deliverability Area.”

12. In the 2011 PJM MOPR Order, the Commission accepted PJM's proposal to eliminate its State Mandate Exemption, but rejected PJM's proposed replacement mechanism as duplicative of an aggrieved entity's right to seek section 206 relief.¹³ On rehearing, in response to petitioners' arguments that the Commission had erred in approving the elimination of the State Mandate Exemption, the Commission found that PJM's MOPR “does not interfere with states or localities that, for policy reasons, seek to provide assistance for new capacity entry if they believe such expenditures are appropriate for their state.”¹⁴ The Commission added that its objective was “to ensure the reasonableness of the wholesale interstate prices determined in the markets PJM administers.”¹⁵

13. The 2011 PJM MOPR Order also required PJM to propose Tariff revisions that would allow PJM's Market Monitor and PJM to review unit-specific cost justifications for sell offers that would otherwise be mitigated by PJM's MOPR.¹⁶ On compliance, the Commission accepted PJM's unit-specific review procedures, finding that PJM's proposal appropriately addresses concerns from load-serving entities developing resources through arrangements outside of PJM's capacity market.¹⁷

14. In 2013, to address the effects of new, state-supported natural gas-fired entrants on its capacity market, PJM submitted proposed Tariff revisions to replace the unit-specific review with two categorical exemptions, namely, a competitive entry exemption and self-

¹³ See 2011 PJM MOPR Order, 135 FERC ¶ 61,022 at P 139.

¹⁴ See 2011 PJM MOPR Rehearing Order, 137 FERC ¶ 61,145 at P 89.

¹⁵ *Id.* It is worth mentioning that the Commission, in the 2011 PJM MOPR Order, contemplated that the existing FRR construct in the PJM Tariff provided a mechanism for “states seeking full independence in resource procurement choices” to “implement a form of capacity procurement that complements the RPM or . . . opt out of the RPM.” See 2011 PJM MOPR Order, 135 FERC ¶ 61,022 at n.76 and P 193.

¹⁶ See 2011 PJM MOPR Order, 135 FERC ¶ 61,022 at P 121.

¹⁷ See 2011 PJM MOPR Rehearing Order, 137 FERC ¶ 61,145 at P 242.

supply exemption. While the Commission initially accepted those exemptions, subject to the condition that PJM retain the unit-specific review process, the United States Court of Appeals for the District of Columbia Circuit found, in July 2017, that the Commission exceeded its FPA section 205 authority in modifying PJM's proposal.¹⁸ Accordingly, the Court vacated and remanded the relevant Commission orders. On remand, the Commission rejected PJM's competitive entry exemption and self-supply exemption, effective December 8, 2017.¹⁹ At present, unit-specific review is the only way for a new natural gas-fired resource subject to PJM's MOPR to obtain an exemption from that rule.

B. Calpine's Complaint

15. In March 2016, Calpine filed its complaint, asserting that PJM's MOPR is unjust and unreasonable because it allows for the artificial suppression of prices in PJM's capacity market, as caused by below-cost offers from existing resources whose continued operation is being subsidized by state-approved out-of-market payments.²⁰ Calpine cites the out-of-market payments requested by certain resources, pursuant to Ohio authorizations that, as explained below, have since been withdrawn by the entities seeking these out-of-market payments. Calpine also cites the Illinois ZECs program,²¹ as evidence of a state subsidy that will have a price suppressing effect on PJM's capacity

¹⁸ *NRG*, 862 F.3d at 117.

¹⁹ See *PJM Interconnection, L.L.C.*, 161 FERC ¶ 61,252 (2017) (NRG Remand Order) and *PJM Interconnection, L.L.C.*, Docket No. ER13-535-006 (Feb. 23, 2018) (delegated letter order accepting compliance filing).

²⁰ Calpine Complaint at 2. Calpine also proposed interim Tariff revisions governing PJM's procurements for the 2019-20 and 2020-21 delivery years.

²¹ See Illinois 99th Gen. Assemb. S.B. 2814 (Dec. 7, 2016). Calpine argues that, under this legislation, out-of-market state revenues will be provided to certain existing nuclear-powered generation units that would otherwise exit PJM's capacity market. Calpine explains that, under this law, the Illinois Power Agency is directed to procure, on behalf of the state's load-serving entities, contracts for ZECs with 10-year terms commencing June 1, 2017. Calpine states that the new law defines a ZEC as a credit that represents the environmental attributes of one MW hour of energy produced from a zero emissions facility, as defined to include those facilities that are: (1) fueled by nuclear power; and (2) interconnected with PJM or the Midcontinent Independent System Operator, Inc. (MISO). Calpine Amended Complaint at 6-9.

market, absent the MOPR revision it seeks.²² As a remedy, Calpine proposes interim Tariff revisions for immediate implementation that would extend the MOPR to a limited set of existing resources. As a long-term remedy, Calpine urges the Commission to require PJM to propose Tariff revisions addressing this matter.

C. Related Proceedings

16. In May 2017, Commission staff convened a technical conference, in Docket No. AD17-11-000, to explore the impact of out-of-market support for specific resources or resource types in the regional markets operated by ISO New England Inc. (ISO-NE), the New York Independent System Operator, Inc. (NYISO), and PJM. Following the discussion at the technical conference, staff's notice requesting comments outlined five potential paths forward: (1) a limited, or no MOPR approach; (2) an approach that would accommodate resources receiving out-of-market support; (3) retention of the status quo; (4) an approach that would balance state policy goals and the needs of a centralized capacity market; and (5) an extension of the MOPR to apply to both new and existing resources. PJM, in its comments, stated that it had convened a stakeholder proceeding to consider these matters, as a preliminary step to an FPA section 205 filing.

17. On March 9, 2018, the Commission issued an order accepting ISO-NE's proposal to modify its wholesale capacity market to better accommodate state actions to procure certain resources outside of ISO-NE's wholesale electric markets – a mechanism known as Competitive Auctions with Sponsored Policy Resources (CASPR).²³ In that order, the Commission outlined a series of first principles for capacity markets.²⁴

18. On May 31, 2018, following PJM's submission of its FPA section 205 filing in Docket Nos. ER18-1314-000, *et al.*, CPV Power Holdings, L.P., Calpine, and Eastern Generation, LLC (Eastern Generation) (collectively, CPV), filed a complaint against PJM

²² Calpine Amended Complaint at 10-11.

²³ *ISO New England Inc.*, 162 FERC ¶ 61,205 (2018) (CASPR Order).

²⁴ *Id.* at P 21 (“A capacity market should facilitate robust competition for capacity supply obligations, provide price signals that guide the orderly entry and exit of capacity resources, result in the selection of the least-cost set of resources that possess the attributes sought by the markets, provide price transparency, shift risk as appropriate from customers to private capital, and mitigate market power. Ultimately, the purpose of basing capacity market constructs on these principles is to produce a level of investor confidence that is sufficient to ensure resource adequacy at just and reasonable rates.”).

in Docket No. EL18-169-000. CPV seeks Commission action under section 206, and a directive requiring PJM to adopt a “clean” MOPR, without exclusions or exemptions, applicable to both new and existing resources.²⁵

19. CPV argues that state subsidies represent an imminent threat to PJM’s capacity market.²⁶ CPV further asserts that a “clean” MOPR is required to effectively address the impact of these subsidies and that PJM’s proposed self-supply, public entity, and RPS exemptions would prevent MOPR-Ex from adequately addressing the problem.²⁷ CPV also proposes to eliminate the competitive exemption proposed in MOPR-Ex, because, it claims, only unsubsidized resources, which would not be subject to MOPR-Ex, would be eligible for the exemption.²⁸ Finally, CPV urges the Commission to require PJM to modify the definition of Material Subsidy, as defined below, to cover not only state subsidies, but also federal subsidies or other support granted after the date of the complaint.²⁹ The CPV complaint remains pending.

D. PJM’s Filing

20. PJM proposes two mutually exclusive alternatives for ensuring that its capacity market continues to provide just and reasonable price signals, Capacity Repricing, a two-stage pricing mechanism, and MOPR-Ex, an extension of PJM’s existing MOPR to apply to both new and existing resources that receive a Material Subsidy, as described more fully below. PJM asserts that, after a two-year stakeholder process, neither of the alternatives submitted in its filing could gain the two-thirds affirmative sector-weighted vote needed for endorsement under PJM’s rules. PJM requests that the Commission accept its Capacity Repricing proposal, its preferred approach. PJM requests that if its Capacity Repricing proposal is not accepted by the Commission, then MOPR-Ex should be adopted as a just and reasonable alternative.

21. PJM asserts that, “[i]ncreasingly, states in the PJM Region that chose to rely on competitive markets to ensure resource adequacy have adopted programs that provide

²⁵ CPV Complaint at 2.

²⁶ *Id.* at 10.

²⁷ *Id.* at 18.

²⁸ *Id.* at 18-19.

²⁹ *Id.* at 19.

substantial subsidies to resources that sell wholesale services in PJM's markets."³⁰ PJM asserts that these programs have progressed to the point that "thousands of megawatts of existing PJM Capacity Resources receive these subsidies" and that the trend is expected to continue.³¹ PJM also asserts that there has been a marked increase in the number of state programs that target large-scale, unit-specific resources.³²

22. PJM argues that reduced capacity price offers from resources that receive such subsidies can significantly reduce capacity clearing prices. These programs, PJM argues, threaten the longstanding balance that has allowed PJM's markets both to remain competitive and to meet resource adequacy objectives at a reasonable rate. PJM has concluded that its Tariff "has no way to address the adverse impacts of certain state subsidies on the PJM capacity market's ability to promote robust supply competition and send appropriate price signals,"³³ and "[d]oing nothing ... is not an option."³⁴

23. PJM states that Capacity Repricing would replace the existing MOPR with a two-stage auction. The first stage would determine capacity commitments and no resource offers would be mitigated. In the second stage, offers from subsidized resources would be replaced with PJM-determined competitive offers, and the auction would be run again to set the final clearing price for the resources selected in the first stage. In the

³⁰ *Id.* at 24.

³¹ *Id.* at 24-25.

³² PJM cites (i) 1,400-3,360 MWs of nuclear generation eligible for ZEC payments under a law recently enacted in Illinois, and legislation recently enacted in New Jersey that would provide similar payments for up to 3,360 MW at the Salem and Hope Creek nuclear facilities; (ii) 250-1,100 MWs of off-shore wind generation required under procurement programs under existing law in Maryland (250 MW) and New Jersey (1,100 MW); and (iii) 5,000–8,000 MWs of generation from various renewable resources eligible under RPS programs in various PJM states, including New Jersey, Delaware, and the District of Columbia. PJM notes that existing RPS commitments total 5,000 MWs and are expected to grow to 8,000 MWs by 2025. *Id.* at 24-27, 32-38. At the time of PJM's Filing, New Jersey's ZEC legislation was pending. It was since signed into law on May 25, 2018. *See* NJ Senate Bill 2313, 2018-19 Legislative Session.

³³ Filing at 5.

³⁴ *Id.* at 17.

alternative, if the Commission determines that PJM's Capacity Repricing proposal is unjust and unreasonable, PJM requests that the Commission consider the MOPR-Ex proposal to extend the existing MOPR to both new and existing resources, subject to certain exemptions. PJM states that, under its MOPR-Ex proposal, the MOPR would apply to new and existing resources that receive Material Subsidies, as discussed below, unless that resource receives a unit-specific review exemption.³⁵ For MOPR-Ex, PJM also proposes four categorical MOPR exemptions (as outlined below). In addition, MOPR-Ex would apply to external capacity resources, as well as to internal capacity resources.

24. PJM requests an effective date for its filing (under either of the proposed approaches) of January 4, 2019, in time for the May 2019 capacity auction, and therefore requests waiver of the Commission's 120-day maximum notice rule.³⁶

II. Notice of Filings and Responsive Pleadings

25. Notice of Calpine's Complaint and Amended Complaint was published in the *Federal Register*, 81 Fed. Reg. 18,616 (2016) and 82 Fed. Reg. 5560 (2017), with answers, interventions, and protests due, respectively, on or before April 11, 2016, and January 30, 2017. Notices of intervention and timely-filed motions to intervene were submitted by the entities listed in Appendix 1 to this order, which also lists the abbreviated names for each entity and identifies those entities that submitted comments and protests. Motions to intervene out-of-time were submitted on April 12, 2016, by Talen Energy Marketing, LLC, *et al.* (Talen); on April 14, 2016, by U.W.U.A. Local 457 (Local 457); on May 3, 2016, by the Kentucky Office of the Attorney General (Kentucky AG); on February 9, 2017, by the American Wind Energy Association (AWEA); and on February 24, 2017, by EDF Renewable Energy, Inc. (EDF Renewable). PJM's answer, along with intervenor comments and protests, are summarized below.

26. Additional answers were filed by Calpine, the Electric Power Supply Association (EPSA), FirstEnergy Service Company (FirstEnergy), Exelon Corporation (Exelon), the Maryland Public Service Commission (Maryland Commission), American Electric Power

³⁵ PJM notes that, consistent with the current MOPR, MOPR-Ex would apply in all capacity auctions, including incremental auctions, while Capacity Repricing would only apply in annual auctions. *Id.* at 51-52.

³⁶ *See* 18 C.F.R. § 35.3(a)(1) (2017).

Service Corporation (AEP), PJM, the Load Group,³⁷ the Office of the Ohio Consumers' Counsel (Ohio Consumers Counsel), the Market Monitor, and the Kentucky AG.

27. On August 30, 2017, Calpine filed a motion to lodge the District Court decision in *Village of Old Mill Creek v. Star*.³⁸ Answers to the motion were submitted by Exelon, the Illinois Commerce Commission (Illinois Commission), National Rural Electric Cooperative Association (NRECA), Talen, the Load Group, and FirstEnergy.

28. Notice of PJM's filing was published in the *Federal Register*, 83 Fed. Reg. 17,819 (2018), with interventions and protests due on or before May 7, 2018.³⁹ Notices of intervention and timely filed motions to intervene were submitted by the entities listed in Appendix 2 to this order, which also lists the abbreviated names for each entity. Motions to intervene out-of-time were submitted by the American Council on Renewable Energy (ACORE) and AWEA, on May 8, 2018, by Eastern Generation, on May 9, 2018, and by Shell Energy North America (U.S.), L.P. (Shell), on May 17, 2018. Comments and protests are summarized below.

29. Answers were submitted by American Municipal Power, Inc. (AMP); FirstEnergy; and Exelon and PSEG Companies (PSEG) (collectively, Exelon/PSEG); PJM, the Market Monitor; the PJM Power Providers Group (P3); the Southern Maryland Electric Cooperative, Inc. (SMECO); the New Jersey Board of Public Utilities (New Jersey Board); the Illinois Commission, the Maryland Office of People's Counsel, the New Jersey Division of Rate Counsel, and the Office of People's Counsel for the District of Columbia (Consumer Coalition), and the Illinois Citizen's Utility Board.

III. Procedural Matters

30. Pursuant to Rule 214 of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.214 (2017), the notices of intervention and timely, unopposed motions to intervene serve to make the entities that filed them, in Docket Nos. EL16-49-000 and

³⁷ The Load Group is comprised of Dominion Resources Services, Inc. (Dominion); American Municipal Power, Inc. (AMP); American Public Power Association (APPA); Old Dominion Electric Cooperative (ODEC); PJM Industrial Customer Coalition (PJM-ICC); and the Public Power Association of New Jersey.

³⁸ *Vill. of Old Mill Creek v. Star*, Nos. 17-CV-1163, *et al.*, 2017 WL 3008289 (N.D. Ill. July 14, 2017) (*Vill. of Old Mill Creek*) (appeal pending before the U.S. Court of Appeals for the Seventh Circuit).

³⁹ See *PJM Interconnection, L.L.C.*, Docket No. ER18-1314-000, "Notice of Extension of Time" (Apr. 17, 2018).

ER18-1314-000, *et al.*, parties to the proceedings in which these interventions were filed. In addition, we grant the unopposed late-filed interventions submitted, in Docket No. EL16-49-000, by Talen, Local 457, the Kentucky AG, AWEA, and EDF Renewable, and in Docket No. ER18-1314-000, *et al.*, by ACORE, AWEA, Eastern Generation, and Shell, given their interest in the proceedings in which these pleadings were filed, the early stage of these proceedings, and the absence of any undue prejudice or delay.

31. Rule 213(a)(2) of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.213(a)(2) (2017), prohibits an answer to a protest or an answer to an answer unless otherwise ordered by the decisional authority. We will accept the aforementioned answers because they have provided information that assisted us in our decision-making process.

IV. Section 205 Review

32. As discussed below, we reject both of PJM's alternative Tariff proposals as unjust and unreasonable. We further find, however, that action must be taken to revise PJM's Tariff, given the inability of PJM's existing rules to adequately address the evolving circumstances presented by resources that receive out-of-market support, as these rules do not apply to existing resources or non-gas-fired generation that receive such support.

A. PJM's Submission of Two Options

33. As an initial matter, several intervenors maintain that PJM's filing is void *ab initio* because, they claim, under FPA section 205, PJM may not submit a filing requesting that the Commission choose between its Capacity Repricing proposal and its alternative, mutually exclusive MOPR-Ex proposal. Intervenors assert that the Commission, not the utility, would be making the determination, and the Commission would not be acting in the "passive and reactive role" required of the Commission under FPA section 205.⁴⁰ Such arguments are moot, and we do not address them, because the Commission rejects both sets of Tariff provisions as unjust and unreasonable.

B. Capacity Repricing

34. For the reasons discussed below, we reject PJM's Capacity Repricing proposal as unjust, unreasonable, and unduly discriminatory and preferential.

⁴⁰ See *NRG*, 862 F.3d at 114.

1. PJM's Proposal

35. PJM proposes a two-stage process for committing and then pricing capacity, as part of its annual Base Residual Auction.⁴¹ PJM states that, in the first stage of its auction, any resource that has received a Material Subsidy, as defined by PJM below, would be allowed to clear based on its submitted offer. PJM states that, once it has cleared enough resources to meet its reliability requirement, it will then re-run its optimization algorithm, using the same demand curve but a new supply stack that reprices any resource that has received a Material Subsidy, based on a reference price (the Actionable Subsidy Reference Price), as summarized below.⁴²

36. PJM proposes to use materiality thresholds to trigger its two-stage pricing mechanism. Specifically, PJM proposes two thresholds: a region-wide threshold (triggered by the clearance of 5,000 MWs of resources eligible for repricing in the auction) and a targeted threshold for modeled Locational Deliverability Areas (triggered when resources eligible for repricing equal or exceed 3.5 percent of the relevant Locational Deliverability Area's reliability requirement). PJM states that these thresholds will ensure that Capacity Repricing is not implemented until the MW quantity of capacity resources with a Material Subsidy reaches a level so as to have a materially suppressive impact on clearing prices.⁴³ PJM states that, because the price of a resource in a Locational Deliverability Area may have impacts in other areas within the PJM region, the clearing prices established by any auction re-run will apply region-wide. PJM states that, currently, there is approximately 3,079 MWs of capacity that could be eligible to be repriced.⁴⁴

⁴¹ PJM clarifies that its two-stage pricing process will not apply to its incremental capacity auctions. PJM Filing at 68.

⁴² PJM clarifies that it will continue to clear resources in its Base Residual Auction using its existing optimization algorithm, which determines the least cost overall clearing results that will satisfy PJM's reliability requirements across the PJM region and in each modeled Locational Deliverability Area. The Base Residual Auction will thus continue to "clear at the price-capacity point on the Variable Resource Requirement Curve corresponding to the total Unforced Capacity provided by all Sell Offers located entirely below the Variable Resource Requirement Curve." *Id.* at 59-61.

⁴³ *Id.* at 60 and 91.

⁴⁴ PJM further notes that it has identified 1,674 MWs that may be eligible for

37. PJM proposes to limit its definition of a “Material Subsidy” to: (i) material payments, concessions, rebates, or subsidies directly or indirectly from any governmental entity connected to the construction, development, operation, or clearing in any capacity auction, of the capacity resource, or (ii) other material support or payments obtained in any state-sponsored or state-mandated processes, connected to the construction, development, operation, or clearing in any capacity auction, of the capacity resource.⁴⁵

38. PJM also proposes to exclude from its Material Subsidy definition certain local, state, and federal subsidies.⁴⁶ PJM also proposes that resources eligible to be repriced include demand response resources and generation capacity resources 20 MW or greater, including both existing and planned, and internal and external, or an uprate of 20 MW or greater to a generation resource.⁴⁷ PJM states that its uprate proposal is identical to the MOPR application threshold previously accepted by the Commission.⁴⁸

repricing in the ComEd Locational Deliverability Area, which exceeds 3.5 percent of that area’s reliability requirement and thus would trigger repricing under PJM’s proposal. *Id.* at Attach. 2 (Giacomini Aff. at P 19).

⁴⁵ *Id.* at 69.

⁴⁶ Specifically, PJM proposes to exclude: (1) payments (including payments in lieu of taxes), concessions, rebates, subsidies, or incentives designed to incent, or participation in a program, contract or other arrangement that utilizes criteria designed to incent or promote, general industrial development in an area; (2) payments, concessions, rebates, subsidies or incentives designed to incent, or participation in a program, contract or other arrangements from a county or other local governmental authority using eligibility or selection criteria designed to incent, siting facilities in that county or locality rather than another county or locality; or (3) federal government production tax credits, investment tax credits, and similar tax advantages or incentives that are available to generators without regard to the geographic location of the generation. PJM states that these proposed exclusions are the same as those employed in PJM’s MOPR, prior to the removal of the competitive entry exemption. *Id.* at 70.

⁴⁷ *Id.* at 73.

⁴⁸ *Id.* (citing 2013 PJM MOPR Order, 143 FERC ¶ 61,090 at P 170). In addition, PJM proposes to exclude energy efficiency resources from its class of resources subject to Capacity Repricing. PJM asserts that these resources are characterized by reduced consumption and energy conservation and thus do not raise price suppression concerns.

39. PJM asserts that excluding resources offered by certain vertically integrated, cooperative, and municipal utilities is similar to PJM's previously effective self-supply MOPR exemption, which PJM claims is appropriate here to avoid interfering with long-standing capacity procurement business models. PJM nonetheless proposes to limit this exclusion to municipal/cooperative entities (including public power supply entities comprised of either or both, and joint action agencies) and vertically integrated utilities (defined as a utility that owns generation, includes such generation in its regulated rates, and earns a regulated return on its investment in such generation).⁴⁹

40. PJM proposes to calculate its Actionable Subsidy Reference Price based on whether the relevant resource is an existing generation capacity resource; a planned generation capacity resource; or a demand response resource. PJM states that, for an existing generation resource, the Actionable Subsidy Reference Price would be the higher of: (1) the resource's avoidable cost rate, whether determined on a resource-specific basis or as a default for that resource type; and (2) the resource's opportunity cost of committing as a Capacity Performance resource.⁵⁰ PJM states that it will calculate its

For this same reason, PJM proposes to exclude the following resources: (i) resources that obtain a non-material level of Material Subsidies (i.e., less than 1 percent of the resource's actual or anticipated PJM market revenues); (ii) resources for which electricity production is not the primary business purpose, but rather is a byproduct of the business processes; or (iii) resources that are owned or controlled by entities with long-standing business models for capacity procurement (e.g., certain vertically integrated, cooperative, and municipal utilities). *Id.* at 73-74.

⁴⁹ PJM does not propose to limit the exclusion to entities which meet certain net-short or net-long thresholds, because PJM states that the purpose of those thresholds was to impact the behavior of the entity with respect to new resources. PJM explains that the thresholds would also be unworkable when applied to existing, as well as new, resources, because it is not possible to determine which resources in the seller's portfolio are the "excess" capacity that should be repriced. *Id.* at 75-77.

⁵⁰ PJM proposes two alternative means for selecting the avoidable cost rate. First, the seller could elect to calculate a resource-specific cost rate that would be determined without consideration of any Material Subsidy and in accordance with PJM's Tariff, and would include "a risk premium for assuming a Capacity Performance obligation and [would be] net of Projected PJM Market Revenues." PJM states that, alternatively, if the seller is not willing or able to obtain a resource-specific avoidable cost rate, a default value based on the resource type could be used. *Id.* at 82-83.

avoidable cost rates on an annual basis, with adjustments reflecting, among other things, the actual rate of change in the historical values from the Handy-Whitman Index of Public Utility Construction Costs.⁵¹

41. PJM states that, for demand resources, it is generally not possible to determine an avoidable cost rate, due to the inherent nature of the resource type. Accordingly, PJM proposes to determine the Actionable Subsidy Reference Price for demand resources using the Market Seller Offer Cap, or Net CONE * B.⁵²

42. Finally, in support of its proposal, PJM argues that Capacity Repricing is consistent with the two-stage pricing proposal recently accepted by the Commission, to allow for the implementation of CASPR.⁵³ PJM asserts that protests in the CASPR proceeding claimed that the substitution auction could induce sub-optimal effects in the primary auction, but that the Commission rejected those arguments.⁵⁴ In addition, PJM argues that, under current market conditions, a high-cost marginal seller will likely be a less efficient legacy unit with a limited future economic life, as opposed to a new entry unit traditionally assumed to be at the margin.⁵⁵

2. Comments and Protests

43. Several intervenors offer general, or qualified, support for PJM's Capacity Repricing proposal. Although they support the status quo, NEI and PSEG assert that an approach that accommodates state policy choices, like Capacity Repricing, is preferable

⁵¹ PJM adds that, because its Tariff does not specify avoidable cost rate values for nuclear (single and dual), onshore wind, or solar resources, PJM has determined the (\$/MW-day) retirement avoidable cost rate values for each, for the 2022-2023 delivery year, as \$706, \$663, \$503, and \$185, respectively, based on a data base compiled by the Environmental Protection Agency, as adjusted to reflect 2022-2023 dollars. *Id.* at 84-85.

⁵² *Id.* at 90. The Market Seller Offer Cap, stated in dollars per MW/day of unforced capacity, applies to the price-quantity offer within the Base Offer Segment for an Existing Generation Capacity Resource participating in PJM's capacity auction. *See* PJM Tariff, Attach. DD, § 6.4.

⁵³ CASPR Order, 162 FERC ¶ 61,205 at P 45.

⁵⁴ PJM Filing at 57-58.

⁵⁵ *Id.* at 58.

to MOPR-Ex.⁵⁶ Similarly, Exelon generally supports a mechanism that would accommodate state-supported resources, arguing that subsidies that address externalities (e.g., the costs attributable to the pollutants caused by fossil fuel generators) make markets more efficient, not less.⁵⁷

a. Market Design

44. Numerous other intervenors urge the Commission to reject PJM's Capacity Repricing proposal. The Market Monitor argues that Capacity Repricing is not a market solution and would undermine competitive markets by permitting subsidized units to displace competitive units, and transform PJM's capacity market into a purely residual market.⁵⁸ The New Jersey Board argues that PJM's Capacity Repricing proposal is significantly broader than the CASPR approach accepted by the Commission in the case of ISO-NE.⁵⁹ Intervenors also assert that PJM's proposal, by paying cleared resources the stage two price, will raise capacity prices but fail to provide commensurate benefits for ratepayers, or otherwise promote resource adequacy or efficient market outcomes.⁶⁰

45. EPSA argues that, under PJM's proposal, state subsidies will dictate entry and exit, undermining the role of the Base Residual Auction clearing price to provide these signals.⁶¹ NRG Power Marketing LCC (NRG) adds that the two stage auction contravenes the principle that a properly designed capacity market should provide price

⁵⁶ NEI Comments at 13; PSEG Protest at 8.

⁵⁷ Exelon estimates that these externalities, as measured in the form of carbon dioxide alone, amount to \$12.1 billion to \$17.7 billion annually across the PJM region. Exelon Protest at 12.

⁵⁸ Market Monitor Protest at 19-20.

⁵⁹ New Jersey Board Protest at 29 (citing CASPR Order, 162 FERC ¶ 61,205 at P 45).

⁶⁰ AMP Comments at 12; APPA Protest at 3; Consumer Coalition Protest at 7; Organization of PJM States, Inc. (OPSI) Comments at 3; New Jersey Board Protest at 21; Clean Energy Advocates Protest at 72 and 92; IMEA Comments at 5; Buyers Group Comments at 2; CEIA Protest at 14; PJM Industrial Coalition (PJM-ICC) Comments at 13-14.

⁶¹ EPSA Protest at 12; *see also* LS Power Comments at 15.

signals that guide the orderly entry and exit of capacity resources.⁶² PJM-ICC argues that, for this reason, the clearing price would not be able to serve as a clear, accurate, and meaningful signal to the market.⁶³ The Maryland Commission asserts that PJM's proposed administratively-determined pricing mechanism lacks transparency.⁶⁴ NRG argues that PJM's proposal will not send accurate price signals, because incumbent merchant generators will enter the auction not knowing whether they will ever receive the second stage auction price, even if their offers are below the second stage auction clearing price.⁶⁵

46. NRG argues that PJM's proposal would push economic merchant resources out of the market in favor of subsidized resources and give subsidized resources a windfall by paying them the higher clearing price, even though they are receiving fixed-cost recovery from outside the market.⁶⁶ Similarly, PJM-ICC states that this proposal would result in marginal units clearing less often, and may force them to exit the market earlier than they would under the existing MOPR construct or MOPR-Ex proposal.⁶⁷ PJM-ICC asserts that Capacity Repricing would prevent otherwise cost-efficient, non-subsidized resources from participating in the marketplace, and hamper regional planning.⁶⁸

47. Some intervenors argue that Capacity Repricing is likely to incentivize more state subsidies.⁶⁹ Intervenors argue that Capacity Repricing would allow one state to take an action, in support of its preferred resources, that directly harms loads in another state, by

⁶² NRG Protest at 10-11; *see also* Consumer Coalition Protest at 7-8; Old Dominion Electric Cooperative (ODEC) Protest at 7-9; Joint Commenters Protest at 9; Solar RTO Coalition (Solar Coalition) Protest at 16.

⁶³ PJM-ICC Comments at 11.

⁶⁴ Maryland Commission Protest at 6-7; *see also* Joint Commenters Protest at 9; PJM-ICC Comments at 11.

⁶⁵ NRG Protest at 9 – 11.

⁶⁶ NRG Protest at 10-14 (and accompanying Aff. of DeRamus and Cain at P38).

⁶⁷ PJM-ICC Comments at 10.

⁶⁸ *Id.* at 16.

⁶⁹ NGSAs Comments at 5; NRG Protest at 13-15.

requiring those loads to bear the costs of the state-supported resource.⁷⁰ LS Power argues that Capacity Repricing would impose the policy choices of one state against another.⁷¹ EPSA argues that, under PJM's proposal, risks will be shifted from investors in resources subsidized by one state onto investors in unsubsidized resources and consumers in other states.⁷² EPSA asserts that such a market design is contrary to the Commission's precedent, prohibiting "the actions of a single state from preventing other states from participating in wholesale markets."⁷³

48. Finally, intervenors question PJM's proposed reference prices. The New Jersey Board asserts that PJM's proposed calculation and inputs are unlikely to yield a competitive price, given PJM's reliance on its Market Seller Offer Cap. The New Jersey Board and Clean Energy Advocates assert that PJM's proposal will unjustifiably raise the price of capacity up to the administratively determined cap.⁷⁴ Illinois Commerce Commission similarly argues that it is not just and reasonable to impose the maximum price offer level as a minimum price for subsidized resources.⁷⁵

b. Bidding Incentives

49. Intervenors also argue that Capacity Repricing's two-stage auction structure would create perverse bidding incentives and/or promote uncompetitive bidding.⁷⁶ These intervenors note that certain resources may not clear in stage one, although their offers are below the second stage clearing price. NRG, PJM-ICC, and Consumer Coalition

⁷⁰ *See, e.g.*, NRG Protest at 15; EPSA Protest at 29.

⁷¹ LS Power Comments at 12.

⁷² EPSA Protest at 17.

⁷³ EPSA Protest at 23 (citing 2011 PJM MOPR Order, 135 FERC ¶ 61,022 at P 143).

⁷⁴ New Jersey Board Protest at 29-30; Clean Energy Advocates at 100.

⁷⁵ Illinois Commerce Commission at 38-39.

⁷⁶ Market Monitor Comments at 21; NRG Protest at 12; Consumer Coalition Protest at 12; Pennsylvania Public Utility Commission (Pennsylvania Commission) Comments at 22; LS Power Comments at 13; API/J-Power/Panda Comments at 9; EPSA Protest at 10-11; PJM-ICC Comments at 12-13.

argue that such a resource may be incented to submit an offer below its going-forward costs to increase its likelihood of receiving a commitment in the first stage,⁷⁷ while EPSA suggests that such resources may also drop out of the auction, suppressing the second round clearing price.⁷⁸ EPSA, NRG, PJM-ICC, and the Consumer Coalition add that if a portfolio owner has high cost resources that are unlikely to receive a commitment in the first stage, it might be incented to inflate the bids for those resources in the hope of contributing to higher final, second stage clearing prices for other resources.⁷⁹

c. Threshold and Exemptions

50. Intervenors object to PJM's proposed materiality threshold.⁸⁰ Intervenors also question the appropriateness of PJM's proposed definition of a Material Subsidy. Dominion and the Market Monitor state that the definition gives PJM too much discretion.⁸¹ SMECO, the New Jersey Board, and PJM-ICC argue the proposed definition is too broad.⁸²

51. Exelon objects to PJM's exemption for resources with a capacity output less than 20 MW, arguing that it is illogical to exempt renewable resources that happen to affect prices in only small increments, when PJM has already conceded that, on aggregate, these resources can suppress prices.⁸³ NRG opposes PJM's proposed exclusion for public power resources, arguing that it is unnecessary, and that these resources may be

⁷⁷ NRG Protest at 12; Consumer Coalition Protest at 9 (citing accompanying Wilson Aff.); EPSA Protest at 11.

⁷⁸ EPSA Protest at 11 (citing accompanying Aff. of DeRamus and Cain).

⁷⁹ Consumer Coalition Protest at 10 (citing accompanying Wilson Aff.); EPSA Protest at 10; NRG Protest at 12-13; PJM-ICC Comments at 13.

⁸⁰ Market Monitor Comments at 20; *see also* Clean Energy Advocates Protest at 76; LS Power Comments at 13; Maryland Commission Protest at 8.

⁸¹ Dominion Protest at 10; Market Monitor Comments at 20.

⁸² SMECO Protest at 3; New Jersey Board Protest at 30-31; PJM-ICC Comments at 21.

⁸³ Exelon Protest at 59.

uneconomic and could needlessly increase costs to captive consumers.⁸⁴ Clean Energy Advocates assert that PJM's proposed self-supply exemption and exemptions for general economic development and local siting have not been supported.⁸⁵ Exelon and the New Jersey Board argue that PJM does not adequately justify targeting only certain subsidies, while ignoring others, such as federal production tax credits and subsidized resources of vertically integrated utilities and public power entities.⁸⁶ Intervenors also object to PJM's proposal to apply Capacity Repricing to demand response resources, arguing these programs are not meant to suppress prices.⁸⁷

52. The American Public Power Association (APPA) supports the exemption for self-supply resources.⁸⁸ SMECO also supports exempting self-supply resources, but questions whether PJM's proposed exemption language would sufficiently insulate capacity owned by a municipal or cooperative entity.⁸⁹

d. Undue Discrimination

53. Intervenors also argue Capacity Repricing is unduly discriminatory. LS Power asserts that, under PJM's proposal, subsidized resources submitting non-competitive offers would be allowed to secure capacity commitments while unsubsidized generators, who can only recover their costs through the wholesale market, would be impeded from clearing.⁹⁰ NGSAs argue that Capacity Repricing would allow higher-cost subsidized resources to displace lower-cost unsubsidized resources in the first stage of the auction

⁸⁴ NRG Protest at 16, 19.

⁸⁵ Clean Energy Advocates Protest at 84-86.

⁸⁶ Exelon Protest at 58; New Jersey Board Protest at 25; 31-32; *see also* SMECO Protest at 3-4.

⁸⁷ Pennsylvania Commission Comments at 7; Maryland Commission Comments at 10.

⁸⁸ APPA Protest at 5.

⁸⁹ SMECO Protest at 5.

⁹⁰ LS Power Comments at 10-11.

and thus penalize unsubsidized units.⁹¹ EPSA challenges PJM's claim that its proposal would only displace resources at the higher-cost end of the supply stack.⁹²

54. Duke Energy Corporation and Starwood Energy Group Global, L.L.C. (Joint Commenters) argue that PJM's proposal assigns undue preference and advantage based on capacity resources' access to state subsidies.⁹³ EPSA argues that PJM's Capacity Repricing proposal would not afford investors in unsubsidized resources a reasonable opportunity to recover their investments and, on this basis, would fail to balance investor and consumer interests, as the FPA requires, or provide generators the opportunity to recover their costs.⁹⁴ The Consumers Coalition asserts that smaller zones would face a potentially greater impact, with the potential for market manipulation by large portfolio owners with market power in specific zones.⁹⁵

3. Answers

55. PJM, in its answer, responds to intervenors' claims that a two-stage auction approach is flawed. PJM argues that its proposal would properly employ PJM's Variable Resource Requirement Curve to determine capacity commitments and clearing prices, similar in principle to the approach previously accepted by the Commission.⁹⁶ Exelon/PSEG, in their answer, argue that MOPR-Ex would also yield a price and quantity pair that does fall on the demand curve, given that a state-supported resource

⁹¹ NGSAs Comments at 5.

⁹² EPSA Protest at 15-16; *see also* Joint Commenters Protest at 8.

⁹³ Joint Commenters Protest at 3; *see also* API/J-Power/Panda Comments at 8; SMECO Protest at 3.

⁹⁴ EPSA Protest at 18-19 (citing *FPC v. Hope Natural Gas Co.*, 320 U.S. 591, 603 (1944) and *Promoting Transmission Investment through Pricing Reform*, Order No. 679, FERC Stats. & Regs. ¶ 31,222, at P 21 (2006)); *see also* LS Power Comments at 9 (arguing that the Commission is obligated under the Constitution and the FPA to ensure that rates are sufficient to yield a return on invested capital).

⁹⁵ Consumer Coalition Protest at 12.

⁹⁶ PJM Answer at 30 (citing 2011 ISO-NE MOPR Order, 135 FERC ¶ 61,029 at PP 87-104).

that is not selected would nonetheless be providing capacity to the system as a de facto matter.⁹⁷

56. Several parties respond to the argument made by NRG and others that PJM's Capacity Repricing proposal will create perverse bidding incentives and/or promote strategic bidding by incenting sellers to underbid their costs in the first stage of the auction. PJM argues that such a strategy would only work when the second stage price is, in fact, at or above the seller's costs, and that it is unlikely a seller would be able to regularly anticipate the price difference accurately enough to support this strategy.⁹⁸ PJM and Exelon/PSEG argue that the other strategy proposed by protestors, to raise the price, is not unique to its proposal and is addressed, under PJM's Tariff, to the extent it triggers market power concerns.⁹⁹ Exelon/PSEG argue that though such incentives exist, they are unsupported by any analysis as to their impact.¹⁰⁰

57. PJM also responds to intervenors' argument that PJM's Capacity Repricing proposal will raise prices to a level that is unjust and unreasonable. PJM argues that its capacity prices are low, currently, because PJM is carrying reserve margins in excess of 25 percent. PJM asserts that, in order for its markets to return to a sustainable reasonable supply and demand equilibrium, some older and mostly uneconomic resources must exit the market. PJM adds that while this exit will increase prices, it will do so to the benefit of those remaining resources and thus avoid the need for ratepayers, or taxpayers, to shoulder further out-of-market obligations by way of new or expanded future subsidy programs or reliability must-run contracts.¹⁰¹

58. PJM further notes that, for the most recent auction (for the 2021-22 delivery year) prices increased by more than 80 percent over prior year prices. PJM asserts that this increase can be attributed to 7,400 MW of nuclear resources that did not clear (but will likely clear in the future if they are allowed to participate as subsidized resources).¹⁰²

⁹⁷ Exelon/PSEG Answer at 16 (citing accompanying Aff. of Schnitzer at P 22).

⁹⁸ PJM Answer at 33.

⁹⁹ *Id.*; Exelon/PSEG Answer at 9-10.

¹⁰⁰ Exelon/PSEG Answer at 9-10.

¹⁰¹ PJM Answer at 10-11.

¹⁰² *Id.* at 12.

Exelon/PSEG also respond to EPSA's argument that Capacity Repricing would create externalities by shifting the costs of one state's policies to another. Exelon/PSEG argue that the ZECs program itself does not impose costs on other states or alter prices received by non-incumbent generators, but may benefit other states.¹⁰³

59. PJM also responds to intervenors' argument that PJM's proposal inappropriately exempts resources owned or controlled by vertically integrated utilities, or municipal utilities. PJM argues that such resources are not similarly situated to resources owned by deregulated or merchant entities, because they are not likely to use uneconomic new entry to suppress prices.¹⁰⁴ In addition, PJM notes that the Commission has previously accepted a comparable exemption for these types of entities.¹⁰⁵ AMP responds to NRG's argument that exempting public power resources is inappropriate because it may lead to captive ratepayers being saddled with unnecessary costs, arguing that a public power entity does not have captive customers. AMP adds that the costs at issue, which may address long-term supply needs, cannot be characterized as unnecessary.¹⁰⁶

60. PJM responds to intervenors' argument that PJM's proposal is unduly discriminatory because it would target certain subsidies, while ignoring others. PJM argues that intervenors have failed to demonstrate that applying repricing to ZECs and RPS payments is unduly discriminatory, where, as here, these subsidies are expected to grow substantially in the next few years.¹⁰⁷ PJM asserts that participation in an RPS program, if it passes PJM's proposed materiality screen, will be enough to subject a wind project to Capacity Repricing, regardless of whether that resource also receives a federal production tax credit. PJM adds the federal law has recently reduced the amount of the production tax credit paid to wind units, which are also only a small share of PJM's region-wide capacity (a half percent). In addition, PJM argues that using one federal policy to counteract another is not appropriate.¹⁰⁸

¹⁰³ Exelon/PSEG Answer at 13.

¹⁰⁴ PJM Answer at 28.

¹⁰⁵ *Id.* (citing 2013 PJM MOPR Order, 143 FERC ¶ 61,090 at PP 26, 107-115).

¹⁰⁶ AMP Answer at 3.

¹⁰⁷ PJM Answer at 26.

¹⁰⁸ *Id.* at 26-27.

61. Exelon/PSEG respond to EPSA's argument, under *FPC v. Hope*, that Capacity Repricing would deprive certain resources of the opportunity to recover their costs. Exelon/PSEG argue that this standard does not apply here, where a generator is not compelled to provide capacity.¹⁰⁹

62. Finally, the Market Monitor argues that PJM's proposal to use default avoidable cost rate values in the determination of the Actionable Subsidy Reference Price is not sufficient. The Market Monitor asserts that a transparent review process that includes a review role for the Market Monitor would be required, with the relevant values submitted to the Commission for its approval. The Market Monitor adds that the values proposed by PJM, in its filing, are excessively high.¹¹⁰

4. Commission Determination

63. We find that PJM's Capacity Repricing proposal is unjust and unreasonable, and unduly discriminatory and preferential. As proposed, Capacity Repricing would allow resources receiving out-of-market support to submit offers into PJM's capacity market as price-takers, acquiring capacity obligations without mitigation. All other things being equal, this, in turn, would suppress the capacity market clearing price. If certain thresholds for capacity receiving Material Subsidies are reached, Capacity Repricing would then adjust the clearing price paid to all resources with a capacity commitment, including resources receiving Material Subsidies, while excluding other competitive resources (i.e., resources not receiving out-of-market support) that offered below the adjusted clearing price but above the stage one price.

64. First, we find that it is unjust and unreasonable to separate the determination of price and quantity for the sole purpose of facilitating the market participation of resources that receive out-of-market support. PJM's Capacity Repricing proposal artificially inflates the capacity market clearing price to compensate for the participation of resources receiving out-of-market support in the PJM capacity market. PJM's Capacity Repricing proposal would allow such resources to impact the market, and disconnect the determination of price and quantity – a vital market fundamental. We agree with intervenors that, by setting a clearing price that is disconnected from the price used to determine which resources receive capacity commitments, the market clearing price under Capacity Repricing will send incorrect signals, leading to greater uncertainty with respect to entry and exit decisions.

¹⁰⁹ Exelon/PSEG Answer at 5.

¹¹⁰ Market Monitor Answer at 12.

65. Though the second stage price may not be suppressed by uncompetitive offers from resources receiving out-of-market support, the higher price—created by repricing—would signal that the market would buy capacity from higher cost resources than actually clear the market and receive capacity commitments. This would make it more difficult for investors to gauge whether new entry is needed, or at what price that new entry will clear the PJM capacity market and receive a capacity commitment. Market participants would see the final, second stage clearing price, but would have limited information on which resources received commitments and the first stage price. As a result, we find that the final clearing price would fail to provide a useful signal to market participants regarding whether a resource will clear the market or whether new entry or retirement is needed, jeopardizing the PJM capacity market’s ability to ensure resource adequacy going forward. We confine our finding here, however, to PJM’s Capacity Repricing proposal, as submitted, as a stand-alone solution to address the impact of resources receiving out-of-market support in PJM’s capacity market.

66. We find it unjust and unreasonable, and unduly discriminatory or preferential, for a resource receiving out-of-market payments to benefit from its participation in the PJM capacity market, by not competing on a comparable basis with competitive resources. Capacity Repricing appears to start from the premise that resources receiving out-of-market support should obtain a capacity commitment at the expense of other resources that, despite offering competitively, are not selected in the first stage of the auction. We reject that premise. Unlike competitive resources, a resource receiving out-of-market support can submit an offer below its true going-forward costs and rely on the Material Subsidy it receives to make up the difference between the auction clearing price and its going-forward costs.

67. In addition, under PJM’s Capacity Repricing proposal, a resource supported by a Material Subsidy would not only receive the same clearing price as competitive resources, but would then further benefit from the higher price set in stage two of the auction. PJM’s proposal therefore will increase prices for load, and then pay this higher price as a windfall to the very same resources that initially caused the price suppression PJM is attempting to correct. PJM’s Capacity Repricing proposal also represents an unjust and unreasonable cost shift to loads who should not be required to underwrite, through capacity payments, the generation preferences that other regulatory jurisdictions have elected to impose on their own constituents.¹¹¹

¹¹¹ 2011 PJM MOPR Rehearing Order, 137 FERC ¶ 61,145 at P 3 (“We are forced to act, however, when subsidized entry supported by one state’s or locality’s policies has the effect of disrupting the competitive price signals that PJM’s RPM is designed to

68. We find that this approach unduly discriminates against competitive resources and is unduly preferential to resources receiving out-of-market support. While both types of resources may supply capacity, competitive resources are not similarly situated to resources that receive out-of-market support for purposes of ratemaking in PJM's FERC-jurisdictional wholesale capacity market.¹¹² The receipt of out-of-market support is a difference that requires different ratemaking treatment when such support has a material effect on price or cannot otherwise be justified by our statutory standards.

produce, and that PJM as a whole, including other states, rely on to attract sufficient capacity.”), *aff'd* sub nom. *NJBPU*, 744 F.3d at 101; *see also Hughes v. Talen Energy Mktg., LLC*, 136 S.Ct. 1288, 1296 (2016) (citing holding in *NJBPU*, 744 F.3d at 79-80, and quoting 2011 PJM MOPR Rehearing Order, 137 FERC ¶ 61,145 at P 3).

¹¹² Typically, undue discrimination cases involve a seller charging a different rate to similarly-situated customers; but undue discrimination can also occur when a seller charges the same rate to differently-situated customers. *See Alabama Elec., Inc. v. FERC*, 684 F.2d 20, 27-28 & n.3 (D.C. Cir. 1982) (*Alabama Electric*) (“[A] single rate design may also be unlawfully discriminatory. . . . It matters little that the affected customer groups may be in most respects similarly situated—that is, that they may require similar types of service If the costs of providing service to one group are different from the costs of serving the other, the two groups are in one important respect quite dissimilar.”); *accord, e.g., Ark. Elec. Energy Consumers, et al. v. FERC*, 290 F.3d 362, 368 (D.C. Cir. 2002) (restating the “central legal proposition” in *Alabama Electric* “that applying the same rate to two groups of dissimilarly situated customers may violate section 205's prohibition against undue discrimination”); *Cities of Riverside and Cotton, Cal. v. FERC*, 765 F.2d 1434, 1439 (9th Cir. 1985) (same); *Complex Consol. Edison Co. of N.Y., Inc. v. FERC*, 165 F.3d 992, 1013 (D.C. Cir. 1999) (explaining that “charging the same rate to differently situated customers could constitute a form of discrimination” under *Alabama Electric* and clarifying that “the critical determination was whether that difference was unreasonable or undue”); *Elec. Consumers Resource Council v. FERC*, 747 F.2d 1511, 1515 (D.C. Cir. 1984) (*Elcon*) (“If a rate design has different effects on charges for similar services to similar customers, the utility bears the burden of justifying these different effects.”); *see id.* at 1515-16 (holding “that the proposed rate design results in a cross-subsidization, charging high-load factor customers part of the costs of service to low-load customers,” and that the “utility has put forth no legally sufficient reason for charging high-load factor customers a rate that does not accurately reflect the cost of serving them”).

69. Although FirstEnergy/EKPC argue that Capacity Repricing would eliminate consumers' paying for capacity twice, that effect, even if true, does not alone render PJM's proposal just and reasonable. The Commission has, in the past, found it acceptable or beneficial to avoid requiring customers to pay twice for capacity as a result of state policy decisions. However, the courts have concluded that it need not do so.¹¹³ Those orders in which the Commission accepted such an accommodation emphasized the Commission's view that the accommodation mechanism at issue (specifically, an exemption from ISO-NE's MOPR) was narrowly tailored to have a limited impact on prices for competitive generation based on the way the exemption was structured to track anticipated load growth and resource retirements.¹¹⁴ The Commission may, and has, accepted PJM Tariff changes limiting PJM's MOPR exemptions, even where those revisions may have required load to "pay twice" for capacity resources that a state requires its constituents to support through out-of-market payments.¹¹⁵ On review, the United States Court of Appeals for the Third Circuit squarely held that states "are free to make their own decisions regarding how to satisfy their capacity needs, but they 'will appropriately bear the costs of [those] decision[s],' . . . including possibly having to pay twice for capacity."¹¹⁶

¹¹³ See *Connecticut Dept. of Pub. Util. Control v. FERC*, 569 F.3d 477, 481 (D.C. Cir. 2009) (*Connecticut PUC*); *NJBPU*, 744 F.3d at 97; *NEPGA*, 757 F.3d at 295.

¹¹⁴ See *ISO New England Inc.*, 147 FERC ¶ 61,173, at P 83 (2014) (First RTR Order), *ISO New England Inc.*, 150 FERC ¶ 61,065 (*RTR Rehearing Order*); *ISO New England Inc.*, 155 FERC ¶ 61,023, at P 33 (2016), *order on reh'g*, 158 FERC ¶ 61,138, at PP 43, 48 (2017) (*RTR Remand Rehearing Order*), *appeal pending sub nom. NextEra Energy Res., LLC v. FERC*, Case No. 17-1110 (D.C. Cir., filed Apr. 3, 2017).

¹¹⁵ See 2011 PJM MOPR Order, 135 FERC ¶ 61,022 at P 139; 2011 PJM MOPR Rehearing Order, 137 FERC ¶ 61,145 at P 87.

¹¹⁶ *NJBPU*, 744 F.3d at 97 (citing *Connecticut PUC*, 569 F.3d at 481). The D.C. Circuit rejected the same argument when it affirmed "the Commission's decision to decline a categorical mitigation exemption for self-supplied and state-sponsored resources" in ISO-NE. *NEPGA*, 757 F.3d at 295. In that case, as in *NJBPU*, petitioners argued that the Commission "[f]orc[ed] load-serving entities] to forgo obtaining their desired resources or pay twice--once for their selected resources and again for auction-selected resources." Petitioner Br. of Mass. Muni. Wholesale Elec. Co., *et al.*, at 11, D.C. Cir. Nos. 12-1074, *et al.* (Mar. 5, 2013). Notwithstanding that argument, the court found

70. PJM argues that its Capacity Repricing proposal is generally consistent with the approach accepted by the Commission, in principle, in the 2011 ISO-NE MOPR Order.¹¹⁷ We disagree. PJM's Capacity Repricing proposal differs from ISO-NE's proposal in an important respect; while PJM would pay resources receiving Material Subsidies the higher, stage two clearing price, ISO-NE proposed to establish separate clearing prices for existing and new resources, including new resources receiving out-of-market support. Even with this distinction, the Commission found ISO-NE's proposal unjust and unreasonable because it did not appropriately balance the value of accommodating resources receiving out-of-market support with its obligation to clear an appropriate level of capacity.¹¹⁸ Accordingly, the Commission directed ISO-NE to develop a benchmark pricing mechanism similar to PJM's MOPR.¹¹⁹ The Commission, in the ISO-NE 2011 MOPR Order, moreover, did not endorse an approach comparable to PJM's Capacity Repricing proposal here, which would require PJM to pay all cleared resources, including resources receiving out-of-market support, the higher "competitive" clearing price. For the reasons discussed above, we find such an outcome unjust and unreasonable and unduly discriminatory.

71. PJM also argues that its Capacity Repricing proposal is generally consistent with the two-stage pricing mechanism accepted by the Commission in the CASPR Order. We disagree. While both PJM's Capacity Repricing and ISO-NE's CASPR proposal use two-tier auctions to address the impacts of resources receiving out-of-market support on capacity prices, the two proposals are otherwise distinguishable. CASPR seeks to maintain the connection between resource selection and price, because CASPR pays the first stage price to all resources committed in that stage. Only Sponsored Policy Resources¹²⁰ committed in the second stage pay the second stage price as a one-time

a categorical exemption for self-supplied and state-sponsored resources would constitute "definitional market distortion in favor of buyers." *NEPGA*, 757 F.3d at 294.

¹¹⁷ See 2011 ISO-NE MOPR Order, 135 FERC ¶ 61,029.

¹¹⁸ *Id.* PP 161-164.

¹¹⁹ *Id.* P 165.

¹²⁰ Specifically, CASPR applies to Sponsored Policy Resources, defined as "a New Capacity Resource that: receives an out-of-market revenue source supported by a government-regulated rate, charge or other regulated cost recovery mechanism, and; qualifies as a renewable, clean or alternative energy resource under a renewable energy portfolio standard, clean energy standard, alternative energy portfolio standard,

severance to a matched retiring resource. CASPR does not allow Sponsored Policy Resources unfettered access to the market (it retains and strengthens ISO-NE's MOPR for all new resources, by phasing out the Renewable Technology Resource exemption) and contemplates that Sponsored Policy Resources may be unable to find partners willing to give up their capacity commitment.¹²¹ For these reasons, we find that PJM's Capacity Repricing, as proposed, is not comparable to ISO-NE's CASPR.

72. Furthermore, PJM has responsibility under section 205 of the FPA to support its Capacity Repricing proposal; however, PJM has not provided any support for the proposed materiality threshold that would initiate PJM's Capacity Repricing proposal. PJM defines a material amount as either 5,000 MW (unforced capacity) across the region, or 3.5 percent of the reliability requirement for any modeled Locational Deliverability Area. At the same time, PJM's testimony states that below-cost capacity offers from resources receiving out-of-market support can result in significant and widespread clearing price reductions using sensitivity analysis adding 3,000 MW and then 6,000 MW of zero-priced supply in and outside the Mid-Atlantic Area Council (MAAC) Locational Deliverability Area.¹²² It is not clear how the material threshold amounts (or the MAAC Locational Deliverability Area) were selected given the accompanying testimony. PJM provides no evidence that either the 5,000 MW (unforced capacity) across the region, or the 3.5 percent of the reliability requirement for a modeled Locational Deliverability Area is at the appropriate level. We therefore find that PJM has failed to demonstrate that the proposed threshold is just and reasonable.

C. MOPR-Ex

73. PJM requests that, in the event its Capacity Repricing proposal is rejected as unjust and unreasonable, the Commission next consider the alternative proposal (MOPR-Ex). MOPR-Ex would expand the application of PJM's MOPR to new and existing resources that receive a Material Subsidy, subject to certain exemptions. For the reasons discussed below, we reject PJM's MOPR-Ex proposal because PJM has not met its

renewable energy goal, or clean energy goal enacted (either by statute or regulation) in the New England state from which the resource receives the out-of-market revenue source and that is in effect on January 1, 2018." *See* CASPR Order, 162 FERC ¶ 61,205 at P 4 n.6.

¹²¹ *Id.* at PP 99-102.

¹²² *See* PJM Filing at Attach. E (Aff. of Adam J. Keech at 2).

section 205 burden to show that MOPR-Ex is just and reasonable, and not unduly discriminatory.

1. PJM's MOPR-Ex Proposal

74. PJM proposes to extend the MOPR to cover both new and existing resources that receive Material Subsidies, as discussed below, to mitigate the impact of a state subsidy on wholesale prices. PJM states that, while its existing MOPR applies to only certain types of new, natural gas-fired resources, MOPR-Ex would apply to any type of generation resource that receives a Material Subsidy, unless otherwise exempted from the MOPR under the proposed exemptions discussed below.¹²³ In addition, PJM states that MOPR-Ex would extend the geographic reach of the MOPR to apply to external capacity resources as well as internal capacity resources.

75. PJM proposes to adopt the same definition for Material Subsidy for MOPR-Ex as under Capacity Repricing.¹²⁴ PJM adds that, under MOPR-Ex, there would be no resource size threshold.¹²⁵ In addition, PJM states that, unlike Capacity Repricing, MOPR-Ex would not apply to demand resources.¹²⁶ PJM states that, because MOPR-Ex would expand offer price mitigation to generation resources of all fuel types, a revised MOPR floor offer price will be required, i.e., it would no longer be appropriate to set that floor at PJM's existing Net CONE values for new natural gas-fired resources.

76. Instead, PJM proposes that the MOPR floor offer price be set as the Market Seller Offer Cap, or Net CONE * B, for the Locational Deliverability Area in which the resource is offered. PJM asserts that this revision is appropriate, given the Commission's prior finding that the Market Seller Offer Cap is a "reasonable estimate of a low-end

¹²³ *Id.* at 101. In addition to the exemptions discussed below, PJM proposes to exempt Qualifying Facilities, as defined in Part 292 of the Commission's regulations, from MOPR-Ex, noting its existing MOPR exemption for such facilities. *Id.*

¹²⁴ *See supra* section IV.B.

¹²⁵ PJM Filing at 99, n.240.

¹²⁶ *Id.* at 53.

competitive offer, after accounting for all marginal costs, opportunity costs, and risks associated with assuming a Capacity Performance commitment.”¹²⁷

77. PJM also proposes to exempt certain resources that it claims are not likely to raise price suppression concerns. First, PJM proposes to extend its unit-specific review allowance to the resources subject to MOPR-Ex. PJM also proposes certain categorical exemptions. Specifically, MOPR-Ex would allow for a categorical self-supply exemption, similar to the new entry exemption accepted by the Commission in the 2013 PJM MOPR Order,¹²⁸ and subject to a net-short requirement,¹²⁹ and a net-long requirement.¹³⁰ PJM also proposes an exemption applicable to public power entities and electric cooperatives. PJM states that, under its public entity exemption, an exemption would be granted using criteria similar to its proposed self-supply exemption.¹³¹

¹²⁷ *Id.* at 104 (citing *PJM Interconnection, L.L.C.*, 155 FERC ¶ 61,157, at P 184 (2016)).

¹²⁸ *See* 2013 PJM MOPR Order, 143 FERC ¶ 61,090 at PP 107-115.

¹²⁹ Under PJM’s proposed exemption, a single-entity customer would be subject to a 150 MW net-short allowance, while a vertically integrated utility would be subject to net-short allowance equal to 20 percent of its reliability requirement. PJM Filing at 106-107.

¹³⁰ For entities with an obligation less than 500 MW, a net-long allowance of 75 MW would apply. For entities with an obligation between 500 and 5,000 MW, the net-long requirement would be set at 15 percent of the entity’s obligation. For entities with an obligation between 5,000 and 15,000 MW, the net-long requirement would be 750 MW. For entities with an obligation between 15,000 and 25,000 MW, the net-long limit would be 1,000 MW. Finally, for entities with obligations greater than or equal to 25,000 MW, the net-long limit would be set at 4 percent of that entity’s obligation, subject to a 1,300 MW. *Id.*

¹³¹ *See* Proposed Tariff, Attach. DD, § 5.14(h)(9) (Option B). PJM proposes a net-long threshold, set at 600 MW, but does not propose a net-short limitation. PJM also proposes certain cost and revenue requirements. *Id.* PJM also proposes a categorical exemption for competitive entry (a provision voted on by PJM’s stakeholders). However, PJM acknowledges that such a competitive entry exemption would not be necessary, given its proposed definition of a Material Subsidy. PJM states that, accordingly, it

78. PJM also proposes an RPS exemption. PJM states that this exemption would apply to capacity market sellers whose resources were either: (i) procured in a program in compliance with a state-mandated RPS program prior to December 31, 2018, or based on a request for proposals under such program issued prior to December 31, 2018; or (ii) in compliance with the requirements of a state-mandated RPS program or voluntary RPS program that is competitive and non-discriminatory. PJM asserts that its first criterion would operate as a transition mechanism, recognizing that sellers had no reasonable prior expectation that the MOPR would be revised under the terms contemplated by MOPR-Ex. PJM states the second criterion would exempt resources procured under state programs that meet certain competitive and non-discriminatory requirements.¹³² PJM states that, in addition, if the programs use an auction, the winners of the auction must be determined based on lowest offers; payments to winners must be based on the auction clearing price; and at least three non-affiliated sellers must participate. PJM adds that, if the program does not use an auction, the terms of the program must be consistent with fair market value and standard industry practice.¹³³

79. Finally, with respect to undue discrimination claims raised in PJM's stakeholder deliberations, PJM states that "[w]hether or not this form of discrimination is undue ... is a decision for this Commission."¹³⁴ PJM offers the option of either (i) applying the standards set forth in Capacity Repricing to govern the treatment of renewable resources,

would consent to a Commission directive requiring the removal of the competitive entry exemption. Filing at n.268.

¹³² Specifically, the relevant program must: (1) require load-serving entities to procure a defined amount of renewable capacity resources; (2) allow for the participation by both new and existing resources; (3) apply no supply limitations on participants; (4) rely on requirements that are objective and transparent; (5) exclude selection criteria that could give preference to new or existing resources; (6) apply no indirect means to discriminate against new or existing resources; (7) excludes any locational requirement, other than restricting imports from other states; and (8) applies a renewable characteristic as the only screen for participation. *Id.* at 112.

¹³³ See Proposed PJM Tariff, Attach. DD, § 5.14(h)(10) (Option B).

¹³⁴ PJM Filing at 114.

or (ii) identifying this [undue discrimination] question for further stakeholder consideration in subsequent process.”¹³⁵

2. Comments and Protests

80. A number of intervenors are generally supportive of MOPR-Ex, in principle, or acknowledge PJM’s alternative proposal as a just and reasonable option and/or as preferable to PJM’s Capacity Repricing proposal. Consumers Coalition asserts that MOPR-Ex, if properly limited in its application, could be accepted as a just and reasonable response to state-supported resources, because it would limit cost increases for ratepayers.¹³⁶ The Ohio Consumers Counsel agrees that MOPR-Ex would appropriately mitigate the diverse effects of state subsidies on PJM’s capacity market and is not likely to lead to a proliferation of state subsidies.¹³⁷ EPSA supports the MOPR-Ex approach of applying PJM’s mitigation rules to both new and existing resources, including resources receiving ZECs.¹³⁸ The Market Monitor supports MOPR-Ex, asserting that it protects PJM’s competitive markets, has majority stakeholder support, and is consistent with long-standing Commission policy. The Market Monitor adds that MOPR-Ex would appropriately provide a disincentive for state policies that discourage competitive investment by suppressing market clearing prices.¹³⁹

a. Market Design

81. Other intervenors argue that MOPR-Ex should be rejected. FirstEnergy/EKPC, the Illinois Commission and PSEG argue that MOPR-Ex would frustrate legitimate state

¹³⁵ *Id.*

¹³⁶ Consumer Coalition Protest at 13-14.

¹³⁷ Ohio Consumers Counsel Protest at 5.

¹³⁸ EPSA Protest at 7.

¹³⁹ *Id.* at 2, 14. The Market Monitor, however, objects to several of the terms PJM proposes in its Tariff revisions and questions PJM’s proposed procedures to be followed when fraud is suspected, arguing that these procedures already exist under PJM’s Tariff. *Id.* at 17-19.

policy.¹⁴⁰ The New Jersey Board similarly asserts that, regardless of participation in PJM, states have a right to oversee and regulate their generation portfolio.¹⁴¹ The Maryland Commission argues that PJM's MOPR-Ex proposal would preclude state support intended to launch new, innovative technologies that may not qualify for one of PJM's proposed exemptions.¹⁴²

82. The Maryland Commission argues that PJM's proposal fails to provide price transparency because it would structure the market to procure more capacity than necessary, potentially resulting in uncertainties in other PJM markets.¹⁴³ Exelon argues that MOPR-Ex would select the wrong resources by favoring inefficient polluting resources and treat state environmental programs as hostile to the wholesale markets.¹⁴⁴

83. Intervenors also object to PJM's proposal to set the default floor at a level equal to the default market seller offer cap. The Illinois Commission argues that PJM's proposed reference price is set too high and is unsupported.¹⁴⁵ FirstEnergy/EKPC argue that there is no economic rationale to set the default offer floor equal to the default offer cap, because offer floors are designed to address buyer-side market power, while offer caps are designed to address supplier-side market power.¹⁴⁶ Exelon asserts that resetting bids to the Market Seller Offer Cap does not fit existing resources whose costs are largely sunk, which could lead to over-mitigation by requiring a commercially operational resource to bid at an offer floor substantially above its going-forward costs.¹⁴⁷

¹⁴⁰ FirstEnergy/EKPC Protest at 17; Illinois Commission Protest at 20-21; and PSEG Protest at 9.

¹⁴¹ New Jersey Board Answer at 2-3.

¹⁴² Maryland Commission Protest at 10.

¹⁴³ *Id.* at 10.

¹⁴⁴ Exelon Protest at 42.

¹⁴⁵ Illinois Commission Protest at 39.

¹⁴⁶ FirstEnergy/EKPC Protest at 19.

¹⁴⁷ Exelon Protest at 40 (citing 2013 PJM MOPR Order, 143 FERC ¶ 61,090 at P 26).

b. Double Payment and Excess Supply

84. Intervenors also address the argument that MOPR-Ex should be rejected because it will require load to pay twice.¹⁴⁸ Rockland, however, supports extending the MOPR to existing resources, even where load may be required to pay twice, noting that any such costs would be limited to the initiating state.¹⁴⁹ ESPA adds that the Commission has expressly rejected arguments about double procurement, in finding that the Commission is not required to prevent any such duplication, or ensure that customers do not pay twice for state-subsidized resources.¹⁵⁰

85. Some intervenors argue that, by applying the MOPR to existing resources in the capacity clearing process, MOPR-Ex would perpetuate an over-supply of resources, thus moving the price suppression from the capacity market into energy market.¹⁵¹

c. Definitions and Exemptions

86. Several intervenors object to PJM's proposed definition of Material Subsidy. Dominion and Solar Coalition argue that determining what constitutes a Material Subsidy would inappropriately allow PJM to serve as a gatekeeper to its capacity auction and would ultimately lead to higher prices.¹⁵² SMECO objects to a definition that would extend to any state action, whether for renewable energy or otherwise.¹⁵³

87. Vistra argues that demand resources should not be excluded from mitigation under MOPR-Ex.¹⁵⁴ FirstEnergy/EKPC and Exelon argue that a MOPR should be limited in its scope, to apply only to those entities with the intent and ability to exercise market

¹⁴⁸ See, e.g., NEI Comments at 11; Buyers Group Comments at 3.

¹⁴⁹ Rockland Comments at 4.

¹⁵⁰ EPSA Protest at 26 (citing 2011 PJM MOPR Rehearing Order, 137 FERC ¶ 61,145 at P 209).

¹⁵¹ PSEG Protest at 11; Exelon Protest at 42; and Solar Coalition Protest at 20.

¹⁵² Dominion Protest at 10; Solar Coalition Protest at 21.

¹⁵³ SMECO Protest at 3.

¹⁵⁴ Vistra Comments at 13.

power.¹⁵⁵ Exelon adds that buyer-side mitigation has always been limited to new entry.¹⁵⁶ Some intervenors also object to the proposed exemptions. NRG asserts that MOPR-Ex contains too many broad exemptions, and that allowing a segment of resources to bid into PJM's auction at a level that is below their actual costs will prevent the owners of existing resources from earning a return on their investments.¹⁵⁷ The Solar Coalition argues that MOPR-Ex and its exemptions are too complex to be workable.¹⁵⁸

88. FirstEnergy/EKPC question whether PJM's existing unit-specific exemption can be applied to existing resources.¹⁵⁹ Exelon asserts that PJM's proposal makes no provision for a generator to object to the proxy bid that PJM would be authorized to impose, in lieu of the generator's proposed price, and as such would violate the supplier's section 205 filing rights.¹⁶⁰ The Pennsylvania Commission adds that PJM's proposed unit-specific pricing mechanism relies on financial modeling assumptions that, in practice, may depart significantly from reality.¹⁶¹ NGSAs asserts that PJM's proposed unit-specific review process lacks transparency.¹⁶²

89. A number of intervenors object to PJM's proposed self-supply exemption.¹⁶³ NRG asserts that allowing self-supply entities to bid into PJM's auction as price takers suppresses market clearing prices.¹⁶⁴ Intervenors also object to PJM's proposed public

¹⁵⁵ FirstEnergy/EKPC Protest at 18-19 and Exelon Protest at 38 (citing 2006 PJM MOPR Order, 117 FERC ¶ 61,331, at P 103-104).

¹⁵⁶ Exelon Protest at 38.

¹⁵⁷ NRG Protest at 17-18.

¹⁵⁸ Solar Coalition Protest at 20.

¹⁵⁹ FirstEnergy/EKPC Protest at 19.

¹⁶⁰ Exelon Protest at 59.

¹⁶¹ Pennsylvania Commission Comments at 20.

¹⁶² NGSAs Comments at 7.

¹⁶³ *See, e.g.*, Exelon Protest at 56; P3 Protest at 17-18; Vistra Comments at 13-14.

¹⁶⁴ NRG Protest at 18.

entity exemption.¹⁶⁵ ODEC argues that net-long and net-short thresholds are no longer appropriate, and that the Commission should, if it accepts MOPR-Ex, employ the Capacity Repricing exemptions for public power entities, in place of those adopted by PJM in its MOPR-Ex proposal.¹⁶⁶ NRG argues that PJM's public entity exemption fails to include a net-short threshold and has an arbitrary net-long threshold.¹⁶⁷ SMECO also objects to the 600 MW net-long limit, arguing that there might be valid reasons for why a public power entity might be long by this amount, including when it has a loss of load, and that a net-long seller would have no incentive to depress prices.¹⁶⁸

90. Intervenors also object to PJM's proposed categorical exemption for renewable resources. NRG asserts that it would be unduly discriminatory to exempt resources participating in an RPS program, while ignoring the significant market impact represented by these resources.¹⁶⁹ FirstEnergy/EKPC and Exelon argue that PJM's MOPR-Ex proposal would be unduly discriminatory because it would mitigate resources receiving ZEC payments but not REC payments.¹⁷⁰ Exelon argues that PJM's proposed exemption violates Order No. 719¹⁷¹ because it bases its mitigation on discretionary criteria.¹⁷² Exelon adds that the Commission would be barred from fixing this defect,

¹⁶⁵ *See, e.g.*, Exelon Protest at 57; Dayton Protest at 10; NRG Protest at 19.

¹⁶⁶ ODEC Protest at 11-12.

¹⁶⁷ NRG Protest at 19-20; *see also* Duquesne Light Company (Duquesne) Protest at 5 and Dayton Power and Light Company (Dayton) at 10 (arguing the net-long threshold is arbitrary).

¹⁶⁸ SMECO Protest at 6 (citing 2011 PJM MOPR Order, 135 FERC ¶ 61,022 at P 86).

¹⁶⁹ NRG Protest at 21.

¹⁷⁰ *See, e.g.*, FirstEnergy/EKPC Protest at 19-20, Exelon Protest at 22-25.

¹⁷¹ *See Wholesale Competition in Regions with Organized Elec. Markets*, FERC Stats. & Regs. ¶ 31,281. at P 379 (2008), *order on reh'g*, Order No. 719-A, FERC Stats. & Regs. ¶ 31,292 (2009), *order on reh'g*, Order No. 719-B, 129 FERC ¶ 61,252 (2009).

¹⁷² Exelon Protest at 53.

because such a change could not be considered a “minor modification” of the sort that *NRG* would sanction.

91. Rockland and PSEG question the proposed provision grandfathering state subsidy programs enacted prior to December 31, 2018, and PJM’s proposed RPS exemption.¹⁷³ PSEG notes that, in a similar circumstance, the Commission rejected such a proposal for coal units constructed prior to 1957.¹⁷⁴ Clean Energy Advocates express concern that PJM’s proposed RPS exemption is overly restrictive such that many state-supported renewable resource would fail to qualify.¹⁷⁵

3. Answers

92. PJM argues that resources receiving Material Subsidies will not be precluded from participating in, or clearing the capacity market; rather, their offers will simply be mitigated to a competitive level.¹⁷⁶ PJM also responds to intervenors’ argument that the MOPR should only be applied in cases of market power. PJM argues that buyer-side mitigation is grounded on the impact on the market, not the intent of the seller, as the Commission has repeatedly held.¹⁷⁷

93. PJM also responds to intervenors’ argument that PJM’s proposed exemption for resources procured through RPS programs is unduly discriminatory. PJM argues that its proposal appropriately reflects a recognition of state policy goals, while ensuring that its selection process remains competitive. PJM states that, under its proposal, a resource participating in an RPS program would be required to demonstrate that the program is competitive and non-discriminatory and that the resource will not receive a Material Subsidy targeted to keep an otherwise uneconomic resource operating. PJM asserts that this criteria is comparable to the competitive entry exemption, as previously accepted by

¹⁷³ Rockland Protest at 4.

¹⁷⁴ PSEG Protest at 11 (citing 2006 PJM MOPR Order, 117 FERC ¶ 61,331 at P 108).

¹⁷⁵ Clean Energy Advocates Protest at 8, 12.

¹⁷⁶ PJM Answer at 36.

¹⁷⁷ *Id.* at 37 (citing *Midwest Indep. Transmission Sys. Operator*, 139 FERC ¶ 61,199, at P 69 (2012); 2011 ISO-NE MOPR Order, 135 FERC ¶ 61,029 at P 170).

the Commission.¹⁷⁸ The Market Monitor similarly argues that MOPR-Ex would only exempt offers from resources that do not pose a threat to competitive markets, consistent with the categorical exemptions previously in place in PJM.¹⁷⁹ The Market Monitor further argues that RPS programs are generally competitive, while nuclear units do not produce renewable energy and thus are not similarly-situated. The Market Monitor adds that ZECs target individually-identified nuclear generators that are at risk of retirement and are not the product of open, transparent, competitive auctions.¹⁸⁰ In addition, the Market Monitor asserts that RPS programs, unlike ZEC programs, do not explicitly or implicitly seek to change wholesale clearing prices.¹⁸¹

94. The Market Monitor also responds to the Clean Energy Advocates' argument that most resources participating in RPS programs in the PJM region may not actually be eligible for PJM's exemption, as proposed. The Market Monitor clarifies that RPS programs that allow non-renewable resources to participate or that procure only one specific type of renewable resource (e.g., solar energy) may still be eligible for the exemption.¹⁸²

95. PJM also responds to intervenors' argument that PJM's proposed RPS exemption inappropriately grandfathers resources receiving Material Subsidies. PJM argues that its proposal appropriately recognizes the long-standing operation of RPS programs within the PJM region and the investment decisions made in reliance on these programs.¹⁸³

96. The Market Monitor responds to the Solar Coalition's objection to an authorization that would allegedly allow PJM and the Market Monitor to determine what qualifies as a state subsidy. The Market Monitor argues that PJM's proposal would not invest this authority in PJM and the Market Monitor.¹⁸⁴ The Market Monitor also

¹⁷⁸ *Id.* at 38 (citing 2013 PJM MOPR Order, 143 FERC ¶ 61,090 at P 54).

¹⁷⁹ Market Monitor Answer at 5.

¹⁸⁰ *Id.* at 6-7.

¹⁸¹ *Id.* at 7.

¹⁸² *Id.* at 10.

¹⁸³ PJM Answer at 38.

¹⁸⁴ Market Monitor Answer at 4.

responds to the Solar Coalition's argument that MOPR-Ex is likely to suppress energy market prices. The Market Monitor argues that MOPR-Ex will not encourage over-supply; rather, it will provide a disincentive to over-supply and result in competitive prices. The Market Monitor asserts that state-specific subsidies to uneconomic resources are, in fact, the cause of over-supply.¹⁸⁵

97. The Market Monitor argues that the administrative requirements for implementing MOPR-Ex would be generally the equivalent of PJM's existing MOPR process, including its unit-specific review procedures.¹⁸⁶

98. The Market Monitor also addresses PJM's proposal to provide, as an option, the use of default avoidable cost rate values in the determination of the Actionable Subsidy Reference Price. The Market Monitor notes that the provisions for defining avoidable cost rate values, as proposed, are insufficient. The Market Monitor asserts that a transparent review process that includes a review role for the Market Monitor would be required, with the relevant values submitted to the Commission for its approval. The Market Monitor adds that the default values proposed by PJM, in its filing, are excessively high.¹⁸⁷

99. Finally, P3 responds to Exelon's argument that a policy in favor of a strong MOPR is a policy attempting to buttress fossil resources at the expense of clean generation. P3 argues that all resources that receive a Material Subsidy should be mitigated, without exception and regardless of fuel type.¹⁸⁸

4. Commission Determination

100. In contrast to the Capacity Repricing proposal, the MOPR-Ex proposal would prevent some (but not all) resources that receive Material Subsidies from obtaining capacity commitments at the expense of competitive resources. It would also prevent some resources that receive Material Subsidies from suppressing capacity market prices. We nevertheless find, as discussed below, that PJM has not provided "a valid reason for the disparity" among resources that receive out-of-market support through RPS

¹⁸⁵ *Id.* at 11.

¹⁸⁶ *Id.* at 13.

¹⁸⁷ *Id.* at 12.

¹⁸⁸ P3 Answer at 9.

programs, which are exempt from the MOPR-Ex proposal, and other state-sponsored resources, which are not.¹⁸⁹

101. The FPA does not forbid preferences, advantages, and prejudices *per se*. Rather, FPA section 205(b) prohibits “undue” preferences, advantages and prejudices.¹⁹⁰ The determination as to whether a Commission-regulated rate or practice that provides different treatment to different classes of entities is unduly discriminatory is fact-based, and turns on whether the relevant classes of entities are similarly situated. “To say that entities are similarly situated does not mean that there are no differences between them; rather, it means that there are no differences that are material to the inquiry at hand.”¹⁹¹ We apply this standard below in finding that PJM has not met its section 205 burden to demonstrate that its proposed RPS exemption is not unjust and unreasonable or unduly discriminatory.¹⁹²

102. PJM’s current MOPR applies only to new natural gas-fired resources.¹⁹³ It thus excludes wind and solar resources, because, as PJM believed at the time it adopted the current MOPR, those resource options would be “a poor choice if a developer’s primary

¹⁸⁹ *Black Oak Energy, LLC v. FERC*, 725 F.3d 230, 239 (D.C. Cir. 2013) (citing *Elcon*, 747 F.2d at 1515 (internal quotation marks omitted)).

¹⁹⁰ 16 U.S.C. § 824d(b).

¹⁹¹ See *N.Y. Indep. Sys. Operator, Inc.*, 162 FERC ¶ 61,124, at P 10 & n.30 (2018) (*NYISO*) (citing *Iberdrola Renewables, Inc. v. Bonneville Power Admin.*, 137 FERC ¶ 61,185, at P 62 (2011), *reh’g denied*, 141 FERC ¶ 61,233 (2012)). See also *Black Oak Energy, LLC v. FERC*, 725 F.3d 230, 239 (D.C. Cir. 2013) (“We accept disparate treatment between ratepayers only if FERC “offer[s] a valid reason for the disparity.”) (citing *Elcon*, 747 F.2d at 1515); *Ark. Elec. Energy Consumers v. FERC*, 290 F.3d at 367 (“A rate is not unduly preferential or unreasonably discriminatory if the utility can justify the disparate effect.”).

¹⁹² *Elcon*, 747 F.2d at 1515 (“If a rate design has different effects on charges for similar services to similar customers, the utility bears the burden of justifying these different effects.”)

¹⁹³ While the MOPR applies to other resource types, PJM’s Tariff sets the cost of new entry to those resources as \$0. See PJM Tariff, Attach. DD, § 5.14 (Clearing Prices and Charges).

purpose is to suppress capacity market prices.”¹⁹⁴ Faced with the growing practice of providing out-of-market support for existing resources, MOPR-Ex would expand the pool of resources subject to the MOPR by applying it to new and existing resources receiving Material Subsidies, but would exempt certain resources, including renewable resources procured through an RPS program. PJM, however, recognizes that in today’s market, even if a load-serving entity’s or a state’s primary goal may not be to suppress price, the growing use of out-of-market support of renewable resources can have a significant effect on prices. PJM presents evidence showing that the MW-level of renewable resources receiving out-of-market support has increased significantly and raises price suppression concerns, similar to other resources receiving out-of-market support.¹⁹⁵ Intervenors echo this same concern.¹⁹⁶

103. PJM estimates that 5,000 MW of renewable resources are needed in 2018 to meet the RPS requirements for energy in the region (with a projection to grow to 8,000 MW by 2025)¹⁹⁷ and that quantities of zero-price offers in this range, including from nuclear units eligible to receive ZEC payments, could create harmful price suppression in its capacity market.¹⁹⁸

104. Although PJM acknowledges that renewable resources receiving out-of-market support can raise price suppression concerns, PJM’s MOPR-Ex proposal attempts to distinguish resources that receive out-of-market support through RPS programs from non-exempt resources receiving other out-of-market support. Specifically, PJM’s proposal exempts from the MOPRRPS resources that are procured under competitive and non-discriminatory state programs that meet certain criteria.¹⁹⁹ PJM argues that because it limits the scope of the exemption to these competitively bid resources, it is just and

¹⁹⁴ See 2011 PJM MOPR Order, 135 FERC ¶ 61,022 at P 153.

¹⁹⁵ PJM Answer at 2.

¹⁹⁶ See, e.g., P3 Protest at 17-18; Duquesne Comments at 5.

¹⁹⁷ PJM Filing at Attach. F (Aff. of Dr. Anthony Giacomoni at 9-10 and Attach. 1) (showing both the current and projected increases in the quantity of RPS resources).

¹⁹⁸ PJM Filing at 28-29 (citing Attach. E (Aff. of Adam J. Keech, at Attach. 2)).

¹⁹⁹ Proposed PJM Tariff, Attach. DD, § 5.14(h)(10) (Option B).

reasonable.²⁰⁰ PJM's only other justification for allowing such resources to escape mitigation is "deference to public policies favoring renewable generation resources."²⁰¹ PJM concedes that, "[w]hether this form of discrimination is undue...is a decision for this Commission."²⁰²

105. Based on the foregoing, we find that PJM has not provided "a valid reason for the disparity" among generation resources.²⁰³ PJM's justifications do not adequately support the disparate treatment between resources receiving out-of-market support through RPS programs and other state-supported resources. Although PJM contends that MOPR-Ex targets the impact of state resource decisions on PJM's capacity market,²⁰⁴ PJM has not shown that the exempted resources have a different impact on its capacity market than those which are not exempted. Moreover, PJM's assertion that the RPS exemption was based on deference to public policies favoring renewable generation resources is inconsistent with the well-established desire of some states in PJM to support other resources, such as nuclear plants. In addition, PJM has not explained why its proposed criteria for determining eligibility for the RPS exemption are just and reasonable, and not unduly discriminatory. For example, it is unclear why state programs limited to offshore wind should not be eligible for the RPS exemption given that such resources would likely have a market impact similar to other exempted state-sponsored renewable resources.²⁰⁵ We also find that PJM has not demonstrated how its competitive requirements for the RPS exemption sufficiently address the potential adverse impacts of these subsidized resources. Accordingly, we find that PJM has not met its section 205 burden to show that MOPR-Ex is just and reasonable, and not unduly discriminatory.

²⁰⁰ PJM Answer at 38.

²⁰¹ *Id.* at 114.

²⁰² *Id.*

²⁰³ *Black Oak Energy, LLC v. FERC*, 725 F.3d at 239.

²⁰⁴ Filing at 96.

²⁰⁵ Proposed PJM Tariff, Attach. DD, § 5.14(h)(10)(b)(ii)(7) (Option B) (Stating that the program terms may not use any locational requirement, e.g., offshore wind, other than restricting imports from other states).

106. We recognize that, in other markets, the Commission has accepted MOPR exemptions for renewable resources, but in those cases, parties addressed possible disparate treatment through the use of exemptions that imposed MW limits in recognition of the potential for price suppression; such limits are absent in PJM's proposal. In *NYPSC v. NYISO*, the Commission held that it was just and reasonable for NYISO to exempt resources with low capacity factors and high development costs, such as those typically procured as part of an RPS program, from NYISO's MOPR because they provide their developer with limited or no incentive and ability to exercise buyer-side market power.²⁰⁶ Nevertheless, to limit price suppression that could result even though those resources were not built to exercise buyer-side market power, the Commission required NYISO "to limit the total amount of renewable resources-in the form of a MW cap-that may receive the renewable resources exemption."²⁰⁷ Similarly, in ISO-NE, the Commission approved ISO-NE's proposed renewable resources exemption given that the exemption's impact on price would be limited not only by the sloped demand curve (which PJM also has) but also by a 200-MW limit on the amount of resources that could qualify for the exemption, based on anticipated load growth and retirements (a feature that PJM's proposed MOPR-Ex does not have).²⁰⁸ Accordingly, we reject MOPR-Ex.²⁰⁹

V. Section 206 Action

107. We next consider Calpine's claim, in Docket No. EL16-49-000, that PJM's existing MOPR is unjust and unreasonable because it does not address the impact on PJM's capacity market of existing resources that receive out-of-market support. We also consider this same issue, in section V.C of this order below, as raised in Docket Nos. ER18-1314-000, *et al.*

²⁰⁶ *N.Y. Pub. Serv. Comm'n. v. N.Y. Indep. Sys. Operator., Inc.*, 153 FERC ¶ 61,022, at P 47-49 (2015) (*NYPSC v. NYISO*).

²⁰⁷ *Id.* P 47.

²⁰⁸ *ISO New England Inc.*, 155 FERC ¶ 61,023, at P 39 (2016).

²⁰⁹ PJM Filing at 113.

A. Docket No. EL16-49-000

108. On March 21, 2016, as amended on January 9, 2017, Calpine submitted its complaint, pursuant to section 206 of the FPA. We summarize below the positions taken by Calpine, PJM and intervenors.

1. Calpine's Position

109. Calpine requests that PJM be required to revise its MOPR to prevent the artificial suppression of prices in PJM's capacity market, as caused by below-cost offers for existing resources whose continued operation is being subsidized by state-approved out-of-market payments.²¹⁰ In its initial Complaint, Calpine asserted that the ratepayer funded subsidies then under consideration in Ohio (pursuant to requests that have since been withdrawn) posed an imminent threat to PJM's market.²¹¹

110. In its Amended Complaint, Calpine asserts that the relief it requests continues to be warranted in light of the Illinois ZECs program, which will provide subsidies for certain existing nuclear-powered generation units that would otherwise exit the market.²¹²

²¹⁰ Calpine Complaint at 2. Calpine also proposed interim Tariff revisions governing PJM's procurements for the 2019-2020 and 2020-2021 delivery years.

²¹¹ On May 2, 2016, as supplemented on May 27, 2016, AEP submitted a Notice of Change in Status, in Docket Nos. ER14-594-000, *et al.*, stating that it did not intend to move forward with two affiliate Power Purchase Agreements (PPA), and related retail rate riders, as previously approved by the Ohio Commission, following the Commission's determination that the retail rate riders represented a reportable change in circumstances from the conditions under which the Commission had granted waiver of AEP's affiliate power sales restrictions. *See Elec. Power Supply Ass'n v. AEP Generation Resources*, 155 FERC ¶ 61,102 (2016). Also, on May 2, 2016, FirstEnergy submitted a request for rehearing to the Ohio Commission, proposing to modify the operation of a related PPA and retail rate rider, such that FirstEnergy's restructured rate plan would not be subject to the Commission's wholesale jurisdiction under the FPA. *See In the Matter of the Application of Ohio Edison Co., Cleveland Elec. Illuminating Co., and Toledo Edison Co. for Authority to Provide for a Standard Service Offer Pursuant to R.C. 4928.143 in the Form of an Electric Security Plan*, at 43, 87, Case No. 14-1297-EL-SSO (Oct. 12, 2016).

²¹² Calpine Amended Complaint at 10. On January 25, 2018, pursuant to the Future Energy Jobs Bill, the Illinois Power Agency approved ZECs awards for Exelon's

Specifically, Calpine argues that the preferences attributable to the Illinois program will result in subsidies with a net present value of approximately \$1.5 billion payable to the “unregulated” subsidiaries of Exelon, the owners of a 75 percent stake in the 1,871 MW Quad Cities Generating Facility (located within PJM) and the 1,069 MW Clinton Power Station (located within MISO). Calpine argues that, currently, Exelon’s facilities are operating on an uneconomic basis.²¹³ Calpine adds that the Illinois subsidies will create incentives for below-cost offers in PJM’s capacity auctions, the effects of which will produce an uneven playing field between new and existing resources.

111. In its answer to protests, Calpine responds to the charge that its Complaint is moot and should be dismissed due to the withdrawal of the Ohio PPAs.²¹⁴ Calpine argues that these claims rely on an erroneous characterization of the initial Complaint as raising issues solely relating to the Ohio authorizations. Calpine asserts that the Ohio Authorizations—and the Illinois ZECs program, as addressed by the Amended Complaint—are illustrations of the threat posed by subsidized existing resources. Calpine also challenges protestors’ claim that the Amended Complaint is premature.²¹⁵ Calpine argues that regardless of the award-date applicable to the Illinois ZECs, it is clear that these payments will be awarded to only two plants—Exelon’s Quad Cities Generating Station and Exelon’s Clinton Power Station. Calpine asserts that with these two unit’s continued participation in PJM’s capacity market, over 1,000 MW of subsidized, uneconomic generation will be offered into the 2020-21 Base Residual Auction.²¹⁶

1,871 MW Quad Cities Generating Station and 1,069 MW Clinton Power Station. *See* Illinois Commerce Commission, Public Notice of Successful Bidders and Average Prices, Illinois Power Agency (Jan. 2018 Procurement of Zero Emission Credits from Facilities Fueled by Nuclear Power). *See* <https://www.illinois.gov/sites/ipa/Pages/default.aspx>.

²¹³ *Id.* at 8-9 (citing Illinois Commerce Commission, *Potential Nuclear Power Plant Closings in Illinois* (Jan. 5, 2015)).

²¹⁴ Calpine February 14, 2017 Answer to Protests at 9.

²¹⁵ *Id.* at 11.

²¹⁶ According to an Exelon press release on the results of the most recent capacity auction: “Quad Cities cleared the capacity auction as a result of Illinois legislation that fairly compensates certain nuclear plants for their environmental attributes.” *See Exelon Announces Outcome of 2021-2022 PJM Capacity Auction* (May 24, 2018),

112. Calpine also responds to the argument that applying the MOPR to existing resources that are state-supported will frustrate state policies. Calpine reiterates that, in acting on the Amended Complaint, the Commission need not and should not decide whether the FPA preempts state action. Calpine adds, however, that the Illinois ZECs program cannot be allowed to preempt the Commission's exercise of its jurisdictional duties as they relate to wholesale rates, as the Commission's precedent recognizes.²¹⁷

113. In addition, Calpine responds to the argument that the relief requested by the Amended Complaint will threaten RECs and other state-sponsored renewable resource programs. Calpine clarifies that the Amended Complaint does not seek to apply the MOPR to existing or new renewable resources that receive RECs.²¹⁸ Calpine further responds to the claim that MOPR exemptions for new renewable resources justify out-of-market ZEC payments to uneconomic existing resources. Calpine asserts that the Commission's acceptance of PJM's existing rules limiting the applicability of the MOPR to natural gas-fired combustion turbine and combined cycle resources was not premised on the excluded resources' environmental attributes or any stated intent to accommodate state environmental policies. Calpine argues that, instead, the Commission's acceptance of these rules as just and reasonable focused on the relevant resources' relatively low costs of construction and their corresponding ability to raise price suppression concerns.²¹⁹

114. Calpine adds that while the Commission has acknowledged state initiatives in approving specific MOPR exemptions in NYISO and ISO-NE, these rulings provide no basis for a blanket exclusion applicable to resources with low or zero emissions attributes. Calpine notes that the exemptions at issue were restricted to intermittent

<http://www.exeloncorp.com/newsroom/exelon-announces-outcome-of-2021-2022-pjm-capacity-auction>. See *Exelon Announces Outcome of 2021-2022 PJM Capacity Auction* (May 24, 2018) available at <http://www.exeloncorp.com/newsroom/exelon-announces-outcome-of-2021-2022-pjm-capacity-auction>.

²¹⁷ *Id.* at 4 (citing 2011 PJM MOPR Order, 135 FERC ¶ 61,022 at P 143).

²¹⁸ *Id.*

²¹⁹ *Id.* at 5 (citing 2013 PJM MOPR Order, 143 FERC ¶ 61,090 at P 166).

renewable resources and did not cover nuclear resources.²²⁰ Calpine asserts that, in addition, these exemptions were subject to MW caps intended to “further limit any risk that [the] exempted resources will impact [capacity] market prices.”²²¹ Calpine claims that these caps—200 MW in ISO-NE and a proposed 1,000 MW cap in NYISO—would be inadequate to accommodate either of the resources being subsidized under the Illinois ZECs program.

115. Finally, on August 30, 2017, Calpine filed a motion to lodge the District Court decision in *Vill. of Old Mill Creek*, which rejected claims that the Illinois ZEC program is preempted by federal law.²²² Calpine asserts that the decision, if not overturned, will clear the way for thousands of MWs of subsidized nuclear-powered generation that would have otherwise retired to be offered into PJM’s capacity auctions at below-cost. Calpine further notes that the District Court, in its ruling, emphasized that “[t]he market distortion caused by subsidizing nuclear power can be addressed by FERC,” which has the authority to “address any problem the ZEC program creates with respect to just and reasonable rates[.]”²²³

2. PJM’s Position

116. PJM, in its answer to the Complaint, generally supports Calpine’s request for long-term relief. PJM agrees that, under certain circumstances, sell offers submitted by existing resources into PJM’s capacity auctions could result in unjust and unreasonable rates, when such resources are subsidized by out-of-market state revenues.²²⁴ PJM argues that, as such, a finding that the existing MOPR is unjust and unreasonable would be supportable.

²²⁰ *Id.* at 6 (citing *NYPSC v. NYISO*, 153 FERC ¶ 61,022 at P 51; RTR Remand Rehearing Order, 158 FERC ¶ 61,138, at P 10).

²²¹ *Id.* (citing *NYPSC v. NYISO*, 153 FERC ¶ 61,022 at P 51).

²²² *Vill. of Old Mill Creek*, Nos. 17-CV-1163, *et al.*, 2017 WL 3008289 (appeal pending before the U.S. Court of Appeals for the Seventh Circuit).

²²³ Calpine August 30, 2017 Motion at 4 (citing *Vill. of Old Mill Creek*, 2017 WL 3008289 at *14).

²²⁴ PJM April 11, 2016 Answer at 2.

3. Intervenor Arguments

117. The Market Monitor agrees with Calpine that PJM's MOPR is unjust and unreasonable, given its failure to mitigate offers for existing resources that receive subsidies through non-bypassable charges.²²⁵ PSEG also agrees that PJM's existing MOPR is unjust and unreasonable because it fails to deal with the threats posed by subsidized existing resources.²²⁶ NGSAs adds that, if existing resources supported by out-of-market state revenues are allowed to participate in PJM's capacity auctions and suppress market clearing prices, it will be increasingly difficult for gas-fired generators to have the means to invest in performance enhancing measures, as contemplated by PJM's Capacity Performance protocols.²²⁷ Direct Energy concurs that PJM's MOPR should be revised to apply to existing resources that receive out-of-market state revenues, given the ability of these resources to suppress prices in PJM's capacity auctions.²²⁸

118. Other intervenors disagree. In their protest to the Complaint, AEP and FirstEnergy argue that Calpine has failed to provide a rationale for overturning the Commission's prior finding that a resource that has cleared in one auction "has demonstrated that it is needed by the market" and that its "presence in the market . . . does not artificially suppress market prices."²²⁹ Exelon argues that PJM's MOPR, if revised to apply to existing resources, must not unduly discriminate against nuclear resources or thwart state actions addressing environmental policies.²³⁰ EKPC adds that a revised MOPR should not apply to nuclear and coal-fired resources without exception,

²²⁵ Market Monitor April 11, 2016 Comments at 5; *see also* Rockland April 11, 2016 Comments at 4; EDF Renewable April 11, 2016 Comments at 5.

²²⁶ PSEG April 11, 2016 Comments at 12; *see also* API April 11, 2016 Comments at 5 (arguing that "PJM's current market rules do not adequately protect the market from the corrosive effects of below-cost bidding due to out-of-market subsidies for existing generation facilities").

²²⁷ NGSAs April 11, 2016 Comments at 6-7.

²²⁸ Direct Energy April 11, 2016 Comments at 5.

²²⁹ AEP April 11, 2016 Protest at 25; FirstEnergy April 11, 2016 Protest at 16-18 (citing 2011 PJM MOPR Order, 135 FERC ¶ 61,022 at P 175); *see also* EKPG April 11, 2016 Protest at 6.

²³⁰ Exelon April 11, 2016 Protest at 4.

given the lack of clarity as to how a cost-based offer from such a resource would be estimated.²³¹

119. Comments generally supportive of the Amended Complaint were submitted by the Market Monitor. Protests requesting that the Amended Complaint be denied, in whole or in part, were filed by Exelon; the Load Group; Dayton/EKPC/FirstEnergy;²³² the Illinois Commission; the Illinois Attorney General; AWEA; the Environmental Defense Fund, Natural Resources Defense Council, and Sustainable FERC Project (Environmental Coalition); and the Nuclear Energy Institute (NEI). The Pennsylvania Public Utility Commission (Pennsylvania Commission) and the New England Power Pool Participants Committee (NEPOOL Participants Committee) take no positions on the merits of the filing, but filed comments addressing other matters, as summarized below.

120. The Load Group argues that the Amended Complaint amounts to an entirely new complaint, raising claims unrelated to the transaction or occurrence addressed in the initial Complaint.²³³ The Illinois Commission and the Illinois Attorney General assert that the Amended Complaint lacks support, including a quantification of the financial impact or burden created by the action or inaction alleged.²³⁴ Exelon and the Environmental Coalition agree, noting that the Amended Complaint fails to state, as required, whether the issues it raises are pending “in any other forum in which the complainant is a party [and] why timely resolution cannot be achieved in that forum.”²³⁵

²³¹ EKPC April 11, 2016 Protest at 6.

²³² In addition, Dayton/EKPC/FirstEnergy filed a Motion to Dismiss on January 24, 2017, that also responds to the Amended Complaint.

²³³ Load Group January 30, 2017 Protest at 5 (citing *McCulloch Interstate Gas Corp.*, 10 FERC ¶ 61,283, at 61,561 (1980)); *see also* Environmental Coalition January 30, 2017 Protest at 7.

²³⁴ Illinois Commission February 3, 2017 Protest at 8-9; Illinois Attorney January 30, 2017 Protest at 5; *see also* Exelon January 30, 2017 Protest at 12 (citing *Texas Gas Transmission Corp.*, 63 FERC ¶ 61,240, at 62,656 (1993) (“Texas Gas is premature in seeking to implement a corporate tax rate that is not yet in effect.”)).

²³⁵ Exelon January 30, 2017 Protest at 15; Environmental Coalition January 30, 2017 Protest at 8.

121. The Load Group and the Illinois Commission argue in the alternative that, even assuming the Amended Complaint is not procedurally deficient, it nonetheless fails to establish that PJM's existing MOPR is unjust and unreasonable, given that no evidence has been presented of any improper price suppression in PJM's markets attributable to ZECs.²³⁶ Exelon adds that the PJM market has had no difficulty attracting new entry and incentivizing the retirement of uneconomic resources.²³⁷

122. The Load Group, Exelon, and the Illinois Commission assert that, regardless, the Amended Complaint fails to establish that the expansion of the MOPR to existing resources is just and reasonable. The Illinois Commission argues that such a remedy would frustrate Illinois' efforts to support its environmental initiatives.²³⁸ The Load Group adds that the Amended Complaint attempts to use the MOPR as a tool to ensure higher revenues for generators.²³⁹

123. The Illinois Commission and Exelon also argue that applying the MOPR to resources participating in the Illinois ZECs program would be unduly discriminatory towards Illinois' efforts to support the beneficial environmental attributes provided by those resources. Exelon adds that it would be impermissibly discriminatory to impose the MOPR on existing resources that receive ZECs, while exempting other resources that receive other environmental attribute payments, or other types of support, such as tax credits or development incentives, or that operate as self-supply resources.²⁴⁰

124. The Illinois Commission and Exelon note that, under PJM's rules, the MOPR does not apply to a renewable resource, even if that resource receives out-of-market state revenues, while other resources receive other governmental benefits, including tax incentives, development credits, and other benefits that affect both costs and revenues of

²³⁶ Load Group January 30, 2017 Protest at 8; *see also* AWEA February 9, 2017 Protest at 4.

²³⁷ Exelon January 30, 2017 Protest at 3.

²³⁸ Illinois Commission February 3, 2017 Protest at 7.

²³⁹ Load Group January 30, 2017 Protest at 9.

²⁴⁰ Exelon January 30, 2017 Protest at 16.

units participating in the markets.²⁴¹ The Illinois Commission adds that a similar treatment is warranted in the case of ZECs, given the similarities among these resources.²⁴² In addition, the Illinois Commission asserts that accommodation is required in the case of ZECs, given the Commission's stated policy in Order No. 1000 regarding the need of an RTO/ISO to respect state public policy requirements through regional transmission planning.²⁴³ The Environmental Coalition and Exelon add that the ZEC program will operate in a manner that mirrors REC programs that the Commission has recognized as within states' authority to enact.²⁴⁴ The Environmental Coalition further argues that RECs, like the ZEC payments at issue here, reflect the value of environmental attributes that are sold separate and apart from PJM's energy and capacity markets.

125. Exelon argues that PJM's capacity market appears to be performing as it should, with the market successfully ensuring resource adequacy. Exelon notes, for example, that for the 2019-20 delivery year, PJM's reserve margin stands at 22 percent, exceeding PJM's target of 16.5 percent.²⁴⁵ Exelon further notes that PJM has attracted a significant level of new entry extending over its last three Base Residual Auctions for a total of more than 18.3 GW of new capacity, while incentivizing the exit of uneconomic resources at a level of 16.2 GW of retirements or de-rates.

126. Exelon asserts that the capacity provided by existing resources has contributed to prices that the Commission has already found to be just and reasonable. Exelon argues that, as such, the operation of its nuclear units with ZEC payments should not trigger

²⁴¹ Illinois Commission February 3, 2017 Protest at 5; Exelon January 30 Protest at 16.

²⁴² Illinois Commission February 3, 2017 Protest at 5.

²⁴³ *Id.* at 6 (citing *Transmission Planning and Cost Allocation by Transmission Owning and Operating Public Utilities*, Order No. 1000, FERC Stats. & Regs. ¶ 31,323, a P 6 (2011), *order on reh'g*, Order No. 1000-A, 139 FERC ¶ 61,132, *order on reh'g and clarification*, Order No. 1000-B, 141 FERC ¶ 61,044 (2012), *aff'd sub nom. S.C. Pub. Serv. Auth. v. FERC*, 762 F.3d 41 (D.C. Cir. 2014)); *see also* Environmental Coalition January 30, 2017 Protest at 19-20.

²⁴⁴ Exelon January 30, 2017 Protest at 26 (citing *WSPP Inc.*, 139 FERC ¶ 61,061, at PP 18-24 (2012)); *see also* Dayton/EKPC/FirstEnergy January 30, 2017 Protest at 7.

²⁴⁵ *Id.* at 14-15.

mitigation.²⁴⁶ Exelon adds that the ZEC program is not a price suppression mechanism, and would not make payment contingent on clearing the capacity market, as a price-suppression mechanism would, in order to most directly forestall increases in capacity prices.²⁴⁷ In addition, Exelon cites Commission precedent holding that it is just and reasonable to design buyer-side mitigation rules to “complement[] state programs promoting renewable resources” and other environmental aims.²⁴⁸

B. Docket Nos. ER18-1314-000, et al.

127. PJM, as discussed below, asserts that taking no action in response to its section 205 filing is not an option. A number of intervenors agree, arguing that the Commission should act in this case under section 206, if it determines that neither of PJM’s proposals is just and reasonable. Other intervenors disagree, arguing that PJM’s existing rules are adequate and need not be revised, based on current market conditions. We summarize the basis for each of these positions below.

1. PJM’s Position

128. While PJM does not explicitly contend that its Tariff is unjust and unreasonable, PJM states that taking no action in this proceeding is not an option because its current Tariff has no means to address the increasing use of state-supported out-of-market subsidies to resources to which its current MOPR does not apply: non-natural gas fired resources and existing resources.

129. PJM argues that, as such, its Tariff must be revised, notwithstanding the fact that capacity commitments in PJM are currently in excess of PJM’s installed reserve margin and PJM continues to attract new entry. PJM argues that new entry has not been driven by a growth in demand, given that demand in the region has been relatively flat for a number of years. Instead, PJM argues that new entry has been incited by low natural gas prices and improvements in technology leading to more efficient generation, i.e., generation that can be expected to replace older, less efficient generation over time.²⁴⁹

²⁴⁶ Exelon January 30, 2017 Protest at 17-19, 25 (citing Affidavit of Robert Willig at P 50).

²⁴⁷ *Id.* at 25-26.

²⁴⁸ *Id.* at 19 (citing First RTE Order, 147 FERC ¶ 61,173 at P 82).

²⁴⁹ *Id.* at 37.

However, PJM asserts that, regardless of the capacity excess, being long on capacity does not justify setting subsidized clearing prices.²⁵⁰

130. PJM states that, approximately 20 years ago, a number of states in the PJM region, including Illinois, Maryland, New Jersey and Ohio, chose to restructure their electric services and introduce greater reliance on competition, in lieu of relying on an administratively-determined integrated resource plan.²⁵¹ PJM states that currently, however, many of these same states are increasingly seeking to procure capacity outside of PJM's wholesale market, to encourage development or retention of select resources with attributes they favor.²⁵²

131. PJM asserts these state programs include: (i) ZECs, payable under an Illinois program to a 1,400 MW nuclear facility; (ii) pending legislation in New Jersey that would provide similar payments for up to 3,360 MW at the Salem and Hope Creek nuclear facilities;²⁵³ (iii) off-shore wind procurement programs in Maryland (250 MW) and New Jersey (1,100 MW); and (iv) RPS programs in various states in the PJM region, including New Jersey, Delaware, and the District of Columbia, requiring load-serving entities to meet a certain percentage of their load with RPS-eligible facilities, or buy Renewable Energy Credits from such facilities. PJM estimates that satisfying the current RPS obligation in the PJM region would require nearly 5,000 MW of capacity. PJM notes that, cumulatively, these programs have, or will, provide subsidies to thousands of MWs of PJM capacity and that similar programs are likely to be implemented elsewhere.²⁵⁴

132. PJM asserts that retaining or compelling the entry of resources that the market does not regard as economic, suppresses prices for resources the market does regard as economic. PJM adds that, in turn, this leads to suppressed revenues for resources that

²⁵⁰ *Id.*

²⁵¹ *Id.* at 21.

²⁵² *Id.* at 24.

²⁵³ As noted above, the governor of New Jersey has now signed this legislation into law.

²⁵⁴ PJM Filing at 26-27, citing Attach. F (Aff. of Dr. Anthony Giacomoni at 9-10 and Attach. 1) (showing both the current and projected increases in the quantity of RPS resources).

depend on these prices to support their continued operation or their economic new entry. PJM states that existing states subsidy payment rates, when converted to MW-day values, exceed capacity clearing prices in PJM's most recent annual auction. Specifically, PJM asserts that the Illinois ZEC prices equate to about \$265/MW-day; New Jersey on-shore wind REC prices equate to \$250/MW-day, Delaware's estimated on-shore REC prices equate to \$253/MW-day, and solar REC prices in the District of Columbia equate to \$4,751/MW-day.²⁵⁵

133. PJM states that allowing for the submission of even comparatively small quantities of subsidized offers into its capacity auction will disproportionately reduce the clearing prices paid to all resources.²⁵⁶ Specifically, PJM asserts that adding less than 2 percent of zero-price supply to area outside of the MAAC zone would reduce clearing prices in the RTO by 10 percent, while adding only 7 percent of zero-priced supply (about 2,000 MW) to the EMAAC zone would reduce the clearing price in that zone by approximately a third. PJM states that if a state selectively subsidizes certain resources while still depending on the wholesale capacity market to meet its overall resource adequacy needs, the state actions will impact not only capacity resources excluded from the state out-of-market revenue program, but also other states that may not embrace the subsidizing state's chosen policy preference.²⁵⁷

134. Finally, PJM notes that if enough resources price their capacity offers relying on their selective-receipt of subsidies, other sellers in PJM's market that do not receive subsidies will receive an artificially-suppressed, unjust and unreasonable rate, competitive entry will face a significant added barrier, new subsidies will be encouraged, and one state's policy choices could crowd out other competitive resources and result in policy choices on which other states rely.²⁵⁸

²⁵⁵ *Id.* at 28 and Attach. F (Aff. of Dr. Anthony Giacomoni at 31).

²⁵⁶ *Id.* See also Filing at Attach. E (Aff. of Adam J. Keech at 6).

²⁵⁷ *Id.* at 29.

²⁵⁸ *Id.* at 4.

2. Intervenors' Positions

a. Support for Section 206 Action

135. Many intervenors argue that PJM's existing capacity market rules are unjust and unreasonable.²⁵⁹ The Market Monitor argues that the spread of subsidies in support of uneconomic resources, including, in particular, nuclear and coal-fired resources, poses a threat to PJM's capacity market, as well as its energy market, by displacing resources and technologies that would otherwise be economic.²⁶⁰

136. Dayton argues that the effects of one state's decision to grant a subsidy is not confined to its geographical boundaries. Dayton asserts that while these subsidies may bestow a benefit to the market participants that receive them, they harm customers and suppliers located elsewhere in the PJM region.²⁶¹

137. EPSA agrees that PJM's existing capacity market rules fail to address the growing threat posed by existing resources that receive state support. EPSA asserts that state initiatives in Illinois, New Jersey, Maryland, and other PJM states currently provide subsidies to thousands of MWs of capacity, with the level of this capacity projected to grow significantly. EPSA argues that adding comparatively small quantities of subsidized offers disproportionately reduces the clearing prices paid to all resources, thus suppressing prices.²⁶² EPSA notes, for example, that subsidized offers from the Quad Cities and Three Mile Island nuclear facilities would reduce PJM's RTO-wide clearing price by 2 percent and the ComEd Locational Deliverability Area by 10 percent.²⁶³

138. LS Power argues that, in the face of these subsidies, private investment cannot and will not continue because independent power producers can no longer assume that new

²⁵⁹ Market Monitor Comments at 6-8; NGS Comments 9; EPSA Protest at 32; NRG Protest at 24; FirstEnergy/EKPC Protest at 5; PSEG Protest at 11-12; LS Power Comments at 4; Dayton Protest at 2; Vistra Comments at 4; API/J-Power/Panda Comments at 6-7.

²⁶⁰ Market Monitor Comments at 6-8.

²⁶¹ Dayton Protest at 2.

²⁶² EPSA Protest at 32; *see also* LS Power Comments at 6.

²⁶³ *Id.* at 32-33.

entry will be able to outcompete and displace older, less efficient incumbent resources.²⁶⁴ NRG agrees that PJM's existing rules are unjust and unreasonable, given their inability to protect the market from out-of-market subsidies.²⁶⁵

139. FirstEnergy/EKPC urge the Commission to adopt a holistic solution to the fundamental flaws in PJM's market design, by: (i) acknowledging and accommodating the ability of states to implement valid public policy programs; and (ii) incorporating the value of fuel diversity, fuel security and environmental attributes into PJM's market clearing prices. FirstEnergy/EKPC cite to the inability of PJM's existing capacity market rules to select the least-cost resources that also possess the attributes that have been identified by states in the PJM region. FirstEnergy/EKPC note, however, that there is no need for immediate action to address the impact of state-supported resources.²⁶⁶

140. PSEG argues that, if section 206 procedures are instituted in this proceeding, the Commission should adopt a remedy that values important generator attributes, including the achievement of environmental goals and energy resilience. PSEG asserts that such a remedy could include carbon pricing in PJM's energy market, or enhanced payments made directly by PJM to generating plants needed to meet fuel diversity standards.²⁶⁷

141. NRG argues that a mechanism to accommodate state policy choices in the market could be just and reasonable, if it: (i) ensured that state-supported resources are able to access capacity market revenues; (ii) ensured that capacity market prices reflect the unsubsidized economics of marginal units; (iii) avoided placing costs and risks of accommodating state-supported resources onto consumers in other states; (iv) avoided creating incentives for suppliers to price offers at other than their costs; and (v) provided incentives to states to use PJM's markets to achieve their policy goals.²⁶⁸

142. NRG asserts that an approach which mitigates the impact of state policy decisions on the market could be just and reasonable if it implemented a zero-exemption allowance,

²⁶⁴ LS Power Comments at 4-5.

²⁶⁵ NRG Protest at 2, 24.

²⁶⁶ FirstEnergy/EKPC Protest at 11; *see also* Exelon Protest at 41 (supporting the adoption of a carbon price).

²⁶⁷ PSEG Protest at 11-12.

²⁶⁸ NRG Protest at 27.

while retaining a unit-specific review process. NRG adds that if an exemption is permitted for RPS participants, it should follow the outlines approved in the CASPR Order, requiring the resource to bid at a price that reflects the market value of its Renewable Energy Credits.²⁶⁹

143. ODEC argues that without protection of self-supply by load-serving entities like ODEC, the status quo is not just and reasonable.²⁷⁰

b. Support for Status Quo

144. Other intervenors contend PJM's Tariff remains just and reasonable. These intervenors assert that PJM's existing capacity market functions properly, or requires no revision at this time, in the absence of further stakeholder deliberations. Clean Energy Advocates assert that there is no sign of a systematic lack of adequate capacity that threatens reliability; to the contrary, they claim, there is excess capacity, with investors eager to enter the market, with no long-term threat foreseeable. The Maryland Commission adds that PJM's capacity auctions have consistently exceeded PJM's target reserve margins. Dominion notes that what the existing MOPR does not do, and should not do, is attempt to mitigate existing capacity resources. Dominion argues that there is no price suppressive effect on capacity prices when an existing resource does not retire because it receives compensation from a state public policy initiative that is not available from the wholesale market. The Consumer Coalition adds that, under PJM's existing rules, resource adequacy is being met currently and will continue to be met into the foreseeable future.

145. Exelon argues that, currently, prices are low (benefitting consumers), while new entry is robust, confirming that PJM's capacity market continues to attract investment. Exelon asserts that, under these circumstances, rule changes designed to raise prices would not be just and reasonable. Exelon adds that ZECs programs have been understood and factored into the market for some time and that if they were undermining resource adequacy, or investor confidence, the data would (but does not) show it. Exelon further asserts that PJM's market is sufficiently designed to maintain equilibrium and safeguard resource adequacy across a broad range of conditions. Exelon notes, for example, that if state programs reduce capacity prices, but tightening supply indicates that new entry is needed, prices will rise and the downward sloping demand curve will ensure that the capacity price adjusts to reflect the costs of generators that are necessary for resource adequacy.

²⁶⁹ *Id.* at 25-26.

²⁷⁰ ODEC Comments at 5.

146. The New Jersey Board argues that PJM has failed to demonstrate how New Jersey's generation-resource policies, including its ZECs initiative or offshore wind program, have undermined PJM's wholesale markets. The New Jersey Board further characterizes PJM's claims regarding price suppression as speculative.

147. Intervenors also dispute PJM's claim that action is required in this proceeding because state procurement choices have negative spillover effects on other states. Clean Energy Advocates argue PJM's claim is unsupported. Clean Energy Advocates add that, regardless, the logic of PJM's position is flawed because it could be used to justify action to adjust for *any* type of state regulation. Clean Energy Advocate further note that state policies providing additional compensation to generators benefit, rather than harm, customers in other states by reducing harmful emissions.²⁷¹

148. The Maryland Commission agrees that PJM's spillover claim is unsupported and that none of the states alleged to be affected have filed complaints against their neighboring states. The Maryland Commission adds that entities participating in PJM's FRR option are subject to cost-based rates and are thus insulated from any prospect of retirement as a result of policies in neighboring states.²⁷²

C. Commission Determination

149. Acting on the records of the Calpine Complaint proceeding and the PJM section 205 filing, we find that PJM's existing Tariff is unjust and unreasonable. The records in both cases demonstrate that states have provided or required meaningful out-of-market support to resources in the current PJM capacity market, and that such support is projected to increase substantially in the future. These subsidies allow resources to suppress capacity market clearing prices, rendering the rate unjust and unreasonable.²⁷³

²⁷¹ Clean Energy Advocates Protest at 42-45.

²⁷² Maryland Commission Protest at 8-9.

²⁷³ We find that we can make these findings relying, in part, on the record in PJM's section 205 filing given the Commission's ability to "transform" section 205 filings into section 206 proceedings as long as the Commission observes the constraints imposed under section 206. PJM's filing in Docket Nos. ER18-1314-000, *et al.* specifically raised the issue of whether the existing Tariff was adequate and put into the record evidence showing its deficiencies. The intervening parties also filed extensive comments addressing the justness and reasonableness of the existing Tariff. *See Western Resources*, 9 F.3d at 1579 ("Under the NGA, an action may originate as a § 4 proceeding

We therefore grant Calpine's Complaint, in part, but reject Calpine's proposed Tariff revisions, even as an interim remedy. In addition, we also are *sua sponte* instituting a section 206 proceeding that incorporates the record of Docket Nos. ER18-1314-000, *et al.*²⁷⁴ consolidating this new proceeding with the Calpine Complaint, and establishing paper hearing procedures for the consolidated proceedings regarding the just and reasonable replacement rate.

1. PJM's Existing Tariff

150. We find, based on the evidence in Docket Nos. EL16-49-000 and ER18-1314-000, *et al.*, that PJM's existing Tariff is unjust and unreasonable and unduly discriminatory. It fails to protect the integrity of competition in the wholesale capacity market against unreasonable price distortions and cost shifts caused by out-of-market support to keep

[parallel to FPA section 205] only to be transformed later into a § 5 [parallel to FPA section 206] proceeding); *PSCNY*, 866 F.2d at 491 (“[W]here a § 4 [parallel to FPA section 205] proceeding is under way, the Commission may discover facts that persuade it that reductions or changes are appropriate that require the exercise of its § 5 [parallel to FPA section 206] powers); *Tennessee Gas Pipeline v. FERC*, 860 F.2d 446, 456 (D.C. Cir. 1988) (“If, in the course of a section 4 proceeding, FERC decides to take action authorized by section 5, the Commission may do so without initiating an independent proceeding. But section 5 authority, regardless of the context in which it is exercised, may be pursued only in accordance with the requirements and constraints imposed by section 5.”). *See generally*, *NRG*, 862 F.3d at 114 n.2 (“FERC may unilaterally impose a new rate scheme on a utility or Regional Transmission Organization only under a different provision of the Act: Section 206 [citation omitted]. Section 206 requires FERC to demonstrate that the existing rates are ‘entirely outside the zone of reasonableness’ before FERC imposes a new rate without the consent of the utility or Regional Transmission Organization that filed the proposal.”).

²⁷⁴ *See Monongahela*, 162 FERC ¶ 61,129 at P 71 (combining the records of section 206 and section 205 proceeding, finding the proposed section 205 filing unjust and unreasonable, the existing tariff unjust and unreasonable, and determining the just and reasonable replacement rate); *Western Resources*, 9 F.3d at 1579 (“Under the NGA, an action may originate as a § 4 proceeding [parallel to FPA section 205] only to be transformed later into a § 5 [parallel to FPA section 206] proceeding). *See generally*, *AEMA*, 860 F.3d at 664 (affirming the Commission's revision of provisions under section 206 when the acceptance of a section 205 filing rendered these other provisions unjust and unreasonable).

existing uneconomic resources in operation, or to support the uneconomic entry of new resources, regardless of the generation type or quantity of the resources supported by such out-of-market support. The resulting price distortions compromise the capacity market's integrity. In addition, these price distortions create significant uncertainty, which may further compromise the market, because investors cannot predict whether their capital will be competing against resources that are offering into the market based on actual costs or on state subsidies. Ultimately, these problems with PJM's existing Tariff result in unjust and unreasonable rates, terms, and conditions of service. While the Commission in 2011 accepted PJM's proposal for a MOPR limited to new natural gas-fired resources,²⁷⁵ the evidence put forward by PJM and the intervenors demonstrate that the price-distorting effects on wholesale capacity prices caused by resources that receive out-of-market support reach far beyond new natural gas-fired resources.²⁷⁶

151. As Calpine points out, out-of-market support for resources other than natural gas-fired resources has been increasing.²⁷⁷ PJM, in its filing in Docket Nos. ER18-1314-000, *et al.* makes a similar showing. These out-of-market programs include laws passed in a number of PJM states that provide or require out-of-market support for nuclear, solar, and wind resources.²⁷⁸ The data provided by PJM shows that various state programs currently in existence contemplate, for example, supporting 4,760 MW of nuclear

²⁷⁵ 2011 PJM MOPR Order, 135 FERC ¶ 61,022 at P 37. PJM revised the MOPR in 2013, still limiting the MOPR to natural gas resources but expanding it in other ways to respond to changed circumstances. The Court of Appeals for the District of Columbia Circuit reversed and remanded that determination, *NRG*, 862 F.3d at 117, and, on remand, the Commission rejected the filing. *NRG Remand Order*, 161 FERC ¶ 61,252.

²⁷⁶ Indeed, as the history of the PJM MOPR shows, both PJM and the Commission have had to reevaluate the extent of the MOPR in light of changing circumstances. The original MOPR in 2006, for example, did not address state out-of-market support, and the Commission accepted PJM's filing in 2011 to address that. PJM again sought to revise its MOPR in light of circumstances in 2013.

²⁷⁷ See Amended Complaint at 7 (noting the Illinois ZEC Program). See generally *id.* at 11, n.46 (citing *Order Adopting a Clean Energy Standard*, Case Nos. 15-E-0302 and 16-E-0270 (N.Y.P.S.C. Aug. 1, 2016)).

²⁷⁸ See, e.g., NJ Senate Bill 2313, 2018-19 Legislative Session; Illinois 99th Gen. Assemb. S.B. 2814 (Dec. 7, 2016).

generation.²⁷⁹ In addition, PJM cites to Maryland and New Jersey programs that authorize, together, 1,350 MWs of off-shore wind procurement. As noted above, PJM also estimates that nearly 5,000 MW of renewable energy capacity are needed in 2018 to generate the RPS requirements for energy in the PJM region.²⁸⁰ The record shows that out-of-market support to existing resources is significant enough to affect the price in the market, and therefore the entry and exit of resources. As Dr. Giacomoni points out:

[T]he Illinois ZEC program equates to a subsidy of \$265/MW-day. By comparison, the most recent Base Residual Auction clearing price for the ComEd [Locational Deliverability Area] in PJM's capacity market was \$188/MW-day. Similarly, REC payments to onshore wind in New Jersey equate to a subsidy of \$250/MW-day, while those to onshore wind in Delaware equate to a subsidy of \$253/MW-day, both well above the clearing price of \$188/MW-day in the EMAAC [Locational Deliverability Area].²⁸¹

Thus, out-of-market support to existing resources may allow even uncompetitive resources, for whom a competitive offer would be significantly higher than zero, to submit low or zero priced offers into the capacity market.

152. In addition to these current payments, PJM provides data showing that existing state RPS programs will continue to require significant support in the future, such that PJM estimates that over 8,000 MW of RPS capacity will be needed to meet these requirements by 2025.²⁸² The affidavit of Dr. Anthony Giacomoni provides further detail as to this projected growth. For example, the affidavit shows that, by 2033, Illinois, Maryland, and Delaware will each procure 25 percent of their capacity requirements through their RPS programs, and the District of Columbia will procure 50 percent through its RPS program.²⁸³ Dr. Giacomoni further shows that this increasing out-of-

²⁷⁹ See Filing at Attach. F (Aff. of Dr. Anthony Giacomoni at 9 and Attach. 1).

²⁸⁰ *Id.*

²⁸¹ *Id.* at 10-11.

²⁸² *Id.*

²⁸³ *Id.*

market support to non-natural gas-fired resources will significantly affect the PJM capacity market.²⁸⁴

153. We recognize that the Commission has previously declined to extend the MOPR to existing resources, finding that a competitive offer for an existing resource would “typically be very low, and often close to zero—regardless of whether the resource receives any out-of-market payments.”²⁸⁵ However, we find that circumstances in PJM have changed. First, many of the programs of current concern in PJM’s filing, such as the ZEC program payments, apply only to resources that would not have been subject to PJM’s current MOPR, even if they had been new. Second, although we continue to recognize that a competitive offer for existing resources may be low, this is not always true, especially with respect to older resources that need to incur significant maintenance or refurbishment expenses to remain operational. Out-of-market support to existing resources has proliferated in recent years, which increases the ability of even uncompetitive existing resources, for whom a competitive offer would be significantly higher than zero, to submit offers into the PJM capacity market that do not reflect their actual costs. While this was always theoretically possible, there is an important difference between a resource that offers low as a result of competition in the market and one that offers low because a state subsidy gives it the luxury of doing so. The state subsidy protects the latter resource from the potential downside of that bidding behavior. Thus, we find here that the increase in programs providing out-of-market support, such as ZEC programs, has changed the circumstances in PJM, such that it is no longer possible to distinguish the treatment of new and existing resources in the context of PJM’s MOPR.

154. Specifically, we note that older, uneconomic resources in PJM, which may not be able to clear the market based on their costs alone, are increasingly receiving out-of-market support to allow them to remain in the market. We agree with PJM that retaining resources that the market does not regard as economic suppresses prices.²⁸⁶ These resources, which should consider retiring, based on their costs, are able to displace resources that can meet PJM’s capacity needs at a lower overall cost. In addition, the

²⁸⁴ *Id.* at 10 and Attach. 2.

²⁸⁵ 2011 PJM MOPR Rehearing Order, 137 FERC ¶ 61,145 at P 132. *N.Y. Indep. Sys. Operator, Inc.*, 122 FERC ¶ 61,211, at P 118, *order on reh’g*, 124 FERC ¶ 61,301 (2008), *order on reh’g*, 131 FERC ¶ 61,170 (2010), *order on reh’g*, 150 FERC ¶ 61,208 (2015).

²⁸⁶ *See* PJM Filing at 19.

level of the out-of-market support payment in PJM, which PJM explains often exceeds PJM's recent capacity market clearing prices, is high enough to significantly affect whether a resource receiving such support chooses to remain in operation. Therefore, we find that PJM's Tariff is unjust and unreasonable because PJM's MOPR does not address subsidies to existing resources.

155. Similarly, we also find based on the changed circumstances described above that limiting PJM's MOPR to new natural gas-fired resources is no longer just and reasonable. The Commission previously found, in the 2011 PJM MOPR Order, that new natural gas-fired resources were not similarly situated relative to other new entrants because natural gas-fired resources have the shortest development time, and "thus are more efficient resources to suppress capacity prices."²⁸⁷ Thus, the current Tariff reflects the need to protect the market from the exercise of buyer-side market power through the construction of a natural gas-fired resource on a short timeframe. While these resources still have low construction costs and short development times, we find that, regardless of whether they are the most efficient resources to suppress capacity prices in PJM, they are not the only resources likely or able to suppress capacity prices. As PJM explains in its filing, states in the PJM region have been increasingly supporting specific resources or resource types. Price suppression stemming from state choices to support certain resources or resource types is indistinguishable from that triggered through the exercise of buyer-side market power. Under these circumstances, we no longer can assume that there is any substantive difference among the types of resources participating in PJM's capacity market with the benefit of out-of-market support. The Commission has previously recognized that resources receiving out-of-market support are capable of suppressing market prices, regardless of intent.²⁸⁸ We reiterate that finding here.

156. For the foregoing reasons, we find, based on this record, that the PJM Tariff allows resources receiving out-of-market support to significantly affect capacity prices in a manner that will cause unjust and unreasonable and unduly discriminatory rates in PJM regardless of the intent motivating the support.²⁸⁹ We are compelled by the evidence presented by PJM, Calpine, and other parties to these consolidated proceedings to conclude that out-of-market payments by certain PJM states have reached a level sufficient to significantly impact the capacity market clearing prices and the integrity of the resulting price signals on which investors and consumers rely to guide the orderly entry and exit of capacity resources. We cannot rely on such a construct to harness

²⁸⁷ 2011 PJM MOPR Order, 135 FERC ¶ 61,022 at P 153.

²⁸⁸ *See* 2011 ISO-NE MOPR Order, 135 FERC ¶ 61,029 at PP 170-71.

²⁸⁹ *Id.*

competitive market forces and produce just and reasonable rates. The PJM Tariff, therefore, is unjust and unreasonable.

2. Replacement Rate

157. Although we have found that PJM's existing MOPR renders the Tariff unjust and unreasonable, we are not able, based on the existing record in Docket Nos. EL16-49-000 and ER18-1314-000, *et al.*, to make a final determination regarding the just and reasonable replacement rate for the PJM Tariff. However, we preliminarily find that modifying two aspects of the PJM Tariff may produce a just and reasonable rate. As explained below, PJM should expand the MOPR for those resources seeking to participate in the capacity auction and implement a resource-specific FRR Alternative option, under which a resource receiving out-of-market support may remain on the system, outside of the capacity market. In order to supplement the record and enable the Commission to make its determination on a just and reasonable replacement rate, the Commission is consolidating Docket Nos. EL16-49-000 and ER18-1314-000, *et al.*, and initiating a paper hearing in which the parties may submit additional arguments and evidence to address these requirements.

158. As noted above, there are two aspects to our proposed replacement rate. First, based on our finding that neither the existing MOPR nor the MOPR-Ex proposal provides a just and reasonable means of addressing the market impacts of out-of-market payments, we propose that the replacement rate include an expanded MOPR that covers out-of-market support to all new and existing resources, regardless of resource type. Consistent with the Commission's findings in past MOPR proceedings, the concerns raised in PJM's section 205 filing and the Calpine Complaint demonstrate that state-subsidized resources—not just entities exercising buyer-side market power—can cause significant price suppression. An expanded MOPR, with few or no exceptions, should protect PJM's capacity market from the price suppressive effects of resources receiving out-of-market support by ensuring that such resources are not able to offer below a competitive price. We emphasize that an expanded MOPR in no way divests the states in the PJM region of their jurisdiction over generation facilities. States may continue to support their preferred types of resources in pursuit of state policy goals. At the same time, we have exclusive jurisdiction over the wholesale rates of both subsidized and unsubsidized resources, and a statutory obligation to ensure they are just and reasonable.²⁹⁰ Expanding the MOPR to apply to state-subsidized resources will help ensure that the rates for the unsubsidized resources in the capacity market are the result of competitive market forces, and therefore are just and reasonable.

²⁹⁰ See *Connecticut PUC*, 569 F.3d at 481.

159. We recognize that, if PJM’s MOPR applies to state subsidized resources with few or no exceptions, and yet the states continue to support those resources, some ratepayers may be obligated to pay for capacity both through the state programs providing out-of-market support and through the capacity market. The courts have directly addressed this point, holding that states “are free to make their own decisions regarding how to satisfy their capacity needs, but they ‘will appropriately bear the costs of [those] decision[s],’ . . . including possibly having to pay twice for capacity.”²⁹¹ Nonetheless, we do not take this concern—or the states’ right to pursue valid policy goals—lightly. Which brings us to the second aspect of our proposed replacement rate.

160. In addition to expanding PJM’s MOPR, we also preliminarily find that it may be just and reasonable to accommodate resources that receive out-of-market support, and mitigate or avoid the potential for double payment and over procurement, by implementing a resource-specific FRR Alternative option. We therefore propose that PJM adapt its current FRR option to allow, on a resource-specific basis, resources receiving out-of-market support to choose to be removed from the PJM capacity market, along with a commensurate amount of load, for some period of time. The resource-specific FRR Alternative would accommodate such resources by allowing them to remain on the system, despite their inability to compete in the capacity market based on their costs, by permitting them to exit the capacity market with a commensurate amount of load and operating reserves (we seek comment on the best method of accounting for both the load and reserves, below). Resources and load that take advantage of this new resource-specific FRR Alternative would not participate in the PJM capacity market, and would neither make nor receive payments from that capacity market. However, those resources and their associated load would continue to participate in the energy and ancillary services market, as is the case under the current FRR construct. Unlike the current FRR construct, the resource-specific version would not require a load-serving entity to remove its entire footprint from the capacity market; rather it would remove a specific resource (and accompanying load). However, we note that we are not proposing that PJM remove the existing FRR construct, which allows load-serving entities to exit the capacity market on a utility-wide basis.

161. A resource receiving out-of-market support would not be prohibited from participating in the capacity market, but would be subject to the expanded MOPR, should it choose to offer into the market. In this manner, the resource-specific FRR Alternative would accommodate policies to provide out-of-market support to certain resources, but remove those resources from the market. This would essentially create a bifurcated capacity construct – resources receiving out-of-market support and a commensurate

²⁹¹ *Id.* at 97 (citing *Connecticut PUC*, 569 F.3d at 481).

amount of load would be outside of the PJM capacity market, thereby increasing the integrity of the PJM capacity market for competitive resources and load.

162. In addition to increasing the integrity of the capacity market and allowing resources that receive out-of-market support to remain in PJM's energy and ancillary services markets, and continue to be recognized as capacity on the system, we expect this bifurcated approach to provide significant benefits through increased transparency for investors, consumers, and policymakers. Though the capacity market side of the bifurcated capacity construct will be relatively smaller, the expanded PJM MOPR will ensure that all resources participating in the capacity market, whether or not these resources receive out-of-market support, offer competitively. Further, the bifurcated capacity construct should make more transparent which capacity costs are the result of competition in the capacity market and which capacity costs are being incurred as a result of state policy decisions. Finally, depending on how load is selected for the new resource-specific FRR Alternative, this capacity construct should help confine the cost of a particular state policy decision to consumers within the state that made that policy decision, whereas the status quo requires consumers in some PJM states to subsidize the policy decisions of other PJM states.

163. By its failure to address, or to provide for any effective means of addressing, the impact of out-of-market support, the existing Tariff is resulting, within states, in a forewarned scenario that has been referred to as “unplanned reregulation,”²⁹² one subsidy and mandate at a time. Although FERC policies by design have relied, for their production of just and reasonable wholesale power rates, on competitive processes and markets, the states, should they so choose, undeniably have the power simply to reregulate — i.e., to revert to an era and regulatory model in which “competition among utilities was not prevalent.”²⁹³ The replacement rate construct proposed in this order will not interfere with the states' ability to choose the path of re-regulation, whether via a conscious policy decision or a simple failure to take steps to prevent reregulation as described on an unplanned basis. Rather, the construct will provide the information that states and all other stakeholders will need in order to make informed decisions about the

²⁹² CASPR Order, 162 FERC ¶ 61,205, at 62,098 (LaFleur, Comm'r, concurring).

²⁹³ See *Midwest ISO Transmission Owners v. FERC*, 373 F.3d 1361, 1363 (D.C. Cir. 2004) (quoting *New York v. FERC*, 535 U.S. 1, 5 (2002)) (internal quotations and alteration omitted); see also *id.* (describing the era of vertically integrated monopolies as “the bad old days”); *Wisc. Pub. Power, Inc. v. FERC*, 493 F.3d 239, 246 (D.C. Cir. 2007) (same); *Exxon Mobil Corp. v. FERC*, 571 F.3d 1208, 1212 (D.C. Cir. 2009) (same).

degree to which they prefer to rely on the capacity market versus out-of-market mechanisms, and it will manage the results of those decisions in an orderly fashion.

164. We acknowledge that there are a number of details that would need to be addressed to implement this resource-specific FRR Alternative, and the Commission requests that these topics be addressed in the paper hearing. In addition to addressing the two overarching components of the bifurcated capacity construct described above, the parties should address the following issues in the paper hearing:

165. The appropriate scope of out-of-market support to be mitigated by the expanded MOPR, thereby rendering a resource eligible for the new resource-specific FRR Alternative.²⁹⁴ Also, for units that choose the resource-specific FRR Alternative and need to cover their Avoidable Cost Rate outside of the capacity market, how should the Tariff address that need both procedurally and substantively?

166. How to identify the load that will be removed from the PJM capacity market auction in connection with resource owners choosing the resource-specific FRR Alternative. This is an important issue because the load associated with each such resource will not have an obligation to purchase capacity from the auction. In addition,

²⁹⁴ In Docket Nos. ER18-1314-000, *et al.*, PJM proposed to define Material Subsidies as “material payments, concessions, rebates, or subsidies directly or indirectly from any governmental entity connected to the construction, development, operation, or clearing in [the Base Residual] Auction, of the Capacity Resource, or other material support or payments obtained in any state-sponsored or state-mandated processes, connected to the construction, development, operation, or clearing in any [Base Residual] Auction, of the Capacity Resource.” As proposed by PJM, this would not include:

payments (including payments in lieu of taxes), concessions, rebates, subsidies, or incentives designed to incent, or participation in a program, contract or other arrangement that utilizes criteria designed to incent or promote, general industrial development in an area;

payments, concessions, rebates, subsidies or incentives designed to incent, or participation in a program, contract or other arrangements from a county or other local governmental authority using eligibility or selection criteria designed to incent, siting facilities in that county or locality rather than another county or locality; or

federal government production tax credits, investment tax credits, and similar tax advantages or incentives that are available to generators without regard to the geographic location of the generation. PJM Filing at 69-70.

we request comments on whether part of a resource should be eligible for the new resource-specific FRR Alternative, as well as how to address resources with split ownership.

167. As discussed above, the proposed replacement rate would expand the MOPR to new and existing resources receiving out-of-market support with few to no exemptions. We request comment on the types of MOPR exemptions that should be included. For example, should an exemption be included for self-supplied resources used to meet loads of public power entities? Alternatively, should those resources have the option to use the resource-specific FRR Alternative? What, if any, exceptions should be added to the MOPR for existing resources in the capacity auction?.

168. Another issue is the length of time resources receiving out-of-market support who chose the resource-specific FRR Alternative must remain outside of the PJM capacity market auction and the mechanism by which such resources can return to the auction. One possibility is that a resource choosing the resource-specific FRR Alternative would be required to continue as an FRR resource for the duration of its out-of-market support. However, there may be factors favoring a longer period, or perhaps a fixed period of time such as five years.

169. Additionally, we request comment on how the resource-specific FRR Alternative would accommodate required reserves for the load pulled from the PJM capacity market, as well as whether any changes to the demand curve would be necessary to accommodate the resource-specific FRR Alternative. We also seek comment on the best approach to ensure locational resource adequacy needs are met after removing load and resources from the capacity market under the FRR Alternative. Finally, we seek comment on whether the existing Capacity Performance construct for FRR resources can be applied to a resource-specific FRR Alternative.

170. The Commission recognizes that, as with any market design, there is some degree of uncertainty concerning how this new bifurcated capacity construct will function in practice, and how the departure of state-subsidized resources might impact capacity market prices. If there are scenarios in which the FRR Alternative could affect the competitiveness of the capacity market clearing prices, parties should explain those scenarios in the paper hearing. In addition, we note that other significant changes to PJM's capacity market have employed mechanisms to transition to the new construct.²⁹⁵

²⁹⁵ See *PJM Interconnection, L.L.C.*, 151 FERC ¶ 61,208, at P 253 (2015).

We seek comment on whether any such mechanisms or other accommodations would be necessary here to facilitate the transition to this new capacity construct.

171. Finally, some intervenors raise the question of whether federal sources of out-of-market support should be addressed by Commission action, and others question how major capacity market reforms will interact with PJM's ongoing fuel security initiative.²⁹⁶ Parties should also consider these questions in their comments, as well as whether to incorporate the administratively determined minimum offer prices from PJM's MOPR-Ex proposal or to establish different minimum offer prices.

172. As noted, the Commission is initiating a paper hearing to address the just and reasonable replacement rate for PJM's existing MOPR, including the proposal identified above or any other proposal that may be presented. Interested parties are invited to submit their initial round of testimony, evidence, and/or argument within 60 days of the date of this order. Reply testimony, evidence, and/or argument may be submitted 30 days thereafter (or 90 days from the date of this order). Following the close of the record, the Commission will make every effort to issue an order establishing the just and reasonable replacement rate no later than January 4, 2019, the date requested by PJM in its filing in Docket Nos. ER18-1314-000, *et al.*

173. We recognize that modifying the PJM capacity market as discussed herein would be a significant undertaking and that the next Base Residual Auction is scheduled to occur in May 2019. Accordingly, we note that PJM may file requests for waiver or other relief, as appropriate.²⁹⁷

174. Section 206(b) of the FPA provides that upon the filing of a complaint, the Commission must establish a refund effective date that is no earlier than the date of the complaint and no later than five months subsequent to the date of the complaint. In addition, where, as here, the Commission is also instituting a section 206 investigation on its own motion, section 206(b) of the FPA requires that the Commission establish a refund effective date that is no earlier than the date of publication by the Commission of notice of its intention to initiate such proceeding nor later than five months after the publication date. In order to give maximum protection to customers, and consistent with

²⁹⁶ See, e.g., Ohio Consumers Counsel Protest at 7-9; AEP Comments at 2-3; Buyers Group Comments at 6-7.

²⁹⁷ See, e.g., *PJM Interconnection, L.L.C.*, 151 FERC ¶ 61,067 (2015) (granting PJM's request to delay PJM's 2015 Base Residual Auction for the 2017-18 delivery year while the Commission was evaluating PJM's Capacity Performance proposal).

our precedent, we have historically tended to establish the section 206 refund effective date at the earliest date allowed by section 206, and we do so here as well.²⁹⁸ In Docket No. EL16-49-000, that date is March 21, 2016, the date Calpine filed the Calpine Complaint. In Docket No. EL18-178-000, that date is the date of publication of notice of initiation of the section 206 proceeding in Docket No. EL18-178-000 in the Federal Register.

175. Section 206(b) of the FPA also requires that, if no final decision is rendered by the conclusion of the 180-day period commencing upon initiation of the section 206 proceeding, the Commission shall state the reason why it has failed to render such a decision and state its best estimate as to when it reasonably expects to make such a decision. As we are setting the section 206 proceeding in Docket No. EL18-178-000 for further proceedings, we expect that we will be able to render a decision prior to January 4, 2019.

The Commission orders:

(A) PJM's filing, in Docket Nos. ER18-1314-000, *et al.* is hereby rejected, as discussed in the body of this order.

(B) Calpine's Complaint, in Docket No. EL16-49-000, is hereby granted in part, and denied in part, as discussed in the body of this order.

(C) Pursuant to the authority contained in and subject to the jurisdiction conferred upon the Commission by section 402(a) of the Department of Energy Organization Act and by the FPA, particularly section 206 thereof, and pursuant to the Commission's Rules of Practice and Procedure and the regulations under the FPA (18 C.F.R., Chapter 1), the Commission hereby institutes a proceeding in Docket No. EL18-178-000, as discussed in the body of this order. The record in Docket Nos. ER18-1314-000, *et al.* is hereby incorporated into Docket No. EL18-178-000, and that docket is consolidated with Docket No. EL16-49-000.

(D) The Secretary shall promptly publish in the *Federal Register* a notice of the Commission's initiation of section 206 proceedings in Docket No. EL18-178-000.

(E) The refund effective date in Docket No. EL16-49-000, established pursuant to section 206(b) of the FPA, is March 21, 2016, the date Calpine filed the Complaint.

²⁹⁸ See, e.g., *Idaho Power Co.*, 145 FERC ¶ 61,122 (2013); *Canal Elec. Co.*, 46 FERC ¶ 61,153, *order on reh'g*, 47 FERC ¶ 61,275 (1989).

Docket No. EL16-49-000, *et al.*

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The refund effective date in Docket No. EL18-178-000 will be the date of publication in the *Federal Register* of the notice discussed in Ordering Paragraph (C) above.

(F) A paper hearing will be conducted in consolidated Docket Nos. EL18-178-000 and EL16-49-000. The parties to these proceedings are hereby invited to submit an initial round of testimony, evidence, and/or argument within 60 days of the date of this order. Reply testimony, evidence, and/or argument should be submitted 30 days thereafter, or 90 days from the date of this order, as discussed in the body to this order.

By the Commission. Commissioners LaFleur and Glick are dissenting with separate statements attached.
Commissioner Powelson is concurring with a separate statement attached.

(S E A L)

Nathaniel J. Davis, Sr.,
Deputy Secretary.

Intervenors in Docket No. EL16-49-000

American Electric Power Service Corporation (AEP)⁺
American Municipal Power, Inc. (Load Group)⁺
American Petroleum Institute
American Public Power Association (Load Group)⁺
American Wind Energy Association (AWEA)^{*+}
Buckeye Power, Inc.
CPV Power Holdings, LP
Delaware Public Service Commission
Direct Energy Business, LLC (Direct Energy)⁺
Dominion Resources Services, Inc. (Load Group)⁺
Duke Energy Corporation
East Kentucky Power Cooperative, Inc. (EKPC, or Dayton/EKPC/FirstEnergy)⁺
EDF Renewable Energy, Inc. (EDF Renewable) *
Electricity Consumers Resource Council
Electric Power Supply Association (EPSA)⁺
Environmental Defense Fund (EDF, or Environmental Coalition)⁺
Exelon Corporation (Exelon)⁺
FirstEnergy Service Company (FirstEnergy, or Dayton/EKPC/FirstEnergy)⁺
Illinois Attorney General⁺
Illinois Citizens Utility Board
Illinois Commerce Commission (Illinois Commission)⁺
Illinois Industrial Energy Consumers
Illinois Municipal Electric Agency
Industrial Energy Users-Ohio
Invenergy Thermal LLC and Invenergy Wind LLC
Kentucky Office of the Attorney General (Kentucky AG)^{*+}
LS Power Associates, L.P.
Maryland Office of People's Counsel
Maryland Public Service Commission⁺
Michigan Agency for Energy
Michigan Public Service Commission
Monitoring Analytics, LLC, acting as the Independent Market Monitor for PJM (Market Monitor)⁺
National Rural Electric Cooperative Association (NRECA)⁺
Natural Gas Supply Association (NGSA)⁺
New England Power Pool Participants Committee (NEPOOL Participants Committee)⁺
New England States Committee on Electricity
New Jersey Board of Public Utilities

Docket No. EL16-49-000, *et al.*

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New Jersey Division of Rate Counsel
NextEra Energy Resources
North Carolina Electric Membership Corporation
Nuclear Energy Institute (NEI)⁺
Nucor Steel Marion
Office of the Ohio Consumers Council (Consumers' Counsel)⁺
Ohio Energy Group (OEG)⁺
Ohio Environmental Council
Old Dominion Electric Cooperative (Load Group)⁺
Pennsylvania Public Utility Commission (Pennsylvania Commission)⁺
PJM Industrial Customer Coalition (Load Group)⁺
PJM Power Providers Group
PPL Electric Utilities Corporation
PSEG Companies (PSEG)⁺
Public Citizen, Inc.
Public Power Association of New Jersey (Load Group)⁺
Public Utilities Commission of Ohio (Ohio Commission)⁺
Retail Energy Supply Association
Rockland Capital, LLC (Rockland)⁺
Shell Energy North America (U.S.), LP
Southern Maryland Electric Cooperative, Inc.
Steel Producers
Sustainable FERC Project (Environmental Coalition)
Talen Energy Marketing, LLC, *et al.* (Talen)^{*+}
The Dayton Power and Light Company (Dayton, or Dayton/EKPC/FirstEnergy)⁺
U.W.U.A. Local 457 (Local 457)^{*}

* late intervention

+ comments/protest

Intervenors in Docket Nos. ER18-1314-000, *et al.*

Advanced Energy Economy * (CEIA)
Advanced Energy Management Alliance
Affirmed Energy LLC
Ameren Services, Co.
American Council on Renewable Energy # (CEIA)
American Electric Power Service Corporation * (AEP)
American Municipal Power, Inc. * (AMP)
American Public Power Association * (APPA)
American Wind Energy Association # (AWEA; CEIA)
Avangrid Renewables, LLC * (Avangrid)
Buckeye Power, Inc.
Calpine Corporation
Capitol Power Corporation
CPV Power Holdings, LP
Dayton Power and Light Company * (Dayton)
Delaware Division of the Public Advocate
Delaware Public Service Commission
Direct Energy, *et al.* * (Joint Commenters)
Dominion Energy Services, Inc. * (Dominion)
Duke Energy Corporation * (Duke)
Duquesne Light Company * (Duquesne)
East Kentucky Power Cooperative, Inc. * (First/Energy/EKPC)
Eastern Generation, LLC (Eastern Generation) #
EDF Renewables, Inc.
Edison Electric Institute
EDP Renewables North America LLC
Electric Power Supply Association * (EPSA)
Enerwise Global Technologies, Inc.
Environmental Defense Fund * (Clean Energy Advocates)
Exelon Corporation * (Exelon)
FirstEnergy Service Company * (FirstEnergy/EKPC)
Illinois Attorney General
Illinois Citizens Utility Board, on behalf of itself and
individual Illinois consumers
Illinois Commerce Commission * (Illinois Commission)
Illinois Municipal Electric Agency * (IMEA)
Indiana Office of Consumer Counselor
Institute for Policy Integrity, NYU School of Law * (NYU)

Docket No. EL16-49-000, *et al.*

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J-Power USA Development Co., Ltd. * (API/J-Power/Panda)
Kentucky Attorney General
LS Power Associates, L.P. * (LS Power)
Maryland Office of People's Counsel * (Consumers Coalition)
Maryland Public Service Commission * (Maryland Commission)
Monitoring Analytics, LLC, serving as PJM's
Independent Market Monitor * (Market Monitor)
National Rural Electric Cooperative Association * (NRECA)
Natural Gas Supply Association * (NGSA)
Natural Resources Defense Council * (Clean Energy Advocates)
New Jersey Board of Public Utilities * (New Jersey Board)
New Jersey Division of Rate Counsel * (Consumer Coalition)
New York Public Service Commission *
North Carolina Electric Membership Corporation
Northern Virginia Electric Cooperative * (NOVEC)
NRG Power Marketing LLC and GenOn Energy
Management, LLC * (NRG)
Nuclear Energy Institute * (NEI)
Office of the Ohio Consumers Counsel * (Ohio Consumers Counsel)
Office of the People's Counsel for the
District of Columbia * (Consumers Coalition)
Old Dominion Electric Cooperative * (ODEC)
Organization of PJM States, Inc. * (OPSI)
Panda Power Generation Infrastructure Fund, LLC * (API/J-Power/Panda)
Pennsylvania Public Utility Commission * (Pennsylvania Commission)
PJM Industrial Customer Coalition * (PJM-ICC)
PJM Power Providers Group * (P3)
PPL Electric Utilities Corporation
PSEG Companies * (PSEG)
Public Citizen, Inc.
Public Service Commission of West Virginia
Public Utilities Commission of Ohio * (Ohio Commission)
Rockland Capital, LLC * (Rockland)
Shell Energy North America (U.S.), L.P. # (Shell)
Sierra Club * (Clean Energy Advocates)
Solar RTO Coalition * (Solar Coalition)
Southern Maryland Electric Cooperative, Inc. * (SMECO)
Starwood Energy Group Global, L.L.C. * (Joint Commenters)
Sustainable FERC Project, *et al.* * (Clean Energy Advocates)
Talen Energy Marketing, LLC, *et al.* * (Talen)
Union of Concerned Scientists
Vistra Energy Corp. * (Vistra)

Docket No. EL16-49-000, *et al.*

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Wabash Valley Power Association, Inc.
West Virginia Consumer Advocate

* intervenors submitting protests or comments
motions to intervene out-of-time

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Calpine Corporation, Dynegy Inc., Eastern Generation, LLC, Homer City Generation, L.P., NRG Power Marketing LLC, GenOn Energy Management, LLC, Carroll County Energy LLC, C.P. Crane LLC, Essential Power, LLC, Essential Power OPP, LLC, Essential Power Rock Springs, LLC, Lakewood Cogeneration, L.P., GDF SUEZ Energy Marketing NA, Inc., Oregon Clean Energy, LLC and Panda Power Generation Infrastructure Fund, LLC

Docket Nos. EL16-49-000

v.

PJM Interconnection, L.L.C.

PJM Interconnection, L.L.C.

ER18-1314-000

ER18-1314-001

PJM Interconnection, L.L.C.

EL18-178-000

(Consolidated)

(Issued June 29, 2018)

LaFLEUR, Commissioner *dissenting*:

In today's order, the Commission rejects two proposals from PJM Interconnection, L.L.C. (PJM) to modify its capacity market to address the impact of state policies. As discussed below, rather than reject the second of PJM's proposals, MOPR-Ex, I would provide guidance to PJM and its stakeholders to further refine that concept as a workable market reform. I write separately primarily to explain my disagreement with the Commission's companion decision to find the PJM capacity market unjust and unreasonable and pursue a significant overhaul of that market without adequate stakeholder engagement, particularly with the states.

Addressing the tension between relying on wholesale capacity markets to attract investment and state policies to support specific resources has been a longstanding priority of mine. As I have stated many times, I believe tailored regional solutions are likely to provide the best path forward in each region, and I have actively worked with regions where possible to help guide and develop those solutions. The Commission's recent approval of ISO New England, Inc.'s Competitive Auctions with Sponsored Policy

Resources (CASPR) proposal¹ is, in my mind, a prime example of how a region can craft a targeted market reform to address this tension and preserve the benefits of the wholesale markets for customers while also facilitating state policies.

As evidenced by today's ruling on the Calpine complaint, filed more than two years ago, this issue is not new to PJM. I recognize that parties in PJM have awaited guidance from the Commission for some time, so I understand and am generally sympathetic to the Commission's desire for action. I am on record that the increasing use of out-of-market compensation to support policy goals in the eastern RTOs/ISOs creates long-term challenges for the viability of wholesale capacity markets. Failure to carefully address these challenges could result in messy, unplanned reregulation, which could threaten reliability while also unnecessarily increasing costs to consumers. It is therefore critical that the Commission stay engaged and help guide the eastern RTOs/ISOs towards regionally-appropriate solutions that address the tension between wholesale capacity markets and state resource selection. I recognize that finding that balance requires difficult decisions and possible trade-offs between competing priorities.

PJM's proposals certainly present the Commission with those difficult decisions, and I appreciate the significant work that went into each proposal. In my view, today's order should have granted PJM's request that the Commission provide guidance to help focus PJM and its stakeholders on a workable solution to the growing use and impact of state subsidies.

First, I agree with the majority's decision to reject PJM's capacity repricing proposal, as I am concerned that it would allow subsidized resources to both cause and benefit from higher capacity market clearing prices. With respect to MOPR-Ex, however, I disagree with the majority's rejection of that proposal, as well as its reasoning. State renewable portfolio standards (RPS) are generally longstanding state programs that often pre-date the capacity market, and are not intended to prop up specific uneconomic units that would otherwise leave the market, but rather to help shape a state's resource mix over time through competitive procurements. As such, I believe that current state RPS programs in PJM are distinguishable from other state support programs that might pose a threat to the viability of the PJM capacity market.

Accordingly, I would have accepted and suspended the MOPR-Ex proposal, and directed further proceedings, including possible settlement discussions, on potential refinements to ensure that MOPR-Ex would not unduly interfere with the operation of

¹ *ISO New England Inc.*, 162 FERC ¶ 61,205 (2018).

existing state RPS programs.² Alternatively, I would have suggested that PJM consider an expanded CASPR-like construct that could include opportunities for new and existing subsidized resources to buy out the capacity obligations of other resources in the market. I think either approach could yield a just and reasonable result.

Instead, today's order rejects PJM's proposals, declares the existing PJM capacity construct unjust and unreasonable, and initiates a paper hearing to consider and flesh out the majority's proposed expansion of PJM's Fixed Resource Requirement (FRR) construct as the just and reasonable solution to the market's alleged flaws. I strongly disagree with this decision.

Let's be clear: through its action today, the majority signals its intent to adopt, through a 90 day paper hearing, the most sweeping changes to the PJM capacity construct since the market's inception more than a decade ago. If ultimately adopted, this proposal would fundamentally rebalance the resource adequacy responsibilities of the states, the Commission, and PJM.

Yet, by declaring the PJM capacity market unjust and unreasonable, the Commission has imposed an *ex parte* restriction on its ability to meaningfully engage with stakeholders outside of formal Commission proceedings, while also creating a timing crisis related to the May 2019 Base Residual Auction (BRA). Today's action therefore creates a direct tension between the Commission's ability to engage with stakeholders and the need to quickly implement major market reforms in time for that auction. This tension could have been alleviated had the Commission chosen a different path, one which I might have been willing to support.³

I am particularly troubled that, as a result of today's order, the Commission will be hamstrung in its ability to openly and honestly engage with the states about whether this proposal will meet their needs, and how they might operate under this construct. The

² I note that there is disagreement in the record about whether the MOPR-Ex proposal as filed would interfere with the operation of those RPS programs going forward. *Calpine Corp. v. PJM Interconnection, L.L.C.*, 163 FERC ¶ 61,236, at PP 91, 94 (2018).

³ For example, the Commission could have rejected PJM's proposals and provided guidance, including directing consideration of an expanded FRR construct. The Commission could also have opened an administrative docket on its proposal and any alternatives, to convene a technical conference and build a record on how the expanded FRR construct might work.

proposed resource-specific FRR Alternative option, however ultimately designed, presents resource owners and states with choices that could be difficult to make in advance of the May 2019 BRA, particularly given that some of the state programs are statutory in nature and could require legislative action to reform.⁴ This is too important a decision to be made this quickly, and with this little stakeholder engagement.⁵

With regard to the merits of the expanded FRR construct, I believe that it is an idea worth exploring, and would be open to doing so in conjunction with the other ideas mentioned above. Obviously, today's order will yield a record on this proposal, and I will decide at that time whether it is just and reasonable. However, I do not share the majority's confidence that this proposal is the obvious solution to the challenge before us, in no small part because it is not clear to me how this construct will actually work.

As evidenced by the lengthy list of questions included in the order,⁶ the expanded FRR proposal is currently little more than a rough concept, with major design elements left unresolved.⁷ The relevant records before the Commission contain virtually no

⁴ *E.g.*, Illinois 99th Gen. Assemb. S.B. 2814 (Dec. 7, 2016).

⁵ In fact, prior significant capacity market reforms were the result of months, if not years, of stakeholder engagement. For example, the proposals submitted by PJM were the result of a stakeholder process conducted over more than a year. The CASPR proposal was the subject of several months of stakeholder proceedings, beginning in the summer of 2017, prior to its filing at FERC in January 2018.

⁶ *Calpine Corp. v. PJM Interconnection, L.L.C.*, 163 FERC ¶ 61,236 at PP 159-162, 165-172.

⁷ For example, in addition to seeking comment on the high level concept (i.e., a new resource-specific FRR option, coupled with an expanded minimum offer pricing rule for any resource participating in the capacity market that receives out-of-market support), the order highlights the following open issues: (1) what subsidies, including possible federal subsidies, will trigger the revised rules; (2) how to determine which load will be removed from the capacity auction in conjunction with a resource-specific FRR selection, as well as any associated reserve requirements; (3) what MOPR exemptions should be included in this new construct; (4) how to handle potential toggling concerns for resources deciding whether to participate in the capacity market or the new FRR construct; (5) whether a different Capacity Performance construct needs to be developed for resource-specific FRR units; (6) whether the FRR options affect the competitiveness of the capacity market clearing prices; (7) what, if any, transition mechanism might be needed; and (8) what minimum offer price should be used for resources participating in

discussion of an expanded FRR construct, and in conversations with numerous stakeholders prior to PJM submitting its capacity repricing and MOPR-Ex proposals, I do not recall a single meeting in which any entity raised this as a possible solution. Similarly, the expanded FRR construct appears to provide states with a clear option to re-regulate certain generating facilities, and to the extent a state made the decision to transition from the capacity market to state resource selection, the expanded FRR construct could be one possible approach. However, no state in PJM has indicated its desire to re-regulate, a choice that could potentially be forced upon them by this proposal.⁸ Given this lack of clarity, today's order injects significant uncertainty into how the PJM capacity construct will work going forward, and therefore how states and market participants should prepare for these transformative changes.

Ultimately, I continue to believe that capacity markets, if properly designed and adapted, can provide meaningful benefits for customers. While I agree that the increase in state subsidies by restructured states does pose a long-term challenge to the capacity markets' ability to deliver those benefits, I am concerned that the desire for action has led the Commission to pursue a flawed and rushed process that could do more harm than good. The majority is proceeding to overhaul the PJM capacity market based on a thinly sketched concept, a troubling act of regulatory hubris that could ultimately hasten, rather than halt, the re-regulation of the PJM market. I would instead follow the "regulatory Hippocratic oath" to first, do no harm, and give PJM and its stakeholders time and direction to address these difficult issues in a sustainable manner.

Accordingly, I respectfully dissent.

Cheryl A. LaFleur
Commissioner

the capacity market.

⁸ Perversely, the expanded FRR construct could actually *encourage* states to remove preferred resources from the market and instead rely on direct subsidies to support them, as they would receive guaranteed capacity obligations as FRR resources. Given the clean energy targets set by many states, this construct could end up hastening the demise of the capacity markets, rather than preserving them.

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Calpine Corporation, Dynegy Inc., Eastern Generation, LLC, Homer City Generation, L.P., NRG Power Marketing LLC, GenOn Energy Management, LLC, Carroll County Energy LLC, C.P. Crane LLC, Essential Power, LLC, Essential Power OPP, LLC, Essential Power Rock Springs, LLC, Lakewood Cogeneration, L.P., GDF SUEZ Energy Marketing NA, Inc., Oregon Clean Energy, LLC and Panda Power Generation Infrastructure Fund, LLC

Docket Nos. EL16-49-000

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PJM Interconnection, L.L.C.

ER18-1314-001

PJM Interconnection, L.L.C.

EL18-178-000
(Consolidated)

(Issued June 29, 2018)

GLICK, Commissioner, *dissenting*:

Today, the Commission finds that PJM Interconnection, L.L.C.'s (PJM) Tariff violates the Federal Power Act (FPA) because it fails to "mitigate" state efforts to shape the generation mix. I strongly disagree. The state programs of which the Commission disapproves are precisely the sort of actions that Congress reserved to the states when it enacted the FPA. The Commission's role is not—and should not be—to exercise its authority over wholesale rates in a manner that aims to mitigate, frustrate, or otherwise limit the states' exercise of their exclusive authority over electric generation facilities.

In addition, the Commission entirely fails to meet its burden to show that PJM's Tariff is unjust and unreasonable. The record is devoid of evidence that the states' exercise of their authority is actually interfering with the Commission's responsibility to ensure resource adequacy at just and reasonable rates. To the contrary, PJM's capacity market has resulted in a capacity surplus that is well in excess of the level required to

reliably meet the region's electricity demands, suggesting that, if anything, the prices in PJM's capacity market are too high, not too low.¹

Rather than interfering with state policies that address externalities associated with electric generation, such as greenhouse gas emissions that contribute to the existential threat of climate change, the Commission should be striving to accommodate and give effect to those state initiatives. Although today's order suggests that the Commission seeks to accommodate state policies by creating a new resource-specific Fixed Resource Requirement (FRR) alternative, the Commission fundamentally misunderstands that the state policies that it targets compensate resources for their environmental attributes, not their capacity. As contemplated, the Commission's proposal would effectively force state-sponsored resources out of the capacity market, depriving them of a payment for capacity that they will actually provide and leaving it to the states to pick up that tab.

I. The Commission Is Interfering with the States' Exclusive Jurisdiction

The FPA is clear that the states, not the Commission, are the entities responsible for shaping the generation mix. Although the FPA provides the Commission with jurisdiction over wholesale sales of electricity as well as rates and practices affecting those wholesale sales, Congress expressly precluded the Commission from regulating "facilities used for the generation of electric energy," instead vesting the states with exclusive jurisdiction over those facilities.² It is an inevitable consequence of the FPA's

¹ Today's order also rejects PJM's two alternative proposals for mitigating the effects of state efforts to shape the generation mix because it finds that PJM failed to demonstrate under section 205 of the FPA, 16 U.S.C. § 824d (2012), that either proposal is just and reasonable and not unduly discriminatory or preferential. I agree with this finding, but largely for the reasons explained in this statement, not those advanced by the Commission.

² 16 U.S.C. § 824(b)(1) (2012); *Hughes v. Talen Energy Mktg., LLC*, 136 S. Ct. 1288, 1292 (2016) (describing the jurisdictional divide set forth in the FPA); *FERC v. Elec. Power Supply Ass'n*, 136 S. Ct. 760, 767 (2016) (*EPISA*) (explaining that "the [FPA] also limits FERC's regulatory reach, and thereby maintains a zone of exclusive state jurisdiction"); *see also Pacific Gas & Elec. Co. v. State Energy Res. Conservation & Dev. Comm'n*, 461 U.S. 190, 205 (1983) (recognizing that issues including the "[n]eed for new power facilities, their economic feasibility, and rates and services, are areas that have been characteristically governed by the States"). Although these cases deal with the question of preemption, which is, of course, different from the question of whether a rate is just and reasonable under the FPA, the Supreme Court's discussion of the respective roles of the Commission and the states remains instructive when it comes to evaluating

division of jurisdiction over the electricity sector that one sovereign's exercise of its authority will affect matters subject to the other sovereign's exclusive jurisdiction.³ For example, any state regulation that increases or decreases the number or type of generation facilities will, through the law of supply and demand, inevitably affect wholesale rates. But the existence of such cross-jurisdictional effects is not necessarily a "problem" for the purposes of the FPA. Rather, these cross-jurisdictional effects are the product of the "congressionally designed interplay between state and federal regulation,"⁴ at least so long as neither the states nor the Commission exercise their authority in a manner that "targets" or "aims at" the other sovereign's exclusive jurisdiction.⁵

Nevertheless, the Commission now claims that the "integrity and effectiveness" of PJM's capacity market "have become untenably threatened by out-of-market payments provided or required by certain states for the purpose of supporting the entry or continued

how the application of a minimum offer price rule (MOPR) squares with the Commission's role under the FPA.

³ *EPSA*, 136 S. Ct. at 776 (explaining that, under the FPA, the federal and state spheres of jurisdiction "are not hermetically sealed from each other"); see *Oneok, Inc. v. Learjet, Inc.*, 135 S. Ct. 1591, 1601 (2015) (explaining that the natural gas sector does not adhere to a "Platonic ideal" of the "clear division between areas of state and federal authority" that undergirds both the FPA and the Natural Gas Act).

⁴ *Hughes*, 136 S. Ct. at 1300 (Sotomayor, J., concurring) (quoting *Nw. Cent. Pipeline Corp. v. State Corp. Comm'n of Kan.*, 489 U.S. 493, 518 (1989)); *id.* ("recogniz[ing] the importance of protecting the States' ability to contribute, within their regulatory domain, to the Federal Power Act's goal of ensuring a sustainable supply of efficient and price-effective energy").

⁵ *EPSA*, 136 S. Ct. at 776 (emphasizing the importance of "the target at which [a] law aims") (citing *Oneok*, 135 S. Ct. at 1600); *Oneok*, 135 S. Ct. at 1600 (recognizing "the distinction between 'measures aimed directly at interstate purchasers and wholesales for resale, and those aimed at' subjects left to the States to regulate") (quoting *N. Nat. Gas Co. v. State Corp. Comm'n of Kan.*, 372 U.S. 84, 94 (1963)); see also *Coal. for Competitive Elec. v. Zibelman*, 272 F. Supp. 3d 554, 576 (S.D.N.Y. 2017) ("[W]hen the State is legitimately regulating a matter of state concern, 'FERC's exercise of its authority must accommodate' that state regulation '[u]nless clear damage to federal goals would result.'" (quoting *Nw. Cent. Pipeline Corp.*, 489 U.S. at 522)).

operation of preferred generation resources.”⁶ In other words, the Commission believes that the states’ exercise of the exclusive authority that Congress reserved to them under the FPA has rendered PJM’s capacity market unjust and unreasonable. Even the Commission, however, does not question that these states’ efforts fall squarely within their authority: It recently recognized that many state policies, including renewable energy credits (RECs) and the zero-emissions credits (ZECs), which appear to have motivated PJM’s section 205 filing, are “not payments for, or otherwise bundled with, sales of energy or capacity at wholesale.”⁷ Rather, these public policies focus on the significant externalities associated with electricity generation by reflecting “the environmental attributes of a particular form of power generation.”⁸ Addressing these externalities is at the core of the authority over “generation facilities” that Congress gave to the states when it enacted the FPA. Accordingly, the Commission should, consistent with the federalist design of the statute, accommodate and facilitate those state efforts.⁹

⁶ *Calpine Corp. v. PJM Interconnection, L.L.C.*, 163 FERC ¶ 61,236, at P 1 (2018) (Order). In the order approving ISO New England Inc.’s Capacity Auctions with Sponsored Policy Resources (CASPR) proposal, the Commission set out a series of “first principles,” the purpose of which the Commission stated was to ensure adequate “investor confidence” in the capacity market. *ISO New England Inc.*, 162 FERC ¶ 61,205, at PP 21, 24 (2018). Ensuring “investor confidence” appeared, albeit briefly, to be the Commission’s new standard for evaluating how capacity markets should address state policies. However, just three months later, the Commission appears to have settled on a new standard, the “integrity” of the market, for justifying interference with state policies. Other than a passing reference to the CASPR order, the phrase “investor confidence” is absent from the Commission’s discussion in today’s order. *See Order*, 163 FERC ¶ 61,236 at P 17 n.24. These shifting justifications should further call into question whether the Commission’s interference with state policies is the product of reasoned decision-making rather than a straightforward effort to prop up prices for certain resources.

⁷ Brief for the United States and the Federal Energy Regulatory Commission as Amici Curiae in Support of Defendants-Respondents and Affirmance at 10, *Vill. of Old Mill Creek v. Star*, Nos. 17-2433 and 17-2445 (consolidated) (7th Cir. May 29, 2018) (Seventh Circuit Brief); *see WSPP Inc.*, 139 FERC ¶ 61,061, at PP 18-26 (2012).

⁸ Seventh Circuit Brief at 10.

⁹ *Cf. Ari Peskoe, Easing Jurisdictional Tensions by Integrating Public Policy in Wholesale Markets*, 38 Energy L.J. 1, 38-40 (2017) (discussing the potential for the Commission to address these issues by designing capacity market rules to accommodate

If there is a problem, it lies not with the states, but with the Commission's use of its authority over wholesale rates to mitigate, frustrate, or otherwise limit the states' exercise of their exclusive authority over generation. The Commission argues that today's order "in no way divests the states in the PJM region of their jurisdiction over generation facilities," and that "[s]tates may continue to support their preferred types of resources in pursuit of state policy goals."¹⁰ But by "mitigating" state policies of which the Commission disapproves in an attempt to prop up the wholesale rates received by so-called "competitive" resources, the Commission is directly interfering with state efforts to shape the generation mix. Make no mistake, although the Commission frames today's order in terms of the effect of certain state-sponsored resources on wholesale rates, the order's rationale is clear that the Commission's real aim is to support certain resources that do not benefit from state efforts to address environmental externalities. In attempting to counteract these state policies by propping up those resources, the Commission is exercising its authority over wholesale rates in a manner that aims directly at the states' exclusive jurisdiction.¹¹

It is not the Commission's role under the FPA to create an electricity market free from governmental programs aimed at public policy considerations.¹² Although today's

or reflect state policies).

¹⁰ Order, 163 FERC ¶ 61,236 at P 158.

¹¹ The Courts have upheld the Commission's authority over capacity markets, including against challenges that certain applications of the MOPR amount to an impermissible regulation of generation. *See, e.g., N.J. Bd. of Pub. Utils. v. FERC*, 74, 96 (3d Cir. 2014); *Conn. Dep't of Pub. Util. Control v. FERC*, 569 F.3d 477, 481-82 (D.C. Cir. 2009). Similarly, the Supreme Court has recognized that certain state efforts to incentivize the construction of new generation resources can intrude on FERC's exclusive jurisdiction where the state's action effectively "sets an interstate wholesale rate." *Hughes*, 136 S. Ct. at 1297. But these cases do not address the situation in which the Commission is targeting state efforts to regulate the consequences of electricity generation that fall within the states' statutory authority and that are not addressed in the markets subject to Commission jurisdiction. The MOPR interferes with the states' prerogatives in a way that Congress neither foresaw nor intended. It impairs the states' ability to make a political decision regarding the generation mix within their borders—a decision that they are far better equipped to make than is the Commission.

¹² *ISO New England Inc.*, 162 FERC ¶ 61,205 at 3 (Glick, Comm'r, dissenting in part and concurring in part).

order fixates on the “integrity” and “effectiveness” of PJM’s capacity market,¹³ neither of which it defines, the order ignores the fact that governmental policies that internalize the externalities associated with electricity generation are essential to reaching an efficient market outcome.¹⁴ Indeed, PJM’s capacity market does not account for arguably the most significant consequence of generating electricity, the unpriced externalities associated with greenhouse gas emissions that are causing climate change. In attempting to mitigate price “suppression,” the Commission fails to recognize the cost of stymying state efforts to address environmental externalities, such as climate change.¹⁵ Without policies addressing these externalities, PJM’s capacity market will produce a sub-optimal outcome.

It is irrelevant to assert that the Commission lacks jurisdiction to address climate change directly. Even if true, this does not suggest that the Commission can or should “mitigate” state efforts to take on that responsibility. Nor does it suggest that leaving these externalities unaddressed is a natural or desirable outcome, as today’s order appears to conclude. In any case, interpreting the FPA to require the Commission to frustrate state efforts to address the environmental costs of electricity generation is, in effect, to deploy the FPA to make it ever more difficult for states to address this existential threat.

The Commission’s interference with state policies is all the more problematic because it is picking and choosing which policies to frustrate and which to willfully ignore. Government subsidies pervade the energy markets and have for more than a century. Since 1916, federal taxpayers have supported domestic exploration, drilling, and production activities for our nation’s fossil fuel industry.¹⁶ And since 1950, the federal government has provided roughly a trillion dollars in energy subsidies, of which 65

¹³ Order, 163 FERC ¶ 61,236 at PP 1, 150, 157, 161-162.

¹⁴ Sylwia Bialek & Burcin Unel, Institute for Policy Integrity, *Capacity Markets and Externalities: Avoiding Unnecessary and Problematic Reforms* at 12 (2018).

¹⁵ *See, e.g., id.* at 11 (explaining that the annual climate change damages associated with a typical 1,000 MW coal plant are roughly \$230 million); Exelon Protest at 12 (estimating that the externalities associated with carbon dioxide alone amount to \$12.1 billion to \$17.7 billion annually across PJM).

¹⁶ *See* Molly Sherlock, Cong. Research Serv., *Energy Tax Policy: Historical Perspectives on and Current Status of Energy Tax Expenditures* 2-3 (May 2011), available at <https://fas.org/sgp/crs/misc/R41227.pdf> (Energy Tax Policy).

percent has gone to fossil fuel technologies.¹⁷ These policies have artificially reduced the price of natural gas, oil, and coal, which in turn has allowed resources that burn these fuels—including many of the so-called “competitive” resources that stand to benefit from today’s order—to submit “suppressed” bids into PJM’s markets for capacity, energy, and ancillary services. By lowering the marginal cost of fossil fuel-fired units, government policies have allowed these units to operate more frequently and have encouraged the development of more of these units than might otherwise have been built.

These policies continue to shape the current generation landscape in PJM. Consider the example of natural gas. The federal tax credit for nonconventional natural gas,¹⁸ contributed to the spike in new natural gas-fired power plants between 2000 and 2005,¹⁹ by decreasing the cost of operating those plants. Similarly, the domestic nuclear power industry would not exist without the Price-Anderson Act, which imposes indemnity limits for nuclear power generators, enabling them to secure financing and insurance at rates far below what would reflect their true cost.²⁰ These and other federal government interventions have had a far greater “suppressive” impact on the markets than the “actionable subsidies” targeted by today’s order, yet they are unaccounted for in the order.

¹⁷ See Nancy Pfund and Ben Healey, DBL Investors, *What Would Jefferson Do? The Historical Role of Federal Subsidies in Shaping America’s Energy Future*, (Sept. 2011), available at <http://www.dblpartners.vc/wp-content/uploads/2012/09/What-Would-Jefferson-Do-2.4.pdf>; *New analysis: Wind energy less than 3 percent of all federal incentives*, Into the Wind: The AWEA Blog (July 19, 2016), <https://www.aweablog.org/14419-2/> (citing, among other things, Molly F. Sherlock and Jeffrey M. Stupak, *Energy Tax Incentives: Measuring Value Across Different Types of Energy Resources*, Cong. Research Serv. (Mar. 19, 2015), available at <https://fas.org/sgp/crs/misc/R41953.pdf>; The Joint Committee on Taxation, *Publications on Tax Expenditures*, <https://www.jct.gov/publications.html?func=select&id=5> (last visited June 29, 2018)) (extending the DBL analysis through 2016).

¹⁸ Energy Tax Policy at 2 n.3. That credit has now lapsed. *Id.* at 18.

¹⁹ *Natural gas generators make up the largest share of overall U.S. generation capacity*, Energy Info. Admin. (Dec. 18, 2017), <https://www.eia.gov/todayinenergy/detail.php?id=34172>.

²⁰ 42 U.S.C. § 2210(c) (2012).

There are also a plethora of potentially “non-actionable” state and local policies that “suppress” prices in the energy markets, well beyond ZEC and RPS programs. The PJM states have adopted over 100 programs to subsidize all forms of energy sources.²¹ For example, West Virginia has enacted tax benefits to support its coal industry, including tax credits for coal loading facilities, thin-seamed coal, and waste coal.²² Similarly, Pennsylvania exempts natural gas utilities from paying the state’s gross receipt tax on their sales, reducing their tax bill by an estimated \$82 to \$108 million annually while all coal purchases are exempted from Pennsylvania’s sales and use tax, a benefit equivalent to \$87 million annually.²³ These measures significantly reduce the cost of natural gas and coal produced in Pennsylvania. In addition, natural gas and oil production are one of the few commercial operations exempted from paying local property tax in Pennsylvania, avoiding half a billion to a billion dollars in taxes annually.²⁴

Finally, the Commission’s list of actionable state policies fails to recognize one of the largest sources of out-of-market support: Roughly 20 percent of the installed capacity within PJM is owned by vertically integrated utilities. Those utilities are guaranteed to recover the cost their resources, irrespective of the price they receive in PJM’s capacity market.²⁵ Nevertheless, the Commission deems these resources “competitive.”

If the Commission really wants to protect what it calls the “integrity” of the capacity market, it would need to mitigate each and every federal, state, and local subsidy that allows a resource to lower its capacity market offer as well as the offers of vertically integrated utilities with guaranteed cost recovery. I suspect that we would soon find that there are few, if any, resources that would qualify to participate in PJM’s capacity market

²¹ *Subsidy Short List*, PJM Capacity Construct/Public Policy Senior Task Force Meeting, (June 5, 2017), *available at* <http://www.pjm.com/-/media/committees-groups/task-forces/ccpstf/20170605/20170605-item-02-subsidy-short-list-20170531.ashx>.

²² *Id.*

²³ *See id.*; PennFuture, *Fossil Fuel Subsidy Report for Pennsylvania* 17-18, 22 (Apr. 2015), *available at* https://pennfuture.org/Files/News/FossilFuelSubsidyReport_PennFuture.pdf (Fossil Fuel Subsidy Report for Pennsylvania).

²⁴ Fossil Fuel Subsidy Report for Pennsylvania at 32.

²⁵ Illinois Commerce Commission Protest at 19; Harvard Electricity Law Institute Comments at 8 (noting that generation owned by vertically integrated utilities and public power make up roughly 25 percent of PJM’s market).

without being subject to an offer floor. Although that may not be an appealing option, that is no reason to isolate a few disfavored state policies for mitigation and claim, without any support, that they are the only subsidies that threaten the integrity of the market.

Some may argue that the Commission “has to draw a line somewhere.” But that line cannot be arbitrary and capricious. It is hard to conceive of a more arbitrary and capricious approach than to inhibit state efforts to price the externalities of electricity generation, but permit other federal, state, and local policies that interfere with the functioning of the markets.

II. The Record Does Not Support the Commission’s Determination that PJM’s Tariff Violates the FPA

Today’s order is all the more troubling because there is not substantial evidence in the record to support a finding that there is a resource adequacy problem in PJM or that the capacity market is otherwise unjust and unreasonable or unduly discriminatory or preferential. In fact, PJM currently has far more generating capacity than it needs to reliably meet the region’s electricity needs, even several years out. PJM’s current reserve margin is nearly double what the North American Electric Reliability Corporation (NERC) has determined is necessary, meaning that the region currently has tens of thousands of additional MW of generating capacity beyond what it requires.²⁶ In addition, there are nearly 40 GW of natural gas-fired generation under development within PJM’s footprint—equivalent to 25 percent of the installed capacity in the region—with over half of those MW in a relatively advanced state of development.²⁷ If anything, PJM’s problem is that today’s prices are so high that the region continues to attract new “competitive” generation resources at a time when the region already has too much capacity.²⁸

²⁶ *E.g.*, Exelon January 30, 2017 Protest at 14-15 (Docket No. EL16-49) (“The market is producing resource adequacy—achieving a reserve margin of 22 percent, exceeding its target of 16.5 percent.”); Maryland Commission Protest at 5 (“Regarding investment in generation, PJM’s Base Residual Auction (BRA) provides ample capacity and has consistently exceeded its target reserve margins.”); Consumer Coalition Protest at 12 (“PJM has the most drastic capacity *oversupply* of any RTO in North America.”).

²⁷ Clean Energy Advocates Protest at 36-37 (citing data compiled by S&P Global Market intelligence); Exelon Protest at 35-36.

²⁸ 1,401.3 MW of new Generation Capacity Resources cleared in the 2021/2022

Perhaps that is why, rather than pointing to actual record evidence of a resource adequacy problem, the Commission relies on theory—and theory alone—to find PJM’s Tariff to be unjust and unreasonable. That theory appears to be that certain state subsidies pose a threat to the business model of the Commission’s preferred resources and, as a result, at some unspecified point in the future, the capacity market may no longer procure adequate resources at just and reasonable rates.²⁹ For example, the Commission asserts that “action must be taken” because PJM’s Tariff is unable “to adequately address the evolving circumstances presented by resources that receive out-of-market support.”³⁰

Although the Commission “is free to act based upon reasonable predictions rooted in basic economic principles,”³¹ today’s order fails to meet this standard. The Commission’s conclusions require it to make a litany of assumptions—most of them unstated—about how only certain public policies *may* affect capacity market prices and how that effect on prices *may* impact the “integrity” of PJM’s capacity market. For

Base Residual Auction, held in May 2018. That figured included 893.0 MW from new generation units and 508.3 MW from uprates to existing or planned generation units. PJM Interconnection, L.L.C., *2021/2022 RPM Base Residual Auction Results 4* (2018), available at <http://www.pjm.com/-/media/markets-ops/rpm/rpm-auction-info/2021-2022/2021-2022-base-residual-auction-report.ashx>.

²⁹ The precise contours of the Commission’s theory are not exactly clear. If the Commission is asserting that PJM’s capacity market is *already* failing to meet this standard because state public policies are resulting in capacity prices that too low to incentivize needed new entry, then the Commission’s action is not only unsupported by the record evidence, but contrary to it. As noted above, the most recent auction continued to incentivize new entry, even though PJM’s reserve margin far exceeds what is needed for reliability. The 2021/2022 Reliability Pricing Model (RPM) Base Residual Auction (BRA) cleared 163,627.3 MW of unforced capacity in the RTO representing a 22.0% reserve margin. The reserve margin for the entire RTO is 21.5 percent, considerably higher than the target reserve margin of 15.8 percent, when the Fixed Resource Requirement (FRR) load and resources are considered. This reported reserve margin of 21.5 percent does not even reflect the additional 22,877.5 MW of uncleared capacity. *See id.* 1, 19; *see also* PJM Answer at 10 (“PJM’s prices have been low in large measure because PJM is carrying reserve margins in excess of 25%.”).

³⁰ Order, 163 FERC ¶ 61,236 at P 32.

³¹ *Emera Maine v. FERC*, 854 F.3d 662, 671 (D.C. Cir. 2017).

example, the Commission asserts that there is evidence that state policies may significantly affect the capacity market price.³² However, rather than citing to this elusive evidence, the order quotes an affiant's opinion as to what the out-of-market support payments provided by certain state programs equate to in dollars per MW-day.³³ Dividing the size of a subsidy by the number of MW-days is arithmetic, not evidence that the subsidy is rendering PJM's Tariff unjust and unreasonable.

Similarly, the Commission claims that any reduction in the capacity market price that is caused by these state policies will be sufficient to render PJM's tariff unjust and unreasonable. But the Commission does not point to any evidence about the size of this potential reduction or why a reduction of that size—as opposed to some other level—is sufficient to render the Tariff unjust and unreasonable. Instead, the Commission enumerates several subsidies provided by states in PJM³⁴ without meaningfully linking the existence of those programs to the claim that PJM's capacity market may not result in just and reasonable rates. Based on the PJM auction results and the entire record before us, the speculation in today's order is an insufficient basis to find PJM's existing Tariff to be unjust and unreasonable.

The Commission also claims without support that PJM's Tariff is unjust and unreasonable simply because it does not mitigate state policies, thereby creating uncertainty for “competitive” resources that do not know whether they will be competing against other resources that receive a subsidy considered by the Commission to be problematic.³⁵ In other words, the mere prospect of an unmitigated “actionable” subsidy renders PJM's Tariff unjust and unreasonable, regardless of whether that subsidy would actually affect the market-clearing price. That cannot be true. Uncertainty in many forms—commodity price uncertainty, demand uncertainty, and, yes, policy uncertainty—pervades the electricity industry and the Commission leaves it to private companies to manage that uncertainty. Nothing in today's order explains why the uncertainty created by certain state policies is any different or why that difference is sufficient to render PJM's Tariff unjust and unreasonable. And it is ironic to bemoan policy uncertainty

³² Order, 163 FERC ¶ 61,236 at P 151.

³³ *Id.* (quoting *Giacomoni Aff.* at 10-11).

³⁴ *Id.* P 152-153.

³⁵ *Id.* P 150. It is unclear why the Commission limits this uncertainty to “competitive” resources. Every resources faces uncertainty that policy developments relatively favorable to its competitors will make its position less advantageous.

when Commission's and PJM's constant tinkering with the capacity market is one of, if not the, single biggest sources of uncertainty facing capacity market participants.³⁶

Finally, it is again important to point out what the Commission's rationale means for efforts to fight climate change. The Commission's explanation of the problem with the PJM capacity market suggests that any state efforts to compensate resources for their environmental attributes would render those resources' offers "uncompetitive." In so doing, the Commission is concluding that resources can only be valued by the capacity they provide and that their environmental attributes must be valued at zero. I am aware of nothing in the FPA, our regulations, or the many court cases interpreting both that requires us to use our authority to stymie state efforts to fight climate change in this manner. Doing so puts the Commission on the wrong side of history in the fight against climate change.

III. The Commission's Proposed Replacement Rate Leaves Open Significant Questions that Cannot Be Meaningfully Answered in the Time Provided

Having declared PJM's Tariff unjust and unreasonable based on theory alone, the Commission proposes a replacement rate that fundamentally redesigns PJM's capacity market. This proposed approach—which combines an expanded MOPR, with all the attendant problems outlined above, with a "resource-specific FRR Alternative"—would be the most significant change in the capacity market's twelve-year history. Although the Commission itself acknowledges that there are important details to address in the design of a resource-specific FRR Alternative, the proposed questions for the paper hearing barely scratch the surface of the issues raised by such fundamental reforms. I agree with my colleague Commissioner LaFleur's observation that the record before the Commission contains virtually no discussion of a resource-specific FRR Alternative and that today's proposal is "little more than a rough concept, with major design elements left unresolved."³⁷ Making matters worse, the Commission provides almost no time—just three months—for PJM and its stakeholders to respond to these questions and provide the record needed to carry out the Commission's capacity market overhaul.

To reiterate, I strongly disagree that the current PJM Tariff is unjust and unreasonable and I am not convinced at this time that the Commission's proposal for a resource-specific FRR Alternative will sufficiently accommodate the state policies that are the target of the expanded MOPR. Nevertheless, I recognize that there can be more

³⁶ *ISO New England Inc.*, 162 FERC ¶ 61,205 at 5 n.13 (Glick, Comm'r, dissenting in part and concurring in part) ("[C]hange has been the only consistent feature of capacity markets in recent years.").

³⁷ Order, 163 FERC ¶ 61,236 at 4 (LaFleur, Comm'r, dissenting).

than one just and reasonable rate and, for that reason, reserve judgment on whether a resource-specific FRR Alternative could ever be just and reasonable. Below, I outline several concerns regarding the Commission's proposal that will be essential to evaluating PJM's filing.

A. Eligibility

The Commission proposes to create a bifurcated capacity market that classifies resources as either receiving "out-of-market support" or as being deemed "competitive." Those receiving out-of-market support will be subject to the expanded MOPR and also be eligible for the proposed resource-specific FRR Alternative. That distinction is the keystone of the Commission's proposal. Nevertheless, today's order provides scant guidance regarding what government policies will trigger mitigation, and the limited guidance that it does provide suggests that the Commission will continue to arbitrarily pick and choose which governmental policies to target.

Although the Commission asks for comments on the "appropriate scope of out-of-market support to be mitigated" and "whether federal sources of out-of-market support should be addressed by Commission action,"³⁸ the Commission also explicitly states that PJM "need only address the forms of state support that we find, in this proceeding, render the current Tariff unjust and unreasonable—i.e., out-of-market revenue that a state either provides, or requires to be provided, to a supplier that participates in the PJM wholesale capacity market."³⁹ This puzzling combination of statements appears to mean that the Commission need address only *state* policies and, specifically, only those that provide out-of-market *revenue*, as opposed to policies that reduce costs. As I have explained above, these distinctions are arbitrary, capricious, and incapable of forming the basis for a just and reasonable and not unduly discriminatory or preferential market construct.

B. FRR Construct

The Commission's proposed replacement rate appears to present a false option for state-sponsored resources: Either choose to participate in the capacity market and be subject to the expanded MOPR, with the substantial risk that the resource will not clear the market, or else elect the resource-specific FRR Alternative, forfeiting any prospect of receiving a capacity payment from PJM for capacity that the resource will actually provide. Far from "accommodating" state policies, the Commission seems to ignore (or

³⁸ *Id.* at PP 165, 171.

³⁹ *Id.* P 1 n.1.

at least disregard) the fact that the out-of-market payments of which it apparently disapproves are not replacements for capacity payments, but rather are payments for attributes not accounted for in PJM's capacity market.⁴⁰ In forcing these resources to find compensation outside of the market, the Commission's proposal raises a host of questions. I am particularly interested in hearing from PJM and its stakeholders regarding the following issues:

1. **Selecting the resource-specific FRR Alternative.** How will state-sponsored resources elect the resource-specific FRR Alternative? What is the basis for limiting the resource-specific FRR Alternative to state-sponsored resources? Alternatively, should all resources have the option to elect the resource-specific FRR Alternative? What would be the impact of such an option? I will note that opening the resource-specific FRR Alternative to all resources would appear to give customers more flexibility and forestall continuous litigation regarding arbitrary judgments or cutoffs for resource eligibility.
2. **Compensating FRR Resources.** What options will FRR resources have for recovering the shortfall between their out-of-market support and their net going-forward costs? As noted, most of the state policies targeted by today's order compensate resources for environmental attributes and were not designed to be a substitute for a capacity payment. Will any of the state programs that the Commission intends to mitigate the effects of require legislative action to allow the resources that receive support pursuant to those programs to receive additional compensation either by the state or a load-serving entity (LSE)? Could resources enter into bilateral agreements with LSEs for the additional capacity payments? If so, should there be limitations on which LSEs are eligible to enter such contracts (based on, for example, the source of the out-of-market support)? If not, will states have any alternative to increasing the out-of-market support to compensate resources for capacity in addition to their environmental attributes? What is a reasonable time period in which to expect states to make any changes to their compensation structures? How does this vary between states that have enacted their policies via legislation versus regulation?
3. **Matching an FRR Resource with Load.** Who will determine what load is removed from the RPM auction for a given FRR resource and how will that determination be made? Should the determination be made by the FRR resource

⁴⁰ Illinois Commerce Commission Protest at 3 n.7 (arguing that PJM mischaracterizes state public policies "which provide due compensation for output produced by resources having beneficial environmental and public health characteristics," the purpose of which is not to subsidize, but "to compensate the provision of valuable attributes that are uncompensated in PJM markets").

itself, the LSE(s), PJM, the sponsoring-state or some entities or entities? What would be the relative benefits and downsides of the various ways in which this might be accomplished? How would any such approach impact municipalities, cooperatives, and public power entities? Should the FRR resource be permitted to split its supply among different LSEs? What other steps are necessary for ensuring that the entities that provide the out-of-market support receive the benefit of the reduced capacity obligation in the RPM auctions? Would different state programs require different approaches? For example, cross-state renewable energy certificate (REC) programs may not have an obvious associated load—how should that be addressed? Do LSEs or other wholesale loads that self-supply present any unique considerations for a resource-specific FRR Alternative? Other than interstate REC programs, are there other governmental policies that could require a tailored approach?

4. **Timing.** Does PJM currently have the information about governmental programs and LSE constructs needed to evaluate options and address these questions? If not, how much time does PJM need to work with the states and stakeholders to gather sufficient information?

C. Reliability Pricing Model Auction Design

PJM and its stakeholders also need to consider how a resource-specific FRR Alternative will interact with the existing capacity market construct and whether any changes are needed to the structure of the Reliability Pricing Model (RPM) and its auctions. In so doing, PJM and its stakeholders should evaluate the following considerations:

1. **Auction Structure.** Assuming that state-sponsored resources can elect the resource-specific FRR Alternative and PJM has determined which load to associate with those resources, are there any other changes that would need to be considered to the structure of the RPM Auctions? Currently, load served under the existing FRR Alternative is deducted from the installed reserve margin and is defined by the FRR Service Area. Can this approach to structuring the RPM auctions work under the resource-specific FRR Alternative? What additional challenges, if any, would be presented if the load associated with resources that elected the resource-specific FRR Alternative cannot be defined in an FRR Service Area?
2. **Locational Needs.** How could PJM ensure that locational resource adequacy needs are met (respecting transmission constraints) while simultaneously removing an increasing amount of FRR load from the RPM? For example, how will PJM account for deliverability constraints in assigning a given FRR resource's capacity to offset a specific load's resource adequacy requirement if the resource is located in a constrained area that cannot reach load? Would doing so

require any changes to the current Capacity Emergency Transfer Objective (CETO) /Capacity Emergency Transfer Limit (CETL) analysis, or its underlying assumptions? Would an increasing amount of FRR load over time (e.g., based on increasing renewable targets in some states) present any additional considerations?

3. **VRR Curve.** Today's order asks whether changes are needed to the demand curve, or variable resource requirement (VRR) curve. The removal of additional load would reduce the installed reserve margin represented in the VRR curve for capacity and would result in shifting the VRR curve to reflect the smaller market. Presumably, the Commission is asking if any further changes would be needed, such as the shape of the curve. What are the primary considerations for determining whether the VRR curve shape would need to be modified? Would a smaller market inherently require a differently shaped curve? How would this ensure that the auctions are competitive?
4. **Market Power.** Would the resource-specific FRR Alternative present any additional market power concerns? With a smaller market with fewer resources competing, would the existing market power mitigation measures be sufficient? If not, what additional tools would be needed?
5. **Capacity Performance.** How would the resource-specific FRR Alternative impact PJM's Capacity Performance construct? Currently, FRR entities can choose between financial or physical satisfaction of the Non-Performance Charge when a resource in the entity's FRR plan fails to meet its expected performance during a Performance Assessment Hour. Under the financial option, the entity pays the same Non-Performance Charge that applies to RPM Capacity Performance Resources. Under the physical option, the entity must commit additional capacity in the subsequent delivery year for each MW of performance shortfall. Is this still an appropriate structure if the Commission adopts the proposed FRR Alternative? If so, why would the associated load be required to commit additional capacity in a subsequent delivery year for the failure to perform of a resource that it does not own?

Once again, a resource-specific FRR Alternative can be just and reasonable only insofar as it allows state-sponsored resources to easily and timely become FRR resources with proportional load removed from PJM's centralized capacity market, thereby effectively accommodating governmental policies that address the externalities associated with electricity production.

Regarding the timeline, requiring interested parties to decipher today's order, develop testimony, gather evidence, and meaningfully respond within 60 days is irresponsible. On top of that, this short timeframe essentially guarantees that PJM will not be able to work with the states to develop a proposal that aligns with state policies. Even assuming that interested parties had sufficient time, and the Commission issued an

order by January 4, 2019, it is unreasonable to assume that PJM could implement such fundamental market changes in time for its May 2019 auction, and that state-sponsored resources could cover the missing capacity payments if those resources elect to use the new resource-specific FRR Alternative. The most likely result is that PJM will have to delay its May 2019 auction, notwithstanding that delay, that PJM will over-procure capacity because states and sponsored resources will not have time to react and make alternative plans.

* * *

I close by noting the irony embedded in today's order. Decrying government involvement in the electricity sector, the Commission is taking action to increase the prices its preferred generation resources receive and stave off efforts to decarbonize the generation mix. Today's order is just government intervention by another name. The Commission appears untroubled by the fact that it is exercising essentially the same governmental role in shaping the generation mix that it simultaneously decries. The difference, however, between the state actions that the Commission now threatens and the Commission's action today is that Congress authorized the states to regulate the generation mix and expressly precluded the Commission from doing so. As I explained in my partial dissent from the CASPR order, the proper role for the Commission is to "get out of the business of mitigating the effects of state policies and instead encourage the RTOs/ISOs to work with the states to pursue a resource adequacy paradigm that respects states' role in shaping the generation mix while at the same time ensuring that we satisfy our responsibilities under the FPA."⁴¹

Accordingly, I respectfully dissent.

Richard Glick
Commissioner

⁴¹ *ISO New England Inc.*, 162 FERC ¶ 61,205 at 6 (Glick, Comm'r, dissenting in part and concurring in part).

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Calpine Corporation, Dynegy Inc., Eastern Generation, LLC, Homer City Generation, L.P., NRG Power Marketing LLC, GenOn Energy Management, LLC, Carroll County Energy LLC, C.P. Crane LLC, Essential Power, LLC, Essential Power OPP, LLC, Essential Power Rock Springs, LLC, Lakewood Cogeneration, L.P., GDF SUEZ Energy Marketing NA, Inc., Oregon Clean Energy, LLC and Panda Power Generation Infrastructure Fund, LLC

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v.

PJM Interconnection, L.L.C.

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ER18-1314-000

ER18-1314-001

PJM Interconnection, L.L.C.

EL18-178-000

(Consolidated)

(Issued June 29, 2018)

POWELSON, Commissioner, *concurring*:

I strongly support today's order. I write separately to acknowledge the significance of the majority's decision and its impact on the future of wholesale energy markets in the PJM region. The issue of out-of-market support for preferred resources is not a new one. In 2013, the Commission opened a proceeding to discuss the interplay between state public policy decisions and wholesale markets.¹ In May 2017, the Commission continued that effort by holding a two-day technical conference to further explore the issues. After years of open dialogue unconstrained by *ex-parte* restrictions, the Commission failed to provide guidance on one of the most pressing issues facing wholesale electricity markets. PJM ultimately took the lead and proposed two options. However, the majority – as well as many stakeholders – could not find either to be just

¹ Centralized Capacity Markets in Regional Transmission Organizations and Independent System Operators, Docket No. AD13-7-000 (June 17, 2013).

and reasonable solutions to the problem. Today, the Commission sets forth a third solution, and in doing so, provides much-needed guidance to PJM and its stakeholders.

Let me be clear: there is a problem. The Federal Power Act compels this Commission to ensure just and reasonable rates. The record before us clearly indicates that unfettered access to wholesale energy markets by state-supported resources leads to unjust and unreasonable rates. If the Commission did not find today that the existing PJM tariff is unjust and unreasonable, it would be ignoring the duties prescribed to it under the Federal Power Act.

I have come to realize that there is no one-size-fits-all solution to ensure state decisions to support certain resources do not impact the wholesale market. Under the Federal Power Act, the states are able to procure the resources they prefer. Notwithstanding the fact that I did not support ISO-New England's Competitive Auctions with Subsidized Policy Resources (CASPR) mechanism, I acknowledge that it reflected a regionally-tailored approach to the problem.² The fact that CASPR may work for ISO-NE does not mean it is an appropriate solution for PJM. The problem in New England was the accommodation of *new* state-supported resources as opposed to the problem in PJM, which is an accommodation *existing* state-supported resources.

The resource-specific FRR Alternative provides a solution that is appropriate for the unique set of circumstances in the PJM region. The proposed resource-specific FRR Alternative is based, in principle, on the existing FRR construct that has existed in the PJM tariff for many years. It is not an entirely new concept to PJM and its stakeholders. Further, the idea of an expanded MOPR has a more-than-robust record from a diverse set of interested parties. I am aware that the order sets forth an aggressive timeline for this action. However, this is a problem that is long overdue for a solution, and I am confident that all stakeholders, including the states, will be ready and willing to roll up their sleeves and work towards a solution that is consistent with the Commission's guidance.

Further, I do not believe that individual state decisions to re-regulate should be an overriding factor in our decision-making. The Commission's responsibility is to protect the integrity of the wholesale markets and ensure just and reasonable rates. We cannot make decisions based on speculation about what states may or may not do. Moreover, the approach outlined in today's order – the resource-specific FRR Alternative – allows states the flexibility to procure preferred resources, while also allowing them to remain in the wholesale energy and ancillary services markets. The tradeoff is that the states will bear the cost responsibility of their resource-specific decisions, which is consistent with

² *ISO New England Inc.*, 162 FERC ¶ 61,205 (2018) (Powelson, Comm'r, dissenting).

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the fundamental ratemaking principle of cost-causation. Simultaneously, through the expanded MOPR, the market will remain free from the effects of subsidized resources. If states find that the resources they select are cost-prohibitive, or undesirable for any other reason, they may either: 1) select more cost effective resources, or 2) rely on the capacity market to select resources to meet resource adequacy goals.

I, too, believe that capacity markets can and do provide meaningful benefits to consumers. I have been a tireless advocate of competition and the principles that have been a cornerstone of FERC policy for many years. Failure to take decisive action would be a disservice to PJM, its stakeholders, and ultimately consumers.

Accordingly, I respectfully concur.

Robert F. Powelson, Commissioner

Document Content(s)

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