No. _____

ORIGINAL

IN THE UNITED STATES COURT OF APPEALS
FOR THE SEVENTH CIRCUIT

ILLINOIS COMMERCE COMMISSION,	)	
	)	
Petitioner,	)	
	)	
v.	)	Petition for Review
	)	
FEDERAL ENERGY REGULATORY COMMISSION,	)	
	)	
Respondent.	)	

PETITION FOR REVIEW OF FERC ORDERS

Pursuant to Rule 15(a) of the Federal Rules of Appellate Procedure, and Section 313(b) of the Federal Power Act, 16 U.S.C. § 825*l*(b), petitioner Illinois Commerce Commission, by its counsel, Kwame Raoul, Attorney General of Illinois, and Assistant Attorney General Richard S. Huszagh, petitions for review of the each of the following orders of respondent Federal Energy Regulatory Commission ("FERC"), in FERC Docket Nos. EL16-49-000, EL16-49-001, EL16-49-002, ER18-1314-000, ER18-1314-001, ER18-1314-002, EL18-178-000, EL18-178-001, and/or EL18-178-002, concerning provisions of the PJM Interconnection, LLC tariff.

a. **June 29, 2018 Order**. *Calpine Corporation, Dynegy Inc., et al. v. PJM Interconnection, L.L.C.*, Order Rejecting Proposed Tariff Revisions, Granting in Part and Denying in Part Complaint, and Instituting Proceeding Under Section 206 of the Federal Power Act, 163 FERC ¶ 61,236 (June 29, 2018) (available at *https://elibrary.ferc.gov/idmws/common/OpenNat.asp?fileID=14961692*).

b. **December 19, 2019 Order**. *Calpine Corp., et al. v. PJM Interconnection, L.L.C.*, Order Establishing Just and Reasonable Rate, 169 FERC ¶ 61,329 (December 19, 2019) (available at *https://elibrary.ferc.gov/idmws/common/OpenNat.asp?fileID=15428534*).

c. **February 18, 2020 Order.** *Calpine Corp., et al. v. PJM Interconnection, L.L.C.*, Order Granting Rehearings for Further Consideration (Feb. 18, 2020) (available at *https://elibrary.ferc.gov/IDMWS/common/opennat.asp?fileID=15465599*).

d. **April 16, 2020 Order.** *Calpine Corp., et al. v. PJM Interconnection, L.L.C.*, Order Denying Petitions for Rehearing, and Granting Requests for Clarification, of the June 29, 2018 Order described above in subparagraph *a.* 171 FERC ¶ 61,034 (April 16, 2020) (available at *https://elibrary.ferc.gov/idmws/common/OpenNat.asp?fileID=15511636*).

e. **April 16, 2020 Order.** *Calpine Corp., et al. v. PJM Interconnection, L.L.C.*, Order Granting in Part and Denying in Part Petitions for Rehearing and Requests for Clarification of the December 19, 2019 Order described above in subparagraph *b.* 171 FERC ¶ 61,035 (April 16, 2020) (available at *https://elibrary.ferc.gov/idmws/common/OpenNat.asp?fileID=15511640*), as modified by the errata page issued on April 16, 2020, correcting paragraph 82 of 171 FERC ¶ 61,035 (available at *https://elibrary.ferc.gov/idmws/common/OpenNat.asp?fileID=15511644*).

April 20, 2020

Respectfully submitted,

KWAME RAOUL
Attorney General
State of Illinois

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Certificate of Service

I hereby certify that on April 20, 2020, I caused copies of the foregoing Petition for Review to be served on the parties on the attached service list at their indicated e-mail addresses, and that, upon receiving a file-stamped copy of this petition, I will cause a paper copy of it to be delivered by courier to:

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

/s/ Richard S. Huszagh

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)

Paragraph Numbers

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

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[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.

(continued ...)

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

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[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).

(continued ...)

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]

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[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*).

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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]

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[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.

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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

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[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).

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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-

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[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.

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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

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[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.

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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

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[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.").

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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

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[25] CPV Complaint at 2.

[26] *Id.* at 10.

[27] *Id.* at 18.

[28] *Id.* at 18-19.

[29] *Id.* at 19.

(continued ...)

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

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[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.

(continued ...)

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

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[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).

(continued ...)

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

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[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.

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[40] *See NRG*, 862 F.3d at 114.

(continued ...)

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]

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[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 *(continued ...)*

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]

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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 (Giacomoni 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. *(continued ...)*

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

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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.

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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

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[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.

(continued ...)

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

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[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.

(continued ...)

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

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[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] NGSA Comments at 5; NRG Protest at 13-15.

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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

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[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.

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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

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[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.

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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] NGSA argues that Capacity Repricing would allow higher-cost subsidized resources to displace lower-cost unsubsidized resources in the first stage of the auction

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[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.

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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

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[91] NGSA 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).

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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]

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[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.

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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]

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[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.

(continued ...)

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.

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[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]

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[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 *(continued ...)*

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.

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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").

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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]

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[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 *(continued ...)*

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 Resources[120] committed in the second stage pay the second stage price as a one-time

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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, *(continued ...)*

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

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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).

(continued ...)

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

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[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.

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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]

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[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 *(continued ...)*

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,

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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.

(continued ...)

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 alterative 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

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[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.

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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]

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[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).

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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

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[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.

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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] NGSA 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

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[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] NGSA 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.

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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. 719[171] because it bases its mitigation on discretionary criteria.[172] Exelon adds that the Commission would be barred from fixing this defect,

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[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.

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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

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[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).

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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

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[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.

(continued ...)

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

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[185] *Id.* at 11.

[186] *Id.* at 13.

[187] *Id.* at 12.

[188] P3 Answer at 9.

(continued ...)

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

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[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).

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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

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[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).

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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.

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[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).

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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.*

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[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.

(continued ...)

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]

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[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 *(continued ...)*

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 Compliant 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),
(continued ...)

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

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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).

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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 NW 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.

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[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.

(continued ...)

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] NGSA 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,

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[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] NGSA 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.

(continued ...)

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]

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[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.

(continued ...)

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

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[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.

(continued ...)

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

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[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.

(continued ...)

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 incented 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]

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[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.

(continued ...)

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

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[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).

(continued ...)

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]

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[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.

(continued ...)

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

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[259] Market Monitor Comments at 6-8; NGSA 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.

(continued ...)

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,

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[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.

(continued ...)

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' 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.

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[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 wholesales 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]

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[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 *(continued ...)*

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

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[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).

(continued ...)

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

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[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).

(continued ...)

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-

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[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.*

(continued ...)

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

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[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.

(continued ...)

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

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[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.

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[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

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[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

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[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).

(continued ...)

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,

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[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]

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

(continued ...)

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

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[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).

(continued ...)

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.

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[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).

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.

(SEAL)

Nathaniel J. Davis, Sr.,
Deputy Secretary.

Appendix 1

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

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)*

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* late intervention
\+ comments/protest

Appendix 2

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)

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)

Wabash Valley Power Association, Inc.
West Virginia Consumer Advocate

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* 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) proposal[1] 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

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

(continued ...)

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

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[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.

(continued ...)

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

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[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

(continued ...)

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

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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.	ER18-1314-000
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

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[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) (*EPSA*) (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 *(continued ...)*

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

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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)).

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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]

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[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 *(continued ...)*

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

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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).

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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

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[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).

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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.

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[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).

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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

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[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/ccppstf/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 tbe 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]

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[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 *(continued ...)*

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

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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).

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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 PJM[34] 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

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[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.

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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

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[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

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[38] *Id.* at PP 165, 171.

[39] *Id.* P 1 n.1.

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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

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[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	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)

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 to 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

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

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

169 FERC ¶ 61,239
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

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

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
EL18-178-000
(Consolidated)

v.

PJM Interconnection, L.L.C.

PJM Interconnection, L.L.C.

ORDER ESTABLISHING JUST AND REASONABLE RATE

(Issued December 19, 2019)

1. On June 29, 2018, the Commission issued an order[1] finding that out-of-market payments provided, or required to be provided, by states to support the entry or continued operation of preferred generation resources threaten the competitiveness of the capacity market administered by PJM Interconnection, L.L.C. (PJM).[2] Specifically, the Commission found that PJM's Open Access Transmission Tariff (Tariff) is unjust and unreasonable because the Minimum Offer Price Rule (MOPR) fails to address the price-distorting impact of resources receiving out-of-market support. The Commission also found, however, that it could not make a final determination regarding the just and reasonable replacement rate, based on the record presented, and therefore initiated a paper hearing on its own motion in Docket No. EL18-178-000 pursuant to section 206 of the Federal Power Act (FPA).[3]

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[1] *PJM Interconnection, L.L.C.*, 163 FERC ¶ 61,236 (2018) (June 2018 Order).

[2] The June 2018 Order defines "out-of-market payments" as 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. Out-of-market payments include, for example, zero-emissions credits (ZEC) programs and Renewable Portfolio Standards (RPS) programs. June 2018 Order, 163 FERC ¶ 61,236 at P 1 n.1. This order creates a new term, State Subsidies, defined below.

[3] 16 U.S.C. § 825e (2018).

2. As discussed below, we direct PJM to submit a replacement rate that retains PJM's current review of new natural gas-fired resources under the MOPR and extends the MOPR to include both new and existing resources, internal and external, that receive, or are entitled to receive, certain out-of-market payments, with certain exemptions explained below. Going forward, the default offer price floor for applicable new resources[4] will be the Net Cost of New Entry (Net CONE) for their resource class; the default offer price floor for applicable existing resources[5] will be the Net Avoidable Cost Rate (Net ACR) for their resource class. The replacement rate will include three categorical exemptions to reflect reliance on prior Commission decisions: (1) existing self-supply resources, (2) existing demand response, energy efficiency, and storage resources, and (3) existing renewable resources participating in RPS programs. The replacement rate will also include a fourth exemption, the Competitive Exemption, for new and existing resources that are not subsidized and thus do not generally require review to protect "the integrity and effectiveness of the capacity market."[6] To preserve flexibility, PJM will also permit new and existing suppliers that do not qualify for a categorical exemption to justify a competitive offer below the applicable default offer price floor through a Unit-Specific Exemption.[7] Collectively, these exemptions underscore our general intent that most existing resources that have already cleared a capacity auction, particularly those resources the Commission has affirmatively exempted in prior orders, will continue to be exempt from review. Similarly, new resources that certify to PJM that they will not receive out-of-market payments will generally be exempt from review through the Competitive Exemption, with the exception of new gas-fired resources, which were already subject to review under the current MOPR[8] and will remain so under the replacement rate.[9]

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[4] "New" refers to resources that have not previously cleared a PJM capacity auction.

[5] Except as otherwise specified in this order, "existing" refers to resources that have previously cleared a PJM capacity auction. Repowered resources will be considered new.

[6] June 2018 Order, 163 FERC ¶ 61,236 at PP 1-2.

[7] The current Tariff refers to this as the Unit-Specific Exception.

[8] PJM's current MOPR refers to the MOPR reinstated in 2017 following the remand from the D.C. Circuit in *NRG Power Marketing, LLC v. FERC*. 862 F.3d 108 (D.C. Cir. 201) (*NRG*); *see PJM Interconnection, L.L.C.*, 161 FERC ¶ 61,252 (2017) (2017 MOPR Remand Order).

[9] On December 19, 2019, Commissioner Bernard L. McNamee issued a memorandum to the file documenting his decision not to recuse himself from these

3. In establishing this replacement rate under section 206 of the FPA, we do not order refunds. Section 206 of the FPA confers the Commission with the discretion to order refunds from the date that Calpine Corporation, joined by additional generation entities (collectively, Calpine Complainants), filed the complaint in Docket No. EL16-49-000 (Calpine complaint), and we decline to invoke that discretion here.[10]

4. We direct PJM to submit a compliance filing consistent with our guidance within 90 days of the date of this order. In the compliance filing, PJM should also provide revised dates and timelines for the 2019 Base Residual Auction (BRA) and related incremental auctions, along with revised dates and timelines for the May 2020 BRA and related incremental auctions, as necessary.

5. We affirm our initial finding that "[a]n 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."[11] However, based on the reasoning set forth below, we do not at this time require review of all offers below the default offer price floor. Moreover, this replacement rate does not purport to solve every practical or theoretical flaw in the PJM capacity market asserted by parties in these consolidated proceedings, or in related proceedings.[12] There continue to be stark divisions among stakeholders about various issues that we cannot resolve on this record. Instead, we concentrate on the core problem presented in the Calpine complaint and in PJM's April 2018 rate proposal—that is, the manner in which subsidized resources distort prices in a capacity market that relies on competitive auctions to set just and reasonable rates.

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dockets, based on memoranda dated October 11, 2019 and December 13, 2019 (and attachments thereto, including email communications dated June 17 and September 17, 2019) from the Designated Agency Ethics Official and Associate General Counsel for General and Administrative Law in the Office of General Counsel.

[10] 16 U.S.C. § 824e(b); June 2018 Order, 163 FERC ¶ 61,236 at P 174; *see Ameren Servs. Co. v. Midwest Indep. Transmission Sys. Operator, Inc.*, 127 FERC ¶ 61,121, at P 157 (2009) ("In cases involving changes to market design, the Commission generally exercises its discretion and does not order refunds when doing so would require re-running a market.").

[11] June 2018 Order, 163 FERC ¶ 61,236 at P 158.

[12] *See id.* PP 16-19 (discussing the Commission's technical conference in Docket No. AD17-11-000 and the complaint filed in Docket No. EL18-169-000).

6. In general, the replacement rate is derived from PJM's initial MOPR-Ex proposal,[13] with certain modifications. We find this approach is superior to the two potential reform paradigms that PJM submitted in this paper hearing proceeding: (1) the resource-specific Fixed Resource Requirement (FRR) Alternative described in the June 2018 Order,[14] which PJM proposed to implement through its Resource Carve-Out (RCO) option,[15] and (2) the revised version of PJM's initial Capacity Repricing proposal that the Commission rejected in the June 2018 Order,[16] which PJM proposed to implement through its Extended Resource Carve-Out (Extended RCO) proposal.[17] In both cases, the accommodation of state subsidy programs would have unacceptable market distorting impacts that would inhibit incentives for competitive investment in the PJM market over the long term. We also decline to adopt intervenors' alternative proposals.[18]

7. The first significant change we require in the replacement rate is that PJM must extend the MOPR to include review of offers made by non-exempt existing resources in addition to new entrants. This is necessary because the record demonstrates that an immediate threat to the competitiveness of the PJM capacity market is the decision by some states to employ out-of-market subsidies to prevent or delay the retirement of state-

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[13] Of the two mutually-exclusive proposals PJM presented in April 2018, MOPR-Ex received significantly more stakeholder support than the Capacity Repricing alternative that PJM posited as its first choice. *See* PJM Transmittal Letter at 17 n.40; June 2018 Order, 163 FERC ¶ 61,236 at PP 4 n.4, 20.

[14] The Commission described the resource-specific FRR Alternative as an option, similar in concept to the utility-wide FRR construct in the preexisting Tariff, which would allow suppliers to choose to remove individual resources receiving out-of-market support from the PJM capacity market, along with a commensurate amount of load, for some period of time. *See* June 2018 Order, 163 FERC ¶ 61,236 at PP 8, 160.

[15] *See* PJM Initial Testimony at 50-64.

[16] *See* June 2018 Order, 163 FERC ¶ 61,236 at PP 63-72.

[17] *See* PJM Initial Testimony at 64-75.

[18] *See, e.g.*, Exelon Initial Testimony at 7 (proposing a carbon pricing mechanism); Maryland Commission Initial Testimony at 9-10 (proposing a competitive carve-out auction); Vistra Initial Testimony at 3-4 (proposing a two-stage auction, based in part on ISO New England Inc.'s Competitive Auctions with Sponsored Policy Resources); Buckeye Initial Testimony at 4 (proposing that PJM's capacity market operate on a strictly voluntary and residual basis).

preferred resources that are unable to compete with more efficient generation.[19] Moreover, certain states have chosen to enact additional programs even after the June 2018 Order issued.[20] We are aware that the extension of the MOPR may prevent certain existing resources that states have recently chosen to subsidize from clearing PJM's capacity auctions; however, the decision by certain states to support less economic or uneconomic resources in this manner cannot be permitted to prevent the new entry or continued operation of more economic generating capacity in the federally-regulated multi-state wholesale capacity market. New state policies that support the continued operation of existing uneconomic resources in PJM are just as disruptive to competitive wholesale market outcomes as earlier attempts to support preferred new gas-fired resources, which the Commission prevented by eliminating the state mandate exemption for new resources in 2011.[21] As in that earlier proceeding, the replacement rate adopted here does not deprive states in the PJM region of jurisdiction over generation facilities because states may continue to support their preferred resource types in pursuit of state policy goals.[22] Nor does this order prevent states from making decisions about preferred generation resources: resources that states choose to support, and whose offers may fail to clear the capacity market under the revised MOPR directed in this order, will still be permitted to sell energy and ancillary services in the relevant PJM markets. However, the Commission has a statutory obligation, and exclusive jurisdiction, to ensure that wholesale capacity rates in the multi-state regional market are just and reasonable.[23] We

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[19] *See, e.g.*, June 2018 Order, 163 FERC ¶ 61,236 at PP 1-2, 21-22, 96, 102-03, 105-06, 150-56.

[20] *See infra* note 55 (describing new legislation).

[21] *See PJM Interconnection, L.L.C.*, 135 FERC ¶ 61,022 (2011) (2011 MOPR Order), *reh'g denied*, 137 FERC ¶ 61,145 (2011) (2011 MOPR Rehearing Order), *aff'd sub nom. N.J. Bd. of Pub. Utils. v. FERC*, 744 F.3d 74 (3d Cir. 2014) (*NJBPU*).

[22] *See* June 2018 Order, 163 FERC ¶ 61,236 at PP 158-59.

[23] *See* 16 U.S.C. §§ 824, 824d, 824e; 2011 MOPR Order, 135 FERC ¶ 61,022 at P 143 ("While the Commission acknowledges the rights of states to pursue legitimate policy interests, and while, as we have said, any state is free to seek an exemption from the MOPR under section 206, it is our duty under the FPA to ensure just and reasonable rates in wholesale markets. . . . Because below-cost entry suppresses capacity prices, and because the Commission has exclusive jurisdiction over wholesale rates, the deterrence of uneconomic entry falls within the Commission's jurisdiction, and we are statutorily mandated to protect the [capacity market] against the effects of such entry."), *quoted with approval in NJBPU*, 744 F.3d at 100, *cited in Hughes v. Talen Energy Mktg., LLC*, 136 S. Ct. 1288, 1296 (2016); 2011 MOPR Rehearing Order, 137 FERC ¶ 61,145 at P 3 ("Our intent is not to pass judgment on state and local policies and objectives with regard to the

find that this replacement rate will ensure resource adequacy at rates that are just and reasonable and not unduly discriminatory or preferential.[24]

8. The second significant change we require in the replacement rate is that PJM must extend the MOPR to apply to all resource types.[25] The June 2018 Order did not find that PJM's ongoing review of new gas-fired resources under the current rule was unjust or unreasonable and nothing submitted in the paper hearing has persuaded us to alter that conclusion. However, the record in this proceeding demonstrates that gas-fired generation facilities "are not the only resources likely or able to suppress capacity prices."[26] The increased level of out-of-market support for certain renewable resources in PJM through RPS programs, in addition to out-of-market support for nuclear- and coal-fired plants through ZEC programs and the Ohio Clean Air program, requires us to revisit the Commission's earlier conclusion that non gas-fired resources do not require mitigation.

9. We therefore find that any resource, new or existing, that receives, or is entitled to receive, a State Subsidy, and does not qualify for one of the exemptions described in the

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development of new capacity resources, or unreasonably interfere with those objectives. 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 [capacity auction] is designed to produce, and that PJM as a whole, including other states, rely on to attract sufficient capacity."), *quoted with approval in NJBPU*, 744 F.3d at 101, *quoted with approval in Hughes*, 136 S. Ct. at 1296. This determination also comports with precedent in other regional markets. *See, e.g., ISO New England Inc.*, 162 FERC ¶ 61,205, at P 21 & n.32 (2018) (CASPR Order); *ISO New England, Inc.*, 135 FERC ¶ 61,029, at P 170 (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, 293-295 (D.C. Cir. 2014) (*NEPGA*); *Connecticut Dept. of Pub. Util. Control v. FERC*, 569 F.3d 477, 481 (D.C. Cir. 2009) (*Connecticut PUC*), *adopted in NJBPU*, 744 F.3d at 96-97.

[24] June 2018 Order, 163 FERC ¶ 61,236 at P 158; PJM Tariff, Att. DD, § 1 (stating, among other things, that the Reliability Pricing Model (RPM or capacity market) provides for the forward commitment of resources to ensure reliability in future delivery years); *see also* CASPR Order, 162 FERC ¶ 61,205 at P 21 (a capacity market should "produce a level of investor confidence that is sufficient to ensure resource adequacy at just and reasonable rates").

[25] *See* June 2018 Order, 163 FERC ¶ 61,236 at P 155.

[26] *Id.*

body of this order, should be subject to the MOPR.[27] Borrowing from the first two prongs of PJM's proposed definition of Material Subsidy, we consider a State Subsidy to be: a direct or indirect payment, concession, rebate, subsidy, non-bypassable consumer charge, or other financial benefit that is (1) a result of any action, mandated process, or sponsored process of a state government, a political subdivision or agency of a state, or an electric cooperative formed pursuant to state law, and that (2) is derived from or connected to the procurement of (a) electricity or electric generation capacity sold at wholesale in interstate commerce, or (b) an attribute of the generation process for electricity or electric generation capacity sold at wholesale in interstate commerce, or (3) will support the construction, development, or operation of a new or existing capacity resource, or (4) could have the effect of allowing a resource to clear in any PJM capacity auction. Demand response, energy efficiency, and capacity storage resources that participate in the PJM capacity market are considered to be capacity resources for purposes of this definition. Resources that receive, or are entitled to receive, State Subsidies (hereinafter referred to as State-Subsidized Resources) that intend to offer below the default offer price floor for a given resource type, and do not qualify for a categorical exemption, must support their offers through a Unit-Specific Exemption. We decline to adopt a materiality threshold for the level of State Subsidies or the size of State-Subsidized Resources. A threshold based on resource size will not prevent a collection of smaller resources from having a significant cumulative impact on competitive outcomes. In addition, if a State Subsidy is small enough for a capacity resource to perform economically without it, then the State-Subsidized Resource should be able to secure a Unit-Specific Exemption.

10. We find that we cannot, however, apply this approach to resources that receive out-of-market support through subsidies created by federal statute. That is not because we think that federal subsidies do not distort competitive market outcomes. On the contrary, federal subsidies distort competitive markets in the same manner that State Subsidies do. Nevertheless, the Commission's authority to set just and reasonable rates under the FPA comes from Congress and subsidies that are directed by Congress through federal legislation have the same legal force as the FPA. This Commission may not disregard or nullify the effects of federal legislation.[28]

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[27] New and existing resources that certify to PJM that they will forego any State Subsidies to which they are entitled qualify for the Competitive Exemption.

[28] *See, e.g., Morton v. Mancari*, 417 U.S. 535, 550-51 (1974) ("Where there is no clear intention otherwise, a specific statute will not be controlled or nullified by a general one, regardless of priority enactment."); *Silver v. N.Y. Stock Exchange*, 373 U.S. 341, 357 (1963) (an appropriate analysis is one that "reconciles the operation of both statutory schemes with one another rather than holding one completely ousted"); *Tug Allie-B. v. United States*, 273 F.3d 936, 941 (11th Cir. 2001) (reiterating general statutory

11. We also find that the just and reasonable replacement rate should provide five exemptions from application of the default offer price floor.

12. First, we direct PJM to include a Self-Supply Exemption for self-supply resources that fulfill at least one of these criteria: (1) have successfully cleared an annual or incremental capacity auction prior to this order; (2) have an executed interconnection construction service agreement on or before the date of this order; or (3) have an unexecuted interconnection construction service agreement filed by PJM for the resource with the Commission on or before the date of this order.[29] This exemption recognizes that many self-supply entities made resource decisions based on Commission orders indicating that those decisions would not be disruptive to competitive markets, including the Commission's acceptance in 2013 of the affirmative exemption for new self-supply resources prior to our order on remand from *NRG*.[30] However, as further discussed below, we can no longer assume that there is any substantive difference among the types of resources participating in PJM's capacity market with the benefit of State Subsidies. Going forward, new non-exempt resources owned by self-supply entities will be subject to review for offers below the default offer price floor on the same basis as other resources of the same type. Public power and vertically integrated utilities that prefer to craft their own resource adequacy plans remain free to do so through the FRR Alternative option already present in the existing PJM Tariff.

13. Second, we direct PJM to include a Demand Response, Energy Efficiency, and Capacity Storage Resources Exemption.[31] Demand response and energy efficiency resources that fulfill at least one of these criteria will be eligible: (1) have successfully cleared an annual or incremental capacity auction prior to this order; (2) have completed registration on or before the date of this order; or (3) have a measurement and verification plan approved by PJM for the resource on or before the date of this order. Similarly, capacity storage resources that fulfill at least one of these criteria will be eligible:

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construction canons that statutes relating to the same subject matter should be construed harmoniously and, if not, the more recent or specific statute should prevail over the older and more general law).

[29] *See infra* IV.D.3.

[30] *See PJM Interconnection, L.L.C.*, 143 FERC ¶ 61,090, at P 107-15 (2013) (2013 MOPR Order), *order on reh'g & compliance*, 153 FERC ¶ 61,066, at P 52-61 (2015) (2015 MOPR Order), *vacated & remanded sub nom. NRG Power Mktg., LLC v. FERC*, 862 F.3d 108 (D.C. Cir. 2017) (*NRG*). *But see* 2017 MOPR Remand Order 161 FERC ¶ 61,252, at P 41 (removing the self-supply exemption on remand from *NRG*), *reh'g pending*.

[31] *See infra* IV.D.4.

(1) have successfully cleared an annual or incremental capacity auction prior to this order; (2) have an executed interconnection construction service agreement on or before the date of this order; or (3) have an unexecuted interconnection construction service agreement filed by PJM for the resource with the Commission on or before the date of this order. This exemption is justified because these resources traditionally have been exempt from review. However, PJM must develop appropriate Net CONE values by resource class for these three categories of new resources to implement in the next annual auction, as well as appropriate Net ACR values for these three categories of resources that become existing resources in subsequent auctions. Contrary to PJM's position, we think it is feasible for PJM to determine those values for demand resources that rely on various types of behind-the-meter generation as a substitute for purchasing wholesale power. The scale may be different for behind-the-meter generation, but the fundamental elements of the analysis are the same. We realize that setting default offer price floor values may be more difficult for demand resources that commit to cease using wholesale power, rather than shift to behind-the-meter generation as an alternative to consuming wholesale power, and energy efficiency resources. For non-generating demand-side resources, PJM may rely on a historical averaging approach similar to the one it has already proposed for planned demand response resources to create a proxy default offer price floor,[32] recognizing that PJM may need to evaluate idiosyncratic costs for things such as lost manufacturing value when considering requests for a Unit-Specific Exemption.

14. Third, we direct PJM to include an RPS Exemption for renewable resources receiving support from state-mandated or state-sponsored RPS programs that fulfill at least one of these criteria: (1) have successfully cleared an annual or incremental capacity auction prior to this order; (2) have an executed interconnection construction service agreement on or before the date of this order; or (3) have an unexecuted interconnection construction service agreement filed by PJM for the resource with the Commission on or before the date of this order.[33] We find this exemption just and reasonable because the Commission has expressly exempted those resources in the past based on the assessment that such resources had little impact on clearing prices, and the initial investments in those resources—unlike certain existing resources that new State Subsidies are designed to retain—were made in reliance on earlier Commission determinations that the limited quantity of RPS resources would not undermine the market. Going forward, however, new non-exempt renewable resources will be subject to the Net CONE default offer price floor for their specific resource type. RPS resources that become existing resources after the next annual auction, and that do not qualify under one the exemptions we have directed, will be subject to the Net ACR default offer

[32] *See* PJM Initial Testimony at 42-43 & tbl. 2.

[33] *See infra* IV.D.1.

price floor for their specific resource type. We are aware that, as a practical matter, the Net ACR default offer price floor for existing renewable resources poses no real obstacle because PJM proposed to set that value at zero.[34] On compliance, we direct PJM to provide additional justification for that determination.

15. Fourth, we direct PJM to include a Competitive Exemption for both new and existing resources , including demand-side resources, that certify they will forego any State Subsidies. This exemption is based on the competitive entry exemption the Commission accepted in 2013, prior to the orders on remand from *NRG*.[35] We think it is sufficient, at this point, to allow a new or existing resource (other than a new gas-fired resource) to avoid review of a capacity offer below the applicable default price floor if the resource certifies to PJM that it will forego any State Subsidy.

16. Fifth, we direct PJM to maintain the Unit-Specific Exemption, expanded to cover existing and new State-Subsidized Resources of all resource types, to permit any resource that can justify an offer lower than the default offer floor to submit such bids to the Market Monitor for review. We find that PJM's Unit-Specific Exemption, with the modifications described below, is an important tool for establishing just and reasonable rates. This exemption is largely based on the exemption the Commission accepted in 2011 and reaffirmed in 2013. The replacement rate adopted here is intended to promote the market's selection of the most economic resources available to serve load reliably, not to reject resources simply because they are subsidized to some degree. The review process operates as a safety valve that helps to avoid over-mitigation of resources that demonstrate their offers are economic based on a rational estimate of their expected costs and revenues without reliance on out-of-market financial support through State Subsidies.[36] The review process may also help to mitigate offers by potential new

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[34] *See* PJM Initial Testimony at 46 & tbl. 3.

[35] *See* 2013 MOPR Order, 143 FERC ¶ 61,090 at PP 53-62; 2015 MOPR Order, 153 FERC ¶ 61,066 at PP 32-41. *But see* 2017 MOPR Remand Order, 161 FERC ¶ 61,252 at P 41 (removing the competitive entry exemption on remand from *NRG*).

[36] This assessment can be complex and must yield to some level of subjective judgment, but the financial modeling assumptions PJM proposed for calculating the Net CONE in proposed Tariff section 5.14(h)(iv)(B)(2) of its initial filing in the paper hearing appear to present a reasonable objective basis for the analysis of new entrants. These factors are: (i) nominal levelization of gross costs, (ii) asset life of 20 years, (iii) no residual value, (iv) all project costs included with no sunk costs excluded, (v) use first year revenues, and (vi) weighted average cost of capital based on the actual cost of capital for the entity proposing to build the capacity resource. PJM Initial Testimony at 42.

entrants who are less interested in following through on actual performance than reselling capacity obligations to other resources that fail to clear an auction.[37]

17. Exemptions, by definition, mean different treatment. Our decision that PJM should exempt certain existing resources by essentially grandfathering them from review is not, however, unduly discriminatory. The exemptions that we direct here are an extension or re-adoption of the *status quo ante* for many types of resources that accept the premise of a competitive capacity market,[38] have operated within the market rules as those rules have evolved over time, and made decisions based on affirmative guidance from the Commission indicating that those decisions would not be disruptive to competitive markets. This order addresses the growing impact of State-Subsidized Resources because those subsidies reject the premise of the capacity market and circumvent competitive outcomes.

I. Background

18. PJM operates the largest wholesale competitive electricity market in the country, covering 13 states and the District of Columbia. To protect customers against the possibility of losing service, PJM is responsible for ensuring that its system has sufficient generating capacity to meet its resource adequacy obligations, which it does through a capacity market. PJM's capacity construct has evolved over time. The current market design, the RPM, was first approved by the Commission in 2006.[39] Under the RPM, the procurement and pricing of unmet capacity obligations is done on a multi-year forward basis through an auction mechanism.[40] Since the prices for capacity are determined in these forward auctions, the RPM construct introduced a MOPR for new resources, subject to certain conditions, to ensure these resources did not depress capacity market prices below a competitive level.[41] This MOPR did not apply to baseload resources that required more than three years to develop (nuclear, coal, integrated gasification combined cycle facilities), hydroelectric facilities, or any upgrade or addition to an existing

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[37] *See* generally Monitoring Analytics, Analysis of Replacement Capacity for RPM Commitments: June 1, 2007 to June 1, 2017 (PJM IMM Dec. 14, 2017).

[38] This Commission determined many years ago that the best way to ensure the most cost-effective mix of resources is selected to serve the system's capacity needs was to rely on competition. That model cannot work if we allow State Subsidies to distort the economic selection of adequate power supplies for the multi-state PJM region.

[39] *PJM Interconnection, L.L.C.*, 115 FERC ¶ 61,079, at P 9 (2006).

[40] *PJM Interconnection, L.L.C.*, 117 FERC ¶ 61,331, at P 6 (2006).

[41] *Id.* P 103.

generation capacity resource. Additionally, the initial MOPR included the state mandate exemption, which exempted any new entry being developed in response to a state regulatory or legislative mandate to resolve a projected capacity shortfall affecting that state in the delivery year.[42]

19. PJM's MOPR was revisited in 2008 and 2009,[43] and again in 2011, when the Commission responded to a complaint by the PJM Power Providers Group (P3) and Tariff revisions proposed by PJM to address certain procurement initiatives in New Jersey and Maryland that sought to support entry of new generation through out-of-market payments. In particular, PJM proposed to replace the state mandate exemption with a new requirement that a request for a MOPR exemption, 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 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 or adversely impact [the Commission's] ability to set just and reasonable rates for capacity sales."[44] In the 2011 MOPR proceeding, PJM's MOPR was revised to eliminate the state mandate exemption, but the Commission rejected PJM's proposed section 206 replacement mechanism as duplicative of an aggrieved party's right to seek section 206 relief.[45] The 2011 MOPR proceeding also, among other things, accepted a unit-specific review process authorizing PJM and the IMM to review cost justifications submitted by resources whose sell offers fell below the established floor.[46] Wind and solar facilities were also added to the list of resources permitted to make zero-priced offers and upgrades and additions to existing capacity resources were no longer exempted.[47]

20. Further changes to the MOPR were made in 2013 in response to PJM's proposed Tariff revisions to address the effects of new, state-supported natural gas-fired entrants. In the 2013 MOPR proceeding, the Commission conditionally accepted PJM's proposal

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[42] *Id.* P 103 n.75.

[43] *See PJM Interconnection, L.L.C.*, 123 FERC ¶ 61,037 (2008); PJM Interconnection, L.L.C., 124 FERC ¶ 61,272 (2008); *PJM Interconnection, L.L.C.*, 126 FERC ¶ 61,275 (2009), *order on reh'g and compliance, PJM Interconnection*, L.L.C., 128 FERC ¶ 61,157 (2009).

[44] 2011 MOPR Order, 135 FERC ¶ 61,022 at P 125 (internal quotations omitted).

[45] 2011 MOPR Rehearing Order, 137 FERC ¶ 61,145 at P 139.

[46] *Id.* P 242.

[47] *Id.* P 152.

to categorically exempt competitive entry and self-supply, subject to PJM's retaining the unit-specific review process, which PJM had proposed to eliminate. Under the competitive entry exemption, a market seller could qualify for exemption if it received no out-of-market funding, or if the resource received outside funding, such funds were a product of participating in a competitive auction open to all available resources.[48] The self-supply exemption exempted public power, single customer entities, and vertically integrated utilities from the MOPR, subject to certain net-short or net-long thresholds.[49] The 2013 MOPR proceeding revised the MOPR to expressly state the MOPR applied only to gas-fired resources, namely combustion turbine, combined cycle, and integrated gasification combined cycle resources.[50]

21. While these changes were initially accepted by the Commission, the United States Court of Appeals for the District of Columbia found, in July 2017, that the Commission exceeded its FPA section 205 authority in modifying PJM's proposal.[51] Accordingly, the court vacated and remanded the relevant Commission orders. On remand, the Commission rejected PJM's competitive entry and self-supply exemptions because, without the addition of the unit-specific review process, there was no means for non-exempted resources with costs lower than the default offer price floor to be considered competitive in the auction.[52] Consequently, PJM's previously approved market design, i.e., the market design in effect prior to the 2013 MOPR proceeding, was reinstated in 2017. At present, PJM's current MOPR requires that all new, non-exempted natural gas-fired resources offer at or above the default offer price floor, equal to the Net CONE for the resource type, or choose the unit-specific review process. Because only new, non-exempted natural gas-fired resources are subject to review under PJM's current MOPR, it permits zero-priced offers by nuclear, coal, integrated gasification combined cycle, wind, solar, and hydroelectric resources.[53]

22. The June 2018 Order was the next substantive order addressing PJM's MOPR. As noted in the June 2018 Order, over the last few years the PJM region has experienced a significant increase in out-of-market payments provided by states for the purpose of supporting the entry or continued operation of preferred resources that may not otherwise

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[48] 2013 MOPR Order, 143 FERC ¶ 61,090 at PP 24, 53.

[49] *Id.* PP 25, 107.

[50] *Id.* PP 145, 166.

[51] *NRG*, 862 F.3d at 117.

[52] 2017 MOPR Remand Order, 161 FERC ¶ 61,252 at P 41.

[53] *Id.* PP 41-42.

be able to clear in the competitive wholesale capacity market. Such uneconomic entry and retention allows for the distortion of capacity market prices and compromises the ability of those prices to serve as signals for the efficient entry and exit of resources. The June 2018 Order noted that what started as limited state support for renewable resources has grown to include support for thousands of megawatts (MW) of resources ranging from small solar and wind farms to large nuclear plants. In addition, renewable generation targets for state RPS programs continue to increase.[54] Further, State Subsidies for capacity resources continue to expand to cover additional resource types based on an ever-widening scope of justifications.[55]

23. As this trend developed, the Calpine Complainants, filed a complaint in Docket No. EL16-49-000 on March 21, 2016, asserting that PJM's Tariff, specifically the MOPR, is unjust and unreasonable because it does not address the effect of subsidized resources on the capacity market. The Calpine Complainants argued that subsidized resources submit bids lower than their true costs to make sure they clear the market, thereby suppressing capacity market prices. In May 2017, during a period in which the Commission had no quorum, Commission staff conducted a technical conference to explore the impact of state subsidies on regional capacity markets. Subsequently, on April 9, 2018, PJM proposed revisions to the MOPR in Docket No. ER18-1314-000 (PJM 2018 April Filing), aimed at addressing the price impacts of state out-of-market support for capacity resources. PJM proposed two mutually exclusive alternatives: Capacity Repricing, 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,

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[54] *See infra* P 175.

[55] Since the June 2018 Order, some states have also enacted new legislation to subsidize new or existing resources. *See* Ohio Clean Air Program, House Bill No. 6, 133rd Gen. Assemb., Reg. Sess. (July 23, 2019) (making numerous modifications to the Ohio Revised Code to provide subsidies for certain nuclear and coal-fired resources, effective Oct. 22, 2019); Maryland Clean Energy Jobs Act, Senate Bill No. 516, 2019 Reg. Sess. (cross-filed as H.B. 1158) (May 25, 2019) (requiring, among other things, an increase in the state's RPS target to 50% by 2030). In addition, Pennsylvania is currently considering several bills to support nuclear and renewable resources. For example, House Bill 1195 and Senate Bill 600 would increase the usage requirement of Tier 1 renewable resources in the Alternative Energy Portfolio Standards (AEPS) from 8% to 30% by 2030 and dedicate 7.5% of that target to in-state grid-scale solar and 2.5% to distributed solar generation. House Bill 11, would create a third tier for nuclear power in the state's AEPS program, from which suppliers must buy an additional 50% of their power by 2021.

and MOPR-Ex, an extension of PJM's existing MOPR to include both new and existing resources, subject to certain exemptions, including a unit-specific review process.

24. In the June 2018 Order, the Commission addressed the Calpine complaint and PJM's April 2018 filing. First, the Commission rejected PJM's Capacity Repricing proposal, finding 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."[56] Second, the June 2018 Order also rejected PJM's MOPR-Ex proposal as unjust and unreasonable and unduly discriminatory. The Commission found that, while PJM's MOPR-Ex proposal would have prevented some resources, but not others, that receive certain out-of-market support from displacing competitive resources and suppressing prices, PJM failed to "provide 'a valid reason for the disparity' among resources that receive out of market support through [RPS] programs, which [we]re exempt from the MOPR-Ex proposal, and other state-sponsored resources, which [we]re not."[57]

25. Next, acting on the records of the Calpine complaint proceeding and PJM's April 2018 filing, the June 2018 Order found that PJM's existing Tariff is unjust and unreasonable because PJM's existing MOPR fails to protect the wholesale capacity market against price distortions from out-of-market support for uneconomic resources. The Commission stated 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."[58] The Commission further stated that out-of-market support by states has reached a "level sufficient to significantly impact 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."[59] The Commission explained that out-of-market support permits new and existing resources to submit low or zero priced offers into the capacity market, resulting in price distortions and cost shifts while retaining uneconomic resources.[60]

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[56] June 2018 Order, 163 FERC ¶ 61,236 at P 64.

[57] *Id.* P 100 (quoting *Black Oak Energy, LLC v. FERC*, 725 F.3d 230, 239 (D.C. Cir. 2013)).

[58] *Id.* P 156.

[59] *Id.*

[60] *Id.* PP 150, 153-55.

26. While the Commission found that PJM's Tariff was unjust and unreasonable, the Commission stated that it could not make a final determination regarding a just and reasonable replacement rate based on the record presented. The June 2018 Order preliminarily found that a replacement rate should expand the MOPR to cover out-of-market support for all new and existing resources, regardless of resource type, with few to no exemptions.[61] The June 2018 Order also proposed and sought comment on the potential use of a resource-specific FRR Alternative option as a method of accommodating resources that receive out–of–market support while protecting the integrity of the PJM capacity market for competitive resources and load.[62] The Commission initiated a paper hearing to allow the parties to submit additional arguments and evidence regarding the replacement rate.[63]

II. Notice of Paper Hearing and Responsive Pleadings

27. Notice of the paper hearing was published in the *Federal Register*, 83 Fed. Reg. 32,113 (2018), with interventions due on or before July 20, 2018. Timely-filed motions to intervene and motions to intervene out-of-time were submitted by the entities listed in Appendix 1 to this order.[64]

28. The June 2018 Order established a paper hearing schedule with an initial round of testimony, evidence, and/or argument due within 60 days of June 2018 Order, with reply testimony due 30 days thereafter. Following a motion from the Organization of PJM States, Inc. (OPSI) to extend the testimony deadline, the Commission extended the deadline for filing initial testimony, evidence, and/or argument to October 2, 2018, with reply testimony filed November 6, 2018. Such testimony was submitted by the entities listed in Appendix 2 to this order.

29. In addition, answers were submitted by Exelon, on November 21, 2018; FirstEnergy Utilities, on November 26, 2018; Direct Energy Business Marketing, et al. and NextEra Energy Resources, LLC, and PJM, on December 6, 2018; Clean Energy Industries, on

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[61] *Id.* P 158.

[62] *Id.* PP 160-61.

[63] *Id.* PP 8, 149, 157, 164-72.

[64] For a listing of previously granted interventions in this proceeding, *see* June 2018 Order, 163 FERC ¶ 61,236 at App. 1 & App. 2.

December 20, 2018;[65] Union of Concerned Scientists, on December 26, 2018; PSEG Companies, on December 28, 2018 and August 20, 2019; PJM Industrial Customer Coalition, on January 15, 2019; Joint Consumer Advocates, on April 2, 2019;[66] and LS Power Associates, L.P., in the form of Motions to Lodge, on April 5, 2019 and August 16, 2019. Joint Stakeholders filed reply comments to PSEG's August 20, 2019 comments on August 23, 2019. AEP and Duke filed reply comments to LS Power's August 16, 2019 motion to lodge on August 29, 2019.

III. Procedural Matters

30. Pursuant to Rule 214 of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.214 (2019), timely, unopposed motions to intervene serve to make the entities that filed them parties to this proceeding. In addition, pursuant to Rule 214(d) of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.214(d) (2019), the Commission will grant the unopposed late-filed motions to intervene, given the parties' interest in this proceeding, the early stage of the proceeding, 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) (2019), prohibits an answer unless otherwise ordered by the decisional authority. We accept the answers filed by Exelon, FEU, Joint Parties, PJM, Clean Energy Industries, UCS, PSEG, PJM-ICC, Joint Stakeholders, AEP/Duke, Joint Consumer Advocates, and LS Power, because they have assisted us in our decision-making process.

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[65] Clean Energy Industries is comprised of the following entities: the American Wind Energy Association; the Solar RTO Coalition; and the Solar Energy Industries Association.

[66] Joint Consumer Advocates is comprised of the following entities: Illinois Citizens Utility Board; West Virginia Consumer Advocate Division; Delaware Division of the Public Advocate; Maryland Office of People's Counsel; and the Office of the People's Counsel for the District of Columbia.

IV. Discussion

A. Expanded MOPR

1. Replacement Rate Expanded MOPR

32. In the June 2018 Order, the Commission preliminarily found that PJM should expand the MOPR to cover out-of-market support to all new and existing resources, regardless of the resource type, with few or no exceptions.[67] We reaffirm that finding.

a. Intervenor Positions

33. Multiple intervenors support an expanded MOPR with few or no exemptions.[68] Some argue that, because all resources receiving out-of-market support at least in theory have the ability to submit low offer prices in the capacity market, regardless of the nature or purpose of the out-of-market support they receive, an expanded MOPR should extend to any and all capacity resources that receive out-of-market support, without exception.[69] Several intervenors contend that exemptions to the MOPR would be contrary to the goals and policy described in the June 2018 Order, including that states must bear the cost of their own actions.[70]

34. Conversely, other intervenors oppose an expanded MOPR.[71] The Illinois Attorney General argues that PJM's existing MOPR rules and definitions, which it contends were

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[67] June 2018 Order, 163 FERC ¶ 61,236 at P 158.

[68] *See, e.g.*, ACCCE/NMA Initial Testimony at 3-4; API Initial Testimony at 21-22; Brookfield Initial Testimony at 2, 6; LS Power Initial Testimony at 7-8; NEI Initial Testimony at 5; NRG Initial Testimony at 8; Ohio Commission Initial Testimony at 2; P3 Initial Testimony at 9-11; Starwood Initial Testimony at 2-3; Vistra Reply Testimony at 7-8, Russo Reply Aff. at 29.

[69] *See, e.g.*, NEI Initial Testimony at 5; API Initial Testimony at 20; Exelon Initial Testimony at 17; LS Power Initial Testimony at 9.

[70] API Initial Testimony at 21-22; Exelon Initial Testimony at 6 (citing June 2018 Order, 163 FERC ¶ 61,236 at P 162); Exelon Reply Testimony at 56; LS Power Initial Testimony at 9-10.

[71] *See, e.g.*, ELCON Initial Testimony at 2-4, 7; IMEA Reply Testimony at 4; Policy Integrity Initial Testimony at 6-16 (arguing an expanded MOPR without an accommodation mechanism is not just and reasonable); Joint Consumer Advocates Initial

designed to address monopsony power, are not the best model to achieve the Commission's goal in this proceeding.[72] Some intervenors also argue that expanding the MOPR will increase costs to load by elevating offers above competitive levels,[73] especially in zones where one generator has substantial market power,[74] or by causing PJM to over-procure capacity.[75] Policy Integrity argues that excess capacity is undesirable and may lead to consumers paying twice for available capacity, while lowering energy market prices.[76] Policy Integrity contends that lower energy prices could lead to inflated capacity market prices, if resources were required to bid higher to recover their costs.[77]

35. Some intervenors argue that an expanded MOPR could increase the risk of market participants exercising supplier-side market power, because it would reduce the number of bidders in price ranges below the default offer price floors, as well as the opportunity cost of withholding capacity.[78] The Illinois Attorney General submits that a supplier with market power could be incentivized to bid a subsidized resource high to increase the clearing price for its other, non-subsidized units, but the MOPR only addresses incentives to bid a resource below cost.[79] As such, the Illinois Attorney General urges the Commission to adopt rules that consider whether a subsidized resource is "part of an

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Testimony at 2; New Jersey Board Reply Testimony at 4; Illinois Commission Initial Testimony at 3.

[72] Illinois Attorney General Initial Testimony at 10.

[73] ELCON Initial Testimony at 4.

[74] Illinois Attorney General Initial Testimony at 13. The Illinois Attorney General argues that there are not enough resources in ComEd for the zone to clear without some of Exelon's nuclear units clearing, and accuses Exelon of withholding capacity to raise the zonal clearing price. Illinois Attorney General Initial Testimony at 8; *see also* PJM Consumer Representatives Reply Testimony at 17 (agreeing with the Illinois Attorney General that the capacity market is subject to excessive market power and urging the Commission to consider this in its determination).

[75] Policy Integrity Initial Testimony at 7, 12.

[76] *Id.* at 13.

[77] *Id.*

[78] *Id.* at 7, 15-16; Clean Energy Advocates Reply Testimony at 4.

[79] Illinois Attorney General Initial Testimony at 13.

organization (1) that does not have any interest in reducing capacity prices due to its ownership of other resources that receive capacity revenues, and (2) that can exercise market power in the capacity market."[80] Finally, the Illinois Attorney General asserts that the Commission should require release of bidding data for any auction in which resources subject to the new MOPR participate to the Market Monitor, as well as requesting state commissions, state attorneys general, and state utility consumer representatives, to provide transparency and ensure that the exercise of market power and unjust and unreasonably high prices are not an unintended consequence of the MOPR.[81]

36. Joint Consumer Advocates state that the application of an expanded MOPR could substantially impact the ability of vertically integrated states to continue to participate in PJM's capacity market.[82] Joint Consumer Advocates further state that, while applying the MOPR to self-supply resources in regulated states would result in unjust and unreasonable rates, there is no rational distinction in applying the MOPR to resources receiving out-of-market payments but not to self-supply, which also receive out-of-market cost recovery.[83]

b. Commission Determination

37. We find that an expanded MOPR that applies to new and existing capacity resources that receive, or are entitled to receive, a State Subsidy, unless the resource qualifies for an exemption, as discussed below, is a just and reasonable means to address State Subsidies.[84] PJM's existing MOPR fails to consider whether resource types other than new natural gas-fired resources are offering competitively in the capacity market without the influence of State Subsidies. The record in this proceeding indicates that State Subsidies for both existing and new resources are increasing, especially out-of-

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[80] *Id.* at 9.

[81] *Id.* at 14.

[82] Joint Consumer Advocates Initial Testimony at 13; Joint Consumer Advocates Reply Testimony at 6-7.

[83] Joint Consumer Advocates Reply Testimony at 6.

[84] PJM Tariff, App. DD, § 1 (stating, among other things, that the RPM provides the forward commitment of resources to ensure reliability in future delivery years); *see also* CASPR Order, 162 FERC ¶ 61,205 at P 21 (a capacity market should "produce a level of investor confidence that is sufficient to ensure resource adequacy at just and reasonable rates").

38. market state support for renewable and nuclear resources.[85] The June 2018 Order thus found PJM's existing MOPR provisions unjust and unreasonable and unduly discriminatory because they failed 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 existing uneconomic resources in operation, or to support the uneconomic entry of new resources, regardless of generation type or quantity of the resources supported by such out-of-market support."[86]

39. In response to arguments that PJM's MOPR was designed to address monopsony power and is therefore not well suited to address State Subsidies, we disagree. A purpose of the MOPR has been to address price suppression.[87] Consistent with that policy, the Commission accepted PJM's proposal to eliminate the state mandate exemption in 2011, because state sponsorship of uneconomic new entry can produce unjust and unreasonable rates by artificially suppressing capacity prices.[88] This order does not, therefore, change the purpose of the MOPR, but only changes its scope in response to new efforts to provide State Subsidies to existing resources, or increased support for other types of new resources, that threaten to depress market clearing prices below competitive levels. If a seller believes that the default offer price floor for its resource type is not representative of its resource's costs, the seller may apply for a Unit-Specific Exemption, as described below (see IV.D.5).

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[85] *See* June 2018 Order, 163 FERC ¶ 61,236 at PP151-155 (discussing evidence of growing state subsidies); *see also* Calpine Initial Comments at 3. States have also passed bills subsidizing resources since the June 2018 Order. *See supra* note 55 (describing recent legislation).

[86] June 2018 Order, 163 FERC ¶ 61,226 at P 150.

[87] *PJM Interconnection, L.L.C.*, 117 FERC ¶ 61,331 at P 34 (explaining that the MOPR would apply to sellers that "may have incentives to depress market clearing prices below competitive levels").

[88] *E.g.*, 2011 MOPR Order, 135 FERC ¶ 61,022 at P 141 (accepting PJM's proposal to eliminate the state mandate exemption, stating that uneconomic entry can produce unjust and unreasonable rates by artificially suppressing capacity prices), *aff'd sub nom. NJBPU*, 744 F.3d at 97-102.

40. We further disagree with intervenors that an expanded MOPR will increase the risk of market participants exercising supplier-side market power. This speculative concern is not sufficiently supported in the record of this proceeding. Further, there are existing provisions in PJM's Tariff to address supplier-side market power. We also reject Illinois AG's proposal to require the release of offer data. Offer data is sensitive commercial information, which we decline to make generally available.[89]

41. As to arguments that an expanded MOPR will unjustly and unreasonably increase costs to consumers, 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."[90] States have the right to pursue policy interests in their jurisdictions. Where those state policies allow uneconomic entry into the capacity market, the Commission's jurisdiction applies, and we must ensure that wholesale rates are just and reasonable.[91] The replacement rate directed in this order will enable PJM's capacity market to send price signals on which investors and consumers can rely to guide the orderly entry and exit of economically efficient capacity resources.

42. Finally, while this order largely focuses on the changes we are requiring to PJM's MOPR, we clarify that the MOPR will continue to apply to new natural gas-fired combustion turbine and combined cycle resources. Although the June 2018 Order focused on State Subsidies, the order nonetheless recognized that new natural gas-fired resources remain able to suppress capacity prices.[92] We find that this record has not demonstrated a need to eliminate the existing MOPR and so the MOPR should continue to apply to new natural gas-fired resources, regardless of whether they receive State Subsidies.

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[89] *See, e.g.*, 5 U.S.C. § 552(b)(4) (2018) (exempting from mandatory disclosure trade secrets and confidential commercial and financial information); 18 C.F.R. § 388.107(d) (2019)..

[90] *NJBPU*, 744 F.3d at 96-97 (quoting *Connecticut PUC*, 569 F.3d at 481).

[91] *See NJBPU*, 744 F.3d at 100 (affirming the Commission's decision to eliminate the state mandate exemption because "below-cost entry suppresses capacity prices…[the Commission is] statutorily mandated to protect the [PJM capacity auction] against the effect of such entry"); *see also supra* note 23 (listing relevant Commission and judicial precedent).

[92] June 2018 Order, 163 FERC ¶ 61,236 at PP 151, 155.

2. Resources Subject to the Expanded MOPR

a. PJM's Proposal

43. PJM proposes that demand resources and generation capacity resources, existing and planned, internal and external, that meet certain materiality criteria will be considered material resources that are subject to the MOPR.[93] PJM also proposes a number of exclusions. PJM proposes to exclude a generation resource for which "electricity production is not the primary purpose of the facility at which the energy is produced, but rather . . . is a byproduct of the resource's primary purpose."[94] PJM notes that such resources include those fueled by landfill gas, wood waste, municipal solid waste, black liquor, coal mine gas, or distillate fuel oil. PJM asserts that it is appropriate to exempt such resources because energy production is only a byproduct of these resources' primary economic purpose.[95] PJM also proposes to exclude energy efficiency resources, asserting that energy efficiency "resources are generally the result of a focus on reduced consumption and energy conservation, which are on the demand side of the equation, and do not raise price suppression concerns."[96]

b. Intervenor Positions

44. With regard to PJM's proposal to exclude resources whose primary purpose is not energy production, some intervenors support PJM's proposal.[97] For example, Microgrid requests that PJM's proposed exemption be expanded to cover any resource with a primary purpose other than the production of wholesale electricity (i.e., sale for resale), arguing that microgrid operations often reflect a combination of purposes, with wholesale

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[93] PJM Initial Testimony at 15; proposed Tariff, Att. DD, § 5.14(h)(ii)(a). PJM's proposed materiality thresholds are discussed *infra* IV.B.

[94] *Id.* at 19.

[95] *Id.*

[96] *Id.* at 15 n.20; *see* proposed Tariff at Att. DD, § 5.14(h)(ii)(A) (limiting the term Capacity Resource with Actionable Subsidy, in relevant part, to a "Demand Resource or a Generation Capacity Resource, or uprate or planned uprate, to a Generation Capacity Resource[.]").

[97] PJM Consumer Representatives Reply Testimony at 5-6; IMEA Reply Testimony at 12.

power production as "value added" to those purposes.[98] At a minimum, Microgrid requests that the asset-backed demand resources such as microgrids be included in the exemption for resources for which electricity production is not the primary purpose of the facility.[99] Others oppose PJM's proposed exemption for resources not primarily engaged in energy production.[100] Joint Consumer Advocates argue that the purpose for which a facility exists is irrelevant to whether it poses a price suppression risk.[101]

45. AEE argues that seasonal resources should be exempt from the MOPR, because they have different economics than annual capacity resources and do not rely on clearing the capacity market to enter the PJM market or to stay in operation.[102] AEE contends that these resources have widely varying business models and reasons for offering at a certain level, and that, as such, it would be difficult to develop a reasonable default offer price floor to apply.[103] Further, AEE contends that the decision to offer seasonally and forgo six months of capacity revenue indicates that these resources are economic based on their revenue from other markets.[104]

46. DC Commission argues that seasonal demand response should be exempt from the MOPR because it is not a Capacity Performance resource.[105] To the extent some of its demand response is subject to the MOPR because it matches in the capacity auction to become an annual product, DC Commission requests the Commission exempt it from the

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[98] Microgrid Reply Testimony at 13. These purposes may include: "cost effective self-supply, thermal and electric applications, the ability to island included load and the related resiliency benefits, and environmental performance." *Id.*

[99] *Id.*

[100] Talen Reply Testimony at 5; *see also* Joint Consumer Advocates Reply Testimony at 5-6.

[101] Joint Consumer Advocates Reply Testimony at 5-6.

[102] AEE Initial Testimony at 23; *see also* Maryland Commission Reply Testimony at 9.

[103] AEE Initial Testimony at 24.

[104] *Id.* at 24-25.

[105] DC Commission Initial Testimony at 4; *see also* Maryland Commission Initial Testimony at 12.

47. MOPR.[106] DC Commission submits that almost all PJM states have demand response programs that partially rely on PJM's capacity market as a benefit, and subjecting these programs to a MOPR would increase prices in the long term.[107] The Maryland Commission similarly argues that seasonal resources should be exempt because the total amount of winter-only capacity resources that typically aggregate with summer-only demand response and energy efficiency capacity resources is low RTO-wide and would strand these summer capacity resources, which are important elements of federal and state energy policies. The Maryland Commission thus requests that resources that offer capacity into the BRA for the purpose of aggregating with seasonal resources should be exempt from the MOPR.[108]

48. In response to the Maryland Commission's request, PJM asserts that seasonal aggregated resources, which are currently composed entirely of wind resources, should be able to clear the BRA because PJM's proposed default offer price floor for existing wind resources is zero dollars. PJM further submits that the appropriate place to address the aggregation of seasonal resources is in Docket Nos. EL17-32-000 and EL17-36-000.[109]

49. Some intervenors argue that first-of-a-kind technologies should be exempt from the MOPR.[110] The Maryland Commission asserts that subsidized emerging technologies have the potential to pave the way for other future developments that could spur competition and benefit ratepayers across the PJM region without the need for further subsidization.[111] The Maryland Commission contends that such projects are few and merit exemption from a MOPR.[112] The Maryland Commission argues that, because such subsidies are not specifically targeted for the interest of the sponsoring state and provide benefits to the entire PJM region, the Commission should allow an RTO-wide exemption for the first 375 MW, per resource type, of all planned or existing resources that are first-

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[106] DC Commission Initial Testimony at 5; *see also* DC Consumers Counsel Initial Testimony at 10-11.

[107] DC Commission Initial Testimony at 7.

[108] Maryland Commission Initial Testimony at 12.

[109] PJM Reply Testimony at 16.

[110] DC People's Counsel Initial Testimony at 10-11; Maryland Commission Initial Testimony at 12-13; Joint Consumer Advocates Initial Testimony at 14.

[111] Maryland Commission Initial Testimony at 12-13.

[112] *Id.* at 13.

of-a-kind developments in PJM.[113] The Maryland Commission asserts that a total amount of 375 MW will have a *de minimis* impact on PJM's capacity market and could serve to fuel future competition that is valued in competitive markets.[114] The Joint Consumer Advocates support an exemption for innovative technology up to 350 MW.[115] AEE agrees that a broadly expanded MOPR could prevent new advanced energy technologies from participating in the markets and create disincentives to innovation.[116]

c. Commission Determination

50. We find that PJM must apply the MOPR to all new and existing, internal and external, State-Subsidized Resources that participate in the capacity market, regardless of resource type, with certain exemptions described *infra* section IV.D.[117]

51. We disagree that capacity resources that receive or are entitled to receive a State Subsidy and whose primary purpose is not electricity production should be categorically exempt from the MOPR. We find no reason to distinguish capacity resources based on whether they primarily exist to produce energy or produce energy as a byproduct of another function, like burning waste.[118] The type of resource is immaterial if the resource receives a State Subsidy and thus has the ability to suppress capacity prices.

52. We find that seasonal resources are properly considered capacity resources and should be subject to the MOPR if they receive or are entitled to receive a State Subsidy and do not qualify for one of the exemptions discussed in this order. A seasonal resource receiving a State Subsidy has the same ability to affect capacity prices as other State-Subsidized Resources and thus there is no reason to distinguish between resources. We disagree with AEE that PJM's Tariff should exempt seasonal resources from the MOPR because their widely varying business models may make it administratively difficult to develop an appropriate default offer price floor to be applied to these resources. We

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[113] *Id.*

[114] *Id.*

[115] Joint Consumer Advocates Initial Testimony at 14.

[116] AEE Initial Testimony at 5.

[117] June 2018 Order, 163 FERC ¶ 61,236 at P 158. Capacity resource, as used in this order, means all resource types that seek to participate in PJM's capacity market.

[118] However, as discussed *infra*, federally-mandated sales of energy and capacity by Qualifying Facilities do not fall under our defined term of State Subsidy. See *infra* note 143.

address default offer price floors in IV.C below. If a seasonal resource is able to make an economic offer without reliance on a State Subsidy, that resource may apply for the Unit-Specific Exemption, or it may forego any State Subsidy to qualify for the Competitive Exemption.

53. We also find it is unnecessary to categorically exempt seasonal resources that receive or are entitled to receive State Subsidies based on AEE's characterization of seasonal resources as categorically "economic" because they forego six months of capacity market income or otherwise do not rely on capacity market revenues to stay in business. Rather, AEE's argument only demonstrates that no separate exemption is needed, because such a resource could qualify for a Unit-Specific Exemption, or it may forego any State Subsidy to qualify for the Competitive Exemption. Nor are we persuaded that seasonal resources should be exempt from the MOPR either because the total MW level of winter-only capacity resources that aggregate is low or that seasonal demand response resources are not Capacity Performance resources. As the purpose of the expanded MOPR is to limit the influence of State Subsidies on PJM's multi-state wholesale capacity market, we affirm that each capacity resource with a State Subsidy—including seasonal resources—must be subject to an appropriate default offer price floor for its resource type unless it qualifies for one of the exemptions discussed in this order.

54. We disagree with PJM's proposal to exclude energy efficiency resources while also proposing to include demand resources. PJM provides no rationale for treating these resource types differently with respect to the expanded MOPR, as both modify demand and are represented on the supply side. We therefore find that the expanded MOPR should apply to energy efficiency resources, as well as demand response, when either of those types of resources receive or is entitled to receive a State Subsidy, unless they qualify for one of the exemptions described in this order. We also find that capacity storage resources and emerging technology should be subject to the applicable default offer price floor if they receive, or are entitled to receive a State Subsidy, unless they qualify for one of the exemptions described in this order. We address the specific default offer price floors for these resources in section IV.C. However, as discussed in section IV.D below, we direct PJM to include an exemption for existing demand response, energy efficiency, and capacity storage resources. All resources that participate in the PJM capacity market – including demand response, energy efficiency, storage, cogeneration, and seasonal resources – can impact the competitiveness of the capacity market and the resource adequacy it was designed to address.

3. Subsidies Subject to the Expanded MOPR

a. PJM's Proposal

55. Subject to certain exemptions addressed below, PJM proposes to subject resources receiving a Material Subsidy to the MOPR. PJM proposes to define a "Material Subsidy" to include: "(1) material payments, concessions, rebates, or subsidies as a result of any

state-governmental action connected to the procurement of electricity or other attribute from an existing Capacity Resource, or the construction, development, or operation, (including but not limited to support that has the effect of allowing the unit to clear in any [PJM capacity auction]) of a Capacity Resource, or (2) other material support or payments obtained in any state-sponsored or state-mandated processes, connected to the procurement of electricity or other attribute from an existing Capacity Resource, or the construction, development, or operation, (including but not limited to support that has the effect of allowing the unit to clear in any [PJM capacity auction]), of the Capacity Resource."[119]

56. PJM further proposes to apply its expanded MOPR to internal and external capacity resources receiving state subsidies where the relevant seller, among other things, "is entitled to a Material Subsidy with regard to such Capacity Resource and the [seller] has not certified that it will forego receiving any Material Subsidy for such Capacity Resource during the applicable Delivery Year, or the [seller] has received a Material Subsidy with regard to such Capacity Resource and yet to clear any RPM Auction since it received Material Subsidy."[120]

57. In its Answer, PJM asserts that, under its proposed definition of a subsidy subject to the expanded MOPR, the subsidy need not be explicitly stated or captured in a distinct rate; the expanded MOPR, rather, would cover any state-directed procurement that includes a non-bypassable charge or other rate to retail customers imposed by law or regulation.[121] PJM also clarifies that a bilateral transaction for capacity and/or other attributes that is not state-directed and/or that does not result in a non-bypassable charge to consumers would not be considered a Material Subsidy.[122]

b. Intervenor Positions

58. Several intervenors argue that PJM's MOPR should be targeted to only address resources and subsidies that intend to suppress, or are capable of suppressing, market clearing prices.[123] Some intervenors argue similarly that the MOPR should only target

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[119] PJM Initial Testimony at 19-20; *see* proposed Tariff, § 1 – New Definitions (Material Subsidy). We address PJM's proposed provisions with respect to federal subsidies *infra* IV.A.5.

[120] PJM Initial Testimony at 25-28; *see* proposed Tariff, Att. DD, § 5.14(h)(vi).

[121] PJM Answer at 18.

[122] *Id.* at 20-21.

[123] *See, e.g.*, Brookfield Reply Testimony at 6-7.

subsidies that have been shown to materially affect capacity offers,[124] or only address those subsidies that affect the market in the manner suggested in the June 2018 Order, meaning subsidies provided by 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.[125]

59. Clean Energy Industries argue that state policies that utilize competitive bidding processes should not be considered "actionable subsidies" because such competitive processes do not create revenue certainty and do not reasonably impact capacity market bidding behavior.[126] Similarly, AEE argues that a MOPR exemption should be provided for capacity resources that receive out-of-market revenues through a state policy or program that selects resources through a competitive process, including resources winning an all-source, technology-neutral request for proposals that meets the Commission's previously-established standards for competitive solicitations.[127]

60. ELCON argues that if the Commission pursues an expanded MOPR, it should limit the qualifying characteristics of an actionable subsidy only to the types and degrees of subsidization that fundamentally compromise competitive markets.[128] ELCON suggests actionable subsidies should be: (i) government sanctioned payments funded by compulsory charges on electricity consumers; (ii) guaranteed payments (i.e., not obtained through a competitive program); and (iii) resource- or company-specific payments.[129]

61. AEP/Duke argue that the retail rider approved by the Ohio Commission for AEP's affiliate and the Dayton Power & Light Company, and a pending retail rider for Duke's

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[124] *See, e.g.*, AEE Initial Testimony at 9; Clean Energy Industries Initial Testimony at 3; OPSI Initial Testimony at 14; AEP/Duke Reply Testimony at 10-12; ELCON Initial Testimony at 5-6.

[125] AEP/Duke Initial Testimony at 4 (citing June 2018 Order, 163 FERC ¶ 61,236 at P 1); *see also* AEE Initial Testimony at 3; Clean Energy Industries Reply Testimony at 4.

[126] Clean Energy Industries Initial Testimony at 21.

[127] AEE Initial Testimony at 22.

[128] ELCON Initial Testimony at 5.

[129] *Id.* at 5-6.

affiliate, should not be treated as a subsidy that is subject to PJM's MOPR.[130] AEP/Duke assert that the retail rate riders are not a subsidy because they are not related to any state policy goals support the entry or continued operation of preferred generating resources.[131]

62. Some intervenors support PJM's proposal to apply the expanded MOPR to resources that are "entitled to a Material Subsidy[.]"[132] Other intervenors oppose PJM's proposal. Avangrid argues that focusing on an entitlement to receive a Material Subsidy would inappropriately extend the MOPR to resources that do not actually receive a Material Subsidy. Avangrid further asserts that such a definition fails to comply with the requirements of the June 2018 Order, which uses some form of the verb "receive" in discussing out-of-market revenue or state support.[133] Several intervenors argue that the language will permit over-mitigation because resources may be eligible for a subsidy but not guaranteed to receive it.[134]

63. Other intervenors assert that a resource that receives an actionable subsidy after the window to certify that it is receiving such a subsidy should be permitted to participate in the BRA as if it did not receive the actionable subsidy, as such a resource would lack adequate time to prepare to be an RCO resource.[135]

64. The Joint Consumer Advocates state that, if the MOPR is expanded, it should apply only to resources that are receiving support or have received assurances of support and only for the duration of time that they are receiving qualifying payments.[136]

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[130] AEP/Duke Initial Testimony at 5; AEP/Duke Reply Testimony at 12-15; *see also* Buckeye Reply Testimony at 7-8 (agreeing that the retail rate riders simply continue the long-standing and unique OVEC arrangements, which are largely owned by self-supply entities).

[131] AEP/Duke Initial Testimony at 6.

[132] *See, e.g.*, API Reply Testimony at 21-22; New Jersey Board Reply Testimony at 16-17; Policy Integrity Initial Testimony at 6.

[133] Avangrid Initial Testimony at 11-12.

[134] *Id.* at 17; Avangrid Reply Testimony at 17-18; DC People's Counsel Initial Testimony at 8; Clean Energy Industries Reply Testimony at 14-15; Clean Energy Industries Initial Testimony at 17-18 (arguing speculative revenues do not materially impact offers).

[135] PSEG Reply Testimony at 17-18; New Jersey Board Initial Testimony at 21.

[136] Joint Consumer Advocates Initial Testimony at 8-9, 11.

65. Some intervenors argue that out-of-market subsidies should exclude purely private and voluntary transactions, including voluntary bilateral capacity contracts outside the market.[137] Illinois Commission recommends that the Commission not treat payments, assurances, or other such benefits provided by taxpayers, rather than by electricity consumers, as actionable subsidies. [138]

66. Policy Integrity argues that revenue resources receive from externality payments, such as ZEC and RPS programs, are not distinguishable from other revenues received outside of the markets, including coal ash sales, steam heat sales, voluntary Renewable Energy Credits (RECs), emission allowances, or fossil fuel subsidies. Policy Integrity argues that these sources of revenue compensate resources for products and services that are not FERC-jurisdictional, just as RPS and ZEC programs do, and affect capacity market bidding behavior the same way as other out-of-market revenue, but have coexisted with capacity markets for years.[139] Policy Integrity contends the Commission has recognized that revenues a resource receives outside of jurisdictional markets are not necessarily distortionary.[140] Because revenues from RPS programs and ZECs are similar to the payments the Commission has found are not distortionary, Policy Integrity argues they should be treated in the same way.[141]

c. Commission Determination

67. Based on the evidence presented in this paper hearing, we find that PJM's MOPR must be expanded to permit the review and mitigation of capacity offers by resources that receive or are eligible to receive State Subsidies.[142] Specifically, the term State Subsidy will be defined as follows:

> A direct or indirect payment, concession, rebate, subsidy, non-bypassable consumer charge, or other financial benefit that is (1) a

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[137] Illinois Commission Reply Testimony at 22-23; ELCON Initial Testimony at 7 (noting that corporate consumers are increasingly deploying their own capital to voluntarily purchase power through the bilateral market or procure RECs); AES Initial Testimony at 19-20.

[138] Illinois Commission Reply Testimony at 22.

[139] Policy Integrity Initial Testimony at 27-33.

[140] *Id.* at 32-33 (citing 2011 MOPR Order, 137 FERC ¶ 61,145 at PP 242-44).

[141] *Id.* at 33.

[142] *See* June 2018 Order, 163 FERC ¶ 61,236 at P 158.

> result of any action, mandated process, or sponsored process of a state government, a political subdivision or agency of a state, or an electric cooperative formed pursuant to state law, and that (2) is derived from or connected to the procurement of (a) electricity or electric generation capacity sold at wholesale in interstate commerce, or (b) an attribute of the generation process for electricity or electric generation capacity sold at wholesale in interstate commerce, or (3) will support the construction, development, or operation of a new or existing capacity resource, or (4) could have the effect of allowing a resource to clear in any PJM capacity auction.[143]

68. This definition focuses on those forms of "out-of-market payments provided or required by certain states"[144] that, even in the absence of facial preemption under the FPA, squarely impact the production of electricity or supply-side participation in PJM's capacity market by "supporting the entry or continued operation of preferred generation resources that may not otherwise be able to succeed in a competitive wholesale capacity market."[145] This definition is not intended to cover every form of state financial assistance that might indirectly affect FERC-jurisdictional rates or transactions; nor is it intended to address other commercial externalities or opportunities that might affect the economics of a particular resource. Rather, our concern is with those forms of State Subsidies that are not federally preempted, but nonetheless are most nearly "directed at"[146] or tethered to[147] the new entry or continued operation of generating capacity in the federally-regulated multi-state wholesale capacity market administered by PJM. Consistent with court precedent, a State Subsidy need not be facially preempted to

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[143] Although the Public Utility Regulatory Policies Act of 1978 (PURPA) is implemented by states, it is implemented pursuant to federal law and the Commission's regulations and thus federally-mandated sales of energy and capacity by Qualifying Facilities do not fall under our defined term of State Subsidy.

[144] June 2018 Order at P 1 & n.1.

[145] *Id.*

[146] *Oneok, Inc. v. Learjet, Inc.*, 135 S. Ct. 1591, 1602 (2015).

[147] *Cf. Hughes*, 136 S. Ct. at 1299 (2016) ("Nothing in this opinion should be read to foreclose Maryland and other States from encouraging production of new or clean generation through measures 'untethered to a generator's wholesale market participation.'") (citation omitted).

require corrective action by this Commission.[148] As we have explained, our statutory mandate requires the Commission to intervene "when subsidized [resources] supported by one state's or locality's policies has the effect of disrupting the competitive price signals that PJM's [capacity auction] is designed to produce, and that PJM as a whole, including other states, rely on to attract sufficient capacity."[149]

69. For similar reasons, we disagree with Policy Integrity's argument that revenues they describe as externality payments, such as ZEC and RPS programs, are not distinguishable from certain other revenues received outside of the markets. We reiterate that if an out-of-market payment meets the definition of State Subsidy above—including ZEC and RPS programs— then the State-Subsidized Resource is subject to the default offer price floor. The definition of State Subsidy we adopt here—which leans heavily on language the PJM stakeholders reviewed and developed—is sufficiently clear and specific to be understood by PJM and its stakeholders.[150]

70. As to whether private, voluntary bilateral transactions might raise inappropriate subsidy concerns, we find that the record in the instant proceeding does not demonstrate a need to subject voluntary, arm's length bilateral transactions to the MOPR at this time.[151] We find that the expanded MOPR, as adopted herein, will sufficiently address resources receiving State Subsidies to keep existing uneconomic resources in operation, or to support the uneconomic entry of new resources.

71. We reject AEP/Duke's request to exclude retail rate-riders as a State Subsidy.[152] As described by AEP/Duke, the state-approved rate riders pass through the costs, or credits, associated with a wholesale purchase power agreement based on revenues from

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[148] *See Elec. Power Supply Ass'n v. Star*, 904 F.3d 518, 524 (7th Cir. 2018) (holding that the Illinois ZEC program is not preempted and explaining that this holding did not change whether, in this replacement rate proceeding, the Commission may "need to make adjustments in light of states' exercise of their lawful powers").

[149] 2011 MOPR Rehearing Order, 137 FERC ¶ 61,145 at P 3; *see supra* note 23 (listing cases).

[150] In addition, several of the items listed by Policy Integrity are addressed separately by our specific holdings with respect to voluntary RECs, *see infra* P 176, and federal subsidies, *see supra* P 10; *infra* P 89.

[151] The treatment of voluntary REC arrangements under the expanded MOPR is discussed in IV.D.1 below.

[152] Unless such resource receiving the retail rate rider qualifies for an exemption.

the PJM capacity market.[153] As a general matter, we find that it is reasonable to include non-bypassable revenue arrangements or rate riders as State Subsidies because the riders are connected to the procurement of electricity or electric generation capacity sold at wholesale or support the construction, development, or operation of new and existing capacity resources.

72. We reject intervenors' argument that mitigation under the expanded MOPR should only be triggered if the out-of-market support received by a resource can be demonstrated to actually allow a resource to uneconomically enter or remain in the market, thereby suppressing prices. Consistent with Commission precedent, the June 2018 Order is premised on the finding that, as a general matter, resources receiving out-of-market support are capable of suppressing market prices.[154] We continue to uphold that finding here. It would turn that finding on its head to require PJM and the Market Monitor to determine for each and every resource receiving a State Subsidy whether that subsidy actually allows a resource to uneconomically enter or remain in the market, thereby allowing the resource to suppress prices.

73. However, we agree with intervenors who argue that the MOPR should take into account the competitiveness of State-Subsidized Resources. It will. A resource can demonstrate that its offer is competitive through the Unit-Specific Exemption (see *infra* IV.D.5) process, or certify to PJM that will forego any State Subsidy under the Competitive Exemption (see *infra* IV.D.1). Because the goal of the MOPR is to ensure that resources offer competitively, and a seller may avail itself of the Unit-Specific Exemption process or the Competitive Exemption, it is reasonable to require all resources that receive a State Subsidy to be subject to the MOPR.

74. We agree with intervenor arguments that state policies that utilize competitive bidding processes may not necessarily undermine the market's reliance on competitive price signals to procure economic capacity, and we find that the Unit-Specific Exemption is sufficient to address this scenario. A competitive, fuel-neutral process is designed to select the most economic resources. These resources should already be economic and therefore do not need an exemption. Sellers with resources chosen through such a process will be able to use the Unit-Specific Exemption to demonstrate that their offer is competitive. It is not necessary to create another administrative process to determine which state procurements are competitive in advance–the burden of demonstrating the competitiveness of a given resource's offer should fall on the seller.

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[153] AEP/Duke Initial Testimony at 5-6.

[154] *See* June 2018 Order, 163 FERC ¶ 61,236 at P 155 (citing *ISO New England Inc.*, 135 FERC ¶ 61,029, at PP 170-71 (2011)).

75. We agree with PJM that the MOPR should apply to resources that receive or are "entitled to" receive a State Subsidy. We agree with PJM that a seller shall be considered "entitled to" a State Subsidy if the seller has a legal right or a legal claim to the subsidy, regardless of whether the seller has yet to actually receive the subsidy. We further find that a capacity resource should be considered to be entitled to receive a State Subsidy if the resource previously received a State Subsidy, and has not cleared a capacity auction since that time.

76. We disagree with intervenors' claim that it is inappropriate to mitigate resources that are entitled to a State Subsidy, but may not have actually received a State Subsidy yet. Resources that do not wish to be mitigated or believe they will not actually receive a State Subsidy to which they are entitled may certify to PJM that they will forego any State Subsidy under the Competitive Exemption. Therefore, mitigating offers by resources that receive or are entitled to receive a State Subsidy will only capture resources that are both eligible to receive a subsidy and likely to accept one.

77. Intervenors argue that resources may be entitled, but not guaranteed, to receive payments and should therefore not be mitigated, because speculative revenues do not materially impact capacity market offers. We disagree. We find that no materiality threshold is appropriate, as discussed *infra* IV.B. Allowing resources to enter the capacity market without mitigation and then subsequently accept a State Subsidy for the relevant delivery year would negate the purpose of the MOPR and would be unjust and unreasonable for the reasons outlined in the June 2018 Order.

4. General Industrial Development and Local Siting Support

a. PJM's Proposal

78. PJM proposes to exclude from its definition of Material Subsidy state payments relating to industrial development and local siting. With respect to industrial development, PJM proposes to exclude "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[.]"[155] With respect to local siting, PJM proposes to exclude "payments concessions, rebates, subsidies or incentives designed to incent, or participation in a program, contract or other arrangements from a county or other local government authority using eligibility or selection criteria designed

[155] Proposed Tariff at Definitions (Material Subsidy), subsection (5).

to incent, siting facilities in that county or locality rather than another county or locality."[156]

79. PJM asserts that subsidies of this sort are appropriately excluded from mitigation because any such payments are unrelated to the production of electricity.[157] PJM argues that, instead, these subsidies are generally aimed at economic development through development of grants, tax credits, and the like. PJM adds that these subsidies have been excluded from the MOPR previously, as part of the categorical exemption for competitive entry in place prior to the *NRG* remand proceeding.[158]

b. Intervenor Positions

80. Some intervenors support excluding subsidies relating to general industrial development and/or siting incentives, arguing that payments, assurances, or other such benefits provided by taxpayers are distinguishable from a payment funded by electricity consumers.[159] Other intervenors oppose PJM's proposal. LS Power argues that any exception for a specific class of resource, or a given type of subsidy program, would be inconsistent with the Commission's recognition that all subsidy programs result in price suppression for the entire market, regardless of intent.[160]

81. Exelon asserts that PJM's MOPR should mitigate any form of out-of-market revenue, regardless of its purpose, including development incentives or siting considerations. Exelon argues that an exception for development and siting incentives is arbitrary and raises the same concern that the Commission has identified regarding transparency and the competitiveness of offers in the capacity market. Exelon points to a Pennsylvania program that eliminated state and local taxes for a coal-to-gas conversion plant through 2023, noting that this tax relief measure allowed a resource to be constructed at lower cost and submit a capacity offer at less than its true going-forward costs.[161]

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[156] *Id.* subsection (6).

[157] PJM Initial Testimony at 23-24.

[158] *Id.* at 24; *see also* 2013 MOPR Order, 143 FERC ¶ 61,090 at P 53.

[159] PJM Consumer Representatives Initial Testimony at 9; OCC Initial Testimony at 6-7.

[160] LS Power Initial Testimony at 9 (citing June 2018 Order, 163 FERC ¶ 61,236 at P 155); *see also* NEI Initial Testimony at 5; PSEG Initial Testimony at 7.

[161] Exelon Initial Testimony at 18.

82. Finally, AES argues that Payments in Lieu of Taxes have the ability to materially impact net going forward costs of capacity resources, and should therefore be treated as subsidies subject to PJM's MOPR.[162]

c. Commission Determination

83. We adopt PJM's proposal to exclude generic industrial development and local siting support from those types of support that will be treated as a State Subsidy for the purposes of the expanded MOPR. We find that PJM's proposed exclusions are reasonable, given that the support at issue is available to all businesses and is not "nearly 'directed at' or tethered to the new entry or continued operation of generating capacity in the federally-regulated multi-state wholesale capacity market administered by PJM."[163]

5. Federal Subsidies

a. PJM's Proposal

84. PJM proposes to exempt from the MOPR resources receiving federal subsidies enacted into law prior to March 21, 2016, the refund effective date established in the Calpine complaint proceeding.[164] Specifically, PJM proposes to apply the MOPR to resources receiving federal subsidies "authorized pursuant to federal legislation or a federal subsidy program enacted *after* March 21, 2016 . . . unless such federal legislation specifically exempts the application of MOPR to the program being authorized pursuant to federal legislation."[165]

85. PJM asserts that the refund effective date is an appropriate cut-off date because the proposal in the Calpine complaint, to apply the MOPR to all resources, provided the first notice to market participants that federal subsidies could be subject to mitigation under PJM's MOPR.[166] PJM adds that, while the Commission's jurisdiction under the FPA should not be construed to countermand other acts of Congress, it is reasonable to assume, prospectively, that Congress is aware of the Commission's authority to address the impacts of federal subsidies on clearing prices in the organized markets and could

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[162] AES Initial Testimony at 20.

[163] *Supra* P 68.

[164] PJM Initial Testimony at 12, 28.

[165] *Id.* at 28.

[166] *Id.* at 28-29.

expressly limit the Commission's ability to address such effects.[167] PJM argues that this expectation is particularly reasonable given recent court decisions confirming the Commission's authority under the FPA to address the impacts of subsidies on wholesale markets.[168]

b. Intervenor Positions

86. Several intervenors support exempting all resources receiving federal subsidies from mitigation.[169] The New Jersey Board argues that federal subsidies should be exempted, because subjecting such subsidies to the MOPR could drastically increase costs for consumers.[170] Clean Energy Advocates generally support PJM's proposal to exclude federal subsidies from the MOPR, if the federal legislation or federal subsidy program at issue was enacted prior to the refund effective date in this proceeding, but would extend the exemption to all federal subsidies adopted prior to a Commission order accepting this aspect of PJM's proposal.[171] On specific federal legislation or subsides, some intervenors oppose applying the MOPR to the Production Tax Credit (PTC), or the Investment Tax Credit (ITC), or U.S. Rural Utilities Service (RUS) financing.[172]

87. Several intervenors urge caution with regard to finding that federal efforts to ensure grid resilience and promote national security are subsidies.[173] By contrast, LS

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[167] *Id.* at 29.

[168] PJM Initial Testimony at 29-30 (citing *Star*, 904 F.3d at 522-24 (holding that the Illinois ZEC program is not preempted and noting the Commission's June 2018 Order); *Coal. for Competitive Elec. v. Zibelman*, 906 F.3d 41, 53-56 (2d Cir. 2018) (holding that the New York ZEC program is not preempted)).

[169] *See, e.g.*, New Jersey Board Initial Testimony at 27-28; ODEC Initial Testimony at 24-25.

[170] New Jersey Board Initial Testimony at 27-28.

[171] Clean Energy Advocates Initial Testimony at 33-34 & n.82.

[172] Clean Energy Industries Initial Testimony at 3, 7-12 (arguing that the ITC and PTC are valid exercises of Congress's ability to further the general welfare through its expansive taxing and spending power, and that the Commission cannot frustrate Congress's broader policy goals to encourage renewables based on the Commission's more limited rate jurisdiction); ACORE Initial Testimony at 3; NOVEC Initial Testimony at 6; NRECA Initial Testimony at 25-26 (explaining that RUS debt is a common form of financing for electric cooperatives to access capital for electric investment).

[173] ACCCE/NMA Initial Testimony at 3-5; *see also* AEE Initial Testimony at 5

Power asserts that any federal program that would provide subsidies to coal or nuclear resources could potentially dwarf the state subsidy programs that the Commission addressed in the June 2018 Order and fatally impair the operation of PJM's capacity market.[174]

88. Finally, some intervenors oppose a MOPR exception for any federal subsidy.[175] EPSA and IPP Coalition argue that mitigating resources receiving federal subsidies is consistent with the Commission's exclusive FPA jurisdiction over wholesale rates and there is no legal grounds for distinguishing between federally subsidized resources and state subsidized resources.[176]

c. Commission Determination

89. The replacement rate will not require mitigation of capacity offers that are supported by federal subsidies. We agree with arguments that subsidies created by federal law distort competitive outcomes in the PJM capacity market in the same manner as do State Subsidies. However, this Commission's authority to set just and reasonable rates is delegated by Congress through the FPA. That statute has the same legal force, and springs from the same origin, as any other federal statute. This Commission may not, therefore, disregard or nullify the effect of federal legislation by finding that it would be unjust, unreasonable, or unduly discriminatory to allow a PJM capacity resource to rely on a federal subsidy that provides the resource with a competitive advantage over other resources Congress has not chosen to assist in the same way.[177] Nor is it this

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(arguing that every energy technology has received some level of government policy support to help it develop and enter the markets); OCC Initial Testimony at 23 (arguing that it would be premature for FERC to address any potential future federal subsidies for grid resilience or fuel security); NRG Initial Testimony at 42-43.

[174] LS Power Initial Testimony at 12.

[175] *See, e.g.*, Brookfield Initial Testimony at 4-5; EPSA Initial Testimony at 16-19; IPP Coalition Initial Testimony at 4, 7-8; FES Initial Testimony at 7-8; LS Power Initial Testimony at 7, 11-12; NRG Initial Testimony at 10, 42-43; PSEG Initial Testimony at 7; API Initial Testimony at 3, 21; P3 Initial Testimony at 10; P3 Reply Testimony at 8; Cogentrix Reply Testimony at 10.

[176] EPSA Initial Testimony at 16-19; IPP Coalition Initial Testimony at 11.

[177] *Morton*, 417 U.S. at 550-51("Where there is no clear intention otherwise, a specific statute will not be controlled or nullified by a general one, regardless of priority enactment."); *Silver*, 373 U.S. at 357 (an appropriate analysis is one that "reconciles the operation of both statutory schemes with one another rather than holding one completely ousted"); *Tug Allie-B*, 273 F.3d at 941 (reiterating general statutory construction canons

Commission's place to require, as PJM has suggested,[178] that Congress must expressly declare that it intends any future federal subsidy to override market rules accepted by the Commission.

B. Materiality Thresholds

1. PJM's Proposals

90. PJM proposes two materiality thresholds under which subsidized resources would not be subject to the MOPR. First, PJM proposes that a resource must have an unforced capacity threshold of greater than 20 MWs to be subject to the MOPR. PJM notes that the Commission has previously accepted a 20 MW materiality threshold, as applicable to the MOPR,[179] Qualifying Facilities,[180] and distinguishing interconnection procedures.[181] PJM argues that its proposed 20 MW threshold appropriately "excludes resources that are too small, individually or collectively, to meaningfully impact price outcomes from the expanded MOPR."[182] PJM adds that, given the relatively low capacity factors attributable to renewable resources, few renewable resources in the PJM region would exceed the 20 MW threshold.[183]

91. Second, PJM proposes to exclude from its definition of Material Subsidy any subsidy that is not "1% or more of the resource's actual or anticipated total revenues from PJM's energy, capacity, and ancillary services markets."[184] PJM explains that the one

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that statutes relating to the same subject matter should be construed harmoniously and, if not, the more recent or specific statute should prevail over the older and more general law).

[178] *See* PJM Initial Testimony at 29-30.

[179] PJM Initial Testimony at 15 (citing 2013 MOPR Order, 143 FERC ¶ 61,090 at P 170).

[180] *Id.* at 16.

[181] *Id.* at 17.

[182] *Id.* at 18.

[183] In other words a renewable resource would need a larger nameplate capacity to have 20 MW of unforced capacity. *Id.* at 17.

[184] *Id.* at 21.

percent materiality threshold is to exclude financial support that is unlikely to raise price suppression concerns.[185]

2. Intervenor Positions

92. Some intervenors support PJM's proposed materiality exemption for resources smaller than 20 MW of unforced capacity, arguing that small resources are unlikely to have a meaningful impact on capacity clearing prices in PJM and should not be subject to the MOPR.[186] ACORE states that it would be administratively burdensome with little benefit to apply the MOPR to resources smaller than 20 MW unforced capacity.[187] AEE argues that investments in smaller distributed energy resources are typically undertaken for reasons unrelated to capacity market participation and there is no evidence that distributed energy resources are likely to engage in uneconomic offer strategies or meaningfully suppress prices.[188] Microgrid generally supports the 20 MW threshold but asserts that microgrids that wish to participate in the RPM should be permitted to offer a combination of assets up to the 20 MW threshold without being subject to the MOPR (and subsequently to be able to select a different combination to fulfill the same commitment).[189]

93. Other intervenors support the concept of a materiality threshold, but urge the Commission to impose a higher threshold than PJM's proposal. AES proposes that, since many renewable resources are limited in the actual amount of capacity they can offer into the capacity market, increasing the threshold to 40 MW or 50 MW would create an appropriate safe harbor.[190]

94. Others intervenors oppose a 20 MW materiality threshold, arguing that the aggregate number of small resources can have large impacts on markets and that all

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[185] *Id.*

[186] Clean Energy Industries Initial Testimony at 3, 22-23; DC People's Counsel Initial Testimony at 10; ACORE Initial Testimony at 3; IMEA Reply Testimony at 12; Joint Consumer Advocates Initial Testimony at 14; Microgrid Reply Testimony at 12-13; Pennsylvania Commission Reply Testimony at 13; AEE Initial Testimony at 18.

[187] ACORE Initial Testimony at 3.

[188] AEE Initial Testimony at 18.

[189] Microgrid Reply Testimony at 12-13.

[190] AES Initial Testimony at 19; *see also* Joint Consumer Advocates Initial Testimony at 14.

resources should follow market rules, regardless of size.[191] Exelon argues that such a threshold will exempt a significant number of renewable projects, which is contrary to the June 2018 Order's directive to protect PJM capacity prices from the impact of any resource receiving out-of-market support.[192] Exelon contends that the threshold will invite gamesmanship and needless litigation as resource owners attempt to qualify for exemption under the threshold.[193] PSEG argues that the 20 MW threshold is too high, as many state policy supported resources are small and can be easily added or uprated in small increments that would avoid tripping the proposed 20 MW threshold in any given year or at any single site, while adding up to a considerable amount of capacity over time.[194]

95. On PJM's proposed revenue threshold, a number of intervenors generally support a revenue threshold, including PJM's proposed threshold of excluding from review resources receiving a subsidy that is not one percent or more of the resources' actual or anticipated total PJM revenues.[195] Other intervenors argue that PJM's proposed one percent threshold value is too small, or not sufficiently targeted. AES argues that a higher threshold of fifteen percent out-of-market revenue relative to annual total projected revenue should be adopted, asserting that subsidies resulting in less than this fifteen percent threshold do not threaten competitive bidding because the out-of-market support is far less likely to affect how the resource would be offered into the capacity market.[196] PJM Consumer Representatives propose a revenue threshold equal to or

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[191] *See, e.g.*, Exelon Initial Testimony at 20-21; Exelon Reply Testimony at 60-61; Talen Reply Testimony at 5; Market Monitor Reply Testimony at 5; LS Power Reply Testimony at 8-9. Exelon asserts that allowing 40 different 20 MW wind farms to offer as price takers would have the same impact as allowing one 800 MW nuclear unit to do so, and there is therefore no basis for allowing one and not the other. Exelon Initial Testimony at 20-21.

[192] Exelon Reply Testimony at 61.

[193] Exelon Initial Testimony at 21.

[194] PSEG Initial Testimony at 7.

[195] ACORE Initial Testimony at 3; DC People's Counsel Initial Testimony at 10; Joint Consumer Advocates Initial Testimony at 14 (also encouraging the Commission to consider whether a higher threshold is necessary); PSEG Initial Testimony at 6; Exelon Initial Testimony at 5 (arguing that any resource receiving out-of-market payments that, *taken together*, exceed one percent of the revenues the resource would expect to receive in the PJM markets should be subject to the MOPR).

[196] AES Initial Testimony at 16. AES further asserts that, using a $150 MW-day capacity value and $26 MW-day estimated energy and ancillary services revenue, as set

greater than fifteen percent of Net CONE * B,[197] i.e., treating as a Material Subsidy any such subsidy that is equal to, or exceeds, this threshold.[198]

96. Clean Energy Advocates oppose PJM's proposed one percent revenue threshold, arguing that PJM's focus on whether an incentive is large relative to the resource's revenue not only ignores whether the government action at issue affects a single resource or an entire fleet, but also ignores the absolute value of the incentive. Clean Energy Advocates note that it is illogical to assume that a subsidy slightly over one percent of a 20 MW resource's revenue could have a more significant market impact than a subsidy slightly under one percent of a 1,000 MW resource's revenue. Clean Energy Advocates argue that incentives that are not certain or not likely to be significant enough to impact a resource's bid and those that are small in an absolute sense should not be subject to the MOPR, since those incentives are unlikely to significantly change market outcomes.[199]

97. Clean Energy Advocates conclude that an expanded MOPR should only be applied to policies that have the highest absolute magnitude impact on the greatest total capacity of resources.[200] The New Jersey Board argues that PJM's one percent revenue threshold proposal should be rejected as unsupported, asserting that PJM has not shown that a resource would modify its sell offer based on a state subsidy it has received equal to 1.1 percent of that resource's actual or anticipated market revenues.[201]

3. Commission Determination

98. We decline to adopt PJM's proposed materiality thresholds. A materiality threshold implies that there is a threshold under which a State-Subsidized Resource participating in the capacity market has a *de minimis* effect on capacity prices. The June

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forth in PJM's Initial Testimony, a one percent threshold would mean that a new combustion turbine unit receiving a subsidy as small as $2/MW-day would be subject to a $355/MW-day MOPR that is more than twice as large as clearing prices in PJM's past capacity auctions. AES Reply Testimony at 6.

[197] Under the Capacity Performance construct, Net CONE * B represents the opportunity cost of taking on a capacity payment. *See PJM Interconnection, LLC*, 151 FERC ¶ 61,208 at P 338 n.283 (2015).

[198] PJM Consumer Representatives Initial Testimony at 9.

[199] Clean Energy Advocates Initial Testimony at 2.

[200] *Id.* at 32-33.

[201] New Jersey Board Initial Testimony at 16.

2018 Order found that PJM's Tariff failed to protect the capacity market from State-Subsidized Resources, regardless of the amount of out-of-market support received, because out-of-market support at any level is capable of distorting capacity market prices.[202] The Commission noted specifically the expected future increase in support for renewable resources,[203] many of which would be exempt from the expanded MOPR under PJM's proposed capacity threshold. As some intervenors point out, the aggregate impact of small resources can create unjust and unreasonable rates, not just a single resource under 20 MWs.[204] Since, on aggregate, small State-Subsidized Resources may have the ability to impact capacity prices, adopting a materiality threshold would undermine the very purpose of our action here.

99. Furthermore, if a State Subsidy is so small as to be arguably immaterial, then the resource's offer should be competitive without it. And, a resource owner may apply for a Unit-Specific Exemption to justify an offer below the default offer price floor. A resource owner may also choose to forego a State Subsidy under the Competitive Exemption in favor of unmitigated participation in the capacity market.

C. MOPR Offer Price Floors

1. PJM's Proposal

100. Under PJM's proposal, the determination of the default offer price floor would depend on whether the material resource: (i) is a generation resource or a demand resource; (ii) has previously cleared in an RPM auction; or (iii) has been subject to PJM's proposed carve-out allowance since it last cleared an RPM auction.[205]

101. For resources that have not previously cleared a capacity auction, PJM proposes to retain the historical approach of setting the default offer price floor at Net CONE, i.e., at a level equal to the cost of new entry for each resource type, net of the resource type's estimated energy and ancillary services markets revenues.[206] PJM proposes to include its

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[202] June 2018 Order, 163 FERC ¶ 61,236 at P 150.

[203] *Id.* P 151.

[204] *E.g.*, Exelon Initial Testimony at 20-21; Market Monitor Reply Testimony at 5.

[205] PJM proposed Tariff, Att. DD, § 5.14(h)(iv)(A).

[206] PJM Initial Testimony at 38-39. PJM notes that these values would be based on information from a database of the National Renewable Energy Laboratory, https://atb.nrel.gov, and include overnight capital costs and the fixed operating and maintenance expense for nuclear, coal, hydro, solar photovoltaic, onshore wind, and offshore wind technologies, as projected for 2022. PJM adds that combined cycle and

default values in its Tariff, subject to annual adjustment and PJM's quadrennial review of its Variable Resource Requirement (VRR) Curve and CONE values.[207]

102. PJM proposes to calculate its default energy and ancillary services revenue estimates based on historic revenues.[208] To calculate the MOPR offer price floor for demand resources that have not previously cleared, PJM proposes to apply the historical average of all demand resource offers submitted in the last three BRAs, for the Locational Deliverability Areas (LDA) in which the demand resources are located. PJM asserts that projecting a generically applicable cost to develop new demand resources is not feasible.[209]

103. For existing resources (other than existing demand resources), PJM proposes that a resource subject to the MOPR be allowed to offer at a level no lower than its avoidable cost rate, which reflects its going-forward costs, net of estimated energy and ancillary services markets revenues (Net ACR).[210] PJM states that its default Net ACR for each resource type would be subject to revision under its quadrennial review of its VRR Curve and CONE values.[211]

104. PJM explains, however, that the default Net ACR for most existing generation resource types are low. PJM proposes to set the default Net ACR values for existing hydro, pumped hydro, solar photovoltaic, and onshore wind at $0, given its view that even the most conservative estimate of energy and ancillary services market revenues for these resources is higher than the estimated ACR. PJM proposes that, because this would result in negative default offer price floors, the prices be set at $0.[212] PJM adds that, if a seller believes the default offer price floor is too high, it can request a resource-specific

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combustion turbine levelized annual costs are based on 2021-22 BRA planning parameters, as escalated to 2022-23. *Id.*

[207] *Id.* at 39-42.

[208] *Id.* at 40.

[209] *Id.* at 42-43.

[210] A resource's avoidable costs are its incremental costs of being a capacity resource: its fixed annual operating expenses that would not be incurred if it were not a capacity resource over that period.

[211] PJM Initial Testimony at 45. PJM made its VRR Curve quadrennial filing on October 12, 2018, in Docket No. ER19-105-000.

[212] *Id.* at 46.

determination. Finally, PJM proposes to set the default offer price floor for existing demand resources at $0. PJM notes that this value is appropriate because it was not able to identify any meaningful avoidable costs that would be incurred by an existing demand resource that would justify a higher value.[213]

2. Intervenor Positions

a. Planned Resources

105. Some intervenors argue the default offer price floors for both new and existing resources should be set at Net ACR.[214] Others argue the floors should be set based on Net CONE * B. The Market Monitor argues that the default offer price floor, which it argues defines the competitive offer, should be consistent with the definition in Capacity Performance, Net CONE * B.[215] The Market Monitor notes, however, that this definition is not accurate if there are no performance assessment intervals, or when the non-performance charge rate is not based on an accurate estimate of the expected number of performance assessment intervals. In those cases, the Market Monitor argues, a competitive offer should be defined by the Net ACR.[216] Conversely, Vistra opposes the Market Monitor's proposal as administratively burdensome and potentially providing the Market Monitor significant control over all offers in the capacity market.[217]

106. Some intervenors argue that setting the default offer price floor for new resources at Net CONE disadvantages them relative to existing resources.[218] ODEC contends that basing the default offer price floors for planned resources on Net CONE is contrary to

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[213] *Id.* at 47.

[214] Clean Energy Industries Reply Testimony at 24; DC People's Counsel at 9; ELCON Reply Testimony at 6; Vistra Initial Testimony at 16. Vistra's witness suggests, as an alternative, that the default offer price floors mirror the default capacity market seller offer cap at Net CONE * B. Vistra Initial Testimony, Russo Aff. at 15.

[215] Market Monitor Initial Testimony at 15; *see also* Exelon Initial Testimony at 30.

[216] Market Monitor Initial Testimony at 15.

[217] Vistra Reply Testimony, Russo Reply Aff. at 39-40.

[218] ELCON Reply Testimony at 6; Joint Consumer Advocates Reply Testimony at 8-9.

rational recovery of investment and will discourage self-supply.[219] The Market Monitor asserts that a competitive offer for a new resource in the capacity market is not Net CONE because such an offer implies a significant chance of not clearing, does not maximize profits for a developer, and constitutes a noncompetitive barrier to entry that would create a noncompetitive bias towards existing resources.[220] The Market Monitor takes issue with suggestions that Net CONE must be used in order to ensure that resources with out-of-market revenues do not clear in their first year in the capacity market, arguing it is not appropriate to define a competitive offer so as to exclude some offers.[221] OPSI argues PJM's use of Net CONE as a measure for a competitive market price in PJM is not a valid yardstick to measure market adjustments under application of a MOPR without exemptions, because Net CONE has been consistently too high. OPSI encourages the Commission to consider a recent report finding that Net CONE values for the 2022/2023 delivery year are between 22 and 41 percent lower than the current Net CONE values.[222]

107. AES opposes PJM's proposed default offer price floors arguing that those for new entrants far exceed the typical clearing prices of PJM capacity auctions.[223] Illinois Commission argues that PJM's proposed default offer price floors should be capped at the vertical intercept point on the VRR curve to ensure the default values are not so high as to make it impossible for mitigated resources to clear, regardless of the clearing price.[224]

108. PSEG argues, for new units, the default offer price floors should be based on the gross CONE applicable to the class of generational technology to which those units belong.[225]

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[219] ODEC Initial Testimony at 12.

[220] Market Monitor Reply Testimony at 4.

[221] *Id.* at 5.

[222] OPSI Initial Testimony at 10-12 (citing the Brattle Group and Sargent & Lundry, *PJM Cost of New Entry*, (Apr. 19, 2018), https://www.pjm.com/~/media/committeesgroups/committees/mic/20180425-special/20180425-pjm-2018-cost-of-new-entry-study.ashx).

[223] AES Initial Testimony at 12-13; AES Reply Testimony at 4-6.

[224] Illinois Commission Reply Testimony at 23.

[225] PSEG Initial Testimony at 12.

109. Some intervenors argue that the Commission should establish a test that permits a subsidized planned resource subject to the MOPR to make offers into future PJM capacity markets as an existing resource after five years of commercial operation, to prevent the MOPR from becoming a permanent barrier to entry.[226] Further, AES states that projects planned before new capacity market rules are imposed and that have contracts in place should be treated as existing resources; that is, be "grandfathered" as a transition device, particularly under an expanded MOPR.[227]

110. Some intervenors argue that PJM's proposed Net CONE values are thinly supported and contain errors.[228] For example, these intervenors contend that the *NREL Annual Technology Baseline* provides multiple sets of cost estimates for location-specific projects, and that PJM does not explain which numbers it actually uses, and that PJM offers identical values for energy and ancillary services revenue for onshore wind and offshore wind, which is not plausible given the different energy production profiles and locations of these technology types.[229]

111. AEE argues that, for planned renewable resources, the default offer price floors should reflect the declining costs and unique cost structures of advanced energy technologies to prevent over-mitigation.[230] Clean Energy Industries state that any default offer price floor applied to renewable resources receiving RECs should account only for the price-suppressive effect of the REC and should not be any higher.[231]

112. Clean Energy Industries state that PJM's use of the resource's lowest estimated energy revenues is unreasonable, because the default value should not be based on the extreme end of the zone of reasonableness.[232] Clean Energy Industries also note that this methodology is an unjustified departure from that used to calculate Net CONE as an

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[226] AES Initial Testimony at 22; PSEG Initial Testimony at 13.

[227] AES Initial Testimony at 22-23.

[228] Clean Energy Advocates Reply Testimony at 14-15; USC Reply Testimony at 3.

[229] Clean Energy Advocates Reply Testimony at 14-15; USC Reply Testimony at 9; Clean Energy Industries Reply Testimony at 22.

[230] AEE Initial Testimony at 27.

[231] Clean Energy Industries Initial Testimony at 18.

[232] Clean Energy Industries Reply Testimony at 18.

auction parameter, which uses annual average revenues.[233] Clean Energy Industries argue that PJM should either use the RTO-wide average energy revenues or develop default levels specific to each zone. Clean Energy Industries further object to PJM's values, arguing that PJM does not appear to have included ancillary service revenues in the default offer price floor calculations for renewable resources.[234] Third, Clean Energy Industries argue that PJM's proposed standard inputs, including the carrying charge and useful life for combined cycle and combustion turbines, are excessive for renewable resources, and that PJM should instead use values more appropriate to solar and wind resources.[235]

113. Some intervenors support setting the default offer price floor for demand response at zero.[236] Joint Consumer Advocates argue that PJM's proposal to average the last three years' demand response offers would be anti-competitive, unjust, unreasonable, and unduly discriminatory against new demand response resources. Joint Consumer Advocates explain that the default offer price floor would be excessively high because it would count new demand response bids, which are subject to the price floor, toward determining the price floor, creating an inflationary feedback loop.[237]

b. Existing Resources

114. Some intervenors agree with PJM that default offer price floors for existing resources should be based on going-forward avoidable costs, which will ensure the MOPR appropriately mitigates only uneconomic units with significant going-forward costs.[238] AES states that, should the Commission elect to use default offer price floors based on ACR, then it should also require a clear and transparent process to define and

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[233] *Id.* at 19.

[234] *Id.* at 20.

[235] *Id.* at 20-21. Specifically, Clean Energy Industries argue that solar resources may have access to more desirable financial structures than gas resources, and typically have a useful life of around 40 years (30 for wind). *Id.*

[236] AEE Initial Testimony at 28.

[237] Joint Consumer Advocates Reply Testimony at 11.

[238] AEE Initial Testimony at 28-29; Brookfield Reply Testimony at 4; *see also* Buyers Group Initial Testimony at 10-11; Brookfield Initial Testimony at 2, 7; SMECO Initial Testimony at 6; PSEG Initial Testimony at 12; Clean Energy Industries Reply Testimony at 24; Vistra Initial Testimony at 16; West Virginia Commission Reply Testimony at 2.

approve the ACR used to determine the default offer price floors, including an appeal mechanism and periodic review of the ACR.[239]

115. Other intervenors argue that the default offer price floors for existing resources should instead be based on Net CONE * B, for the same reasons described above for planned resources.[240] Vistra opposes the Market Monitor's proposal as administratively burdensome and potentially providing the Market Monitor significant control over all offers in the capacity market.[241]

116. Some intervenors also object to PJM's methodology for calculating default Net ACR values. The Market Monitor argues that the ACR values developed by PJM are based "on outdated information escalated using a generic inflation factor, without accounting for technology specific trends."[242] The Market Monitor notes that PJM's values are based on 2011 data escalated using a generic inflation factor to 2022. The Market Monitor contends this is unreasonable because technology costs are generally decreasing and not increasing. Further, the Market Monitor states that the Commission could require an annual process to update gross ACR values.[243] Joint Consumer Advocates agree that PJM's ACR values are based on outdated information and argue that the inflation factor applied by PJM is excessive.[244]

117. Brookfield supports PJM's proposal to set the default offer price floors for existing hydro, pumped hydro, solar PV and onshore wind resources at $0/ICAP MW-day.[245]

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[239] AES Initial Testimony at 21.

[240] Exelon Initial Testimony at 30; Market Monitor Initial Testimony at 15-16.

[241] Vistra Reply Testimony, Russo Reply Aff. at 39-40.

[242] Market Monitor Reply Testimony at 6.

[243] *Id.*

[244] Joint Consumer Advocates Reply Testimony at 9.

[245] Brookfield Reply Testimony at 4.

118. Some intervenors agree that Net ACR for existing demand response resources is $0.[246] Microgrid states that microgrids often present to PJM as asset-backed economic demand resources and should also be subject to a MOPR offer price floor of $0.[247]

119. Direct Energy states that PJM has proposed to use default values for transmission connected (i.e., "front-of-the-meter") diesel generation for all behind-the-meter generation. However, Direct Energy argues that behind-the-meter generation is not economically similarly situated to front-of-meter generation, and thus it is not proper to use front-of-the meter ACR values for behind-the-meter generation.[248] Direct Energy states that if PJM's proposal is accepted, the Commission should ensure that the ACR used for behind-the-meter demand response reflects the true avoidable costs of such resources.[249]

c. Both Planned and Existing

120. Several intervenors argue that new and existing offer floors should be set based on the same methodology. Some intervenors argue the default offer price floors for both new and existing resources should be set at Net ACR.[250] Others argue the default offer price floors should be set based on Net CONE * B. The Market Monitor contends that the default offer price floors should not be set differently for new and existing resources, because a competitive offer in the capacity market is Net ACR regardless of whether the resource is new or existing. The Market Monitor further argues that PJM's proposal to define a competitive offer for resources subject to the MOPR as the Net ACR, while leaving the definition under Capacity Performance Net CONE * B, is not reasonable.[251] The Market Monitor contends that PJM should not use two different definitions of a

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[246] DC Commission Initial Testimony at 5-6; Joint Consumer Advocates Reply Testimony at 11; AEE Initial Testimony at 21-22; Pennsylvania Commission Reply Testimony at 15-16.

[247] Microgrid Reply Testimony at 12.

[248] Direct Energy Initial Testimony at 12.

[249] *Id.*

[250] *See, e.g.*, Clean Energy Industries Reply Testimony at 24; DC People's Counsel at 9; ELCON Reply Testimony at 6; Vistra Initial Testimony at 16. Vistra's witness suggests, as an alternative, that the default offer price floor mirror the capacity market seller offer cap at Net CONE * B. Vistra Initial Testimony, Russo Aff. at 15.

[251] Market Monitor Initial Testimony at 15.

competitive offer in the same market.[252] Conversely, PSEG argues that the MOPR needs to distinguish between new and existing units.[253]

121. The Illinois Commission argues that because PJM's formula for calculating default offer price floors does not include permissible out-of-PJM-market revenues, such as proceeds from arm's-length bilateral contracts, it will result in default offer price floors that are too high that could improperly prevent a targeted resource from clearing in PJM's auctions.[254] Illinois Commission recommends that the Commission also subtract payments, assurances, or other such benefits provided by taxpayers, rather than by electricity consumers, from the resource's ACR or Net CONE, as such payments are not subsidies.[255] The Illinois Attorney General argues that the Net ACR calculation for subsidized resources should include all revenue, including that received from subsidies, to determine the accurate avoidable costs.[256]

122. The Illinois Attorney General argues that the energy and ancillary services revenue offsets should be location-specific, rather than, as PJM proposes, the lowest zonal value estimated for each resource class over the past three years.[257]

123. The Pennsylvania Commission requests that any estimated increases in energy and ancillary services revenues that result from price formation reforms should be reflected in the default offer price floors, including any historical energy and ancillary services offsets under the quadrennial review process.[258]

124. The Illinois Attorney General asserts that the Commission should direct PJM to develop default offer price floors based on objective, public information, as it does for

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[252] *Id.* at 16; *see also* Clean Energy Industries Reply Testimony at 24.

[253] PSEG Initial Testimony at 13.

[254] Illinois Commission Reply Testimony at 20-23.

[255] *Id.* at 22.

[256] Illinois Attorney General Initial Testimony at 12.

[257] *Id.* at 9; *see also* PJM Consumer Representatives Reply Testimony at 12 (arguing that the Illinois Attorney General proposal appears to be consistent with the objectives of the MOPR).

[258] Pennsylvania Commission Reply Testimony at 16-17; *see also* Illinois Commission Initial Testimony at 11.

natural gas plants under the existing Tariff.[259] UCS argues that the new default offer price floors should be subject to the same transparency as the current default offer price floors, including a description of key drivers such as technology choice, plant configurations, interconnection costs, engineering, financing, taxes, insurance, and locational information. UCS argues that PJM has provided so little information that it is not possible to tell which values PJM used in even the publicly cited source material.[260] Clean Energy Industries state that accurate resource type-specific wind and solar default offer price floors need to account for bonus depreciation and federal incentives like the PTC and ITC, as well as a longer, resource-specific useful life than PJM's proposed 20 year asset life.[261]

d. Resource Type-Specific Values

125. Some intervenors support resource type-specific values.[262] Conversely, IMEA generally supports PJM's proposed default offer price floors, but disagrees that default offer price floors should be different as between technology types.[263] IMEA asserts that the establishment of a different default offer price floor for the technology types other than natural gas-fired combustion turbines would require sell offers in excess of the top of the VRR curve (which is determined based on a single CONE value), thereby necessarily precluding new resources of other technology types from ever clearing the auction. IMEA concludes that the default offer price floor for all technology types should be set based on the lowest cost technology type and therefore represent the most competitive resource type for new entry. IMEA argues that market participants who choose to build more expensive technologies will not recover all of their costs from the capacity market, but will also not adversely affect the clearing price, because the default offer price floor will already be at the top of the VRR curve.[264]

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[259] Illinois Attorney General Initial Testimony at 11.

[260] UCS Reply Testimony at 8-9.

[261] Clean Energy Industries Initial Testimony at 19-20. Clean Energy Industries proposes a 35 year asset life. *Id.*

[262] DC People's Counsel Initial Testimony at 9; LS Power Initial Testimony at 7; NRG Initial Testimony at 42; PSEG Initial Testimony at 12; Brookfield Reply Testimony at 4.

[263] IMEA Reply Testimony at 17.

[264] *Id.* at 17-18.

e. **Alternate Methodologies**

126. AES proposes a Proportional MOPR which accounts for the value of the subsidy relative to a resource's revenue, noting that for a partial subsidy, there could still be headroom between the Proportional MOPR offer price floor and the clearing price in a capacity auction.[265]

127. PJM Consumer Representatives assert that the default offer price floor should approximate an offer that would have been submitted absent the subsidy, and thus should equal the average offers from "like resources" that cleared the BRA over the past three years, excluding offers subject to the MOPR (e.g., the MOPR for an onshore wind resource receiving a subsidy would be the average cleared offer for onshore wind projects over the past three BRAs).[266] However, where the number of "like resources" that cleared in the BRA over the past three years is less than ten units total, PJM Consumer Representatives state the alternate proxy would be the lower of: (a) 50 percent of Net CONE * B, or (b) the average of the subsidized resource's actual cleared offers in the three BRAs that were conducted before it began receiving a subsidy.[267] Vistra opposes this proposal as administratively burdensome, and further notes that offers submitted prior to a resource receiving a subsidy may still be uncompetitive if the resource owner already knew it would be receiving the subsidy at the time of submission.[268]

128. Clean Energy Industries propose a Depreciated MOPR Approach, which would calculate a default offer price floor by subtracting the first-year annual energy and ancillary services revenues from the first-year annual operating costs and remaining levelized plant costs.[269] Clean Energy Industries state that the only difference between the Depreciated MOPR Method and PJM's proposal is when the default offer price floor is calculated; under PJM's proposal, default offer price floors are calculated at the first

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[265] AES Reply Testimony at 5.

[266] PJM Consumer Representatives Initial Testimony at 12. PJM Consumer Representatives explain that categories defined broadly based on generation technologies (e.g., coal, natural gas-fired combustion turbines, natural gas-fired combined cycle, oil-fired, onshore wind, offshore wind, solar) would suffice. AFPA states that, while it does not necessarily endorse all of the details of the PJM Consumer Representatives' proposals, it believes the proposals to be a practical way to address the Commission's concerns. AFPA Initial Testimony at 2.

[267] PJM Consumer Representatives Initial Testimony at 12-13.

[268] Vistra Reply Testimony, Russo Reply Aff. at 42.

[269] Clean Energy Industries Reply Testimony at 25.

year of operation, while under the Depreciated MOPR Method, default offer price floors are calculated at the year in which the resource bids into the capacity market.[270] Clean Energy Industries argue that this proposal is superior to PJM's, because it would reflect a more accurate default offer price floor for resources that fail to clear the capacity market initially.[271]

129. Alternatively, Clean Energy Industries contend that PJM could use the Levelized Cost of Energy to calculate the default offer price floor, because Levelized Cost of Energy is a commonly accepted method for calculating a generator's total revenue requirement based on its energy output over its useful life.[272] Clean Energy Industries argue this would more appropriately account for the variable energy output during an asset's operating life than the Net CONE approach.[273]

f. Answers

130. PJM responds to intervenor arguments that any of the default offer price floors are too high, arguing that the values are only defaults and no seller is required to use them. On the contrary, PJM points out that any seller can use the resource-specific review process to demonstrate lower costs.[274] Clean Energy Industries, in its Answer, respond that the unit-specific review is an insufficient protection against an unjust and unreasonable market structure, especially given that some financial modelling assumptions appear to be enumerated in PJM's proposed Tariff language and thus cannot be changed.[275] Clean Energy Industries further argue that the need to pursue unit-specific review is an added burden that may deter new entry.[276]

131. PJM agrees, however, with Clean Energy Industries' argument that the default offer price floors should include an offset for ancillary services market revenues. PJM notes that such revenues are small and unlikely to have a significant impact on the default

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[270] *Id.* at 25-26.

[271] *Id.* Clean Energy Industries also supports the Market Monitor's ACR approach as an alternative. *Id.* at 23.

[272] *Id.* at 28.

[273] *Id.* at 29.

[274] PJM Answer at 2-3.

[275] Clean Energy Industries Answer at 5.

[276] *Id.* at 6.

offer price floors, but states that PJM is willing to update its proposed floors in a compliance filing.[277]

132. PJM asserts, on reply, that using the lowest applicable zonal energy revenue estimate to offset estimated costs is reasonable, because there is significant variation in energy revenues for each resource type between zones and over time. PJM argues the lowest value is appropriate because the purpose of the MOPR is to establish a conservative default option. PJM notes again that sellers can always use the resource-specific option and use energy market revenues for the zone in which the resource is located, if the seller objects to the default energy revenue estimate.[278]

133. PJM disagrees with Clean Energy Industries' arguments that it is inappropriate to use a standardized set of financial inputs developed for natural gas-fired resources for renewable resources. PJM argues that it is just and reasonable to use the same Commission-approved parameters for all resources participating in its capacity market to ensure all resources competing against each other are being analyzed in a comparable fashion.[279] PJM further argues that 20 years is a reasonable asset life assumption, as "recent experience" with the rapid technological changes in the relative competitiveness of various resource types make any longer estimate overly optimistic for use in a default offer price floor.[280] Alternatively, Clean Energy Industries argue that PJM does not quantify this recent experience.[281]

134. PJM also disagrees with Clean Energy Industries that the competitive costs for renewable resources should be based on a subsidy in the form of tax credits, arguing that this would be contrary to the purpose of the MOPR.[282]

135. PJM responds to arguments that the energy market revenue estimates for onshore and offshore wind are in error, explaining that it calculated the two values using different assumptions, but that the values happened to coincide.[283] UCS, in its Answer, argues that PJM's explanation does not resolve their concerns and that their arithmetic still contains

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[277] PJM Answer at 4 (citing Clean Energy Industries Reply Testimony at 20).

[278] *Id.* at 5 (citing Clean Energy Industries Reply Testimony at 18).

[279] *Id.* at 6-7 (citing Clean Energy Industries Reply Testimony at 20-22).

[280] *Id.* at 7.

[281] Clean Energy Industries Answer at 5 n 18.

[282] PJM Answer at 7.

[283] *Id.* at 7-8.

an error. Specifically, UCS argues that, in calculating the estimated annual energy revenue for onshore wind, PJM erroneously applied the capacity factor twice.[284] In addition, UCS argues that PJM states that it used data from the National Renewable Energy Laboratory for the capacity factors for onshore and offshore wind, but UCS contends that the *NREL Annual Technology Baseline* contains numerous potential capacity factors for offshore wind, all of which are higher than PJM's proposed value of 26 percent.[285]

136. With regard to new resources, PJM argues that the Commission has consistently approached basing competitive offers for such resources on Net CONE, and that any suggested departure from that method is out of the scope of this proceeding and unreasonable.[286] PJM argues this method continues to be reasonable, because all of a resource's costs are deemed to be avoidable until the resource clears the market, and that the record in this proceeding does not justify abandoning the long-standing approach.[287] Clean Energy Industries disagree with PJM in its Answer, arguing that this methodology must be reevaluated in this proceeding, especially given that the Commission has proposed using the MOPR in a significantly different manner, and for a different purpose, than it historically has been used.[288] Clean Energy Industries argue that the Commission should explain in its ultimate order why PJM's current method for calculating the default offer price floor should be used moving forward under the new paradigm.[289]

137. PJM argues that, under the Market Monitor's proposal, subsidized new entry could circumvent the MOPR rules by accepting subsidies supporting a resource's construction costs before offering the resource into the market at a level below the resource's actual cost of entry.[290] PJM further disagrees with the proposed Levelized Cost of Entry approach, explaining that while Levelized Cost of Entry is useful for comparing energy production by different technologies, for the same basic capital and operating costs it cannot produce a significantly lower Net CONE as the basis for a resource's competitive

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[284] UCS Answer at 3 n.3.

[285] *Id.* at 3.

[286] PJM Answer at 8-9.

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

[288] Clean Energy Industries Answer at 3-4.

[289] *Id.* at 4.

[290] PJM Answer at 11.

cost of committing as capacity.[291] Clean Energy Industries argue that PJM's Answer suggests either that PJM is not familiar with the Levelized Cost of Entry approach or is using different data than Clean Energy Industries.[292] Clean Energy Industries contend that the Commission must give full consideration to the alternative financial inputs it put forth and not dismiss them based on PJM's conclusory responses.[293]

3. Commission Determination

a. Planned Resources

138. We adopt PJM's proposal to set the default offer price floor for certain resources that have not previously cleared the capacity market at Net CONE for each resource type.[294] This is consistent with the existing MOPR, which sets the default offer price floor based on a percentage of a default Net CONE for the resource type. Given that we will retain the Unit-Specific Exemption in the replacement rate, we disagree with intervenors who argue that setting the default offer price floor at Net CONE for each resource type constitutes a barrier to entry because it is too high. On the contrary, we find that it is just and reasonable to raise that percentage from 90 to 100 percent of Net CONE. A purpose of the MOPR is to ensure resources are offering competitively. For resources that have not previously cleared a capacity auction, the MOPR is intended to ensure that uneconomic resources, that are unlikely to recover the full cost of new entry over the life of the resource, are not able to enter the market at a lower cost because they receive a State Subsidy. If a resource does not qualify for the Competitive Exemption, we find that requiring new resources to offer at 100 percent of the default Net CONE, unless they are able to justify a lower Net CONE value through the Unit-Specific Exemption, is a just and reasonable method of accomplishing this goal. We reject arguments that Net CONE is no longer appropriate now that the focus of MOPR application has shifted.[295] An underlying purpose of the MOPR has been to prevent suppliers from offering uneconomically low-priced capacity into the market—here we expand the MOPR to certain existing and new resources to address price suppression caused by State Subsidies. We further reject as unsupported arguments that the default offer price floors should instead be based on gross CONE. Net CONE more accurately

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[291] *Id.* at 12-13.

[292] Clean Energy Industries Answer at 4.

[293] *Id.* at 5 n.19.

[294] Repowered resources are considered new for the purposes of the MOPR.

[295] June 2018 Order, 163 FERC ¶ 61,236 at P 153.

reflects the costs a new resource faces in entering the capacity market because it subtracts expected revenues from costs.

139. We agree that using Net CONE for the default offer price floor for new resources may significantly affect the ability of new resources receiving State Subsidies to clear the market, as compared to using Net ACR, but we find that this is just and reasonable. New resources should be less likely to clear than many existing resources because they face additional avoidable costs that existing resources do not face, including construction and permitting costs.[296] Sellers that believe their actual costs are less than the default Net CONE values may apply for the Unit-Specific Exemption. Therefore we find that using Net CONE will not create an unjust and unreasonable barrier to entry, but will rather allow the MOPR to fulfill its purpose and protect the capacity market from uneconomic new entry by State-Subsidized Resources.

140. We also find it would not be appropriate to use Net ACR as the default offer price floor for new resources. Net ACR does not account for the cost of constructing a new resource. Using Net ACR as the MOPR value for new resources would not serve the purpose of the MOPR, because it does not reflect new resources' actual costs of entering the market and therefore would not prevent uneconomic State-Subsidized Resources from entering the market.

141. Protestors argue that subsidized resources should not be forced to remain as new resources, mitigated at Net CONE, indefinitely. We reject that argument. In order to be treated as existing resources, new State-Subsidized Resources must first clear the capacity auction subject to the default offer price floor appropriate to a new resource. It would not be reasonable to treat resources that fail to clear the capacity market subject to the new resource default offer price floor as existing resources. An exemption that allows new, State-Subsidized Resources to bypass the MOPR, solely because the MOPR prevents them from clearing, would completely defeat the purpose of the MOPR. We similarly reject arguments that projects planned before new rules are imposed should be exempt. Market participants are frequently confronted with changing rules and regulatory structures. Here, resources have been on notice since 2016, when the Calpine Complainants filed their complaint, that capacity market rules may be revised.

142. We acknowledge concerns that PJM estimates the default offer price floor for some resources in excess of the top of the demand curve. However, a high Net CONE value simply underscores how uneconomic these resources generally are in the PJM capacity market. We also note that resources for which the default offer price floor is above the demand curve starting point may request a Unit-Specific Exemption, should

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[296] *See, e.g.*, PJM Initial Testimony at 44 (explaining that construction and development costs should not be included in the default offer price floor for existing resources).

they determine that their costs are lower than the default. We therefore find that it is appropriate to use a resource-type-specific default offer price floor that reasonably reflects a competitive offer for such a resource, regardless of whether it is above the demand curve starting price.

143. We also adopt PJM's proposal to update the values annually and as part of PJM's quadrennial review of its demand curve and CONE values. We reiterate that we direct PJM to use resource-type specific Net CONE values for resources that have not previously cleared a capacity auction. However, given the importance of an accurate default offer price floor and the number of questions raised in the record as to how the values were calculated, we direct PJM to provide additional explanation on how it calculated each of the proposed values on compliance, including workbooks and formulas, as appropriate.

144. We direct PJM to establish appropriate default offer price floor values for demand-side resources, including demand response and energy efficiency. As noted above, we disagree that it is infeasible for PJM to determine Net CONE or Net ACR values for demand-side resources that rely on various types of behind-the-meter generation as a substitute for purchasing wholesale power. The fundamental elements of the analysis for behind-the-meter generation is the same as for other resources. We direct PJM to provide Net CONE values for such generation on compliance, noting that it may be appropriate to use resource-type specific values as for other types of generation resources.[297]

145. For demand-side resources that commit to cease using wholesale power, rather than shift to behind-the-meter generation, PJM will average the last three years' demand response offers to determine the default offer price floor value for resources that have not previously cleared a capacity auction.[298] We find that PJM's proposed default offer price floor approach for these demand-side resources that have not previously cleared a capacity auction is just and reasonable. We note, however, that this average should include non-generation-backed demand resources. We disagree with intervenors arguing that the average will trend upward over time because PJM proposes to average all demand response offers, new and existing. While it is true that new demand response resources that receive a State Subsidy will be subject to a default offer price floor that is, in part, determined by the offers of previous new resources subjected to the same floor, the average will also include existing resources and new resources that receive the Unit-

[297] We understand that applying the MOPR to demand response resources in this manner may necessitate changes to how demand response resources participate in the capacity market, such as requiring demand response aggregators to contract with resources sooner. PJM should include in its compliance filing any additional changes to its Tariff that may be necessary in order to implement this MOPR directive.

[298] PJM Initial Testimony at 42-43.

Specific Exemption to offer below the default offer price floor. We therefore find that PJM's proposal will reasonably reflect the average costs of demand response resources and will serve as an appropriate default offer price floor.

146. We direct PJM to propose default offer floor prices for all other types of resources that participate in the capacity market, including capacity storage resources, as well as resources whose primary function is not energy production, including facilities fueled entirely by, for example, landfill gas, wood waste, municipal solid waste, black liquor, coal mine gas, or distillate fuel oil, on compliance. PJM should file additional default offer price floors for new technologies as they emerge.

147. Finally, because energy efficiency operates differently from other resources that are intended to reflect reductions in wholesale demand, it is difficult to describe energy efficiency in terms of Net CONE or Net ACR. Instead, on compliance, we direct PJM to establish objective measurement and verification requirements for new energy efficiency offers and to limit such offers to the verifiable level of savings.

b. Existing Resources

148. We adopt PJM's proposal to set the default offer price floor for existing resources at the resource-type specific Net ACR. Net ACR for an existing resource estimates how much revenue the resource requires (in excess of its energy and ancillary service revenue) to provide capacity in the given year. Using a resource-type Net ACR as the default offer price floor for existing resources is therefore just and reasonable because it recognizes that generation resources are a long-term investment that may fluctuate in value over time, but still allows those resources to receive capacity revenues in years in which they are less profitable. We further find that the default offer price floor for existing generation-backed demand response resources should be set at Net ACR for the appropriate generation type.

149. We agree with the Market Monitor that basing the default offer price floor values for existing resources on 2011 data with a generic inflation factor is insufficient. We direct PJM to propose new values using more updated data, and to develop a process to ensure all the data used in the calculation is updated annually. As with the Net CONE values, a number of questions have been raised in the record as to how the Net ACR values were calculated. We order PJM to provide additional explanation on compliance, including workbooks and formulas, as appropriate. Additionally, we find that any uprates (i.e., incremental increases in the capability of existing resources), of any size are considered new for purposes of applying the MOPR and should be mitigated to Net CONE and not Net ACR. These uprates may come with additional avoidable costs, such as construction costs, that existing resources otherwise do not face. We also direct PJM to provide additional justification for setting the default offer price floors for existing renewable resources at zero.

150. Finally, we direct PJM to propose default offer price floors for all other types of resources, including energy efficiency,[299] non-generation-backed demand response resources, and capacity storage, as well as resources whose primary function is not energy production, including facilities fueled entirely by, for example, landfill gas, wood waste, municipal solid waste, black liquor, coal mine gas, or distillate fuel oil, on compliance.

c. Both Planned and Existing

151. We find that it is just and reasonable to use different methodologies to set the default offer price floors for new and existing resources. Existing resources face different costs than new resources, because the decision to enter the market is different than the decision to remain in the market. For planned resources, the default offer price floor should include, for example, construction costs and certain fixed costs that an existing resource does not usually face.

152. Some parties argue that the Commission should set the default offer price floor for resources subject to the MOPR at Net CONE * B. The Commission previously found Net CONE * B provided a reasonable estimate of a competitive offer for a resource with a low ACR.[300] However, we did not find the Net CONE * B price accurately reflects any particular resource's cost. In addition, we note that the Commission did not find that Net CONE * B was the only just and reasonable competitive offer. We therefore find that it is just and reasonable for PJM's Tariff to use one definition of a competitive offer to set the default capacity market seller offer cap for supplier-side market power mitigation and a different one for the different purpose of setting the default offer price floor.

153. We disagree with arguments that State Subsidies should be considered as revenue for either resources that have never cleared a capacity auction or existing resources, as this would defeat the purpose of the rate modifications directed in this order, which is to prevent State-Subsidized Resources from submitting uncompetitive offers as a result of State Subsidies. We agree with PJM that the proposed 20-year asset life is appropriate.[301] We also agree with PJM that default MOPR values should maintain the same basic financial assumptions, such as the 20-year asset life, across resource types. The Commission has previously determined that standardized inputs are a simplifying tool

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[299] *See supra* P 148.

[300] *PJM Interconnection, L.L.C.*, 151 FERC ¶ 61,208 at P 340.

[301] Rapid changes in market conditions and generation technology could make resources uneconomic in less than Clean Energy Industries' proposed 35 years.

appropriate for determining default offer price floors,[302] and we reaffirm that it is reasonable to maintain these basic financial assumptions for default offer price floors in the capacity market to ensure resource offers are evaluated on a comparable basis. Therefore, we find 20 years to be an appropriately conservative estimate.

154. We agree with intervenors and PJM that the default offer price floors should include an offset for ancillary services market revenues. In addition, we agree with intervenors that energy revenue offsets should be zone-specific, rather than based on the lowest zonal value estimated for each resource type over the past three years. Using the lowest possible value biases the default offer price floor upwards and does not reflect the revenues resources are actually likely to earn. PJM's Answer, stating that there is significant variation in energy revenues for each resource type between zones and over time, merely reinforces the importance of using zone-specific energy and ancillary services revenue values. On compliance, we order PJM to develop default average energy and ancillary services revenue offset values for each resource type by zone.

155. We agree with PJM that the default offer price floors should be updated regularly and adopt PJM's proposed Tariff language to update them annually and conduct a larger review on a quadrennial basis. We also agree with Illinois AG, however, that the calculation of the default offer price floors should be more transparent than what has been provided in the testimony. As noted above, we are requiring PJM to provide additional information supporting its values on compliance. We decline to add future transparency requirements to the Tariff at this time, as we anticipate the quadrennial filings, which historically have updated CONE and default offer price floor values, will continue to provide that information despite the broader range of default offer price floors which must be provided, and will contain significant details, consistent with the level of detail already provided in the quadrennial updates. Additional requirements are therefore unnecessary.

156. With regard to Pennsylvania Commission's requests that PJM adjust the default offer price floors to account for future changes in price formation and the results of the quadrennial review process, we find those requests to be premature. Because such changes have not yet been made, we cannot evaluate their reasonableness and decline to speculate here.

d. Miscellaneous

157. In response to arguments that the default offer price floor should be the same for all resource types, we agree with PJM that it is appropriate to calculate different default values for different resource types. The going-forward cost of a nuclear resource, for example, would likely be substantially different from that of an onshore wind resource.

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[302] 2013 MOPR Order, 143 FERC ¶ 61,090 at P 144.

Resources of different types compete against each other in a single capacity market, and it would undermine the effectiveness of the expanded MOPR to subject resources with varying going-forward costs to the same default offer price floor.

158. Finally, having established a just and reasonable method for establishing default offer price floors, we need not discuss the other alternative methodologies proposed.

D. Exemptions

1. Competitive Exemption

a. PJM's Proposal

159. In its paper hearing testimony, PJM does not re-propose the competitive entry exemption it proposed, and the Commission accepted, in 2013,[303] but rather submits that the expanded MOPR will apply to capacity resources receiving material subsidies where the relevant resource is "entitled" to a material subsidy and the seller "has not certified that it will forego receiving any Material Subsidy for such Capacity Resource during the applicable Delivery Year."[304] PJM states that sellers will need to affirmatively inform PJM of their choice to forego the subsidy no less than thirty days before the commencement of the relevant BRA,[305] and sellers have an ongoing obligation to provide notification of status changes.[306]

b. Intervenor Positions

160. Several intervenors support PJM's proposal that the expanded MOPR will not apply to resources who have certified that they will not receive a subsidy. AES agrees that resources that do not accept a subsidy or renounce an available subsidy should be exempt from the MOPR.[307] Vistra asserts that all resources participating in the capacity market without being subject to the MOPR should attest that they will not accept any subsidies prior to or during the applicable delivery year to avoid resources gaming the entitled to language by not taking a subsidy at the time of the auction, but later accepting

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[303] *See* 2013 MOPR Order, 143 FERC ¶ 61,090 at PP 24, 28, 53 (competitive entry exemption applies to resources receiving no out-of-market funding or resources receiving out-of-market funds as a result of a competitive auction process open to all resources).

[304] PJM Initial Testimony at 25-28; proposed Tariff, Att. D, § 5.14(h)(ii)(B).

[305] PJM Initial Testimony at 27; proposed Tariff, Att. D, § 5.14(h)(iii)(A).

[306] Proposed Tariff, Att. D, § 5.14(h)(iii)(B).

[307] AES Initial Testimony at 19.

out-of-market support during the delivery year.[308] NRG argues that sellers should have an affirmative obligation to provide updated information to PJM and the Market Monitor to report the existence of a subsidy after the self-certification deadline.[309] AES states that penalties should be designed to reduce any incentive to establish new subsidies that are timed to avoid being taken into account for the upcoming auction.[310]

c. Commission Determination

161. The focus of the expanded MOPR directed in this order is to mitigate the impact of State Subsidies on the capacity market, and, therefore, resources that do not receive State Subsidies should be able to participate in the capacity market without mitigation, subject to PJM's existing buyer-side market power rules. We therefore direct PJM to include a Competitive Exemption for both new and existing resources, other than new gas-fired resources, that certify to PJM that they will forego any State Subsidies. We find that it is reasonable and consistent with the purposes of the expanded MOPR directed herein to allow new and existing resources (other than new gas-fired resources) that certify to PJM that they will forego any State Subsidies, to avoid being subject to the applicable default offer price floor. Doing so will facilitate the capacity market's selection of the most economic resources available to meet resource adequacy objectives.

162. We share intervenors' concerns that PJM's proposed language leaves a loophole whereby a resource may not be eligible for a State Subsidy at the time of the capacity market qualification process, but may become eligible for such a subsidy, and accept it, before or during the relevant delivery year. We therefore direct PJM to include in its compliance filing a provision stating that if an existing resource[311] claims the Competitive Exemption in a capacity auction for a delivery year and subsequently elects to accept a State Subsidy for any part of that delivery year, then the resource may not receive capacity market revenues for any part of that delivery year.[312] We also direct PJM to include in its compliance filing a provision stating that if a new resource claims the Competitive Exemption in its first year, then subsequently elects to accept a State Subsidy, that resource may not participate in the capacity market from that point forward

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[308] Vistra Initial Testimony at 15.

[309] NRG Reply Testimony at 28.

[310] AES Initial Testimony at 26.

[311] *See supra* note 5.

[312] The resource would, however, be eligible for capacity market revenues for the relevant delivery year if it could demonstrate under the Unit-Specific Exemption that it would have cleared in the relevant capacity auction.

for a period of years equal to the applicable asset life that PJM used to set the default offer floor in the auction that the new asset first cleared.[313] We find that, absent this change, PJM's proposed language would allow gaming and incent the creation of subsidy programs timed to avoid the qualification window.

2. Renewable Portfolio Standards Exemption

a. PJM's Proposal

163. PJM proposes to exclude voluntary REC[314] programs, stating that a "renewable energy credit (including for onshore and offshore wind, as well as solar, collectively, RECs) will not be considered a Material Subsidy, if the Capacity Market Seller sells the REC to a purchaser that is not required by a state program to purchase the REC, and that purchaser does not receive any state financial inducement or credit for the purchase of the REC."[315] PJM asserts that voluntary bilateral arrangements for RECs are unrelated to statutory RPS program requirements because the demand for voluntary RECs comes primarily from private corporations pursuing environmental agendas. PJM thus believes that voluntary REC purchases are distinguishable from the bulk of REC purchases made to show compliance with state RPS program mandates.[316]

164. PJM does not propose to exempt mandatory REC programs (although, as PJM notes, a 20 MW unforced capacity materiality threshold, as proposed by PJM, would, in practice, exclude the majority of renewable resources).[317] Given the difficulty of tracing REC transactions after the initial purchase, PJM proposes to presume that any REC sales

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[313] Elsewhere in this order, we accept the 20-year asset life PJM proposed. If that value is modified in future proceedings, the period of years for which the resource may not participate in the capacity market must be modified accordingly.

[314] PJM maintains its Generation Attribute Tracking System as a trading platform designed to meet the needs of buyers and sellers involved in the REC market. The REC becomes a commodity the generation owner can now sell to an interested buyer. Buyers can vary from electric utilities to brokers or aggregators, to environmental firms or to non-industry companies looking to neutralize their carbon footprint. Load serving entities (LSE) may meet state RPS program mandates through RECs, but it is not the only way to meet RPS program requirements.

[315] PJM Initial Testimony at 21; proposed Tariff, Art. I, Material Subsidy definition.

[316] PJM Initial Testimony at 24-25.

[317] *Id.* at 18.

to an intermediary are to meet mandatory RPS programs, and therefore not exempt. PJM also states that if the subsidy to a generator takes some other form than a traditional bilateral REC transaction between private entities, the proposed Tariff language would not shield the financial inducements or credits from the MOPR. PJM adds that, because the going-forward costs of renewable resources are typically low, it does not expect the application of the MOPR to RECs to materially impact the ability of renewable resources to clear the auction.[318]

b. Intervenor Positions

165. Several intervenors support an exemption for resources receiving revenue through RPS programs generally or RECs specifically.[319] According to intervenors, RECs do not have a price suppressive impact on the market and should be excluded from MOPR.[320] Intervenors argue that RECs are not predictable enough to cause a resource to be built or to modify its offer.[321] For example, intervenors argue that RECs are not created and sold until very close to the time when a renewable energy project enters commercial operation, well after resources have submitted their capacity offers, and thus do not materially impact capacity offers.[322] DC People's Counsel also explains that the District of Columbia's REC auction occurs annually, which can make it difficult for resources to

[318] *Id.* at 23 n.39.

[319] ACORE Initial Testimony at 1-2; AEE Initial Testimony at 10-12; Brookfield Initial Testimony at 8-9; Brookfield Reply Testimony at 5-7; Buyers Group Initial Testimony at 7; Clean Energy Advocates Initial Testimony at 24; DC Attorney General Initial Testimony at 10; DC Commission Initial Testimony at 4; Maryland Commission Reply Testimony at 10-11.

[320] Brookfield Reply Testimony at 8 (citing a 2018 Market Monitor report finding that the clearing price was not impacted by the removal of wind and solar resources).

[321] Clean Energy Advocates Initial Testimony at 24-27; Brookfield Initial Testimony at 9; ACORE Initial Testimony at 3; AEE Initial Testimony at 10; Clean Energy Industries Initial Testimony at 15.

[322] AEE Initial Testimony at 13; ACORE Initial Testimony at 3; Clean Energy Industries Initial Testimony at 15, 17; Clean Energy Industries Reply Testimony at 14-15; DC People's Counsel Initial Testimony at 8.

bid into PJM's three year forward capacity auction using any assumptions of their REC price.[323]

166. Intervenors further argue that RPS programs do not impact bidding behavior because REC prices are a result of a competitive market (e.g., supply and demand), and therefore REC prices are volatile.[324] According to AEE, REC prices are increasingly low as the costs of renewable projects continue to decline.[325]

167. Intervenors argue that the financial support received by resources through RPS program requirements has not been shown to have a meaningful impact on capacity offers by these resources or allow otherwise uncompetitive resources to clear the capacity market.[326] DC Commission argues the percentage of renewable energy in PJM is about 4 percent, which is insignificant and should be exempt from the MOPR.[327] Intervenors argue that RPS programs tend to have minimal, if any, impact on capacity markets after they have been in effect for more than a few years, because the growth of renewable resources outpaces the RPS program requirements.[328]

168. Should the Commission decide to apply the MOPR to RECs, AEE urges the Commission to avoid over-mitigation by confining application of the MOPR to RECs substantial and reliable enough to actually influence a resource's offer, which AEE explains is likely only true in the rare instances where a state policy directly sets both the price and term of the REC, ensuring that a specific resource will receive certain revenues,

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[323] DC People's Counsel Initial Testimony at 8.

[324] Clean Energy Advocates Initial Testimony at 25-26. DC Attorney General Initial Testimony at 10; Clean Energy Industries Initial Testimony at 3, 13, 20-21; DC Commission Initial Testimony at 8; Brookfield Reply Testimony at 7; AEE Initial Testimony at 10-11; DC Attorney General Initial Testimony at 9-10.

[325] AEE Initial Testimony at 11.

[326] *Id.* at 10; Clean Energy Industries Initial Testimony at 13.

[327] DC Commission Initial Testimony at 7; *see also* Maryland Commission Reply Testimony at 10 (arguing renewable resources should be exempted from the MOPR because they have a relatively low level of penetration and they are unlikely to be mitigated under the MOPR regardless).

[328] Clean Energy Groups Reply Testimony at 4.

known in advance, for an extended time period. Because those instances are so rare, AEE argues, a MOPR that applies to all RECs would be administratively burdensome.[329]

169. Some intervenors argue that RECs are not subsidies of the type the Commission addressed in the June 2018 Order because they do not suppress capacity prices[330] or because they do not function by creating specific price supports for specific resource classes.[331] PJM Consumer Representatives argue that RECs and RPS programs do not involve requirements for dollar transfers from electricity consumers to certain generators, and are therefore not subsidies.[332]

170. Several intervenors argue that the Commission should not mitigate RECs purchased voluntarily as a result of consumer preferences.[333] Intervenors argue that voluntary REC purchases are not driven by state policies, are a result of private actions, and are outside the Commission's jurisdiction.[334] To avoid mitigating voluntary RECs, AEE requests the Commission allow renewable resources to certify that they will not retire any RECs for the purposes of mandatory state compliance, or, alternatively, that they will retire less than one percent of their total project revenue's worth of RECs for state RPS program compliance.[335]

171. Several intervenors point to potential problems with PJM's proposal to not exempt voluntary RECs sold through intermediaries, arguing that such purchases cannot reasonably be assumed to be used solely, or even mostly, for state compliance

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[329] AEE Initial Testimony at 14.

[330] Brookfield Initial Testimony at 9.

[331] Clean Energy Advocates Initial Testimony at 24.

[332] PJM Consumer Representatives Reply Testimony at 6.

[333] ACORE Initial Testimony at 2; AEE Initial Testimony at 15; AES Initial Testimony at 19-20; Avangrid Initial Testimony at 10; Brookfield Initial Testimony at 9-10; Clean Energy Industries Initial Testimony at 6; Buyers Group Initial Testimony at 6, 8-9; Clean Energy Industries Reply Testimony at 11.

[334] ACORE Initial Testimony at 2-3; *see also* Clean Energy Industries Reply Testimony at 11.

[335] AEE Initial Testimony at 16-17.

purposes.[336] Microsoft explains that it always uses any RECs it procures and so never receives any financial benefit from the RECs, even when it uses intermediaries such as brokers to procure the RECs.[337] If this aspect of PJM's proposal is accepted, Microsoft asserts that the capacity offers associated with these RECs would be artificially inflated, without achieving the objective of mitigating price suppression from state subsidies.[338]

172. Conversely, a number of intervenors oppose MOPR exemptions generally, and a few specifically oppose an exemption for renewable resources, arguing that all subsidies should be mitigated.[339]

c. Commission Determination

173. We find that a limited exemption for renewable resources[340] receiving support from state-mandated or state-sponsored RPS programs[341] is just and reasonable. Therefore, we direct PJM to include an RPS Exemption for resources receiving a State Subsidy through a currently existing state-mandated or state-sponsored RPS program if the resource fulfills at least one of these criteria: (1) has successfully cleared an annual or incremental capacity auction prior to this order; (2) has an executed interconnection construction service agreement on or before the date of this order; or (3) has an

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[336] Buyers Group Reply Testimony at 9-13. Buyers Group notes the growth in demand for voluntary RECs and states that in 2017, nearly half of all voluntary market sales of renewable energy were unbundled REC sales (e.g., not compliance bulk sales). Buyers Group Reply Testimony at 11-12; *see also* Clean Energy Industries Reply Testimony at 9; Clean Energy Advocates Reply Testimony at 13-14; Microsoft Reply Testimony at 5-7.

[337] Microsoft Reply Testimony at 4-6.

[338] *Id.* at 6-7.

[339] *See, e.g.*, Vistra Initial Testimony at 16; ACCC/NMA Initial Testimony at 4.

[340] Renewable resource as used in the RPS Exemption means Intermittent Resource as defined in the PJM Tariff as "a Generation Capacity Resource with output that can vary as a function of its energy source, such as wind, solar, run of river hydroelectric power and other renewable resources." PJM Tariff, Art. 1.

[341] RPS programs include only those state-mandated or state-sponsored programs which subsidize or require the procurement or development of energy from renewable resources.

unexecuted interconnection construction service agreement filed by PJM for the resource with the Commission on or before the date of this order.

174. We find that this limited exemption for resources participating in RPS programs is just and reasonable because decisions to invest in those resources were guided by our previous affirmative determinations that renewable resources had too little impact on the market to require review and mitigation.[342] However, that assessment of renewable resource participation in the market has changed.[343] The evidence in this proceeding shows that RPS programs are growing at a rapid pace, and resources participating in these programs will increasingly have the ability to suppress capacity market prices.[344] Accordingly, a new renewable resource that does not meet the exemption requirements set forth above and that receives support from a state-mandated or state-sponsored RPS program or other State Subsidies and offers into the PJM capacity market will be subject to the default offer price floor unless it can justify a lower offer through a Unit-Specific Exemption.[345]

175. This division in the treatment of renewable resources recognizes the increasing amount of State Subsidies for these resources and the increasing potential for RPS resources to suppress capacity prices. The record demonstrates that, as a part of RPS programs, states are providing or requiring meaningful State Subsidies to renewable resources in the PJM capacity market, and that such support is projected to increase substantially in the future. PJM estimates that nearly 5,000 MW of renewable energy

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[342] *See, e.g.*, 2013 MOPR Order, 143 FERC ¶ 61,090 at PP 166-167; 2011 MOPR Order, 135 FERC ¶ 61,022 at PP 152-153; 2011 MOPR Rehearing Order, 137 FERC ¶ 61,145 at P 111.

[343] In addition, as our discussion of materiality thresholds indicates, the Commission has altered its prior determination that permitting small amounts of uneconomic entry is reasonable if the impact on market prices is arguably limited. *See supra* PP 98-99; *cf.* CASPR Order, 162 FERC ¶ 61,205 at P 24 (accepting modifications to the MOPR used in ISO-New England to transition away from the Renewable Resource Technology exemption, which was premised on claims it "would adequately limit the impact of out-of-market state actions on [Forward Capacity Market] prices").

[344] *See* June 2018 Order, 163 FERC ¶ 61,236 at P 151.

[345] As we explained above, this does not prevent states from exercising their jurisdiction to make generation-related decisions under FPA section 201. States may choose to acquire whatever generation resources they like, but it remains the duty of this Commission to ensure that those choices do not cause unjust, unreasonable, or unduly discriminatory or preferential rates for wholesale transactions in interstate commerce. *See, e.g.*, *Connecticut PUC*, 569 F.3d at 481; *supra* note 23.

was needed to meet the 2018 RPS program requirements in PJM, but conservatively projects that will increase to over 8,000 MW of renewable energy capacity by 2025. PJM asserts that these needs will further increase to 8,866 MWs by the end of 2033.[346] The record also shows that support for renewable resources through RPS programs drives the proliferation of these resources in the market.[347] Regardless of how volatile and uncertain revenue from RPS programs may be, it is still a State Subsidy that has the ability to influence capacity market prices. Thus, because State Subsidies from state RPS programs are projected to grow significantly, we find that it is just and reasonable to mitigate resources receiving support through state-mandated and state-sponsored RPS programs, on the prospective basis outlined above.

176. In addition, as noted above, we reiterate that State Subsidies at any level are capable of suppressing capacity market prices. We therefore find that RECs procured as part of a state-mandated or state-sponsored procurement process are State Subsidies. As to voluntary REC arrangements, meaning those which are not associated with a state-mandated or state-sponsored procurement process, based on the record in this proceeding, we agree with intervenors that it is not possible, at this time, to distinguish resources receiving privately funded voluntary RECs from state-funded or state-mandated RECs because resources typically do not know at the time of the auction qualification process how the REC will be eventually used.

177. We disagree with intervenors that RPS programs are not subsidies as contemplated in the June 2018 Order, or that RPS programs will not have the ability to impact capacity market prices or bidding behavior going forward. The June 2018 Order found that the existing MOPR was unjust and unreasonable because it did not account for resources receiving out-of-market state subsidies, including RPS programs, and that such subsidies have the ability to influence capacity market prices, regardless of intent.[348] Because of the Unit-Specific Exemption, if a renewable resource receiving support from a state-mandated or state-sponsored RPS program is competitive in the absence of the State Subsidy, then the expanded MOPR will have no impact. As noted in the materiality threshold discussion above, we disagree with PJM that resources with an unforced capacity of less than 20 MWs, which includes many renewable resources, do not have the ability to influence capacity market prices.

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[346] June 2018 Order, 163 FERC ¶ 61,236 at PP151-152 (citing PJM Transmittal Letter, Docket No. ER18-1314-000, Giacomoni Aff. at 9-10 and Att. 1).

[347] PJM Transmittal Letter, Docket No. ER18-1314-000, Att. F, Giacomoni Aff. at 7-8.

[348] June 2018 Order, 163 FERC ¶ 61,236 at P 151.

3. Self-Supply Exemption

a. PJM's Proposal

178. PJM proposes to re-implement its previously approved exemption for self-supply resources,[349] i.e., resources owned by a public power entity (cooperative or municipal utility), a vertically integrated utility subject to traditional bundled rate regulation, or a LSE that serves retail-only customers under the same common control.[350] In other words, PJM would not treat these resources as receiving a Material Subsidy simply because the energy or capacity they produce has been purchased through a state-directed procurement.[351] According to PJM, the Commission has recognized that the traditional business models for capacity procurement for self-supply entities do not give rise to artificial price suppression concerns.[352]

179. Under PJM's proposal, all existing self-supply resources would be exempt from the MOPR,[353] and new self-supply resources that receive a Material Subsidy would be

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[349] PJM Initial Testimony at 32-34 (citing 2013 MOPR Order, 143 FERC ¶ 61,090 at P 111).

[350] *Id.* at 32-33.

[351] In its reply testimony, PJM clarifies that the element of the phrase in the definition of Material Subsidy that includes subsidies "received as a result of the procurement of electricity or other attribute from an existing Capacity Resource" should not be broadly interpreted so as to include any state-directed capacity procurement. Rather, PJM intends the definition to be narrowly applied "so that if a resource is supported by the state through a procurement contract that is tendered to meet public policy goals such as to encourage clean energy production *and* accompanied by financial support in the form of actionable subsidies (as that term is defined in PJM's Tariff)," that would be treated as a subsidy like a ZEC or REC. PJM Reply Testimony at 13 (citing Exelon Initial Testimony at 16-21).

[352] PJM Initial Testimony at 33 (citing 2013 MOPR Order, 143 FERC¶ 61,090 at P 111).

[353] *Id.* at 33-34. PJM clarifies that self-supply LSEs do not have to submit an exemption request for each of their resources, and any new resources of self-supply LSEs that fall within the net-short and net-long thresholds would similarly be exempt. PJM Reply Testimony at 15.

exempt to the extent they meet PJM's net-short and net-long thresholds.[354] PJM asserts that these thresholds ensure that sellers do not have an opportunity to suppress clearing prices (for example, by "dumping" excess capacity into the BRA, suppressing capacity prices).[355] PJM claims that these thresholds cannot be applied to existing resources because, while PJM can objectively determine whether new resources would violate the thresholds, PJM would have to make a subjective and arbitrary determination to identify which existing resources in a seller's portfolio are, in the example of a seller who is net-long, "excess," versus which resources are needed to meet its retail demand and thus should be designated as subject to the MOPR.[356]

b. Intervenor Positions

180. Several intervenors argue in favor of a self-supply, public power, or vertically integrated utility exemption.[357] These intervenors make a number of arguments, including that these entities cannot or do not have incentive to exercise the buyer-side market power price suppression concerns that the MOPR is designed to address;[358] that

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[354] If a resource is net-short on capacity, its owned and contracted capacity is less than its capacity obligation. If a resource is net-long on capacity, it has more capacity than it needs to meet its capacity obligation.

[355] PJM Reply Testimony at 15. PJM states that these thresholds were approved in the 2013 PJM MOPR Order and reaffirmed by PJM stakeholders last year. PJM Initial Testimony at 33.

[356] PJM Initial Testimony at 33-34.

[357] *See, e.g.*, Allegheny Initial Testimony at 6; ELCON Initial Testimony at 7; Dominion Initial Testimony at 3, 11-13; AMP/PPANJ Initial Testimony at 17-27; AEP/Duke at 7-8; Buckeye Initial Testimony at 5-6, 10-11 (supporting a self-supply exemption, as a minimum, if a workable resource-specific FRR is not implemented); EKPC Initial Testimony at 6-10; APPA Initial Testimony at 5-27 (arguing that the Commission should either exclude public power self-supply resources from the MOPR entirely, or adopt a broad exemption); Kentucky Commission Initial Testimony at 3-4 (asserting that vertically integrated utilities should be excluded entirely from the MOPR); NOVEC Initial Testimony at 7-8; NRECA Initial Testimony at 17-18; OCC Initial Testimony at 6; ODEC Initial Testimony at 6-12; OPSI Initial Testimony at 14; PJM Consumer Representatives Initial Testimony at 20; SMECO Initial Testimony at 4; Virginia SCC Initial Testimony at 2; AMP Reply Testimony at 11-12.

[358] *See, e.g.*, Allegheny Initial Testimony at 7 (citing Commission findings in 2013 MOPR Order, 143 FERC ¶ 61,090); AMP/PPANJ Initial Testimony at 20-27; Dominion Initial Testimony at 12; EKPC Initial Testimony at 7-8; Kentucky Commission Initial Testimony at 3; NOVEC Initial Testimony at 7; ODEC Initial Testimony at 9; Virginia

these entities do not distort the PJM capacity market;[359] that applying the MOPR to these entities could result in consumers paying twice for capacity or incurring the cost of stranded investment;[360] and that the Commission has previously exempted these resources.[361] NOVEC argues that not exempting self-supply resources would result in an artificial increase of market prices without any benefit to customers.[362]

181. Other intervenors argue self-supply should be exempted as a long standing traditional business model.[363] APPA argues that there is no evidence of increased out-of-market support for public power self-supply, and, given that the public power business model has been in existence for over one hundred years, there are no changed

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SCC Initial Testimony at 2; AMP/PPANJ Initial Testimony at 27; NRECA Initial Testimony at 19.

[359] *See, e.g.*, APPA Reply Testimony at 12-13; AMP/PPANJ Initial Testimony at 8-17; Virginia SCC Initial Testimony at 2; Michigan Parties Reply Testimony at 6; ODEC Reply Testimony at 9; *see also* Dominion Initial Testimony, Aff. Spees and Newell at 14; Dominion Reply Testimony at 5; IMEA Reply Testimony at 14 (arguing vertically integrated utilities maintain a balance of supply and demand that precludes such entities from suppressing capacity prices);AMP/PPANJ Initial Testimony at 16-17, Norton Aff. at PP 7-12 (arguing the federal tax incentives received by such entities to build generation do not permit over-building or market manipulation).

[360] Dominion Initial Testimony at 8; Allegheny Initial Testimony at 8; APPA Initial Testimony at 10; APPA Initial Testimony at 16-17; Buckeye Initial Testimony at 12; NRECA Initial Testimony at 3; ODEC Initial Testimony at 8; Virginia SCC Initial Testimony at 2.

[361] Dominion Initial Testimony at 12 (citing 2013 MOPR Order, 143 FERC ¶ 61,090 at P 111); APPA Initial Testimony at 17-20 (citing 2013 MOPR Order, 143 FERC ¶ 61,090)); NRECA Initial Testimony at 23 (citing 2015 MOPR Order, 153 FERC ¶ 61,066 at PP 36-38); ODEC Initial Testimony at 8-9; EKPC Initial Testimony at 9 (citing 2013 MOPR Order, FERC ¶ 61,090 at P 111); IMEA Reply Testimony at 15; Virginia SCC Initial Testimony at 2; AMP/PPANJ Initial Testimony at 17-20.

[362] NOVEC Initial Testimony at 5.

[363] *See, e.g.*, Allegheny Initial Testimony at 6-8; Buckeye Initial Testimony at 7-8, 11; NRECA Initial Testimony at 3; ODEC Initial Testimony at 9; AMP/PPANJ Initial Testimony at 20-24; NOVEC Initial Testimony at 5.

circumstances warranting labeling public power self-supply out-of-market support.[364] According to Dominion, self-supply entities have participated in the capacity market for years prior to price suppression becoming an issue, which demonstrates that such entities do not suppress prices.[365]

182. Some intervenors argue that public power entities are distinguishable from investor-owned utilities because public power or self-supply entities engage in long-term supply arrangements through asset ownership to act in the best interests of their customers and must be able to use these resources to meet capacity obligations in order to avoid unreasonable harm to ratepayers and public power entities.[366] In contrast, AMP/PPANJ states that investor-owned utilities and independent power producers are profit driven and have an incentive to increase capacity prices.[367] According to AMP/PPANJ, if these other business models receive a state subsidy, unlike public power entities, they do not have an obligation to reduce retail rates.[368]

183. APPA contends that accommodating public power self-supply resources would mitigate concerns that the merchant model is heavily relied upon in PJM.[369] APPA argues that merchant developers do not pursue long-term resource planning and notes that PJM recently determined that increased reliance on a single resource type increases resilience concerns.[370] APPA states that self-supply represents a stable form of resource procurement via bilateral contracting and ownership of resources by states, utilities, and large customers.[371]

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[364] APPA Initial Testimony at 13.

[365] Dominion Reply Testimony at 9.

[366] AMP/PPANJ Initial Testimony at 22-24; *see also* NRECA Reply Testimony at 7.

[367] AMP/PPANJ Initial Testimony at 13-14.

[368] *Id.* at 14.

[369] APPA Initial Testimony at 22-23.

[370] *Id.* at 22 (citing PJM's Evolving Resource Mix and System Reliability, PJM Interconnection, L.L.C. (Mar. 30, 2017)).

[371] *Id.* at 23.

184. Some intervenors argue that public power[372] or vertically integrated[373] self-supply resources do not receive the type of subsidies discussed in the June 2018 Order.[374] Similarly, ODEC argues that cooperatives do not receive state subsidies because they recover costs through a cost of service formula rate and not through a state-mandated subsidy.[375] AEP/Duke support an exemption for all regulated retail rate constructs.[376] The Kentucky Commission asserts the retail rates set by the Kentucky Commission should not be considered Material Subsidies.[377] IMEA similarly argues that municipality, local government, or municipal joint action agencies acting in their proprietary, non-governmental capacity, to fulfill long-term service obligations of their own customers and funded by the rates paid by such customers, not taxes paid by their citizens, are not government subsidies.[378]

185. Several intervenors also argue that self-supply entities do not make decisions based on the PJM capacity market's comparatively short-term outlook, but rather longer term obligations and non-price factors, and their investments are not constrained by the capacity market's three year horizon.[379] Some intervenors point to state or local commissions that oversee self-supply entities and ensure they are acting judiciously in the best interests of their customers.[380] ODEC asserts that without an exemption to the

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[372] SMECO Initial Testimony at 4; AMP/PPANJ Initial Testimony at 10, 14-17; AMP Reply Testimony at 12; APPA Initial Testimony at 5.

[373] Virginia SCC Initial Testimony at 2.

[374] *See, e.g.*, AEP/Duke Initial Testimony at 4; NRECA Initial Testimony at 17; APPA Initial Testimony at 11-12.

[375] ODEC Initial Testimony at 11.

[376] AEP/Duke Initial Testimony at 5.

[377] Kentucky Commission Initial Testimony at 3.

[378] IMEA Reply Testimony at 9.

[379] *See, e.g.*, Allegheny Comment at 7-8; NRECA Initial Testimony at 17; NOVEC Initial Testimony at 7; AMP/PPANJ Initial Testimony at 15-16; AMP/PPANJ Initial Testimony at 13-14; AMP Reply Testimony at 13; APPA Reply Testimony at 14-15; ODEC Initial Testimony at 6, 11.

[380] *See, e.g.*, EKPC Initial Testimony at 9; Dominion Initial Testimony, Aff. of Dr. Kathleen Spees & Dr. Samuel A. Newell at 17; Dominion Reply Testimony at 10

MOPR, self-supply entities will not have an incentive for the long-term investments the Commission has encouraged.[381]

186. Some intervenors emphasize that self-supply is a legitimate capacity procurement mechanism that is compatible with capacity markets and relies on competition to ensure low cost service to customers.[382] NRECA argues that the customer-owners of public power entities bear any gain or loss associated with investment decisions, and the public power entity business model—i.e., ownership structure, tax treatment, and resource selection process—is consistent with and benefits from the competitive market framework.[383]

187. Some intervenors reject the idea that all resource entry and exit in the market should be considered economic or, similarly, that all capacity must be procured in the capacity market to be economic.[384] Some intervenors also argue that not exempting self-supply would prioritize future signals for future investors over the decisions made by investors building under the existing rules.[385] ODEC argues that there is nothing unique about capacity market revenues that make them more legitimate than revenue from bilateral contracts.[386] NRECA argues that an exclusion from the MOPR for self-supply by public power entities is consistent with the initial purpose of the PJM capacity auctions, which was to serve as a residual procurement mechanism of last resort, after LSEs have had an opportunity to self-supply.[387]

(arguing also that merchant investment in resources has continued even with self-supply entities participating in the capacity market).

[381] ODEC Initial Testimony at 21.

[382] NRECA Initial Testimony at 3, 20; *see also* APPA Initial Testimony at 6-7, 12-13.

[383] NRECA Initial Testimony at 20.

[384] APPA Initial Testimony at 14; *see also* NRECA Initial Testimony at 20.

[385] IMEA Reply Testimony at 15; APPA Initial Testimony at 15.

[386] ODEC Initial Testimony at 6; *see also* NRECA Initial Testimony at 18; NOVEC Initial Testimony at 8.

[387] NRECA Initial Testimony at 18 (citing *PJM Interconnection, L.L.C.*, 115 FERC ¶ 61,079 at P 71).

188. Some intervenors argue that subjecting self-supply resources to the MOPR would harm the markets. APPA argues that mitigation of public power self-supply resources would result in an economic loss to the resource, reduce market efficiency, undermine the resource's portfolio benefits, and expose public power utility customers to costs that the public power self-supply business model is intended to prevent.[388] APPA asserts that expanding the MOPR to public power self-supply resources would send incorrect price signals to the market.[389] Dominion asserts that imposing a MOPR or other restrictions on self-supply may cause self-supply entities to exit the capacity market, detrimentally impacting customers of both self-supply and merchant resources.[390]

189. IMEA argues that small, transmission-dependent utilities like IMEA and its member municipalities did not need or ask for the RTO markets and use them only because of the decisions made by the transmission-owning utilities upon which they rely. IMEA argues that it does not, therefore, make sense to force IMEA to charge its customers higher rates because other market participants, who may have actively sought the RTO market, are taking actions that adversely affect the capacity market. IMEA states that it is not one of those participants and is not making uncompetitive bids or supporting generation with out-of-market payments. IMEA claims that it made investments in its generation based on the economic environment at the time, and should be able to continue using its resources to serve load regardless of whether it may be more economic for IMEA to buy capacity from the market than to use its own at a specific time.[391]

190. Other intervenors oppose an exemption for self-supply, public power, or vertically integrated utilities, arguing that self-supply resources receive the most extensive form of out-of-market payments via retail cost-recovery and therefore have the greatest potential to suppress market clearing prices.[392] Exelon argues that these resources make up a substantial portion of the PJM portfolio, almost 20 percent of cleared capacity today and

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[388] APPA Initial Testimony at 16-17.

[389] *Id.* at 10.

[390] Dominion Initial Testimony, Aff. of Spees & Newell at 19-20.

[391] IMEA Reply Testimony at 13.

[392] AES Initial Testimony at 14-16; Direct Energy Initial Testimony at 10-11; Clean Energy Advocates Initial Testimony at 2, 20; Exelon Initial Testimony at 5-6, 18-20; Buyers Group Initial Testimony at 11; AEE Initial Testimony at 25; FES Initial Testimony at 7; Market Monitor Initial Testimony at 18; NRG Initial Testimony at 11; P3 Initial Testimony at 12; PSEG Initial Testimony at 7; UCS Initial Testimony at 8; Cogentrix Reply Testimony at 10; EPSA Reply Testimony at 25.

nearly twice the capacity that PJM forecasts will be supported by states for environmental reasons as of 2025.[393] UCS argues that 30 percent of new capacity cleared in the RPM auctions since 2010 was from vertically integrated utilities, far exceeding, UCS claims, the threshold PJM's testimony describes as impacting the clearing price.[394]

191. Some intervenors argue that there is no economic rationale to apply the MOPR to resources receiving environmental attribute payments, but exempt resources receiving guaranteed cost recovery through retail rates.[395] Clean Energy Advocates states that, unlike RECs and ZECs, retail cost-recovery reimburses the resource for the full cost of making capacity available and thus retail cost-recovery is more significant and determinative in impacting bidding behavior than subsidies for RECs and ZECs.[396] Exelon asserts that resources with guaranteed cost recovery through retail rates are not subject to competitive forces and are protected from any negative impacts of their bidding behavior, and cannot, therefore, be considered competitive.[397] P3 notes that, because the self-supply resource owner is assured full prudent cost recovery, regardless of the clearing price, it will have the incentive to offer at zero, and thereby lean on the rest of the market, when convenient, to reduce the costs of carrying surplus capacity at the expense of other load, while at the same time suppressing prices for competitive suppliers.[398]

192. Some intervenors argue that a self-supply exemption would not be consistent with the logic of the June 2018 Order.[399] FES argues that exempting rate-based generation from the MOPR would be unduly discriminatory and preferential, and that there is no

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[393] Exelon Initial Testimony at 19.

[394] UCS Initial Testimony at 4-5.

[395] Exelon Initial Testimony at 5-6, 18; FES Initial Testimony at 7; Clean Energy Advocates Initial Testimony at 20; Clean Energy Advocates Reply Testimony at 9-10.

[396] Clean Energy Advocates Initial Testimony at 20-21; Clean Energy Advocates Reply Testimony at 10; *see also* FES Initial Testimony at 8.

[397] Exelon Initial Testimony at 18.

[398] P3 Initial Testimony at 12-13. P3 states, however, that it would accept PJM's proposed self-supply exemption as a transition mechanism for the 2019 BRA only. P3 Reply Testimony at 8; Clean Energy Advocates Initial Testimony at 20.

[399] FES Initial Testimony at 8; Clean Energy Advocates Initial Testimony at 22-23; Exelon Initial Testimony at 19; Exelon Reply Testimony at 56-60.

basis on which to exempt resources based on the source of funding.[400] Clean Energy Advocates similarly argues that retail cost-recovery decisions result in both retention of uneconomic resources and entry of new uneconomic resources, citing to a number of resources it claims would be uneconomic absent state-approved retail cost recovery.[401] PSEG argues that the self-supply exemption cannot be supported by principled rationale since the Commission has now found the capacity market—with that exemption–to be unjust and unreasonable.[402] UCS states that the Commission's order, and PJM's own rationale and commitment to the "first principles" of capacity markets, do not support a MOPR exemption for state-supported cost recovery.[403] Similarly, Exelon argues that exempting self-supply contradicts the Commission's objectives in the June 2018 Order, including ensuring that participants make competitive offers in the capacity market and increasing transparency for the costs of regulatory choices.[404] Exelon argues it makes little sense for the Commission to mitigate resources receiving environmental attribute payments in order to increase transparency regarding the costs of re-regulation, but exempt regulated resources and thereby obscure the costs of maintaining state regulation.[405]

193. NRG argues a self-supply exemption would cause captive ratepayers to pay for capacity at higher costs than they would have paid in the capacity market and displace merchant generation with subsidized resources.[406] NRG claims the self-supply exemption in effect in PJM from 2013 to 2017 resulted in price suppression.[407]

194. Though self-supply and vertically integrated entities have argued that they have no incentive to exercise buyer-side market power, Exelon contends that the June 2018 Order found that the MOPR should mitigate resources offering noncompetitively regardless of

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[400] FES Initial Testimony at 8; FES Reply Testimony at 10; *see also* UCS Reply Testimony at 3.

[401] Clean Energy Advocates Initial Testimony at 22-23.

[402] PSEG Initial Testimony at 7.

[403] UCS Initial Testimony at 6.

[404] Exelon Initial Testimony at 19; Exelon Reply Testimony at 56-58.

[405] Exelon Initial Testimony at 19.

[406] NRG Initial Testimony at 11.

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

intent.[408] Exelon similarly disagrees with arguments that such resources should not be mitigated because of their long-standing business models, arguing that this is not an adequate basis for disparate treatment and, in any event, attribute payments are similarly longstanding.[409] Clean Energy Advocates likewise states that if an argument for exempting self-supply is the legitimacy of the business model, then ZEC and REC programs are similarly legitimate.[410] Direct Energy argues that there is no basis to distinguish one resource from another based on corporate structure.[411]

195. NRG's witness Mr. Stoddard asserts that a self-supply exemption would allow "net short entities that rely on the purchase of top-up capacity from the RPM" to benefit from the resulting market price suppression of below-cost offers, and would allow net long entities "to push uneconomic resources into the market, displacing lower cost resources," that would be profitable if the self-supply entity would otherwise have borne the full cost of maintaining this uneconomic supply.[412]

196. With regard to net-short/net-long thresholds, some intervenors support PJM's proposed net-short and net-long thresholds, arguing they would effectively deter self-supply entities from attempting to suppress prices.[413] Some intervenors support the thresholds only for new resources[414] and argue there is no need to apply them to existing

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[408] Exelon Initial Testimony at 19 (citing June 2018 Order, 163 FERC ¶ 61,236 at P 155); *see also* FES Reply Testimony at 11 (arguing that self-supply resources contribute to price suppression).

[409] Exelon Initial Testimony at 20; Exelon Reply Testimony at 59 n.195; Clean Energy Advocates Reply Testimony at 10; FES Reply Testimony at 11.

[410] Clean Energy Advocates Reply Testimony at 10.

[411] Direct Energy Initial Testimony at 11; *see also* ACORE Initial Testimony at 1-3 (while not opposing a self-supply exemption, noting that the MOPR should be applied evenly across resource types).

[412] NRG Initial Testimony, Stoddard Aff. at P 17.

[413] AMP/PPANJ Initial Testimony at 24-27 (arguing that public power entities do not have the ability to manipulate the market, but nonetheless supporting the thresholds). Although objecting to the self-supply exemption overall, Exelon asserts that if the exemption is nevertheless approved, it should not be applied to net long resources. Exelon Reply Testimony at 59-60.

[414] Buckeye Initial Testimony at 5-6, 10-11; Buckeye Reply Testimony at 2 (supporting thresholds for new resources that have not cleared the capacity market);

resources.[415] Michigan Parties argue that the net-short/net-long thresholds allow vertically integrated resources to better match their capacity to their load in the short term, as well as trade excess capacity, resulting in cost savings for their customers and increased efficiency for the PJM system as a whole.[416]

197. IMEA notes that the sales cap restriction for the existing FRR option is set at 25 percent up to certain caps, but that PJM departs from their value without explanation and proposes 15 percent for the mid-sized LSE MOPR exemption.[417]

198. EKPC states the net-long threshold is not required for the self-supply exemption to be just and reasonable, as municipal and cooperatives utilities do not have incentives to engage in market activities that suppress energy market prices, and that under the proposed expanded MOPR, net-long and net-short thresholds for new and existing resources are not workable because it would be impossible to determine which resources are in excess of the LSE's own load.[418] EKPC also contends that being long in capacity can provide other hedges. Specifically, EKPC notes that it is subject to a fuel adjustment clause that limits recovery of the costs of market energy purchases to its highest-cost unit. EKPC explains that it can therefore be very costly for EKPC to be short.[419] EKPC argues a net-long threshold based on non-coincident peak load provides the correct structure for the specific hedging associated with self-supply resources.[420] EKPC notes that a similar approach has been previously accepted by the Commission.[421]

199. EKPC also recommends the net-long threshold not be a fixed MW quantity but rather a percentage, so that self-supply utilities could develop new generation that is not

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Dominion Reply Testimony at 5-6.

[415] APPA Initial Testimony at 25-27 (stating that a competitive offer for an existing resource would be low regardless of out-of-market support); ODEC Initial Testimony at 19 (noting that the threshold values should be the same as those that existed under the prior self-supply exemption and that a blanket exemption is preferable).

[416] Michigan Parties Reply Testimony at 8-9.

[417] IMEA Reply Testimony at 12.

[418] EKPC Initial Testimony at 11.

[419] *Id.* at 12 -13.

[420] *Id.* at 13.

[421] *Id.* at 13-14 (citing 2013 MOPR Order, 143 FERC ¶ 61,090 at P 114).

subject to MOPR rules.[422] EKPC contends that a utility developing a new plant to replace old generation may be considered to have excess capacity, but this should not be considered a business strategy to suppress capacity market prices.[423] EKPC concludes that a net-long threshold using a percentage of a LSE's non-coincident peak would allow for integration of new facilities without adverse impacts.[424]

200. Allegheny argues that PJM's net-short proposal to define Multi-State Public Power Entity as excluding a public power entity that has more than 90 percent of its load in any one state is unnecessary and discriminatory. Allegheny reasons that, because public power entities makes up a very small percentage of load served in PJM markets, such entities would not suppress prices.[425]

201. Some intervenors also disagree with PJM that the proposed net-long/net-short thresholds will help mitigate any concerns that self-supply could suppress prices. Clean Energy Advocates argue net-short/net-long thresholds are inconsistent with the new purpose of the MOPR, which is not related to price suppressive intent. Clean Energy Advocates note that, although the Commission has previously accepted similar thresholds for a self-supply exemption, the MOPR and accompanying thresholds were based on a seller's intent.[426]

c. Commission Determination

202. We direct PJM to include a Self-Supply Exemption for resources owned by self-supply entities[427] that fulfill at least one of these criteria: (1) have successfully cleared an annual or incremental capacity auction prior to this order; (2) have an executed interconnection construction service agreement on or before the date of this order; or (3) have an unexecuted interconnection construction service agreement filed by PJM for the resource with the Commission on or before the date of this order. As with RPS resources, we grandfather existing self-supply resources and limited new self-supply

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[422] *Id.* at 15.

[423] *Id.*

[424] *Id.* at 15-16.

[425] Allegheny Initial Testimony at 8-9.

[426] Clean Energy Advocates Initial Testimony at 23.

[427] These entities include vertically integrated utilities that receive cost of service payments for plants constructed and operated under state public utility regulation, public power, and single customer entities.

resources that have an interconnection construction service agreement as discussed in this order, but apply the MOPR to any new self-supply resource that receives or is entitled to receive a State Subsidy, unless they qualify for one of the exemptions described in this order. New State-Subsidized Resources that do not meet the exemption criteria above will be subject to the applicable default offer price floor regardless of whether they are owned by a self-supply entity. Self-supply entities that prefer to craft their own resource adequacy plans remain free to do so through the existing FRR Alternative in PJM's Tariff.

203. We find that it is just and reasonable to exempt self-supply resources that meet the requirements of the exemption outlined above because self-supply entities have made resource decisions based on affirmative guidance from the Commission indicating that those decisions would not be disruptive to competitive markets.[428] In order to limit disruption to the industry and preserve existing investments, we find it is just and reasonable to exempt resources owned by self-supply entities that have cleared an annual or incremental PJM capacity auction prior to this order, and to exempt certain limited new resources that have executed an interconnection construction service agreement or for whom PJM has filed an unexecuted interconnection construction service agreement on or before the date of this order. However, the self-supply exemption authorized in 2013 was a temporary reversal in Commission policy that the Commission rejected in acting on the remand of *NRG*, and we agree with intervenors that self-supply entities may have the ability to suppress prices going forward.[429] Therefore, we find that self-supply entities should not have a blanket exemption for any new State-Subsidized Resources they intend to own going forward. We see no reason to treat new resources owned by self-supply entities differently from resources owned by other types of electric utilities, and reiterate that we can no longer 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."[430]

204. At bottom, a blanket self-supply exemption rests on the premise that some kinds of entities should face less risk than others in choosing whether to build their own generation resources or rely on the market to satisfy their energy and capacity requirements. We are not persuaded that premise is correct. For example, in a regional market dominated by states with retail competition, it is not clear why utilities in states

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[428] 2013 MOPR Order, 143 FERC ¶ 61,090 at P 107 (accepting PJM's proposed self-supply exemption); 2015 MOPR Order, 153 FERC ¶ 61,066 at PP 52, 56.

[429] *See supra* PP 20-21.

[430] June 2018 Order, 163 FERC ¶ 61,236 at P 155; 2011 ISO-NE MOPR Order, 135 FERC ¶ 61,029 at PP 170-71 (out-of-market support allows uneconomic entry).

that prefer the vertical integration model should be afforded a competitive advantage.[431] Moreover, the record suggests that new self-supply capacity is significant, representing 30 percent of new generation added to PJM in capacity auctions from 2010 to 2017.[432] Since these resources may receive State Subsidies permitting uneconomic entry into PJM's capacity market, regardless of intent, we find that it is not just and reasonable to exempt new self-supply from application of the applicable default offer price floor. New self-supply resources that receive or are entitled to receive State Subsidies, as detailed in this order, may avail themselves of the Unit-Specific Exemption. In addition, self-supply entities that do not want to be subject to the MOPR may opt for the existing FRR Alternative.

4. Demand Response, Energy Efficiency, and Capacity Storage Resources Exemption

a. PJM's Proposal

205. PJM proposes that demand response resources will be subject to the MOPR, but that energy efficiency resources should be excluded, arguing that energy efficiency resources are a result of reduced consumption and energy conservation, which are on the demand side of the equation, and do not raise price suppression concerns.[433]

b. Intervenor Positions

206. Some intervenors support exempting demand-side management resources such as demand response and energy efficiency resources from the MOPR.[434] AEE argues that demand response and energy efficiency resources should be exempt because there is no

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[431] As the Commission has previously explained, regional markets are not required to have the same rules. Our determination about what rules may be just and reasonable for a particular market depends on the relevant facts. For example, ISO New England proposed to address the complex issues raised by state subsidies through its CASPR approach. *See* CASPR Order, 162 FERC ¶ 61,205 at PP 20-26. And different rules may be appropriate in markets dominated by vertically integrated utilities, like the Midcontinent ISO. *See Midcontinent Indep. Sys. Operator, Inc.*, 162 FERC ¶ 61,176, at P 57 & n.133 (2018) (listing cases that reject the "one-size-fits-all approach").

[432] UCS Initial Testimony at 4-5 (citing PJM 2018 April Filing at 9-10).

[433] PJM Initial Testimony at 15 n.20.

[434] AEE Initial Testimony at 20; Joint Consumer Advocates Initial Testimony at 14; *see also* Buyers Group Initial Testimony at 11; DC Commission Initial Testimony at 6; Pennsylvania Commission Reply Testimony at 15.

record evidence to demonstrate they receive the kind of support the Commission described in the June 2018 Order. AEE contends that demand response resources are fundamentally different than traditional generating resources, because they are charged for their retail peak capacity demand via retail pass-throughs of PJM's wholesale capacity charges, which generators are not.[435] Further, AEE states that demand response resources differ from generators in that they will stay in business regardless of price. Rather than participating in the capacity market to earn a return on their investment, demand response participates in the market to lower capacity costs.[436] AEE also argues that any default offer price floor to which demand response or energy efficiency resources are subject would be zero, because these resources have low avoidable costs, and so it would be administratively burdensome and make little sense to subject these resources to the MOPR. Conversely, OCC argues that demand response and distributed energy resources[437] funded by captive retail customers should not be exempt from MOPR. OCC further states that the Commission should clarify that distributed energy resources fall within the scope of demand response, and should include them within the scope of the MOPR if they receive subsidies.[438] FEU also argues that wholesale demand response should be subject to the MOPR because wholesale demand response is paid twice under the Commission's rules, and there is no principled reason to justify the exclusion.[439]

207. SMECO requests that the Commission direct PJM to provide an exemption for demand response resources that were recently capacity resources but may have paused

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[435] AEE Initial Testimony at 20.

[436] *Id.* at 21.

[437] OCC cites to the Commission's definition of distributed energy resources as defined as a source or sink of power that is located on the distribution system, any subsystem thereof, or behind a customer meter. These resources may include, but are not limited to, electric storage resources, distributed generation, thermal storage, electric vehicles and their supply equipment, typically solar, storage, energy efficiency, or demand management installed behind the meter. OCC Initial Comments at 8 (citing *Electric Storage Participation in Markets Operated by Regional Transmission Organizations and Independent System Operators Electric Storage Participation in Regions with Organized Wholesale Electric Markets*, 157 FERC ¶ 61,121, at P1, n.2 (2016)).

[438] OCC Initial Testimony at 7. AES also supports subjecting demand response and distributed energy resources to the MOPR. AES Reply Testimony at 10.

[439] FEU Reply Testimony at 7.

recent RPM participation due to 100 percent performance rules.[440] SMECO requests that the Commission direct PJM to view such lapsed demand response programs as existing and not planned.[441]

c. Commission Determination

208. We direct PJM to include a limited exemption for demand response, energy efficiency, and capacity storage resources. Demand response and energy efficiency resources that fulfill at least one of these criteria will be eligible: (1) have successfully cleared an annual or incremental capacity auction prior to this order; (2) have completed registration on or before the date of this order; or (3) have a measurement and verification plan approved by PJM for the resource on or before the date of this order. Capacity storage resources that fulfill at least one of these criteria will be eligible: (1) have successfully cleared an annual or incremental capacity auction prior to this order; (2) have an executed interconnection construction service agreement on or before the date of this order; or (3) have an unexecuted interconnection construction service agreement filed by PJM for the resource with the Commission on or before the date of this order. Similar to the RPS Exemption, we find that it is reasonable to exclude these existing and limited new resources with an interconnection construction service agreement, registration, or approved measurement and verification plan from mitigation because traditionally they have been exempt from application of the MOPR[442] and market participants that reasonably relied on that guidance in formulating their business plans prior to the June 2018 Order were not on notice that they would be mitigated. We disagree with intervenors that demand response and energy efficiency resources should always be exempt from review and mitigation.[443] The replacement rate directed in this order is focused on ensuring that all resources make economic offers based on their expected costs and not any State Subsidies they may receive, regardless of resource type, and thus we find that it is just and reasonable to require new demand response, energy efficiency, and capacity storage resources that do not meet the above criteria to comply with the

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[440] SMECO Initial Testimony at 8.

[441] *Id.* at 9.

[442] *See, e.g.*, 2017 MOPR Remand Order, 161 FERC ¶ 61,252 at P 41 (rejecting PJM's 2012 MOPR filing thereby re-instituting the 2013 MOPR rules which did not mitigate demand response, energy-efficiency or storage resources); 2013 MOPR Order, 143 FERC ¶ 61,090 at P 166 (applying the MOPR to gas-fired resources only).

[443] The fact that these resources participate in the capacity market reveals that they are capacity resources. If they are not capacity resources, then they should not participate in the capacity market and receive payments as capacity resources.

applicable default offer price floor if they do not qualify for a Competitive Exemption or Unit-Specific Exemption.

209. However, we grant SMECO's request for a limited exemption for existing demand-side resources that have paused participation in the capacity market due to Capacity Performance. We recognize that, because demand-side resources were not previously subject to the MOPR, these resources may have made the decision to lapse participation in the capacity market based on earlier Commission directives. Given this policy shift, we find that it is just and reasonable to grant a one-time exemption for existing demand-side resources that have lapsed participation in the capacity market. If such resources have previously cleared a capacity auction, we find they should be considered existing for the delivery year 2022/2023 capacity auction. We clarify that this is a one-time exemption. After the next BRA, demand-side resources seeking to re-enter the capacity market will be treated as new, consistent with treatment of repowered resources.

5. Unit-Specific Exemption

a. PJM's Proposal

210. PJM proposes to replace its existing unit-specific exception, which applies to new resources, with a similar but broader provision that would apply to both new and existing resources.[444] Specifically, PJM proposes that a market participant intending to submit a sell offer for a State-Subsidized Resource in any RPM auction may, at its election, submit a request for a unit-specific default offer price floor determination no later than one hundred twenty (120) days before the relevant RPM auction.[445]

b. Intervenor Positions

211. A number of intervenors generally support PJM's proposal to allow for a resource-specific exemption for both new and existing resources that justify offers below the default offer price floor.[446] The Illinois Attorney General argues that, to the extent the Commission allows PJM to set unit-specific offer price floors, it should require that the unit-specific data come exclusively from FERC Form 1 reports to impose consistency

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[444] PJM Initial Testimony at 39; *see also* PJM Answer at 2-3.

[445] *Id.* Attach. A, proposed Tariff, Att. DD, § 5.14(h)(iv)(B).

[446] *See, e.g.*, API Initial Testimony at 21-22; Brookfield Reply Testimony at 4; Clean Energy Advocates Initial Testimony at 15; IPP Coalition Initial Testimony at 6; LS Power Reply Testimony at 7; OCC Initial Testimony at 5; Vistra Initial Testimony at 16; Pennsylvania Commission Reply Testimony at 14-15.

among submissions and enable transparency. The Illinois Attorney General further argues that the Net ACR calculation for the unit-specific offer price floor should not be limited to projected PJM market revenues, as in the existing unit-specific review process, but should also include out-of-market revenues or state subsidies, to accurately determine the revenues still needed to cover costs and allow the unit to continue to operate as a capacity resource.[447]

212. Other intervenors oppose a unit-specific exemption.[448] Exelon argues that the unit-specific exemption process sets administrative prices based on the Market Monitor's assessment of the unit's costs, rather than competitive forces, and is thus opaque to outsiders, highly subjective, and needlessly complex.[449]

213. Finally, PSEG argues the unit-specific exemption process should be eliminated because it is too unwieldly and burdensome to accommodate review of the additional resources under an expanded MOPR.[450]

c. Commission Determination

214. We direct PJM to maintain the Unit-Specific Exemption, expanded to cover existing and new State-Subsidized Resources of all resource types, to permit any resource that can justify an offer lower than the default offer price floor to submit such bids to PJM for review. This will operate as a unit-specific alternative to the default offer price floor, as discussed above, for both new and existing resources, and will be based on the resource's expected costs and revenues, subject to approval by the Market Monitor. PJM's criteria, parameters, and evaluation processes, moreover, will largely track the Unit-Specific Exemption methodology set forth in PJM's currently-effective Tariff.. We direct PJM to submit Tariff language on compliance to implement this directive.

215. We disagree with the Illinois Attorney General that acceptable supporting data for a Unit-Specific Exemption should be limited to FERC Form 1 reports. Suppliers should use the best available data to support their Unit-Specific Exemptions, including non-public cost data of the type not published in FERC Form 1. For example, in some cases, FERC Form 1 filers submit only high-level, aggregated data, which would be insufficient to justify a capacity market offer.

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[447] Illinois Attorney General Initial Testimony at 12.

[448] Exelon Initial Testimony at 30-31; PSEG Initial Testimony at 14.

[449] Exelon Initial Testimony at 30-31.

[450] PSEG Initial Testimony at 14.

216. Finally, we reject Exelon's argument that PJM's evaluation criteria lacks sufficient transparency and that the Unit-Specific Exemption should therefore be eliminated altogether. Given that the Market Monitor is an independent evaluator, we do not see the need for additional transparency at this time. However, we direct PJM to provide more explicit information about the standards that will apply when conducting this review as a safeguard against arbitrary ad hoc determinations that market participants and the Commission may be unable to reliably predict or reconstruct.[451] We also dismiss, as speculative, PSEG's assertion that a Unit-Specific Exemption for existing resources will be unwieldly and burdensome. PJM's default offer price floor for each resource class will remain available should market participants find the Unit-Specific Exemption process burdensome.

E. Transition Mechanisms

217. The June 2018 Order sought comment on "whether any [transition] mechanisms or other accommodations would be necessary . . . to facilitate the transition to [PJM's] new capacity construct."[452] PJM does not propose a transition mechanism for RCO or Extended RCO.[453]

218. A number of intervenors object to the implementation of an expanded MOPR prior to the time that a state-supported resource will be able to adopt new rules and/or legislation, and thereby meaningfully use RCO.[454] Several intervenors propose various

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[451] As indicated above, *see supra* note 36, the factors listed in proposed Tariff section 5.14(h)(iv)(B)(2) of PJM's initial filing in the paper hearing appear to present a reasonable objective basis for the analysis of new entrants.

[452] June 2018 Order, 163 FERC ¶ 61,236, at P 170.

[453] PJM Reply Testimony at 32.

[454] *See, e.g.*, ACORE Initial Testimony at 4; Clean Energy Industries Initial Testimony at 23-24; Clean Energy and Consumer Advocates Initial Testimony at 26; Clean Energy and Consumer Advocates Reply Testimony at 71; Joint Stakeholders Initial Testimony at 7; DC People's Counsel Initial Testimony at 15; FEU Initial Testimony at 20; Illinois Attorney General Initial Testimony at 18; Illinois Attorney General Reply Testimony at 15; Illinois Commission Initial Testimony at 6-7; New Jersey Board Initial Testimony at 17; NEI Initial Testimony at 7; Joint Consumer Advocates Reply Testimony at 22-25; Pennsylvania Commission Reply Testimony at 19; PJM Consumer Representatives Reply Testimony at 13; OPSI Initial Testimony at 5; DC Commission Initial Testimony at 9; PSEG August Answer at 3-4

transition mechanisms as a bridge to implementation of a resource-specific FRR Alternative or other market constructs.[455]

219. Because we decline to implement a resource-specific FRR Alternative, we dismiss as moot intervenors requests that a transition mechanism be adopted to facilitate the adoption a resource-specific FRR Alternative. We also decline to implement a transition mechanism for the expanded MOPR discussed herein and expect the next BRA to be conducted under the new rules to provide the necessary and appropriate price signals to capacity resources. On compliance, we direct PJM to provide an updated timetable for when it proposes to conduct the 2019 BRA, as well as the 2020 BRA, as necessary.

The Commission orders:

PJM is hereby directed to submit a compliance filing within 90 days of the date of this order, as discussed in the body of this order.

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

(S E A L)

Nathaniel J. Davis, Sr.,
Deputy Secretary.

[455] Direct Energy Initial Testimony at 9-10; NRG Initial Testimony at 42; Eastern Generation Initial Testimony at 2; FEU Initial Testimony at 20-21; Illinois Commission Reply Testimony at 29; PSEG Initial Testimony at 15-16.

Appendix 1

Intervenors in Docket No. EL18-178-000
(With No Prior Party Status)

Acciona Wind Energy USA LLC*
AES Corporation*
Allco Renewable Energy Limited*
Algonquin Energy Services Inc., et al.*
Allegheny Electric Cooperative, Inc.
American Coalition for Clean Coal Electricity*
American Forest & Paper Association*
Appalachian Region Independent Power Producers Association
Brookfield Energy Marketing LP
Carroll County Energy LLC
Cogentrix Energy Power Management, LLC
Connecticut Department of Energy and Environmental Protection
Connecticut Public Utilities Regulatory Authority
Consolidated Edison Energy, Inc.
Deepwater Wind, LLC
Delaware Municipal Electric Corporation
EDF Trading North America, LLC, EDF Energy Services, LLC and EDP Renewables North America LLC*
Enel Companies*
Energy Capital Partners*
FirstEnergy Solutions Corp.
H-P Energy Resources LLC
Indicated New York Transmission Owners*
Indiana Utility Regulatory Commission*
Industrial Energy Consumers of Pennsylvania*
Lightstone Generation LLC*
Long Island Lighting Company d/b/a Power Supply Long Island
National Mining Association*
Michigan Attorney General*
Microgrid Resources Coalition*
Ohio Manufacturers' Association Energy Group*
Office of the Attorney General for the District of Columbia*
Olympus Power, LLC
Pennsylvania Coal Alliance
Pennsylvania Energy Consumer Alliance*
Potomac Economics, Ltd.*
Public Service Commission of the District of Columbia*
Public Service Commission of Kentucky

Rockland Electric Company
Sabin Center for Climate Change Law
Tenaska Inc.*

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* Motions to intervene out-of-time

Appendix 2

Intervenors Submitting Testimony

Advanced Energy Economy (AEE)
AES Corporation (AES)
Advanced Energy Buyers Group (Buyers Group)
Allco Renewable Energy Limited (Allco)
Allegheny Electric Cooperative, Inc. (Allegheny)
American Coalition for Clean Coal Electricity and National Mining Association (ACCCE/NMA)
American Council on Renewable Energy (ACORE)
American Electric Power Service Corporation and Duke Energy Corporation (AEP/Duke)
American Electric Power Service Corporation and FirstEnergy Utilities Companies (AEP/FEU)
American Forest & Paper Association (AFPA)
American Municipal Power, Inc. (AMP) with Public Power Association of New Jersey (AMP/PPANJ)
American Petroleum Institute (API)
American Public Power Association (APPA)
American Wind Energy Association, the Solar RTO Coalition, the Mid-Atlantic Renewable Energy Coalition, and Solar Energy Industries Association (Clean Energy Industries)
Avangrid Renewables, LLC (Avangrid)
Borlick Energy Consultancy (Borlick)
Brookfield Energy Marketing LP (Brookfield)
Buckeye Power, Inc. (Buckeye)
Calpine Corporation (Calpine)
Carroll County, *et al.* (IPP Coalition)
Citizens Utility Board, Exelon Corporation, Natural Resources Defense Council, Nuclear Energy Institute, Office of the Peoples Counsel For the District of Columbia, PSEG Energy Resources & Trade LLC, Sierra Club, and Talen Energy Corporation (Joint Stakeholders)
Cogentrix Energy Power Management, LLC (Cogentrix)
Consumer Advocates, NGOs, and Industry Stakeholders
Direct Energy Business Marketing, LLC, *et al.* (Direct Energy)
Direct Energy Business Marketing, LLC, *et al.* and NextEra Resources, LLC (Joint Parties)
District of Columbia Attorney General (DC Attorney General)
District of Columbia People's Counsel (DC People's Counsel)

District of Columbia Public Service Commission (DC Commission)
Dominion Energy Services, Inc. (Dominion)
East Kentucky Power Cooperative (EKPG)
Eastern Generation, LLC (Eastern Generation)
Electric Power Supply Association (EPSA)
Electricity Consumers Resource Council (ELCON)
Energy Capital Partners IV, LLC (ECP)
Exelon Corporation (Exelon)
FirstEnergy Solutions Corp. (FES)
FirstEnergy Utilities Companies (FEU)
Harvard Electricity Law Initiative (Harvard)
Illinois Attorney General (Illinois Attorney General)
Illinois Citizens Utility Board, West Virginia Consumer Advocate Division, Delaware Division of the Public Advocate, Maryland Office of the People's Council, and Office of the People's Counsel for the District Of Columbia (Joint Consumer Advocates)
Illinois Commerce Commission (Illinois Commission)
Illinois Municipal Electric Agency (IMEA)
Indiana Utility Regulatory Commission (Indiana Commission)
Institute for Policy Integrity (Policy Integrity)
Kentucky Public Service Commission (Kentucky Commission)
Lightstone Generation LLC, Tenaska, Inc., Carrol County Energy LLC, And Energy Capital Partners IV, LLC (Lightstone, *et al.*)
LS Power Associates, L.P. (LS Power)
Maryland Public Service Commission (Maryland Commission)
Microgrid Resources Coalition (Microgrid)
Michigan Public Service Commission, Michigan Agency for Energy, and Michigan Attorney General (Michigan Parties)
Microsoft Corporation (Microsoft)
Monitoring Analytics, LLC, acting as PJM Independent Market Monitor (Market Monitor)
NRG Power Marketing LLC (NRG)
National Rural Electric Cooperative Association (NRECA)
Natural Resources Defense Council, Sierra Club, Sustainable FERC Project, and the Office of the People's Counsel for the District of Columbia (Clean Energy and Consumer Advocates)
Natural Resources Defense Council, Sierra Club, Sustainable FERC Project (Clean Energy Advocates)
New Jersey Board of Public Utilities (New Jersey Board)
Northern Virginia Electric Cooperative, Inc. (NOVEC)
Nuclear Energy Institute (NEI)
Office of the Ohio Consumers' Counsel (OCC)
Old Dominion Electric Cooperative (ODEC)

Organization of PJM States (OPSI)
Pennsylvania Public Utility Commission (Pennsylvania Commission)
PJM Industrial Customer Coalition, Industrial Energy Consumers of America, Illinois Industrial Energy Consumers, the Pennsylvania Energy Consumer Alliance, the Electricity Consumers Resource Council, the Industrial Energy Consumers of Pennsylvania, and Ohio Manufacturers' Association Energy Group (PJM Consumer Representatives)
PJM Interconnection, L.L.C. (PJM)
PJM Power Providers Group (P3)
PSEG Companies (PSEG)
Public Utilities Commission of Ohio (Ohio Commission)
Resources for the Future
Retail Energy Supply Association (RESA)
Rockland Capital, LLC (Rockland)
Sabin Center for Climate Change Law at NYU (Sabin Center)
Shell Energy North America (US), L.P. (Shell)
Southern Maryland Electric Cooperative (SMECO)
Starwood Energy Group Global, L.L.C. (Starwood)
Talen PJM Companies (Talen)
Tenaska Inc. (Tenaska)
Tesla, Inc. (Tesla)
Union of Concerned Scientists (UCS)
Virginia State Corporation Commission (Virginia SCC)
Vistra Energy Corp. and Dynegy Marketing and Trade, LLC (Vistra)
West Virginia Public Service Commission (West Virginia Commission)

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 EL18-178-00 (Consolidated)
v.	
PJM Interconnection, L.L.C.	
PJM Interconnection, L.L.C.	

(Issued December 19, 2019)

GLICK, Commissioner, *dissenting*:

1. From the beginning, this proceeding has been about two things: Dramatically increasing the price of capacity in PJM and slowing the region's transition to a clean energy future. Today's order will do just that. I strongly dissent from today's order as I believe it is illegal, illogical, and truly bad public policy.

2. Today's order has three major elements. First, it establishes a sweeping definition of subsidy that will potentially subject much, if not most, of the PJM capacity market to a minimum offer price rule (MOPR). Second, it creates a number of exemptions to the MOPR that will have the principal effect of entrenching the current resource mix by excluding several classes of existing resources from mitigation. Third, it unceremoniously discards the so-called "resource-specific FRR Alternative,"[1] which had

[1] FRR stands for Fixed Resource Requirement.

been the crux of the Commission's proposal in the June 2018 Order that sent us down the current path.[2]

3. The order amounts to a multi-billion-dollar-per-year rate hike for PJM customers, which will grow with each passing year. It will increase both the capacity price in the Base Residual Auction as well as the already extensive quantity of redundant capacity in PJM. It is a bailout, plain and simple.

4. The order will also ossify the current resource mix. It is carefully calibrated to give existing resources a leg up over new entrants and to force states to bear enormous costs for exercising the authority Congress reserved to the states when it enacted the Federal Power Act (FPA). States throughout the PJM region are increasingly addressing the externalities of electricity generation, including the biggest externality of them all, anthropogenic climate change. We all know what is going on here: The costs imposed by today's order and the ubiquitous preferences given to existing resources are a transparent attempt to handicap those state actions and slow—or maybe even stop—the transition to a clean energy future.

5. But poor policy is only part of the problem. The Commission has bungled the proceeding from the beginning. The June 2018 Order upended the entire market by finding the PJM Reliability Pricing Model (*i.e.*, the capacity market) unjust and unreasonable based on nothing more than theory and a thin record. It was, as former Commissioner LaFleur aptly described it, "a troubling act of regulatory hubris."[3] The Commission then sent PJM back to the drawing board with only vague guidance and nowhere near the time needed to develop a proper solution. Under those circumstances, it should have been no surprise that the Commission found itself paralyzed and unable to act for more than a year after receiving PJM's compliance filing. And while that result may not have been surprising, it was deeply unfair to PJM, its stakeholders, and the region's 65 million customers.

6. Today's order is more of the same. The Commission provides almost no guidance on how its sweeping definition of subsidy will work in practice or how it will interact with the complexities posed by a capacity market spanning 13 very different states and the District of Columbia. In addition, the Commission's abandonment of the resource-specific FRR Alternative—the one fig leaf that the June 2018 Order extended to the state

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[2] *Calpine Corp. v. PJM Interconnection, L.L.C.*, 163 FERC ¶ 61,236 (2018) (June 2018 Order).

[3] *Id.* (LaFleur, Comm'r, dissenting at 5) ("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.").

authority—will likely culminate in a system of administrative pricing that bears all the inefficiencies of cost-of-service regulation, without any of the benefits. And despite yet another dramatic change in direction, the Commission provides PJM only 90 days to work out a laundry list of changes that go to the very heart of its basic market design. And so, as we embark on yet another round of poorly conceived policy edicts coupled with too little time to do justice to the details, it seems that the Commission has learned none of the lessons from the last year-and-a-half of this saga. It is not hard to understand why states across the region are losing confidence in the Commission's ability to ensure resource adequacy at just and reasonable rates.

I. Today's Order Unlawfully Targets a Matter under State Jurisdiction

7. The FPA is clear. The states, not the Commission, are the entities responsible for shaping the generation mix. Although the FPA vests the Commission with jurisdiction over wholesale sales of electricity as well as practices affecting those wholesale sales,[4] Congress expressly precluded the Commission from regulating "facilities used for the generation of electric energy."[5] Instead, Congress gave the states exclusive jurisdiction to regulate generation facilitates.[6]

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[4] Specifically, the FPA applies to "any rate, charge, or classification, demanded, observed, charged, or collected by any public utility for any transmission or sale subject to the jurisdiction of the Commission" and "any rule, regulation, practice, or contract affecting such rate, charge, or classification." 16 U.S.C. § 824e(a) (2018); *see also id.* § 824d(a) (similar).

[5] *See id.* § 824(b)(1) (2018); *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) (*EPSA*) (explaining that "the [FPA] also limits FERC's regulatory reach, and thereby maintains a zone of exclusive state jurisdiction"); *Panhandle E. Pipe Line Co. v. Pub. Serv. Comm'n of Ind.*, 332 U.S. 507, 517–18 (1947) (recognizing that the analogous provisions of the NGA were "drawn with meticulous regard for the continued exercise of state power"). 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 how the application of a MOPR squares with the Commission's role under the FPA.

[6] 16 U.S.C. § 824(b)(1); *Hughes*, 136 S. Ct. at 1292; *see also Pac. 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

8. But while those jurisdictional lines are clearly drawn, the spheres of jurisdiction themselves are not "hermetically sealed."[7] One sovereign's exercise of its authority will inevitably affect matters subject to the other sovereign's exclusive jurisdiction.[8] For example, any state regulation that increases or decreases the number of generation facilities will, through the law of supply and demand, inevitably affect wholesale rates.[9] But the existence of such cross-jurisdictional effects is not necessarily a "problem" for the purposes of the FPA. Rather, those cross-jurisdictional effects are the product of the "congressionally designed interplay between state and federal regulation"[10] and the natural result of a system in which regulatory authority is divided between federal and

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the States").

[7] *EPSA*, 136 S. Ct. at 776; *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).

[8] *See EPSA*, 136 S. Ct. at 776; *Oneok*, 135 S. Ct. at 1601; *Coal. for Competitive Elec. v. Zibelman*, 906 F.3d 41, 57 (2d Cir. 2018) (explaining that the Commission "uses auctions to set wholesale prices and to promote efficiency with the background assumption that the FPA establishes a dual regulatory system between the states and federal government and that the states engage in public policies that affect the wholesale markets").

[9] *Zibelman*, 906 F.3d at 57 (explaining how a state's regulation of generation facilities can have an "incidental effect" on the wholesale rate through the basic principles of supply and demand); *id.* at 53 ("It would be 'strange indeed' to hold that Congress intended to allow the states to regulate production, but only if doing so did not affect interstate rates." (quoting *Nw. Cent. Pipeline Corp. v. State Corp. Comm'n of Kansas*, 489 U.S. 493, 512-13 (1989) (*Northwest Central*))); *Elec. Power Supply Ass'n v. Star*, 904 F.3d 518, 524 (7th Cir. 2018) (explaining that the subsidy at issue in that proceeding "can influence the auction price only indirectly, by keeping active a generation facility that otherwise might close . . . . A larger supply of electricity means a lower market-clearing price, holding demand constant. But because states retain authority over power generation, a state policy that affects price only by increasing the quantity of power available for sale is not preempted by federal law.").

[10] *Hughes*, 136 S. Ct. at 1300 (Sotomayor, J., concurring) (quoting *Northwest Central*, 489 U.S. at 518); *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").

state government.[11] Maintaining that interplay and permitting each sovereign to carry out its designated role is essential to the dual-federalist structure that Congress made the foundation of FPA.

9. In recent years, the Supreme Court has repeatedly admonished both the Commission and the states that the FPA does not permit actions that "aim at" or "target" the other sovereign's exclusive jurisdiction.[12] Beginning with *Oneok*, the Court has underscored that its "precedents emphasize the importance of considering the *target* at which the state law *aims*."[13] The Court has subsequently explained how that general principle plays out in practice when analyzing the limits on both federal and state authority. In *EPSA*, the Court held that the Commission can regulate a practice affecting wholesale rates, provided that the practice "directly" affected wholesale rates and that the Commission does not regulate or target a matter reserved for exclusive state jurisdiction.[14] And in *Hughes*, the Court again emphasized that a state may not aim at or target the Commission's jurisdiction, which means that a state cannot not "tether" its policy design to participation in the Commission-jurisdictional wholesale market.[15] In the intervening few years, the lower federal courts have carefully followed the Court's strict prohibition on one sovereign regulating in a manner that aims at or targets the other jurisdiction.[16]

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[11] *Cf. Star*, 904 F.3d at 523 ("For decades the Supreme Court has attempted to confine both the Commission and the states to their proper roles, while acknowledging that each use of authorized power necessarily affects tasks that have been assigned elsewhere.").

[12] *Hughes*, 136 S. Ct. at 1298 (relying on *Oneok*, 135 S. Ct. at 1599, for the proposition that a state may regulate within its sphere of jurisdiction even if its actions "incidentally affect areas within FERC's domain" but that a state may not target or intrude on FERC's exclusive jurisdiction); *EPSA*, 136 S. Ct. at 776 (emphasizing the importance of "'the *target* at which [a] law *aims*'") (quoting *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) (*Northern Natural*))).

[13] *Oneok*, 135 S. Ct. at 1600 (discussing *Northern Natural*, 372 U.S. at 94, and *Northwest Central*, 489 U.S. at 513-14).

[14] *EPSA*, 136 S. Ct. at 775-77; *id.* at 776.

[15] *Hughes*, 136 S. Ct. at 1298, 1299.

[16] *See, e.g., Zibelman*, 906 F.3d at 50-51, 53; *Star*, 904 F.3d at 523-24; *Allco Fin.*

10. The Commission's use of the MOPR in this proceeding violates that principle. By its own terms, the Commission's "target" or "aim" is the PJM states' exercise of their exclusive jurisdiction to regulate generation facilities. At every turn, the Commission has focused on the purported problems caused by the states' decisions to promote particular types of generation resources. For example, the Commission began its determination section in the June 2018 Order by noting that "[t]he records [before it] 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."[17] The Commission noted that state efforts to shape the resource mix are increasing and are projected to increase at an even faster rate going forward.[18] The Commission explained that these state actions created "significant uncertainty" and left resources unable to "predict whether their capital will be competing against" subsidized or unsubsidized units.[19] And the Commission ultimately found that PJM's tariff was unjust and unreasonable because of the potential for subsidized resources to participate in and affect the capacity market clearing price[20]—in other words, the natural consequence of any state regulation of generation facilities.[21]

11. Today's order is even more direct in its attack on state resource decisionmaking. It begins by reiterating the finding that an expanded MOPR is necessary in light of increasing state action to shape the generation mix, "especially out-of-market state support for renewable and nuclear resources."[22] It then asserts that PJM's existing, limited MOPR is unjust and unreasonable because it does not specifically prevent state actions from keeping existing resources operational or facilitating the entry of new

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Ltd. v. Klee, 861 F.3d 82, 98 (2d Cir. 2017).

[17] June 2018 Order, 163 FERC ¶ 61,236 at P 149.

[18] *Id.* PP 151-152. Similarly, in explaining its decision to extend the MOPR to existing resources, the Commission relied, not on evidence about how state action *might* affect clearing prices, but entirely on the fact that state actions were proliferating and that, as a result, resources that it believes ought to consider retiring might not do so. *Id.* P 153.

[19] *Id.* P 150.

[20] *Id.* P 156.

[21] *See supra* note 9 and accompanying text.

[22] *Calpine Corp. v. PJM Interconnection, L.L.C.*, 169 FERC ¶ 61,239, at P 37 (2019) (Order).

resources through the capacity market.[23] To address those concerns, the Commission adopts a sweeping MOPR that could potentially apply to any conceivable state effort to shape the generation mix. And, tellingly, it rejects the suggestion that the MOPR should apply only to those state policies that actually affect the wholesale rate.[24]

12. In fact, the Commission comes right out and acknowledges that its goal is to "send price signals on which investors and consumers can rely to guide the orderly entry and exit of economically efficient capacity resources."[25] That means the Commission is attempting to establish a set of price signals for determining resource entry and exit that will supersede state resource decisionmaking and better reflect the Commission's policy priorities. It is hard to imagine how the Commission could much more directly target or aim at state authority over resource decisionmaking. Although the Commission insists that it is not impinging on state authority, it concedes elsewhere in today's order that the MOPR disregards and nullifies the policies to which it applies.[26] And, as if that were not enough, the Commission compounds its intrusion on state authority by substituting its own policy preferences—a peculiar mix of reverence for "competition" and reliance on administrative pricing—to entrench the existing resource mix and trample states' concerns about the environmental externalities of electricity generation.

13. All told, this simply is not a proceeding where "the Commission's justifications for regulating . . . are all about, and only about, improving the wholesale market."[27]

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[23] *Id.* P 37.

[24] Order, 169 FERC ¶ 61,239 at PP 56, 65-75. Imposing a requirement that there be an actual price impact would have brought today's order far closer to the facts in *EPSA*. *See* 136 S. Ct. at 771-72 (explaining that the demand response rule was structured to compensate only those resources whose participation would "result in actual savings to wholesale purchasers"); *id.* at 776 (noting the entities "footing the bill [for demand response participation] are the same wholesale purchasers that have benefited from the lower wholesale price demand response participation has produced (italics omitted)). Such a requirement would not be especially unusual. Markets throughout the country apply conduct and impact thresholds for mitigation, including in energy, ancillary services, and capacity markets.

[25] Order, 169 FERC ¶ 61,239 at P 40.

[26] The Commission justifies its refusal to extend the MOPR to federal subsidies because to do so would "disregard or nullify the effect of federal legislation." Order, 169 FERC ¶ 61,239 at P 87. But that can only mean that the Commission is fully aware that this is what it is doing to state policies, notwithstanding its repeated assurances that it respects state jurisdiction over generation facilities. *See, e.g., id.* n.345.

[27] *EPSA*, 136 S. Ct. at 776 (citing *Oneok*, 135 S. Ct. at 1599).

Unlike the rule upheld in *EPSA*, where the matters subject to state jurisdiction "figure[d] no more in the Rule's goals than in the mechanism through which the Rule operates," the state actions are front and center in the Commission's justification for acting.[28] To be sure, the Commission doffs its hat to "price suppression" throughout the order. But repeating the phrase "price suppression" does not change the fact that the Commission's stated concern in both the June 2018 Order and today's order is the states' exercise of their authority to shape the generation mix or that the Commission's stated goal for the Replacement Rate is to displace the effects of state resource decisionmaking. Similarly, the Commission's observation that it is not literally precluding states from building new resources is beside the point. That's the equivalent of saying that a grounded kid is not being punished because he can still play in his room—it deliberately mischaracterizes both the intent and the effect of the action in question.

14. The MOPR's recent evolution illustrates the extent of the shift in the Commission's focus from the wholesale market to state resource decisionmaking. The MOPR was originally used to mitigate buyer-side market power within the wholesale market[29]—a concern at the heart of the Commission's responsibility to ensure that wholesale rates are just and unreasonable.[30] And for much of the MOPR's history, that is what it did. Even when the Commission eliminated the categorical exemption for resources developed pursuant to state public policy, the Commission limited the MOPR's application only to natural gas-fired resources—*i.e.*, those that would most likely be used as part of an effort to decrease capacity market prices.[31]

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[28] *Id.*

[29] Specifically, those early MOPRs were designed to ensure that net buyers of capacity were not able to deploy market power to drive down the capacity market price. *See generally* Richard B. Miller, Neil H. Butterklee & Margaret Comes, *"Buyer-Side" Mitigation in Organized Capacity Markets: Time for a Change?*, 33 Energy L.J. 459 (2012) (discussing the history buyer-side mitigation at the Commission).

[30] *Cf., e.g., Pub. Util. Dist. No. 1 of Snohomish Cty. v. Dynegy Power Mktg., Inc.*, 384 F.3d 756, 760 (9th Cir. 2004) (explaining that the absence of market power could provide a strong indicator that rates are just and reasonable); *Tejas Power Corp. v. FERC*, 908 F.2d 998, 1004 (D.C. Cir. 1990) ("In a competitive market, where neither buyer nor seller has significant market power, it is rational to assume that the terms of their voluntary exchange are reasonable, and specifically to infer that the price is close to marginal cost, such that the seller makes only a normal return on its investment.").

[31] *See New Jersey Board of Public Utilities v. FERC*, 744 F.3d 74, 106-07 (3d Cir. 2014) (*NJBPU*).

15. It was only last year that state resource decisionmaking became the MOPR's primary target. For the first time, the Commission asserted that the MOPR could be used to block state resource decisionmaking writ large rather than only those state policies that could rationally be aimed at exercising market power in order to depress prices. The Commission has never been able to justify its change of target. It first claimed that this transformation of the MOPR was necessary to ensure "investor confidence" and the ability of unsubsidized resources to compete against resources receiving state support.[32] A few months later, at the outset of this proceeding, the Commission abandoned "investor confidence" altogether and asserted the need to mitigate state policies in order to protect the "integrity" of the capacity market—another concept that it did not bother to explain.[33] And today, the Commission adds yet another new twist: That state subsidies "reject the premise the capacity markets."[34] But, as with investor confidence and market integrity, it is hard to know exactly what that premise is.

16. If there is one thing that those inscrutable principles share, it is their inability to conceal, much less justify, the fundamental shift in the Commission's focus. Whereas the MOPR once targeted efforts to exercise market power on behalf of load and directly reduce the capacity market price, it now targets state resource decisionmaking, and particularly state efforts to address the externalities of electricity generation. That change is one of kind and not just degree. And because that shift in focus is wholly impermissible, the Commission has little choice but to hide behind excuses such as investor confidence, market integrity, and the premise of capacity markets—principles that, as applied here, are so abstract as to be meaningless. The Commission's effort to recast the MOPR as always having been about price suppression at some level of generality[35] obfuscates that point and badly mischaracterizes the recent shift in the MOPR's focus.[36]

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[32] *ISO New England Inc.*, 162 FERC ¶ 61,205, at P 21 (2018).

[33] June 2018 Order, 163 FERC ¶ 61,236 at PP 150, 156, 161.

[34] Order, 169 FERC ¶ 61,239 at P 17.

[35] *Id.* at P 136. Saying that the MOPR has always been about price suppression is the equivalent of saying that speed limits have always been about keeping people from getting to their destination too quickly. There is a sense in which that is true, but it kind of misses the real goal.

[36] The majority points to the U.S. Court of Appeals for the Third Circuit's decision in *NJBPU*, 744 F.3d 74, to argue that at least one court has already blessed extending the MOPR to state-sponsored resources. *See* Order, 169 FERC ¶ 61,239 at P 7. But *NJBPU* differs in important respects. First, at that time, the MOPR was still limited to natural gas-fired generators—the resources that could feasibly and rationally be built for the

17. The consequences of the Commission's theory of jurisdiction reinforce the extent to which it intrudes on state authority. Taken seriously, today's order permits the Commission to zero out *any* state effort to address the externalities associated with sales of electricity. That includes the Regional Greenhouse Gas Initiative (RGGI) a market-based program to reduce greenhouse gas emissions. It would also target any future carbon tax, cap-and-trade program, or clean energy standard—all of which would inevitably affect the wholesale market clearing price. That result is untenable. A theory of jurisdiction that allows the Commission to block any state effort to economically regulate the externalities associated with electricity generation is not a reasonable interpretation of the FPA's balance between federal and state jurisdiction.[37]

II. Today's Order Does Not Establish a Just and Reasonable Rate

A. Under the Commission's Definition, Almost All Capacity in PJM Is a Subsidized Resource

18. Taking today's order at face value, much—and perhaps the vast majority—of the capacity in PJM will potentially be subject to the MOPR. That is because the Commission's broad definition of subsidy encompasses almost any aspect of state resource decisionmaking. Although the Commission's various exemptions and carve-outs will blunt some of the resulting impact, the definition of subsidy will nevertheless apply to a vast swathe of resources and create enormous uncertainty, even for those resources that eventually manage to escape mitigation. Moreover, as explained in the following sections,[38] resources that do not escape mitigation will no longer be competing based on their offers to supply capacity, but rather based on a complex system of administrative pricing whose entire purpose is to increase capacity prices.

19. It all starts with the Commission's definition of subsidy. A State Subsidy is

> A direct or indirect payment, concession, rebate, subsidy, non-bypassable consumer charge, or other financial benefit that is (1) a

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purpose of depressing capacity market prices, *see* 744 F.3d at 106. In addition, as the court explained, the Commission's "enumerated reasons for approving the elimination of the state-mandated exception relate directly to the wholesale price for capacity." *Id.* at 98. As noted, however, the Commission's recent application of the MOPR, including in this proceeding, focuses much more broadly on the supposed problems with state subsidies.

[37] *Cf. EPSA*, 136 S. Ct. at 774 (explaining that the FPA cannot be interpreted in a manner that allows it to "assum[e] near infinite breadth").

[38] *Supra* Section II.C.

> result of any action, mandated process, or sponsored process of a state government, a political subdivision or agency of a state, or an electric cooperative formed pursuant to state law, and that (2) is derived from or connected to the procurement of (a) electricity or electric generation capacity sold at wholesale in interstate commerce, or (b) an attribute of the generation process for electricity or electric generation capacity sold at wholesale in interstate commerce, or (3) will support the construction, development, or operation of a new or existing capacity resource, or (4) could have the effect of allowing a resource to clear in any PJM capacity auction.[39]

20. Let's begin with the biggest categories of capacity resources newly subject to the MOPR: Resources relied upon by vertically integrated utilities and public power (including municipal utilities and electric cooperatives). Vertically integrated utilities and public power represent nearly a fifth of the capacity in PJM.[40] All these entities recover their costs through non-bypassable consumer charges that are the result of "a process of a state government, a political subdivision or agency of a state, or an electric cooperative formed pursuant to state law."[41]

21. In addition, as I noted in my dissent from the underlying order, the PJM states provide dozens of different subsidies and benefits tied to particular generation resources or generation types.[42] Those ubiquitous subsidies expose a vast number of resources to potential mitigation. For example, Kentucky exempts companies that use coal to generate electricity (its principal source of electricity[43]) from paying property taxes,[44] while other states provide tax breaks for the fuel types that play an important role in their

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[39] Order, 169 FERC ¶ 61,239 at P 65.

[40] Monitoring Analytics, *2019 State of the Market Report for PJM: January through September* at Tbl. 5-5, *available at* https://www.monitoringanalytics.com/reports/PJM_State_of_the_Market/2019/2019q3-som-pjm-sec5.pdf.

[41] Order, 169 FERC ¶ 61,239 at P 65.

[42] June 2018 Order, 163 FERC ¶ 61,236 (Glick, Comm'r, dissenting at 8).

[43] Clean Energy Advocates Protect, Docket No. ER18-1314-000 (2018) App. E (Doug Koplow, *Energy Subsidies within PJM: A Review of Key Issues in Light of Capacity Repricing and MOPR-Ex Proposals*).

[44] *Id.*

local economies.[45] All of those programs qualify as subsidies as they are "derived from or connected to the procurement" of electricity or capacity or "could have the effect of allowing a resource to clear in any PJM capacity auction."[46]

22. But those are just some of the obvious State Subsidies. The Commission's definition will also ensnare a variety of state actions that have little in common with any ordinary use of the word "subsidy." For example, any resource that benefits from a state carbon tax, cap-and-trade program, or clean energy standard would be subject to mitigation because, as a result of state action, it receives financial benefit (whether direct or indirect) that is connected to electricity generation or an attribute of the generating process. Putting aside the affront to state jurisdiction, consider the mess that would create. Every relatively clean resource would "benefit" from a carbon tax or cap-and-trade system by virtue of becoming more cost-competitive. That benefit would not be limited to zero-emissions resources. Instead, taking the Commission's definition at face value, every relatively efficient natural gas-fired resource—including existing ones—would be subject to mitigation because they are relatively less carbon-intensive.

23. That is not an abstract concern. A literal application of the subsidy definition includes RGGI because it provides a financial benefit as a result of state action or state-mandated process. This means that every relatively low-emitting generator in Delaware and Maryland[47] will be subject to mitigation. And the same fate may shortly befall relatively clean generators in Virginia, Pennsylvania, and New Jersey—all of which are considering or have announced their intention to join RGGI in the near future.

24. In addition, the PJM states have a host of idiosyncratic regulatory regimes that may well trigger the MOPR. Case-in-point: The New Jersey Basic Generation Service Electricity Supply Auction (BGS auction). Through this state-mandated process, electric distribution companies solicit offers from resources to serve their load. The plain language of the Commission's definition of subsidy would treat any resource that serves load through the BGS auction as subsidized and, therefore, subject to the MOPR. That means that PJM and its Market Monitor will need to look behind the results of every BGS auction to determine which resources are receiving a benefit from this state process, which covers nearly 8,000 MW of load.[48] That could easily mean that the majority of

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[45] *Id.*

[46] Order, 169 FERC ¶ 61,239 at P 65.

[47] Both of which are RGGI members. *The Regional Greenhouse Gas Initiative*, https://www.rggi.org/rggi-inc/contact (last visited Dec. 19, 2019) (listing RGGI member states).

[48] This is the total peak load from the tranches in the 2019 BGS auction. *The 2019 BGS Auctions*, http://www.bgs-auction.com/documents/ 2019_BGS_Auction_Results.pdf

resources that serve load in New Jersey will now be subject to mitigation. As this example illustrates, even state processes that are open, fair, transparent, and fuel-neutral may be treated as state subsidies, irrespective of the underlying state goals.

25. Perhaps the Commission will find a way to wiggle out from under its own definition of subsidy in ruling on PJM's compliance filing or over the course of what will no doubt be years of section 205 filings, section 206 complaints, and requests for declaratory orders addressing the definition of subsidy. But even under the best case scenario, where the Commission provides PJM and its stakeholders with quick and well-reasoned guidance on the meaning of "State Subsidy" (and, based on the Commission's performance to date in this proceeding, I would not get my hopes up), it will likely be years before we have a concrete understanding of how the subsidy definition works in practice or resources know for sure whether they will be subject to mitigation.

B. The Replacement Rate Is Arbitrary and Capricious

26. Although the subsidy definition is broad, it nevertheless contains a number of arbitrary and capricious distinctions exemptions, and classifications. My point is not that the Commission should further expand the MOPR or apply it more stringently. As should by now be clear, I would altogether get out of the business of mitigating public policies. My point here is that the Commission's arbitrary application of the MOPR only underscores the extent to which it is poor public policy and not the product of reasoned decisionmaking.

1. The Commission's Exclusion of Federal Subsidies Is Arbitrary and Capricious

27. No single determination in today's order is more arbitrary than the Commission's exclusion of all federal subsidies. Federal subsidies have pervaded the energy sector for more than a century, beginning even before the FPA declared that the "business of transmitting and selling electric energy . . . is affected with a public interest."[49] Since 1916, federal taxpayers have supported domestic exploration, drilling, and production activities for our nation's fossil fuel industry.[50] And since 1950, the federal government has provided roughly a trillion dollars in energy subsidies, of which 65 percent has gone

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(last visited Dec. 19, 2019).

[49] 16 U.S.C. § 824 (2018).

[50] *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).

to fossil fuel technologies.[51] 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 "uncompetitive" 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.

28. Federal subsidies remain pervasive in PJM. The federal tax credit for nonconventional natural gas,[52] contributed to the spike in new natural gas-fired power plants between 2000 and 2005,[53] by decreasing the cost of operating those plants. Similarly, subsidies such as the percentage depletion allowance and the ability to expense intangible drilling costs have shaved billions of dollars off the cost of extracting coal and natural gas—two of the principal sources of electricity in PJM.[54] In addition, the domestic nuclear power industry would not exist without the Price-Anderson Act, which

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[51] *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).

[52] Energy Tax Policy at 2 n.3. That credit has lapsed. *Id.* at 18.

[53] *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.

[54] The Joint Committee on Taxation, *Estimates Of Federal Tax Expenditures For Fiscal Years 2018-2022* at 21-22 (2018); Monitoring Analytics, *Analysis of the 2021/2022 RPM Base Residual Auction: Revised* 95 (2018), *available at* https://www.monitoringanalytics.com/ reports/Reports/2018/ IMM_Analysis_ of_the_20212022_RPM_BRA_Revised _20180824.pdf (reporting that coal, natural gas, and nuclear collectively make up more than three-quarters of the generation mix in PJM); *see generally* Molly Sherlock, Cong. Research Serv., *Energy Tax Policy: Historical Perspectives on and Current Status of Energy Tax Expenditures* 2-6 (May 2011) (discussing the history of energy tax policy in the United States).

imposes indemnity limits for nuclear power generators, enabling them to secure financing and insurance at rates far below what would reflect their true cost.[55] Federal subsidies have also promoted the growth of renewable resources through, for example, the production tax credit (largely used by wind resources)[56] and the investment tax credit (largely used by solar resources).[57] These and other federal government interventions have had a far greater "suppressive" impact on the markets than the "state subsidies" targeted by today's order, especially when you consider that these resources make up the vast majority of the cleared capacity in PJM.[58]

29. The Commission, however, excludes all federal subsidies from the MOPR on the theory that it lacks the authority to "disregard or nullify the effect of federal legislation."[59] That justification is contradictory at best.[60] It is, of course, true that the FPA does not give the Commission the authority to undo other federal legislation. But the Commission's defense of the MOPR when applied to state policies, is that the MOPR neither disregards nor nullifies those policies, but instead addresses only the effects that those policies have on the PJM market.[61]

30. If, for the sake of argument, we accept the Commission's characterization of the MOPR's impact on state policies, then its justification for exempting federal subsidies from the MOPR immediately falls apart. Under that interpretation the MOPR does not actually disregard or nullify federal policy, but rather addresses only the effects of state

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[55] 42 U.S.C. § 2210(c).

[56] U.S. Department of Energy, 2018 Wind Technologies Market Report. Page 70. (accessed Dec 18. 2019) http://eta-publications.lbl.gov/sites/default/files/wtmr_final_for_posting_8-9-19.pdf.

[57] Solar Energy Industries Assoc., *History of the 30% Solar Investment Tax Credit* 3-4 (2012) https://www.seia.org/sites/default/files/resources/History%20of%20ITC%20Slides.pdf.

[58] Monitoring Analytics, *Analysis of the 2021/2022 RPM Base Residual Auction: Revised* 95 (2018), *available at* https://www.monitoringanalytics.com/reports/Reports/2018/IMM_Analysis_of_the_20212022_RPM_BRA_Revised_20180824.pdf (reporting that coal, natural gas, and nuclear collectively make up more than three-quarters of the generation mix in PJM).

[59] Order, 169 FERC ¶ 61,239 at P 87.

[60] *Cf.* EPSA Initial Testimony at 16-19; IPP Coalition Initial Testimony at 11.

[61] Order, 169 FERC ¶ 61,239 at PP 7, 40.

policy on federal markets in order to address the concern that resources will "submit offers into the PJM capacity market that do not reflect their actual costs."[62] "But the Commission cannot have it both ways."[63] If the MOPR disregards or nullifies federal policy, it must have the same effect on state policy. And if it does not nullify or disregard state policy, then the Commission has no reasoned justification for exempting federal subsidies from the MOPR.

31. The Commission cites to a number of cases for well-established canons of statutory interpretation, such as that the general cannot control the specific and that federal statutes must, when possible, be read harmoniously.[64] But those general canons provide no response to my concerns. The problem is that the Commission gives the MOPR one characterization in order to stamp out state policies and a different one in order to exempt federal policies. And if we assume that its characterization about the effect of the MOPR on state policies is accurate, then no number of interpretive canons can cure the Commission's arbitrary refusal to apply the MOPR to federal policies.

2. The Commission's Disparate Offer Floors Discriminate Against New Resources

32. In addition, the differing offer floors applied to new and existing resources are arbitrary and capricious. Today's order requires new resources receiving a State Subsidy to be mitigated to Net Cost of New Entry (Net CONE) while existing resources receiving a State Subsidy are mitigated to their Net Avoidable Cost Rate (Net ACR). The Commission suggests that this distinction is appropriate because new and existing resources do not face the same costs.[65] In particular, the Commission asserts that setting the offer floor for new resources at Net ACR would be inappropriate because that figure "does not account for the cost of constructing a new resource."[66]

33. That distinction does not hold water. As the Independent Market Monitor explained in his comments, it is illogical to distinguish between new and existing resources when defining what is (or is not) a competitive offer.[67] That is because, as a

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[62] June 2018 Order, 163 FERC ¶ 61,236 at P 153.

[63] *Atlanta Gas Light Co. v. FERC*, 756 F.2d 191, 198 (D.C. Cir. 1985); *California ex rel. Harris v. FERC*, 784 F.3d 1267, 1274 (9th Cir. 2015) (same).

[64] Order, 169 FERC ¶ 61,239 n.177.

[65] *Id.* P 138.

[66] *Id.*

[67] Independent Market Monitor Brief at 16 ("A competitive offer is a competitive

result of how most resources are financed, a resource's costs will not materially differ based on whether it is new or existing (*i.e.*, one that has cleared a capacity auction). That means that there is no basis to apply a different formula for establishing a competitive offer floor based solely on whether a resource has cleared a capacity auction. To the extent it is appropriate to consider the cost of construction for a new resource it is just as appropriate to consider the cost of construction for one that has already cleared a capacity auction. That is consistent with Net CONE, which calculates the nominal 20-year levelized cost of a resource minus its expected revenue from energy and ancillary services. Because that number is *levelized*, it does not change between a resource's first year of operation and its second.

34. However, as the Independent Market Monitor explains, Net CONE does not reflect how resources actually participate in the market.[68] Instead of bidding their levelized cost, both new and existing competitive resources bid their marginal capacity—*i.e.*, their net out-of-pocket costs, which Net ACR is supposed to reflect. Perhaps reasonable minds can differ on the question of which offer floor formula is the best choice to apply. But there is nothing in this record suggesting that it is appropriate to use different formulae based on whether the resource has already cleared a capacity auction.

35. It may be true that setting the offer floor at Net ACR for new resources will make it more likely that a subsidized resource will clear the capacity market, MOPR notwithstanding. Holding all else equal, the higher the offer floor, the less likely that a subsidized resources will clear, so a higher offer floor will more effectively block state policies. But that is not a reasoned explanation for the differing offer floors applied to new and existing resources.

3. The Commission Gives No Consideration to the Order's Impact on Existing Business Models

36. In its rush to block the impacts of state policies, the Commission ignores the consequences its actions will have on well-established business models. In particular, today's order threatens the viability, as currently constituted, of (1) aggregated demand response providers; (2) public power; and (3) resources financed in part through sales of voluntary renewable energy credits.

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offer, regardless of whether the resource is new or existing."); *id.* at 15-16 ("It is not an acceptable or reasonable market design to have two different definitions of a competitive offer in the same market. It is critical that the definitions be the same, regardless of the reason for application, in order to keep price signals accurate and incentives consistent.").

[68] *Id.*

a. Demand Response

37. The Commission has long recognized that the end-use demand resources that are aggregated by a Curtailment Service Providers (CSP)—*i.e.*, a demand response aggregator—may not be identified years in advance of the delivery year.[69] The PJM market rules have permitted CSPs to participate in the Base Residual Auction without identifying all end-use demand resources.[70] That allowance is fundamental to the aggregated demand response business model, since, without it, short-lead time resources might never be able to participate in the Base Residual Auction. Today's order upends that allowance, extending the MOPR to any end-use demand resource that receives a State Subsidy. In practice, that means that a CSP will have to know all of its end-use demand resources prior to the Base Residual Auction (three years prior to the delivery year). Further complicating matters, today's order grandfathers existing demand response without indicating whether the grandfathering right attaches to the CSP or the end-use demand resources.

38. The potential damage to the CSP business model is especially puzzling because PJM indicated that the default offer floor for at least certain demand response resources should be at or near zero,[71] suggesting that even if they receive a subsidy, that subsidy would not reduce their offer below what this Commission deems a competitive offer. Demand response has provided tremendous benefits to PJM, both terms of improved

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[69] For example, recognizing that demand response is a "short-lead-time" resource, the Commission previously directed PJM to revise the allocation of the short-term resource procurement target so that short-lead resources have a reasonable opportunity to be procured in the final incremental auction. *PJM Interconnection L.L.C.*, 126 FERC ¶ 61,275 (2009). The Commission subsequently removed the short-term resource procurement target only after concluding that doing so would not "unduly impede the ability of Demand Resources to participate in PJM's capacity market." *PJM Interconnection, L.L.C.*, 151 FERC ¶ 61,208, at PP 394, 397 (2015).

[70] Under PJM's current market rules, CSPs must submit a Demand Resource Sell Offer Plan (DR Sell Offer Plan) to PJM no later than 15 business days prior to the relevant RPM Auction. This DR Sell Offer Plan provides information that supports the CSP's intended DR Sell Offers and demonstrates that the DR being offered is reasonably expected to be physically delivered through Demand Resource Registrations for the relevant delivery year. *See* PJM Manual 18: PJM Capacity Market – Attachment C: Demand Resource Sell Offer Plan.

[71] PJM explains that, beyond the initial costs associated with developing a customer contract and installing any required hardware or software, that it could not identify any avoidable costs that would be incurred by an existing Demand Resource that would result in a MOPR Floor Offer Price of greater than zero. PJM Initial Brief at 47.

market efficiency and increased reliability.[72] I see no reason to risk giving up those gains based on an unsubstantiated concern about state policies.

b. Public Power

39. The public power model predates the capacity market by several decades and is premised on securing a reliable supply of power for each utility's citizen-owners at a reasonable and stable cost, which often includes an element of long-term supply.[73] Today's order declares the entire public power model to be an impermissible state subsidy.[74] That is a stark departure from past precedent, which recognized that "the purpose and function of the MOPR is not to unreasonably impede the efforts of resources choosing to procure or build capacity under longstanding business models."[75]

40. It is also a fundamental threat to the long-term viability of the public power model. Although today's order exempts existing public power resources from the MOPR, it provides that all new public power development will be subject to mitigation. That means that public power's selection and development of new capacity resources will now be dependent on the capacity market outcomes, not the self-supply model on which it has traditionally relied. That fundamentally upends the public power model because it limits the ability of public power entities to choose how to develop and procure resources over a long time horizon.

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[72] In a 2019 report, Commission staff explained that demand response resources comprised 6.7 percent of peak demand in PJM and that PJM called on load management resources in October of 2019 to reduce consumption during a period of grid stress. *See* Federal Energy Regulatory Commission, *2019 Assessment of Demand Response and Advanced Metering* 17, 20 (2019), *available at* https://www.ferc.gov/legal/staff-reports/2019/DR-AM-Report2019.pdf. PJM has previously explained that the more that demand actively participates in the electricity markets, the more competitive and robust the market results. Also, if visible and dependable, demand response has proven to be a valuable tool for maintaining reliability both in terms of real-time grid stability and long-term resource adequacy. PJM Interconnection, *Demand Response Strategy* 1 (2017), *available at* https://www.pjm.com/~/media/library/reports-notices/demand-response/20170628-pjm-demand-response-strategy.ashx.

[73] American Municipal Power and Public Power Association of New Jersey Initial Brief at 14-15; American Public Power Association Initial Brief at 15.

[74] Order, 169 FERC ¶ 61,239 at P 65.

[75] *PJM Interconnection, L.L.C.*, 117 FERC ¶ 61,331 (2006).

c. Voluntary Renewable Energy Credits

41. Today's order will also upend the business model of resources that sell renewable energy credits to businesses or individuals that purchase them voluntarily —*e.g.*, in order to meet corporate sustainability goals—rather to comply with a state mandate. Voluntary renewable energy credits have been an important driver behind the deployment of new renewable resources.[76] Although the Commission recognizes that a voluntary renewable energy credit is not a state subsidy, it nevertheless subjects resources that will generate them to the MOPR.[77] The Commission justifies that choice on the basis that a capacity resource cannot definitively know three years in advance how the credits it generates will ultimately be retired and by whom.[78] But that means that today's order is "mitigating the impact of *consumer preferences* on wholesale electricity markets"[79] just because they may potentially overlap with state policies.

42. But it is not at all clear why such an all-or-nothing rule is necessary. For example, the Commission could carry over the attestation approach it uses for the Competitive Entry Exemption[80] and allow a resource to submit an attestation stating that it will sell voluntary renewable energy credits to resources that are not subject to a state renewable portfolio standard with a contractual rider requiring immediate retirement to prevent any secondary transaction to an entity that may use it to meet its regulatory obligations. Moreover, PJM could presumably play an instrumental verification role since it administers the Generation Attribute Tracking System, the trading platform for renewable energy credits in PJM.[81] All told, the Commission's treatment of voluntary renewable energy credits creates an unnecessary threat to a valuable means of supporting clean energy.

C. The Commission's Replacement Rate Does Not Result in a Competitive Market

43. By this point, the central irony in today's order should be clear. The Commission began this phase of the proceeding by decrying government efforts to shape the

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[76] *See* Advanced Energy Buyers Group Reply Brief at 2.

[77] Order, 169 FERC ¶ 61,239 at P 174.

[78] *Id.*

[79] Clean Energy Industries Initial Testimony at 6.

[80] Order, 169 FERC ¶ 61,239 at P 159.

[81] See *Id.* n. 314.

generation mix because they interfere with "competitive" forces.[82] Today, the Commission is solving that "problem" by creating a byzantine administrative pricing scheme that bears all the hallmarks of cost-of-service regulation, without any of the benefits. That is a truly bizarre way of fostering the market-based competition that my colleagues claim to value so highly.

44. As noted, the Commission's definition of subsidy will encompass vast swathes of the PJM capacity market, including new investments by vertically integrated utilities and public power, merchant resources that receive any one of the litany of subsidies available to particular resources or generation types, and almost any resource that benefits from a state effort to directly address the environmental externalities of electricity generation.[83] Moreover, the Commission's inaptly named Unit-Specific Exemption[84]—its principal response to concerns about over mitigation—is simply another form of administrative pricing. All the Unit-Specific Exemption provides is an escape from the relevant default offer floor. Resources are still required to bid above an administratively determined level, not at the level that they would otherwise participate in the market. And even resources that might appear eligible for the Competitive Entry Exemption may hesitant to take that option given the Commission's proposal to permanently ban from the capacity market any resource that invokes that exception and later finds itself subsidized.[85] Are those resources really going to wager their ability to participate in the capacity market on the proposition that their state will never institute a carbon tax, pass or join a cap-and-trade program, or create any other program that the Commission might deem an illicit financial benefit?

45. To implement this scheme, PJM and the Independent Market Monitor will need to become the new subsidy police, regularly reviewing the laws and regulations of 13 different states and D.C.—not to mention hundreds of localities and municipalities—in search of any provision or program that could conceivably fall within the Commission's definition of State Subsidy. "But that way lies madness."[86] Identifying the potential

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[82] June 2018 Order, 163 FERC ¶ 61,236 at P 1.

[83] *See Supra* Section II.A.

[84] In today's order, the Commission renames what is currently the "Unit Specific *Exception*" in PJM's tariff to be a Unit Specific *Exemption*. But, regardless of name, it does not free resources from mitigation because they are still subject to an administrative floor, just a lower one. An administrative offer floor, even if based on the resource's actual costs does not protect against over-mitigation and certainly is not market competition.

[85] Order, 169 FERC ¶ 61,239 at P 160.

[86] David Roberts, *Trump's crude bailout of dirty power plants failed, but a subtler*

subsidies is just the start. Given the consequences of being subsidized, today's order will likely unleash a torrent of litigation over what constitutes a subsidy and which resources are or are not subsidized. Next, PJM will have to develop default offer floors for all relevant resource types, including many that have never been subject to mitigation in PJM or anywhere else—*e.g.*, demand response resources or resources whose primary function is not generating electricity. Moreover, given the emphasis that the Commission puts on the Unit-Specific Exemption as the solution to concerns about over-mitigation, we can expect that resources will attempt to show that their costs fall below the default offer floor, with many resorting to litigation should they fail to do so. The result of all this may be full employment for energy lawyers, but it has hardly the most obvious way to harness the forces of competition to benefit consumers, which, after all, is the whole reason these markets were set up in the first place.

46. Although this administrative pricing regime is likely to be as complex and cumbersome as cost-of-service regulation, it provides none of the benefits that a cost-of-service regime can provide. Most notably, the administrative pricing regime is a one-way ratchet that will only increase the capacity market clearing price. Unlike cost-of-service regulation, there is no mechanism for ensuring that bids reflect true costs. Nor does this pricing regime provide any of the market-power protections provided by a cost-of-service model. Once mitigated, resources are required to offer no *lower* than their administratively determined offer floor, but there is no similar prohibition on offering above that floor.[87]

D. Today's Order Is a Transparent Attempt to Slow the Transition to a Clean Energy Future

47. Today's order serves one overarching purpose: To slow the transition to a clean energy future. Customers throughout PJM, not to mention several of the PJM states, are increasingly demanding that their electricity come from clean resources. Today's order represents a major obstacle to those goals. Although even this Commission won't come out and say that, the cumulative effect of the various determinations in today's order is unmistakable. It helps to rehash in one place what today's order achieves.

48. First, after establishing a broad definition of subsidy, the Commission creates several categorical exemptions that overwhelmingly benefit existing resources. Indeed,

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bailout is underway (Mar. 23, 2018), https://www.vox.com/energy-and-environment/2018/3/23/17146028/ferc-coal-natural-gas-bailout-mopr.

[87] Moreover, as discussed further below, *see infra* notes 100-102 and accompanying text, PJM's capacity market is structurally uncompetitive and lacks any meaningful market mitigation. There is every reason to believe that today's order will exacerbate the potential for the exercise of market power.

the exemptions for (1) renewable resources, (2) self-supply, and (3) demand response, energy efficiency, and capacity storage resources are all limited to existing resources.[88] That means that all those resources will never be subjected to the MOPR and can continue to bid into the market at whatever level they choose. In addition, new natural gas resources, remain subject to the MOPR and are not eligible to qualify for the Competitive Entry Exemption while existing natural gas resources are eligible.[89]

49. Second, as noted in the previous section, the Commission creates different offer floors for existing and new resources.[90] Using Net CONE for new resources and Net ACR for existing resources will systematically make it more likely that existing resources of all types can remain in the market, even if they have higher costs than new resources that might otherwise replace them. As the Independent Market Monitor put it, this disparate treatment of new and existing resources "constitute[s] a noncompetitive barrier to entry and . . . create[s] a noncompetitive bias in favor of existing resources and against new resources of all types, including new renewables and new gas fired combined cycles."[91]

50. Third, the mitigation scheme imposed by today's order will likely cause a large and systematic increase in the cost of capacity—at least 2.4 billion dollars per year.[92]

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[88] Order, 169 FERC ¶ 61,239 at PP 171, 200, 206.

[89] *Id.* PP 2, 41.

[90] *See supra* Section II.B.2.

[91] Internal Market Monitor Reply Brief at 4.

[92] Our estimate of the cost impact of today's order is a "back-of-the-envelope" calculation. I assume that all previously-cleared nuclear power plants that receive zero-emissions credits in Illinois and New Jersey (totaling 6,670 MW) are unlikely to clear the next auction. I also assume there would be a 25 percent reduction of the demand response resources that previously cleared the Base Residual Auction. *See supra* Section III.B.3.a. Together, these resources total 9,340 MW of capacity. I relied on PJM's finding that "[a]dding less than 2% of zero-priced supply to the area outside MAAC, for example, reduces clearing prices in the RTO by 10%" which provides some insight to the slope of the demand curve and the associated price sensitivity. See PJM Transmittal Letter, Docket No. ER18-1314-000, at 28 (2018). Applying this slope to the last capacity auction clearing price of $140/MW-day and removing 9,300 MW, assuming all else remains constant, the capacity clearing price could increase $40/MW-day resulting in a cost of $2.4 billion. *See* PJM Interconnection, *2021/2022 RPM Base Residual Auction Results*, https://www.pjm.com/-/media/markets-ops/rpm/rpm-auction-info/2021-2022/2021-2022-base-residual-auction-report.ashx (last visited Dec. 19, 2019).

Although that will appear as a rate increase for consumers, it will be a windfall to existing resources that clear the capacity market. That windfall will make it more likely that any particular resource will stay in the market, even if there is another resource that could supply the same capacity at far less cost to consumers.

51. And finally, today's order dismisses, without any real discussion, the June 2018 Order's fig leaf to state authority: The resources-specific FRR Alternative.[93] That potential path for accommodation was what allowed the Commission to profess that it was not attempting to block or (to use the language from today's order) nullify state public policies.[94] And, although implementing that option (or any of the alternative proposals for a bifurcated capacity market currently before us) would no doubt have been a daunting task, doing so at least had the potential to establish a sustainable market design by allowing state policies to have their intended effect on the resource mix. And that is why it is no longer on the table. It could have provided a path for states to continue shaping the energy transition—exactly what this new construct is designed to stop.

52. The Commission proposes various justifications for each of these changes, some of which are more satisfying than others. But don't lose the forest for the trees. At every meaningful decision point in today's order, the Commission has elected the path that will make it more difficult for states to shape the future resource mix. Nor should that be any great surprise. Throughout this proceeding, the Commission has directly targeted states' exercise of their authority over generation facilities, treating state authority as a problem that must be remedied by a heavy federal hand. The only thing that is new in today's order is the extent to which the Commission is willing to go. Whereas the June 2018 Order at least paid lip service to the importance of accommodating state policies,[95] today's order is devoid of any comparable sentiment.

53. The pattern in today's order will surely repeat itself in the months to come. The Commission puts almost no flesh on the bones of its subsidy definition and provides precious little guidance how its mitigation scheme will work in practice. Accordingly, most of the hard work will come in the compliance proceedings, not to mention the litany of section 205 filings, section 206 complaints, and petitions for a declaratory order seeking to address fact patterns that the Commission, by its own admission, has not yet bothered to contemplate. In each of those proceedings, the smart money should be on the Commission adopting what it will claim to be facially neutral positions that, collectively, entrench the current resource mix. Although the proceedings to come will inevitably

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[93] June 2018 Order, 163 FERC ¶ 61,236 at P 157.

[94] *See supra* Section II.A.

[95] June 2018 Order, 163 FERC ¶ 61,236 at P 161.

garner less attention than today's order, they will be the path by which the "quiet undoing" of state policies progresses.[96]

E. Today's Order Makes No Effort to Consider the Staggering Cost that the Commission Is Imposing on Ratepayers

54. Today's order will likely cost consumers 2.4 billion dollars per year initially, even under conservative assumptions.[97] The Commission, however, does not even pretend to consider those costs when establishing the Replacement Rate. It is hard for me to imagine a more careless agency action than one that foists a multi-billion-dollar rate hike on customers without even considering, much less justifying, that financial burden.

55. And those costs will continue to grow with each passing year. Although today's order aims to hamper state efforts to shape the generation mix, it will not snuff them out entirely. In other words, there simply is no reason to believe that the Commission will succeed in realizing its "idealized vision of markets free from the influence of public policies."[98] As former Chairman Norman Bay aptly put it, "such a world does not exist, and it is impossible to mitigate our way to its creation."[99] But that means that, as a resource adequacy construct, the PJM capacity market will increasingly operate in an alternate reality, ignoring more and more capacity just because it receives some form of state support. It also means that customers will increasingly be forced to pay twice for capacity or, in different terms, to buy ever more unneeded capacity with each passing year. I cannot fathom how the costs imposed by a resource adequacy regime that is premised on ignoring actual capacity can ever be just and reasonable.

56. And those are just the first-order consequences of today's order. The record before us provides every reason to believe that this approach will lead to many other cost increases. For example, the Commission's application of the MOPR will exacerbate the potential for the exercise of market power in what PJM's Independent Market Monitor describes as a structurally uncompetitive market.[100] As the Institute for Policy Integrity

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[96] Danny Cullenward & Shelley Welton, *The Quiet Undoing: How Regional Electricity Market Reforms Threaten State Clean Energy Goals*, 36 Yale J. on Reg. Bull. 106, 108 (2019), *available at* https://www.yalejreg.com/bulletin/the-quiet-undoing-how-regional-electricity-market-reforms-threaten-state-clean-energy-goals/.

[97] *See supra* note 92.

[98] *N.Y. State Pub. Serv. Comm'n*, 158 FERC ¶ 61,137 (2017) (Bay, Chairman, concurring).

[99] *Id.*

[100] "The capacity market is unlikely to ever approach a competitive market

explained, expanding the MOPR will decrease the competitiveness of the market, both by reducing the number of resources offering below the MOPR price floor and changing the opportunity cost of withholding capacity.[101] With more suppliers subject to administratively determined price floors, resources that escape the MOPR—or resources with a relatively low offer floor—can more confidentially increase their bids up to that level, secure in the knowledge that they will still out-bid the mitigated offers. That problem is compounded by PJM's weak seller-side market power mitigation rules, which include a safe harbor for mitigation up to a market seller offer cap that has generally been well above the market-clearing price.[102]

57. Given those potential rate increases, one might think that the Commission would be at pains to evaluate the costs caused by today's order and to explain why and how the purported benefits of the Replacement Rate justify those costs. Instead, the Commission does not discuss the potential cost increases, much less justify them, even as it assures us that the Replacement Rate is just and reasonable. For an agency whose primary purpose is to protect consumers to so completely ignore the costs of its decision is both deeply disappointing and a total abdication of the responsibilities Congress gave us when it created this Commission.[103]

F. PJM and Its Stakeholders Deserve Better

58. We have been down this road before. In the June 2018 Order, the Commission up ended the PJM capacity market, finding it unjust and unreasonable and providing PJM only vague guidance on how to remedy its concerns and nowhere near enough time to

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structure in the absence of a substantial and unlikely structural change that results in much greater diversity of ownership. Market power is and will remain endemic to the structure of the PJM Capacity Market. . . . Reliance on the RPM design for competitive outcomes means reliance on the market power mitigation rules." Monitoring Analytics, *Analysis of the 2021/2022 RPM Base Residual Auction: Revised* (2018).

[101] Institute for Policy Integrity Initial Brief at 14-16.

[102] For example, the RTO-wide market seller offer cap for the 2018 Base Residual Auction $237.56 per MW/day while the clearing price for the RTO-wide zone was $140.00 per MW/day. *See* PJM Interconnection, *2021/2022 RPM Base Residual Auction Results*, https://www.pjm.com/-/media/markets-ops/rpm/rpm-auction-info/2021-2022/2021-2022-base-residual-auction-report.ashx (last visited Dec. 19, 2019).

[103] *See, e.g., California ex rel. Lockyer v. FERC*, 383 F.3d 1006, 1017 (9th Cir. 2004); *City of Chicago, Ill. v. FPC*, 458 F.2d 731, 751 (D.C. Cir. 1971) ("[T]he primary purpose of the Natural Gas Act is to protect consumers." (citing, *inter alia*, *City of Detroit v. FPC*, 230 F.2d 810, 815 (1955)).

develop a thoughtful solution. That profound act of "regulatory hubris"[104] led to the last year-and-a-half of indecision and undermined, perhaps fatally, a construct that is supposed to provide predictably and clear signals.

59. Today's order is much of the same. The Commission is embarking on a quixotic effort to mitigate the effects of any attempt to exercise the authority that Congress reserved to the states when it enacted the FPA. In so doing, the Commission has dropped even the pretense of accommodating states' exercise of that reserved authority.[105] Instead, the Commission appears dead set on refashioning the PJM capacity market from a construct based primarily on bids determined by the resources themselves to a construct that will inevitably rely on a pervasive program of administrative pricing. It is hard to overestimate the scope or the impact of the changes required by today's order. Given all that, you would think that the Commission would have learned its lesson from the June 2018 Order and provided PJM and its stakeholders detailed directives and plenty of time to work out the nuances associated with putting those directives into practices.

60. Instead, the Commission provides only a general definition of what constitutes a subsidy and gives PJM only 90 days to develop and file sweeping changes to the market. That is a patently unreasonable period of time in which to accomplish all that the Commission has put on PJM's plate. For example, to implement the definition of State Subsidy in today's order, PJM will have to develop a process to routinely review the regulatory structure of all thirteen PJM states and D.C. to identify every potential benefit available under any state or local law.[106] Moreover, the Commission is requiring PJM to produce new zonal default Net CONE and net ACR values for all resource types, many of which have dissimilar cost structures and have never been the subject of this sort of analysis in the past. To properly set a default offer floors and establish a fair and transparent process for conducting unit-specific reviews, PJM needs time to work with its Independent Market Monitor and its stakeholders. Not allowing PJM and its stakeholders to have that time will surely lead to unintended consequences, including, potentially, another round of the delays that have plagued this proceeding ever since the Commission issued the June 2018 Order.

61. Frankly put, the Commission has bungled this process from the start and today's order provides little reason for optimism. I have sympathy for anyone (or any state) that is losing confidence in the Commission's ability to responsibly manage resource adequacy, especially in the age of climate change as more and more states contemplate

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[104] June 2018 Order, 163 FERC ¶ 61,236 (LaFleur, Comm'r, dissenting at 5).

[105] *Id.* P 161.

[106] Recall that the Commission rejects PJM's proposal to include a *de minimus* exception in the subsidy definition. Order, 169 FERC ¶ 61,239 at P 96.

the type of clean energy programs to which the current Commission is so obviously opposed. I fear that the most likely outcome of today's order is that more PJM states will contemplate ways to reduce their exposure to the Commission's hubris, including abandoning the PJM capacity market and potentially exiting PJM altogether. Should that come to pass, the Commission will have no one to blame but itself.

* * *

62. One final point. I fully recognize that the PJM states are doing far more to shape the generation mix than they were when the original settlement established the PJM Reliability Pricing Model in 2006.[107] It may well be that a mandatory capacity market is no longer a sensible approach to resource adequacy at a time when states are increasingly exercising their authority under the FPA to shape the generation mix. Indeed, the conclusion that I draw from the record in front of us is not that there is an urgent need to mitigate the effects of state public policies, but rather that we should be taking a hard look at whether a mandatory capacity market remains a just and reasonable resource adequacy construct in today's rapidly evolving electricity sector. It is a shame that we have not spent the last two years addressing *that* question instead of how best to stymie state public policies.

For these reasons, I respectfully dissent.

Richard Glick
Commissioner

[107] *PJM Interconnection, L.L.C.*, 117 FERC ¶ 61,331 (2006).

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

v.

PJM Interconnection, L.L.C.

PJM Interconnection, L.L.C.

Docket Nos. EL16-49-002
EL18-178-002
(Consolidated)

ORDER GRANTING REHEARINGS FOR FURTHER CONSIDERATION

(February 18, 2020)

Rehearings have been timely requested of the Commission's order issued on December 19, 2019, in this proceeding. *Calpine Corporation, et al. v. PJM Interconnection, L.L.C. and PJM Interconnection, L.L.C.*, 169 FERC ¶ 61,239 (2019). In the absence of Commission action within 30 days from the date the rehearing requests were filed, the requests for rehearing (and any timely requests for rehearing filed subsequently)[1] would be deemed denied. 18 C.F.R. § 385.713 (2019).

In order to afford additional time for consideration of the matters raised or to be raised, rehearing of the Commission's order is hereby granted for the limited purpose of further consideration, and timely-filed rehearing requests will not be deemed denied by

[1] *See San Diego Gas & Electric Company v. Sellers of Energy and Ancillary Services Into Markets Operated by the California Independent System Operator and the California Power Exchange*, 95 FERC ¶ 61,173 (2001) (clarifying that a single tolling order applies to all rehearing requests that were timely filed).

operation of law. Rehearing requests of the above-cited order filed in this proceeding will be addressed in a future order. As provided in 18 C.F.R. § 385.713(d), no answers to the rehearing requests will be entertained.

Nathaniel J. Davis, Sr.,
Deputy Secretary.

171 FERC ¶ 61,034
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

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

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. EL16-49-001
v.	
PJM Interconnection, L.L.C.	
PJM Interconnection, L.L.C.	EL18-178-001
PJM Interconnection, L.L.C.	ER18-1314-002 (Consolidated)

ORDER ON REHEARING AND CLARIFICATION

(Issued April 16, 2020)

1. This order addresses requests for rehearing and clarification of the Commission's order issued in this proceeding on June 29, 2018, which (i) rejected proposed tariff revisions filed by PJM Interconnection, L.L.C. (PJM) pursuant to section 205 of the Federal Power Act (FPA);[1] (ii) granted in part, and denied in part, the complaint filed by Calpine Corporation and additional generation entities (collectively, Calpine) against

[1] 16 U.S.C. § 824d.

PJM; and (iii) instituted a proceeding under section 206 of the FPA[2] regarding PJM's Open Access Transmission Tariff (Tariff) Minimum Offer Price Rule (MOPR) and the MOPR's failure to address the price distorting impact of resources receiving out-of-market support in PJM's capacity market.[3] PSEG Companies (PSEG),[4] PJM, the Organization of PJM States, Inc. (OPSI), Old Dominion Electric Cooperative (ODEC), New Jersey Board of Public Utilities (New Jersey Board), Maryland Public Service Commission (Maryland Commission), Joint Consumer Advocates,[5] PJM Industrial Customer Coalition (PJM-ICC), People of the State of Illinois (Illinois AG), Illinois Commerce Commission (Illinois Commission), FirstEnergy Service Company (FirstEnergy), Exelon Corporation (Exelon), Dominion Energy Services, Inc. (Dominion), Clean Energy Associations,[6] Clean Energy Advocates,[7] and American Public Power Association, American Municipal Power and the Public Power Association of New Jersey (collectively, Public Power Entities) filed requests for rehearing or clarification of the June 2018 Order. For the reasons discussed below, we deny the requests for rehearing, and grant the requests for clarification.[8]

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[2] 16 U.S.C. § 824e (2018).

[3] *Calpine Corp. v. PJM Interconnection, L.L.C.*, 163 FERC ¶ 61,236 (2018) (June 2018 Order).

[4] PSEG Companies include the Public Service Electric and Gas Company, PSEG Power LLC, and PSEG Energy Resources & Trade LLC.

[5] Joint Consumer Advocates consist of: Office of the People's Counsel for the District of Columbia, Citizens Utility Board, Maryland Office of People's Counsel, Kentucky Office of the Attorney General, and Office of Rate Intervention.

[6] Clean Energy Associations consist of: Advanced Energy Economy, American Council on Renewable Energy, American Wind Energy Association, and Solar Energy Industries.

[7] Clean Energy Advocates consist of: Earthjustice, Natural Resources Defense Council, Sierra Club, Sustainable FERC Project, and Environmental Defense Fund.

[8] On April 16, 2020, Commissioner Bernard L. McNamee issued a memorandum to the file documenting his decision not to recuse himself from these dockets, based on memoranda dated April 13, 2020, December 13, 2019, October 11, 2019, January 28, 2019, and January 2, 2019, (and attachments thereto, including email communications dated June 17 and September 17, 2019) from the Designated Agency Ethics Official and Associate General Counsel for General and Administrative Law in the Office of General Counsel.

I. June 2018 Order

2. On March 21, 2016, Calpine filed a complaint in Docket No. EL16-49-000 (Calpine Complaint) asserting that PJM's MOPR is unjust and unreasonable because it does not address the impact of subsidized resources on the capacity market. Calpine proposed interim Tariff revisions for immediate implementation that would extend the MOPR to a limited set of existing resources and asked the Commission to direct PJM to conduct a stakeholder process to develop and submit a long-term solution.[9] Subsequently, on April 9, 2018, PJM proposed revisions to the Tariff in Docket No. ER18-1314-000 (April 2018 Filing), aimed at addressing the price impacts of state out-of-market support for capacity resources. PJM proposed two mutually exclusive alternatives. The first, referred to as Capacity Repricing, involved 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. The second, referred to as MOPR-Ex, would have extended PJM's MOPR to include both new and existing resources, subject to certain proposed exemptions.[10]

3. The June 2018 Order rejected PJM's Capacity Repricing proposal, finding 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."[11] The Commission also rejected PJM's MOPR-Ex proposal as unjust and unreasonable and unduly discriminatory. The Commission found that PJM failed to provide a "valid reason for the disparity among resources" that receive out-of-market support through Renewable Portfolio Standards (RPS) programs, which were exempt from the MOPR-Ex proposal, and other state-sponsored resources, which were not.[12]

4. Next, although the Commission rejected PJM's April 2018 Filing, it found based on the record of that proceeding and also the Calpine Complaint proceeding that PJM's existing MOPR failed to protect the wholesale capacity market against price distortions from out-of-market support for uneconomic resources. The Commission stated that the 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."[13] The Commission further

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[9] June 2018 Order, 163 FERC ¶ 61,236 at P 3.

[10] *Id.* P 4.

[11] *Id.* P 64.

[12] *Id.* P 100.

[13] *Id.* P 156.

stated that out-of-market support by states has 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."[14] The Commission explained that out-of-market support permits new and existing resources to submit low or zero price offers into the capacity market, resulting in price distortions and cost shifts while retaining uneconomic resources.[15]

5. In the June 2018 Order, although the Commission found PJM's Tariff unjust and unreasonable, the Commission stated that it could not make a final determination regarding a just and reasonable replacement rate based on the record presented. The Commission thus initiated a *sua sponte* FPA section 206[16] paper hearing proceeding to allow parties to submit additional arguments and evidence regarding the replacement rate.[17] The Commission posited that the replacement rate should expand the MOPR to cover out-of-market support for all new and existing resources, regardless of type, with few to no exemptions.[18] The June 2018 Order also sought comment on the potential use of a resource-specific Fixed Resource Requirement (FRR) Alternative as a method of accommodating resources that receive out-of-market support while protecting the integrity of the PJM capacity market for competitive resources and load.[19] The order on the paper hearing establishing the replacement rate was issued on December 19, 2019.[20]

II. Requests for Rehearing and Clarification

6. On July 30, 2018, PSEG, OPSI, New Jersey Board, Maryland Commission, Illinois AG, Illinois Commission, Exelon, Clean Energy Associations, Clean Energy Advocates, and Public Power Entities submitted requests for rehearing. PJM, Dominion, and PJM-ICC submitted requests for rehearing and clarification. ODEC and FirstEnergy

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[14] *Id.*

[15] *Id.* PP 150, 153-155.

[16] 16 U.S.C. § 824e.

[17] June 2018 Order, 163 FERC ¶ 61,236 at PP 8, 149, 157, 164-72.

[18] *Id.* P 158.

[19] *Id.* PP 160-61.

[20] *Calpine Corp. v. PJM Interconnection, L.L.C.*, 169 FERC ¶ 61,239 (2019) (December 2019 Order). Requests for rehearing and clarification of the December 2019 Order will be addressed in a separate order.

filed requests for clarification or, in the alternative, rehearing. Joint Consumer Advocates submitted a request for rehearing or, in the alternative, extension of time.

7. The requests for rehearing and clarification in this proceeding generally raise issues concerning the Commission's finding, pursuant to FPA section 206, that PJM's then-existing Tariff was unjust and unreasonable, including arguments that: (1) the June 2018 Order lacked sufficient evidentiary and economic support; (2) the Commission failed to justify its departure from Commission precedent; (3) the June 2018 Order exceeded the Commission's jurisdiction; (4) the June 2018 Order requires clarification as to its undue discrimination finding and scope of out-of-market support; (5) the June 2018 Order established an unreasonable hearing schedule, among other procedural arguments; and (6) the June 2018 Order outlined a replacement rate that has not been shown to be just and reasonable or otherwise requires clarification. Parties ask the Commission to reverse its section 206 finding and either retain the status quo[21] or direct PJM to work with stakeholders on how to address state programs.[22] As to PJM's April 2018 Filing, parties do not seek rehearing of the Commission's rejection of the April 2018 Filing, but rather raise concerns with the language the Commission used to reject Capacity Repricing,[23] as discussed further below.

A. Substantive Matters

1. Support for Section 206 Determination that PJM's Existing Tariff is Unjust and Unreasonable

a. Requests for Rehearing and Clarification

8. Parties argue that the Commission failed to meet its burden under section 206 of the FPA to demonstrate that PJM's then-existing Tariff was unjust and unreasonable because the June 2018 Order lacked sufficient evidentiary support.[24] Parties argue that

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[21] PSEG Rehearing Request at 4.

[22] Dominion Rehearing and Clarification Request at 2; *see also* Public Power Entities Rehearing Request at 6.

[23] PJM Clarification and Rehearing Request at 8-9; Clean Energy Advocates Rehearing Request at 53; Illinois Rehearing Request at 17.

[24] Public Power Entities Rehearing Request at 6-15; PJM-ICC Rehearing and Clarification Request at 10-11; Clean Energy Associations Rehearing Request at 19; Clean Energy Advocates Rehearing Request at 21-22; OPSI Rehearing Request at 4-5; New Jersey Board Rehearing Request at 2-6; OPSI Rehearing Request at 307; Maryland Commission Rehearing Request at 4, 15-18; Exelon Rehearing Request at 12-13; Dominion Rehearing and Clarification Request at 6, 7-13; PJM-ICC Rehearing and

the Commission failed to show that the existing rate is "entirely outside of the zone of reasonableness" before imposing a new rate.[25] By contrast, PJM agrees with the Commission's finding that Tariff changes are needed, which PJM asserts is "amply supported by the record."[26]

i. Scope of Section 206 Finding and Identity of State Programs Causing Impacts

9. Clean Energy Advocates, Clean Energy Associations, and Public Power Entities argue that by postponing the task of defining the scope of the Commission's section 206 finding to a subsequent paper hearing proceeding, the Commission violated its FPA section 206 duty to order a replacement rate only *after* finding that the existing Tariff was unlawful.[27] Clean Energy Associations state that the fact that the Commission finds PJM's existing MOPR unjust and unreasonable, but requests comment on the appropriate scope of out-of-market support to be mitigated, suggests that the Commission has not clearly identified a problem with the existing MOPR.[28] Clean Energy Advocates assert that the scope of the Commission's authority to establish a replacement rate under section 206 of the FPA must be guided by the scope of the finding that the existing rate is unjust and unreasonable; i.e., the scope of the replacement rate should be tailored to the severity of the FPA violation.[29] By not conclusively finding which out-of-market mechanisms

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Clarification Request at 2, 8, 10-16; PSEG Rehearing Request at 2, 4, 6-11; Clean Energy Associations Rehearing Request at 3, 11-20; Joint Consumer Advocates Rehearing and Extension Request at 2, 3, 7-14; Illinois AG Rehearing Request at 3, 4, 5-9; Clean Energy Advocates Rehearing Request at 2-4, 7-8, 19-23, 35-48; Illinois Commission Rehearing Request at 3, 6-11.

[25] Clean Energy Associations Rehearing Request at 14 (quoting *NRG Power Mktg., LLC v. FERC*, 862 F.3d 108, 114 n.2 (D.C. Cir. 2017)); *see also* Joint Consumer Advocates Rehearing and Extension Request at 7.

[26] PJM Clarification and Rehearing Request at 3-4 (citing June 2018 Order, 163 FERC ¶ 61,236 at PP 5-6, 150-156).

[27] Clean Energy Advocates Rehearing Request at 19, 21-22.

[28] Clean Energy Associations Rehearing Request at 20; Public Power Entities Rehearing Request at 9.

[29] Clean Energy Advocates Rehearing Request at 22 (citing *Colo. Office of Consumer Counsel v. FERC*, 490 F.3d 954, 956 (D.C. Cir. 2007)).

render the Tariff unjust and unreasonable, Public Power Entities contend that the Commission did not meet its section 206 burden.[30]

10. Parties similarly argue that the Commission failed to define or explain what constitutes a subsidy, what qualifies as "meaningful" out-of-market support or what state programs cause price suppression.[31] PJM-ICC states that the Commission failed to draw the line separating subsidies that threaten the market from subsidies that do not, and suggests that it would be difficult to draw that line given that nearly all resources receive some kind of state, federal, or local support.[32] Parties also claim that the Commission failed to explain how the state programs singled out in the June 2018 Order threaten the integrity of the market, while state support in other forms, such as rate-basing existing coal resources, does not.[33]

ii. Price Suppression

11. Parties argue that the Commission failed to demonstrate that PJM's existing MOPR is unjust and unreasonable because the Commission failed to cite evidence showing that state out-of-market support is causing price suppression.[34] Parties contend that the Commission did not quantify the impact of state subsidies on capacity markets, or the amount of out-of-market support that harms the market, alleging that the June 2018 Order contained no quantitative evidence linking state programs to auction clearing

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[30] Public Power Entities Rehearing Request at 8-9.

[31] Clean Energy Advocates Rehearing Request at 20 (stating that the Commission sought comment on defining terms); Clean Energy Associations Rehearing Request at 18-19; Dominion Rehearing and Clarification Request at 8-10.

[32] PJM-ICC Rehearing and Clarification Request at 21.

[33] Clean Energy Advocates Rehearing Request at 43-45.

[34] New Jersey Board Rehearing Request at 4 n.17 (no evidence that New Jersey support for resources causes price suppression or that the Zero Emission Credit (ZEC) program resulted in suppressed prices); Illinois Commission Rehearing Request at 3, 6-8; Exelon Rehearing Request at 12; *see also* OPSI Rehearing Request at 5-6; Maryland Commission Rehearing Request at 15 (no data supporting conclusions that state subsidies undermine capacity market); Public Power Entities Rehearing Request at 13; Clean Energy Advocates Rehearing Request at 37, 46-48; Joint Consumer Advocates Rehearing and Extension Request at 7-9.

prices.[35] Exelon argues that the Commission has not demonstrated that out-of-market payments actually impact prices because the June 2018 Order did not explain what the Commission would consider a "significant" impact on prices or evidence showing the cumulative impact of state subsidies on capacity prices has increased.[36]

12. Clean Energy Associations state that, while the Commission may rely on either theory or specific evidence to support a section 206 unjust and unreasonable finding, it must still have record evidence to support both, which they assert that the June 2018 Order does not.[37] Public Power Entities argue that the Commission may rely on economic theory but should only do so where empirical evidence is difficult to find, not here where the Commission should have been able to develop an empirical record of the relationship between out-of-market support and capacity auction results.[38] Similarly, parties contend that if state subsidies are causing price suppression, evidence should be available to substantiate it, especially since some state subsidies have long been in existence.[39]

13. Some parties assert that potential price suppression caused by future subsidies does not render the current Tariff unjust and unreasonable.[40] Similarly, parties allege that, rather than actual data or proof demonstrating that current capacity prices are unjust

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[35] Maryland Commission Rehearing Request at 18; Public Power Entities Rehearing Request at 11-14; Dominion Rehearing and Clarification Request at 8-10; Illinois Commission Rehearing Request at 8; Clean Energy Associations Rehearing Request at 11, 18-19 (citing June 2018 Order, 163 FERC ¶ 61,236 at P 149); PJM-ICC Rehearing and Clarification Request at 15 (the Commission failed to quantify or explain the "level [of out-of-market support] sufficient to significantly impact" the market (citing June 2018 Order, 163 FERC ¶ 61,236 at P 156)).

[36] Exelon Rehearing Request at 12.

[37] Clean Energy Associations Rehearing Request at 11 (citing *Nat'l Fuel Gas Supply Corp. v. FERC*, 468 F.3d 831 (D.C. Cir. 2006)).

[38] Public Power Entities Rehearing Request at 13-14 (citing *Emera Me. v. FERC*, 854 F.3d 662, 671 (D.C. Cir. 2017); *see also* Dominion Rehearing Request at 8 (recognizing that the Commission may rely on theory but cannot divorce its decision-making from the facts).

[39] New Jersey Board Rehearing Request at 6; Clean Energy Advocates Rehearing Request at 41-43; Illinois Commission at 7; Illinois AG Rehearing Request at 8.

[40] PJM-ICC Rehearing and Clarification Request at 14.

and unreasonable, the June 2018 Order relies instead on speculation about future harm to the capacity market.[41]

14. Parties argue that the Commission's reliance on the affidavit submitted by PJM economist, Dr. Anthony Giacomoni, is not sufficient evidence to justify the Commission's findings in the June 2018 Order that all out-of-market support leads to below-cost offers[42] or that state out-of-market support impacts clearing prices.[43] Dominion states the affidavit does not analyze whether, and if so how, market participants change their behavior in response to out-of-market payments.[44] According to Dominion, the affidavit also acknowledges that "[w]hether REC revenues make an individual project economic will depend on many factors," and that there are situations "where REC revenues may have little impact."[45] Similarly, Joint Consumer Advocates contend that any state subsidy or policy that impacts a large number of generation facilities in the market will necessarily have a rate impact, but that fact, in itself, does not mean that the resulting capacity market prices are unjust and unreasonable.[46] Because the

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[41] Illinois Commission Rehearing Request at 7-9; PJM-ICC Rehearing and Clarification Request at 14 (the June 2018 Order "draws a series of sweeping conclusions that are not tied to current conditions in PJM's capacity market, not supported by footnote citations or record evidence, and thus not supported by substantial evidence"; Commission only relied on future projection of impact); Dominion Rehearing and Clarification Request at 8-10, 11-13 (no evidence of present day harm, only speculative future outcomes); PSEG Rehearing Request at 9-10.

[42] Dominion Rehearing and Clarification Request at 10-11.

[43] Public Power Entities Rehearing Request at 13; Exelon Rehearing Request at 13 (also arguing that the affidavit does not address the integrity of the capacity market's price signals); New Jersey Board Rehearing Request at 5; Clean Energy Associations Rehearing Request at 12.

[44] Dominion Rehearing and Clarification Request at 10 (stating that Dr. Giacomoni prefaced his testimony that "my affidavit does not attempt to calculate whether each resource that receives a state subsidy would enter service, or would remain in service, without the subsidy").

[45] *Id.* at 11 (citing Giacomoni Aff. ¶ 22); *see also* Joint Consumer Advocates Rehearing and Extension Request at 10-11 (affidavit recognizes that not all resources depend on state subsidies to be economic, and the size of the subsidy does not itself dictate whether a resource would be otherwise economic) (citing Giacomoni Aff. ¶¶ 30, 36).

[46] Joint Consumer Advocates Rehearing and Extension Request at 9-10.

affidavit from Dr. Giacomoni only analyzes the impacts from ZECs, Clean Energy Associations argue that the Commission should not have extrapolated this analysis to the impacts of a broader set of state policies.[47]

iii. Contradictory Evidence

15. Parties argue that the June 2018 Order is not based on sufficient evidence because the record demonstrates that PJM's capacity market is currently robust and functioning well. Parties point out that PJM's capacity market has resulted in a capacity surplus, well in excess of the level required to ensure reliability, and that new entry has grown each year.[48] Specifically, parties state that approximately 40 GWs of natural gas-fired generation is under development in PJM, equivalent to nearly a quarter of the installed capacity in the region.[49] This demonstrates, parties contend, that the capacity auction continues to attract new entry,[50] which should push prices down.[51]

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[47] Clean Energy Associations Rehearing Request at 12 (citing June 2018 Order, 163 FERC ¶ 61,236 at P 152).

[48] Maryland Commission Rehearing Request at 15-18 (stating that the 2018 auction achieved a reserve margin of 22%, above the target reserve margin of 15.8%); OPSI Rehearing Request at 6-7; Illinois Commission Rehearing Request at 10 (there is 66,000 MWs of capacity under development in PJM); Exelon Rehearing Request at 9; PSEG Rehearing Request at 4, 8-11; Dominion Rehearing and Clarification Request at 15; Clean Energy Associations Rehearing Request at 17, 35; Illinois AG Rehearing Request at 3, 4, 6-9; PJM-ICC Rehearing and Clarification Request at 11-13, 15-16; Clean Energy Associations Rehearing Request at 3, 14-18; New Jersey Board Rehearing Request at 4-5.

[49] PJM-ICC Rehearing and Clarification Request at 12; PSEG Rehearing Request at 2, 9; Exelon Rehearing Request at 10; Clean Energy Associations Rehearing Request at 17; Clean Energy Advocates Rehearing Request at 40; Illinois AG Rehearing Request at 8-9; Illinois Commission Rehearing Request at 10 (new entry shows that resources are able to cover their costs in the current market).

[50] Joint Consumer Rehearing and Extension Request at 8 (capacity market attracts new entry with 1,401 MW of new generation clearing the most recent auction); Exelon Rehearing Request at 10; OPSI Rehearing Request at 6-7 (citing Monitoring Analytics, LLC, *State of the Market Report for PJM-2013* (2014), *State of the Market Report for PJM-2017* (2017), *Quarterly State of the Market Report for PJM-2018* (2018)).

[51] Illinois AG Rehearing Request at 9.

16. Likewise, parties argue that the Commission made no showing that state subsidies are resulting in prices that fail to incentivize an adequate supply of capacity resources, pointing to evidence that the capacity auction for the 2021/2022 delivery year cleared with a 22% reserve margin.[52] Parties further note that the North American Electric Reliability Corp. (NERC) has determined that the current reserve margin is more than double what is needed,[53] the latest planning reserve margin for summer 2018 is 28.7%,[54] suggesting that PJM will not face a near-term shortfall, and that 165.1 GWs of unforced capacity cleared PJM's most recent auction.[55] Exelon contends that, because the Commission failed to show that there is a resource adequacy concern, the Commission cannot mandate MOPR reforms under the theory that prices are too low and investors have insufficient confidence in the market.[56] Similarly, PJM-ICC asserts that, if the

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[52] Public Power Entities Rehearing Request at 14-15; PJM-ICC Rehearing and Clarification Request at 11; Illinois Commission Rehearing Request at 10; PSEG Rehearing Request at 19; Joint Consumer Advocates Rehearing and Extension Request at 8 (citing PJM 2021/2022 RPM Base Residual Action Results at 1, https://www.pjm.com/-/media/markets-ops/rpm/rpm-auction-info/2021-2022/2021-2022-base-residual-auction-report.ashx).

[53] PJM-ICC Rehearing and Clarification Request at 11-12 (citing North American Electric Reliability Corporation, *2018 Summer Reliability Assessment*, at 24, https://www.nerc.com/pa/RAPA/ra/Reliability%20Assessments%20DL/NERC_SRA_05252018_Final.pdf); Dominion Rehearing and Clarification Request at 15; PSEG Rehearing Request at 2, 9.

[54] Clean Energy Associates Rehearing Request at 17 (citing PJM, *2017 PJM Reserve Requirement Study*, at 8 (Mar. 9, 2018), https://www.pjm.com/-/media/committees-groups/committees/pc/20171012/20171012-item-03a-2017-pjm-reserve-requirement-study.ashx); Clean Energy Advocates Rehearing Request at 39-40.

[55] Dominion Rehearing and Clarification Request at 15-16; *see also* Exelon Protest, Docket No. ER18-1314-000, at 33 (filed May 7, 2018).

[56] Exelon Rehearing Request at 14; *see also* Clean Energy Advocates Rehearing Request at 40-41 (recent informal Platts poll suggests that investors think PJM is the best place to earn a targeted rate of return on new generation).

June 2018 Order finds that the capacity market is already failing, that finding is contradicted by the record evidence demonstrating large reserve margins.[57]

17. Parties also argue that, contrary to Calpine's complaint that capacity prices are low, the evidence demonstrates that auction clearing prices are high. Joint Consumer Advocates state that the clearing price for the 2021/2022 delivery year was $140/MW-day, the third largest in the capacity auction's history, and up from the previous year's price of $76.53/MW-day.[58] The Illinois AG similarly argues that the Commission did not address the fact that the clearing price for the Commonwealth Edison Locational Delivery Area (ComEd LDA) exceeded the rest of the PJM area's clearing price by as much as 100% for delivery years starting in 2019/2020, despite the Illinois ZEC program providing support for nuclear generators in the ComEd LDA.[59]

iv. Effect of Subsidies on Price

18. Parties contend that the Commission failed to consider evidence indicating that state subsidies should not have a significant effect on capacity prices.[60] Specifically, Clean Energy Advocates argue that the Commission did not respond to arguments by the Institute for Policy Integrity that state RPS programs could result in either little to no change in prices or even result in price increases because renewable resources have limited participation in the capacity market, those that participate affect prices only when the "resource is marginal or would not have entered the market but for state support," and that state climate policies may actually result in higher capacity market prices because such policies may cause conventional generators, which are more frequently marginal, to offer higher as a result of decreased energy revenues due to competition from renewable resources.[61] Parties further argue that renewable energy credits (RECs) are generally

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[57] PJM-ICC Rehearing and Clarification Request at 15-16; *see also* PJM-ICC Rehearing and Clarification Request at 12-13 (claiming that PJM and the IMM have indicated that the capacity market is functioning properly); Joint Consumer Advocates Rehearing and Extension Request at 7.

[58] Joint Consumer Advocates Rehearing and Extension Request at 7-8.

[59] Illinois AG Rehearing Request at 7-8.

[60] Joint Consumer Advocates Rehearing and Extension Request at 11-12; Clean Energy Advocates Rehearing Request at 38-39, 41-46; Clean Energy Associations Rehearing Request at 13-16; Illinois AG Rehearing Request at 8.

[61] Clean Energy Advocates Rehearing Request at 38; *see also* Illinois AG Rehearing Request at 8 (variable resources make up a limited contribution to the capacity market); Clean Energy Associations Rehearing Request at 14-16.

competitively procured, which drives down their price and results in efficient market outcomes.[62]

19. Clean Energy Advocates also contend that the increase in state RPS targets, on which the Commission relied to support its finding that the existing Tariff is unjust and unreasonable, will not necessarily result in greater capacity market participation by state-supported resources because RPS targets may be met in other ways and/or be subject to state spending caps, and RPS resources may choose not to participate in the capacity market. Clean Energy Associations argue that, even if RPS resources do participate in the market, there is no evidence their participation in the capacity market is materially aided by state subsidies, required by a state program providing the subsidy, or aimed at influencing wholesale prices.[63] Parties also argue that not all RPS resources depend on state support.[64]

20. In addition, Clean Energy Advocates and Clean Energy Associations assert that the Commission failed to address analysis showing that participation of subsidized resources is known well in advance of the capacity auction and that the market therefore generally adjusts to this participation without major impacts.[65] Joint Consumer Advocates argue that subsidies should not impact the clearing price, explaining that there has been substantial entry and exit in the PJM capacity market, as well as increasing offers at prices close to clearing prices, which indicates the supply curve is becoming generally more sloped over time. Joint Consumer Advocates assert that new entry generally offers at low prices regardless of whether such resources receive state policy support.[66]

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[62] Clean Energy Associations Rehearing Request at 13; *see also* Clean Energy Advocates Rehearing Request at 45-46.

[63] Clean Energy Associations Rehearing Request at 13-15; *see also* Clean Energy Advocates Rehearing Request at 38, 45-47.

[64] Clean Energy Associations Rehearing Request at 13.

[65] *Id. at* 16 (citing evidence that capacity markets readily absorb subsidized resources without significant impact); *see also* Joint Consumer Advocates Rehearing and Extension Request at 11-12 (citing the Wilson Affidavit as contradictory evidence that subsidized resources impair market integrity and investor confidence).

[66] Joint Consumer Advocates Rehearing and Extension Request at 11-12; *see also* Clean Energy Advocates Rehearing Request at 25 (asserting that zero dollar offers are common and often enabled by factors beyond subsidies).

21. The Illinois AG argues that REC and RPS programs cannot reasonably be considered to be unduly suppressing capacity prices because they have been incorporated into the PJM capacity market since its inception. Similarly, Clean Energy Advocates state that the Commission failed to address evidence that government policies have long provided substantial support to certain types of capacity resources and argue there is no reason to believe that historic policy actions would have less impact on market prices than the Commission contends they do today.[67]

v. Uncertainty

22. Some parties take issue with the June 2018 Order's statement that the price distortions caused by out-of-market payments "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."[68] Several parties agree with Commissioner Glick's dissent[69] that the uncertainty created by state policies is not different or worse than other uncertainty attendant to the electricity industry.[70] Parties assert that the June 2018 Order and the changing market rules contribute more to investor uncertainty than resources receiving out-of-market support.[71] In focusing on the need to avoid uncertainty with regard to whether resources are offering based on actual costs or subsidies, Public Power Entities argue that the Commission fails to account for the interest of investors in existing resources who may have relied on the current MOPR.[72] Joint Consumer Advocates contend that the Commission should balance investor interests against those of consumers, such as how the proposed revisions may increase consumer costs, asserting

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[67] Clean Energy Advocates Rehearing Request at 41-43.

[68] Dominion Rehearing and Clarification Request at 10 (quoting June 2018 Order, 163 FERC ¶ 61,236 at P 150).

[69] June 2018 Order, 163 FERC ¶ 61,236, Glick Dissent at 11-12.

[70] Exelon Rehearing Request at 13; PJM-ICC Rehearing and Clarification Request at 14; PSEG Rehearing Request at 10-11; Dominion Rehearing Request at 10.

[71] PJM-ICC Rehearing and Clarification Request at 20-21, New Jersey Board Rehearing Request at 9; Joint Consumer Advocates Rehearing and Extension Request at 12-13.

[72] Public Power Entities Rehearing Request at 21-23 (citing *N.J. Bd. of Pub. Utils. v. FERC*, 744 F.3d 74, 102 (3rd Cir. 2014) (*NJBPU*) ("It is more than mildly disturbing" that FERC would endorse a state-mandate exemption "only to later pull the rug out from under those who were persuaded that the exemption was somehow real.")).

that the Commission did not attempt to consider costs of finding PJM's existing Tariff unjust and unreasonable.[73]

b. Commission Determination

i. Scope of Section 206 Finding and Identity of State Programs Causing Impacts

23. We disagree that the Commission failed to meet its FPA section 206 burden to demonstrate that PJM's existing Tariff is unjust and unreasonable and therefore deny rehearing requests on this point. As an initial matter, the Commission did not err by first finding the Tariff unjust and unreasonable because the capacity market rules do not account for out-of-market support, and then instituting a paper hearing to determine the scope of out-of-market support to be mitigated. In the June 2018 Order, the Commission expressly found that PJM's existing Tariff is unjust and unreasonable because 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 existing uneconomic resources in operation, or to support the uneconomic entry of new resources."[74] The June 2018 Order explained that the price distortions resulting from this out-of-market support "compromise the capacity market's integrity" and create investor uncertainty 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."[75] Thus the Commission met its initial burden under FPA section 206. The fact that the Commission may need additional information to determine the exact scope of the replacement rate does not prevent the Commission from finding that the existing Tariff is unjust and unreasonable. Section 206 does not require that the Commission simultaneously find a tariff unjust and unreasonable and establish the replacement rate.[76] By the same token, the Commission need not know the exact parameters of the

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[73] Joint Consumer Advocates at 13.

[74] June 2018 Order, 163 FERC ¶ 61,236 at P 150.

[75] *Id.*

[76] *See, e.g., Emera Me. v. FERC*, 854 F.3d 9, 24 (D.C. Cir. 2017) (describing section 206 mandate as a "two-step procedure that requires FERC to make an explicit finding that the existing rate is unlawful before setting a new rate"); *cf., e.g., W. Res., Inc. v. FERC*, 9 F.3d 1568, 1579-80 (D.C. Cir. 1993) (applying the same reasoning under the Natural Gas Act); *Kern River Gas Transmission Co.*, 129 FERC ¶ 61,240 (2009) (finding rates unjust and unreasonable in earlier filing and determining the replacement rate, and effective date of the replacement rate when acting on the compliance filing), *aff'd sub nom. Aera Energy LLC v. FERC*, 789 F.3d 184, 191 (D.C. Cir. 2015).

replacement rate, or exactly how to fix the Tariff, prior to finding the Tariff unjust and unreasonable.[77]

24. While parties assert that the Commission did not explain what constitutes meaningful out-of-market support or define or explain what types of out-of-market support cause price suppression, we disagree. The June 2018 Order points to evidence provided by Calpine and PJM that out-of-market support for resources other than natural gas-fired resources has increased and is projected to further increase in coming years.[78] Further, as discussed below, all out-of-market support gives resources the ability to suppress prices, and therefore we need not list every type of out-of-market support affecting the capacity market.[79] Further, with respect to arguments that the Commission failed to explain how the state programs identified in the June 2018 Order threaten the integrity of the market, while state support in other forms does not, we find that this argument is rendered moot by the December 2019 Order that established the scope of the replacement rate.

ii. Price Suppression

25. We reject arguments that the June 2018 Order is not based on substantial evidence and deny rehearing on that point. We find that the June 2018 Order is grounded on record evidence and economic theory, and the substantial evidence standard was met.[80]

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[77] *See, e.g., Indep. Energy Producers Ass'n v. Cal. Indep. Sys. Operator Corp.*, 116 FERC ¶ 61,069, at P 38 (2006) (finding CAISO's must offer obligation no longer just and reasonable and establishing paper hearing procedures to determine just and reasonable replacement rate); *PJM Interconnection, L.L.C.*, 115 FERC ¶ 61,079, at P 1 (2006) (finding that PJM's existing capacity construct is unjust and unreasonable, providing guidance on the establishment of a just and reasonable replacement, and establishing further procedures).

[78] June 2018 Order, 163 FERC ¶ 61,236 at PP 150-152.

[79] *See infra* P 27 & nn.85-88 (listing authorities); *see also* PJM, 2018 Filing, Docket No. ER18-1314-000, at 3-4 (filed Apr. 9, 2018) (stating that the existing Tariff has no means to address increased out-of-market support for certain resources which leads to market harm); PJM, Answer, Docket No. EL16-49-000, at 2 (filed Apr. 11, 2016) (stating that when offers are submitted by a subsidized resource, it is supportable to find the existing Tariff unjust and unreasonable).

[80] Substantial evidence "is such relevant evidence as a reasonable mind might accept as adequate to support a conclusion." *Murray Energy Corp. v. FERC*, 629 F.3d 231, 235 (D.C. Cir. 2011); *see La. Pub. Serv. Comm'n v. FERC*, 522 F.3d 378, 395 (D.C.

The parties argue that the Commission did not cite evidence that particular out-of-market payments are causing price suppression, provide evidence that out-of-market support has eroded investor confidence in market price signals, or quantify the alleged impact of out-of-market support on the capacity markets. Parties assert that if out-of-market support was in fact distorting capacity market prices, there should be evidence of it, particularly because some types of state programs have been in effect since the beginning of the capacity market.[81] These rehearing arguments rest on the faulty assumption that, in order for the Commission to sufficiently support its section 206 finding that PJM's existing Tariff is unjust and unreasonable, the Commission is required to analyze the results of previous capacity auctions and demonstrate that that state subsidies have had a significant price suppressive effect. Rather, to support its section 206 finding, it was appropriate for the Commission to rely on record evidence and basic economic theory to conclude that PJM's existing Tariff does not account for and mitigate the price suppressive impact of state subsidies.

26. As noted above, the Commission relied on the record evidence of out-of-market support that showed that states have enacted programs to provide out-of-market support to resources not covered under the existing PJM MOPR. The June 2018 Order based its finding on those facts and projected growth in out-of-market support,[82] as well as economic reasoning regarding how that out-of-market support produces market distortions. Specifically, the order finds that resources that are able to offer below cost due to out-of-market support will likely do so, thus displacing more economically efficient competitive resources that do not receive similar support.[83] The June 2018 Order thus found that the Tariff is unjust and unreasonable because it does not account for and mitigate these effects.[84]

27. Reviewing courts have repeatedly affirmed the Commission's ability to make judgments based on economic theory, provided the Commission "applie[s] the relevant economic principles in a reasonable manner and adequately explain[s] its reasoning."[85]

Cir. 2008) (substantial evidence "requires more than a scintilla, but can be satisfied by less than a preponderance of evidence").

[81] *See, e.g.*, Public Power Entities Rehearing Request at 13-14; New Jersey Board Rehearing Request at 6; Illinois Commission Rehearing Request at 7-8.

[82] June 2018 Order, 163 FERC ¶ 61,236 at PP 151-153.

[83] *Id.* PP 153-154.

[84] *Id.* PP 153-155.

[85] *Cent. Hudson Gas & Elec. Corp. v. FERC*, 783 F.3d 92, 109 (2d Cir. 2015) (*Cent. Hudson*); *see, e.g.*, *NextEra Energy Res., LLC v. FERC*, 898 F.3d 14, 23 (D.C. Cir.

As the United States Court of the Appeals for the District of Columbia Circuit has stated, "[p]rice suppression is not a scientific determination, but rather an economic construct. We permit the Commission to base its market predictions on basic economic theory, given that it explained and applied the relevant economic principles in a reasonable manner."[86] Reviewing courts have also recognized that the requirement for the Commission to support its findings with substantial evidence "does not necessarily mean empirical evidence."[87] And, courts typically defer to the Commission's reasoning when the Commission relies on substantial evidence to make "a predictive judgment in an area in which it has expertise, such as power markets."[88]

28. The June 2018 Order comfortably fits within the confines of the foregoing precedent. Acting within its area of expertise, the Commission reasonably applied basic economic principles and adequately explained how out-of-market support to certain resources may permit those resources to offer below their costs in a manner that suppresses the market clearing price. The Commission explained that the record demonstrates that states are increasingly supporting older resources for which a competitive offer may be significantly higher than a price-taker offer would indicate.[89] The June 2018 Order further found that price suppression stemming from state out-of-market support to resources, regardless of type, is indistinguishable from price

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2018) (*NextEra*) (dismissing argument that the Commission did not quantify price suppression resulting from MOPR exemption, deferring to Commission's predictive judgment); *Sacramento Mun. Util. Dist. v. FERC*, 616 F.3d 520, 531 (D.C. Cir. 2010) (*Sacramento Mun. Util. Dist.*) (Commission may make findings "based on 'generic factual predictions' derived from economic research and theory").

[86] *NextEra*, 898 F.3d at 23 (internal quotations and citations omitted).

[87] *S.C. Pub. Serv. Auth. v. FERC*, 762 F.3d 41, 65, 76 (D.C. Cir. 2014) (*S.C. Pub. Serv. Auth.*) ("[A]t least in circumstances where it would be difficult or even impossible to marshal empirical evidence, the Commission is free to act based upon reasonable predictions rooted in basic economic principles.").

[88] *NextEra*, 898 F.3d at 23 (citing *Wis. Pub. Power Inc. v. FERC*, 493 F.3d 239, 260 (D.C. Cir. 2007)); *see Wis. Pub. Power Inc.*, 493 F.3d at 260-61("It is well-established that an 'agency's predictive judgments about areas that are within the agency's field of discretion and expertise are entitled to *particularly deferential review*, as long as they are reasonable.'") (quoting *Earthlink, Inc. v. FCC*, 462 F.3d 1, 12 (D.C. Cir. 2006)) (emphasis in original).

[89] June 2018 Order, 163 FERC ¶ 61,236 at PP 153-154.

suppression triggered through the exercise of buyer-side market power.[90] It is axiomatic that resources receiving out-of-market subsidies need less revenue from the market than they otherwise would. The rational choice for such resources, given their need to participate in PJM's capacity market, is to reduce their offers commensurably to ensure they clear in the market. In short, subsidized resources can suppress capacity market clearing prices below competitive outcomes by offering below their costs. That economic theory is the precise basis for the existing MOPR rules in the PJM Tariff. The June 2018 Order found that the existing Tariff is unjust and unreasonable because it fails to account for and mitigate these market effects across a broader set of resources.[91] In reaching this determination, it was not necessary for the Commission to demonstrate that subsidized resources have actually suppressed the capacity market clearing price: it is irrefutable that out-of-market subsidies permit and encourage price suppression that injures non-subsidized competitors.[92]

29. The historical existence of subsidy programs does not mean that the Commission is required to demonstrate a particular subsidized resource has offered below cost, or invalidate the Commission's reliance on an economic rationale to support the June 2018 Order's findings.[93] Given the dynamic nature and multiple variables inherent in PJM's multi-state capacity market, it is difficult, if not impossible, to build an evidentiary record

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[90] *Id.* P 155.

[91] *Id.* P 150.

[92] *See New England Power Generators Ass'n, Inc. v. FERC*, 757 F.3d 283, 294 (D.C. Cir. 2014) (*NEPGA*) ("capacity offered into the market through below-cost bids can suppress prices even when no actor has the intent to do so"); *NJBPU*, 744 F.3d at 100 (affirming FERC's decision to eliminate the state mandate exemption based on reasoning that "below-cost entry suppresses capacity prices" and that subsidized entry "has the effect of disrupting the competitive price signals"); *PJM Interconnection, L.L.C.*, 135 FERC ¶ 61,022, at P 141 (2011 PJM MOPR Order) ("The Commission has previously found, and we reiterate here, that uneconomic entry can produce unjust and unreasonable wholesale rates by artificially depressing capacity prices."), *reh'g denied*, 137 FERC ¶ 61,145, at P 3 (2011) (2011 PJM MOPR Rehearing Order), *aff'd sub nom. NJBPU*, 744 F.3d 74; *see also NextEra*, 898 F.3d at 23 (rejecting arguments "that FERC acted unreasonably because it failed to quantify the price suppression resulting from the [MOPR] exemption" at issue in that case, but deferring to the Commission's determination that the level of price suppression permitted by the exemption was acceptable).

[93] *See, e.g.*, Public Power Entities Rehearing Request at 13-14; Dominion Rehearing Request at 8; Illinois Commission Rehearing Request at 7-8; Clean Energy Advocates Rehearing Request at 41-43.

by pinpointing instances of "but for" relatively low offers due specifically to subsidies, and thus the Commission appropriately relied on economic theory.[94] Further, the findings in the June 2018 Order are not based solely on the past participation or impact of subsidized resources. Rather, the June 2018 Order emphasized the significant and continued growth of out-of-market support.[95] As this growth continues, more subsidized resources will have the ability to offer below their costs and suppress prices.[96] The forward nature of the capacity market necessitates that the Commission proactively work to ensure the market is adequately protected against the distortive impacts of state subsidies.[97]

30. Similarly, while the June 2018 Order does not find that any particular capacity auction has produced unjust and unreasonable results, the Commission need not wait to address price distortions from subsidized resources until it finds that the capacity auction has produced unjust and unreasonable results. The Commission is not required to wait until harm has been fully realized to find the Tariff unjust and unreasonable; it can act based on factual predictions supported by economic analysis to prevent harm from impacting the market,[98] which is what the Commission did here.

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[94] *S.C. Pub. Serv. Auth.*, 762 F.3d at 76; *Cent. Hudson*, 783 F.3d at 109.

[95] June 2018 Order, 163 FERC ¶ 61,236 at PP 150-152.

[96] *Id.* PP 150-156.

[97] In any event, we disagree that the existence of long-standing subsidies vitiates the June 2018 Order's finding that subsidies create the ability to distort capacity market prices. Clean Energy Advocates state that prior policy actions would have the same impact on market prices as current ones. Indeed, we acknowledge that out-of-market support in various forms has existed for some time. But, market rules have also previously been adapted to account for these programs. For example, recognizing the impact of state subsidies to natural gas-fired resources, in 2011, the Commission accepted PJM's request to eliminate the state-mandate exemption from the MOPR to ensure that new gas-fired resources offered competitively. 2011 PJM MOPR Order, 135 FERC ¶ 61,022 at PP 139, 141; *see also ISO New England, Inc.*, 135 FERC ¶ 61,029, at P 14 (2011) (2011 ISO-NE MOPR Order); *Consol. Edison Co. of N.Y., Inc. v. N.Y. Indep. Sys. Operator, Inc.*, 150 FERC ¶ 61,139, at P 2, *order on reh'g, clarification, & compliance*, 152 FERC ¶ 61,110 (2015).

[98] *S.C. Pub. Serv. Auth.*, 762 F.3d at 65 ("Agencies do not need to conduct experiments in order to rely on the prediction that an unsupported stone will fall; nor need they do so for predictions that competition will normally lead to lower prices.") (quoting *Assoc. Gas Distribs. v. FERC*, 824 F.2d 981, 1008-09 (D.C. Cir. 1987)); *see also Sacramento Mun. Util. Dist.*, 616 F.3d at 531 (explaining that no case law "prevents

31. We disagree with the parties who argue that the Commission's reliance on the affidavit by Dr. Giacomoni concerning out-of-market support to certain nuclear, wind, and solar resources is insufficient to find PJM's existing Tariff unjust and unreasonable. These parties argue that this evidence is not sufficient to demonstrate that all out-of-market support leads to below cost offers or that such support impacts clearing prices because the Giacomoni affidavit only describes the increase in out-of-market support and converts state payments into $/MWh quantities, without linking those payments to actual evidence of price suppression.[99] However, as discussed above, the Commission did not rely solely on Dr. Giacomoni's affidavit. It permissibly based its findings on record evidence, including the Giacomoni affidavit and evidence regarding the existence of new state subsidy programs, that out-of-market support is increasing, and the economic prediction that such out-of-market support impacts capacity market prices.[100]

32. The parties further note that Dr. Giacomoni's affidavit states that the size of the subsidy alone does not dictate whether the resource would otherwise be economic and that there may be cases where out-of-market support has little impact on the resource's economics.[101] As explained above, however, it is unquestionable that out-of-market subsidies allow resources to offer lower than they otherwise would and therefore suppress prices. While there may be cases where out-of-market support is so small as to not meaningfully impact a resource's economics, we reiterate that resources in that situation can demonstrate that their offers are competitive through a Competitive Exemption or Unit-Specific Exemption to avoid mitigation, as discussed in the December Order.[102] Further, the statement the parties highlight must be considered in context. Dr. Giacomoni's salient point was that, while subsidies may impact the economics of each resource differently, "it is also quite plausible to conclude that, at these subsidy levels, many resources do depend on those revenues, in combination with PJM market revenues, to be economic."[103]

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the Commission from making findings based on generic factual predictions derived from economic research and theory") (internal quotations omitted).

[99] *See* Exelon Rehearing Request at 13; Public Power Entities Rehearing Request at 13; New Jersey Board Rehearing Request at 5; Clean Energy Associations Rehearing Request at 12.

[100] June 2018 Order, 163 FERC 61,236 at P 151.

[101] *See* Giacomoni Aff. ¶¶ 22, 30, 36.

[102] *See* December 2019 Order, 169 FERC ¶ 61,239 at PP 161-162, 214-216.

[103] Giacomoni Aff. ¶ 36.

33. In addition, the affidavit from Adam J. Keech provides data and analyses showing that even the injection of small quantities of subsidized offers would disproportionately reduce the clearing price paid to all resources.[104] He also includes simulated capacity auctions showing that repricing two plants that cannot currently clear at competitive offers to zero dollars would reduce capacity revenues received by every seller in the unconstrained portion of PJM by two percent.[105] This further underscores the link between the magnitude of state programs, which undoubtedly enable resources to bid lower than they otherwise would have, and impacts on the PJM capacity market.

34. We disagree with parties' argument that the Commission should not have extrapolated Dr. Giacomoni's analysis on ZECs to RPS programs.[106] The Commission rested its conclusions regarding subsidies causing price distortions on the economic theory that resources receiving subsidies will be able to offer below their costs. No extrapolation was needed. Further, the June 2018 Order found that "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."[107] Parties have not offered any reason why, when offered out-of-market payments, some resources would choose to lower their offers and others would not.

iii. Contradictory Evidence

35. We affirm the June 2018 Order and deny requests for rehearing that assert that the Commission erred by failing to consider contradictory record evidence. Parties suggest that certain indicia of market health—like new entry and resource development, a high reserve margin, and the recent clearing price—indicate that the PJM capacity market is a robust and well-functioning capacity market under the existing Tariff and thus the Commission erred in finding the Tariff unjust and unreasonable. On the contrary, these arguments do not discredit the validity of the June 2018 Order's findings that subsidies may allow resources to offer lower than they otherwise would, thereby suppressing capacity prices and sending incorrect price signals to investors determining whether to

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[104] Keech Affidavit ¶¶ 6-9 & attach. 1. The Clean Energy Advocates imply that the Keech Affidavit is insufficient evidence of the price-suppressive potential of existing resources because his analysis pertains only to existing nuclear power plants. Clean Energy Advocates Rehearing Request at 47. However, the analyses in Attachment 1 are not resource specific.

[105] *Id.* PP 10-15 & attach. 2.

[106] *See, e.g.*, Clean Energy Associations Rehearing Request at 12 (citing June 2018 Order, 163 FERC ¶ 61,236 at P 152).

[107] June 2018 Order, 163 FERC 62,136 at P 155.

build new generation. As explained above, PJM's capacity market is forward looking, and the current status of the market is not dispositive as to whether the Tariff ensures resource adequacy at just and reasonable rates going forward.[108] Similarly, adequate reserve margins today do not necessarily mean that such conditions will continue into the future. The concern with price suppression is a long-run, not a short-run, concern. In the near term, existing plants with sunk costs will continue to operate. However, uncertainty caused by this price suppression may be expected to discourage competitive new entry in the long run, as investors may be hesitant to invest in a market where both new entry and the viability of uneconomic existing resources is dictated largely by state subsidy programs, rather than competition.[109]

36. Further, regardless of whether the market currently attracts new entry and adequate supply, subsidized resources are still able to offer lower than they otherwise would, including lower than other similarly-situated resources that do not receive subsidies, which may compromise new entry in the future.[110] Competitive, unsubsidized resources may also be driven out of the market by subsidies, lowering reserve margins, or may seek subsidies themselves, further distorting the market.

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[108] Parties point to the Market Monitor's State of the Market reports as evidence that the PJM Market is functioning well. Yet, while noting the results of the capacity market were competitive in 2017, the 2017 State of the Market also explains that "[t]he subsidy model is inconsistent with the PJM market design and inconsistent with the market paradigm and constitutes a significant threat to both" and that subsidies threaten the "competitiveness of PJM markets overall." Monitoring Analytics, LLC, *State of the Market Report-2017*, at 1 (Mar. 8, 2018). In addition, the Market Monitor recommends expanding the MOPR to all existing and new resources "in order to protect competition in the capacity market from external subsidies." *Id.* at 237.

[109] *See* June 2018 Order, 163 FERC ¶ 61,236 at P 150; *see also PJM Interconnection, L.L.C.*, 107 FERC ¶ 61,112, at P 14 (2004) (recognizing that mitigation resulting in lower market prices "conflict[s] with the longer term goal of attracting and retaining necessary infrastructure to assure long-term reliability in such markets").

[110] *See* PJM, April 2018 Filing, Docket No. ER18-1314-000, at 36-37 (filed April 9, 2018) (explaining that new entry has been incentivized by low natural gas prices and improvements in technology leading to more efficient generation and that excess capacity does not justify permitting subsidized resources to set clearing prices).

37. We disagree that evidence showing that the clearing price in the ComEd LDA was higher than the rest of RTO clearing price even with the adoption of the Illinois ZEC program,[111] or that the 2018 capacity auction produced the third highest clearing price to date, shows that subsidies are not capable of suppressing clearing prices. These studies do not show what the clearing price in the ComEd LDA would have been without the subsidy or demonstrate that the price was not suppressed. The June 2018 Order found that subsidized resources would offer below their costs, all other things being equal,[112] and price differentials among auctions do not disprove that finding. Subsidized resources may well be offering below their costs as a result of subsidies, but the price may still increase auction-to-auction due to other factors. Moreover, the June 2018 Order did not base its findings on the fact that prices were currently suppressed. None of the factors cited by parties undermine the record evidence relied upon by the Commission or the well-established economic theory that out-of-market support distorts capacity market prices.[113]

iv. Effect of Subsidies on Price

38. We disagree with assertions that evidence suggests that state programs supporting renewable resources should not have a significant effect on capacity prices.[114] As an initial matter, we reiterate that any state-subsidized resource is able to reduce its offer and thus has the ability to impact the supply curve. This impact exists regardless of the degree to which renewable resources participate in the market or whether some RECs are competitively procured; thus, such arguments do not undermine the June 2018 Order. Parties ask the Commission to find that renewable resources warrant special treatment

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[111] *See, e.g.*, Illinois AG Rehearing Request at 7 (citing PJM Interconnection, L.L.C., 2021/2022 Base Residual Auction Results, https://www.pjm.com/-/media/markets-ops/rpm/rpm-auction-info/2021-2022/2021-2022-base-residual-auction-report.ashx). The rest of RTO clearing price refers to the clearing price for the unconstrained areas in PJM.

[112] June 2018 Order, 163 FERC ¶ 61,236 at PP 2, 153-155.

[113] *See FERC v. Elec. Power Supply Ass'n*, 136 S.Ct. 760, 782 (2016) (Commission need only articulate "a rational connection between the facts found and the choice[s] made") (internal quotations and citation omitted); *Fla. Mun. Power Agency v. FERC*, 315 F.3d 362, 368 (D.C. Cir. 2003) ("The question we must answer . . . is not whether record evidence supports [petitioner's] version of events, but whether it supports FERC's.").

[114] *See, e.g.*, Joint Consumer Advocates Rehearing and Extension Request at 11-12; Clean Energy Advocates Rehearing Request at 38-39, 41-46; Clean Energy Associations Rehearing Request at 13-16; Illinois AG Rehearing Request at 8.

because they may represent a smaller portion of the supply curve than other fuel types, but we disagree that this distinction warrants disparate treatment. As the June 2018 Order found, we no longer can assume that there is any substantive difference among resources participating in PJM's capacity market with the benefit of out-of-market support. If renewable resources can demonstrate that their offers are competitive, they may do so through a Competitive Exemption or Unit-Specific Exemption, as discussed in the December Order, in order to avoid mitigation of their offers.[115]

39. Clean Energy Advocates argue that competition from renewable resources in the energy market may increase capacity market offers from conventional generators that are frequently the marginal resources, presumably by lowering the energy and ancillary services offset to their capacity market revenues. However, even if true, our focus here is on ensuring that the capacity market price is reflective of competitive offers. Further, that point ignores that a relatively higher offer for those conventional generators based on subsidized competition increases the likelihood that those generators will not clear the auction and therefore, will not receive a capacity supply obligation.

40. Clean Energy Advocates also argue that increasing RPS targets do not directly correlate to an increased capacity market participation by state-supported resources, but this argument is beside the point. The June 2018 Order found that, given the increasing out-of-market support provided by states to certain resources, PJM's Tariff was no longer just and reasonable because it failed to protect the market against price distortions caused by these resources. This is true regardless of whether all state RPS targets are fully realized through capacity resources. We further disagree with Clean Energy Advocates' argument that the June 2018 Order failed to address analysis showing that participation of subsidized resources is known well in advance of the auction. Whether market participants are aware of subsidies has nothing to do with the Commission's finding that subsidized resources are themselves able to offer below their costs and therefore distort market outcomes.

41. We also disagree with Joint Consumer Advocates that continued entry and exit in the market demonstrates an ability for the market to absorb subsidized resources without price impacts. As the June 2018 Order explained, subsidies affect which resources enter and exit the market, and, therefore distort the market results.[116] Similarly, we disagree with Joint Consumer Advocates that if the supply curve is becoming more gently sloped, subsidies will not impact capacity prices. A reduction in the slope of the supply curve may mitigate the ability of any one entity to significantly affect the price, but it does not eliminate that ability.

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[115] *See* December 2019 Order, 169 FERC ¶ 61,239 at PP 161-162, 214-216.

[116] *See, e.g.*, June 2018 Order, 163 FERC ¶ 61,236 at P 151.

42. With respect to arguments that zero-dollar offers are common and driven by a number of factors, or that new entrants generally submit low offers, we disagree that this is meaningful to our finding. Suppliers may offer as a price-taker for a number of reasons, one of which is subsidies. Similarly, competitive new entrants may currently be offering below Net CONE[117] if they are subsidized or their costs are low, but this does not negate the need for an expanded MOPR going forward. In fact, it underscores the importance of ensuring that all resources are offering competitively such that subsidized new entrants cannot clear the market using an unreasonably low offer and displace more economic, unsubsidized resources. As the June 2018 Order explained and we reiterate here, "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."[118]

v. Uncertainty

43. Parties argue that uncertainty created by out-of-market support is no different than any other uncertainty attendant to the electric industry or uncertainty caused by changing market rules. Public Power Entities also assert that the Commission failed to account for the interests of investors in existing resources who may have relied on the existing MOPR. While we agree with the general premise that any number of factors can cause uncertainty, not all uncertainty renders PJM's Tariff unjust and unreasonable. In balancing competing interests, the Commission is required to ensure that wholesale rates are just and reasonable and to ensure reliability by generating accurate price signals in the long run.[119] Thus, the June 2018 Order reasonably focused on those factors that impair capacity market price signals, including investor uncertainty caused by subsidies. The Commission also considered the countervailing costs to consumers, contrary to Joint Consumer Advocates' suggestion that the Commission failed to balance investor uncertainty interests against those of consumers.[120]

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[117] Net Cost of New Entry (Net CONE) is the nominal levelized cost of a reference resource minus the net energy and ancillary service revenue offset.

[118] June 2018 Order, 163 FERC ¶ 61,236 at P 153.

[119] *See NJBPU*, 744 F.3d at 109 (recognizing the Commission's discretion to balance competing interests).

[120] June 2018 Order, 163 FERC ¶ 61,236 at P 159; *see NJBPU*, 744 F.3d at 97 (quoting *Conn. Dept. of Pub. Util. Control v. FERC*, 569 F.3d 477, 481 (D.C. Cir. 2009) (*Connecticut PUC*)) (finding 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]") (internal quotations omitted).

2. Economic Justification

a. Requests for Rehearing and Clarification

44. Several parties argue that the Commission's justification for finding PJM's existing Tariff unjust and unreasonable is flawed as it does not consider resource attributes that should be compensated and the costs of negative externalities. The Illinois Commission takes issue with the Commission's statement that subsidies make the market "less grounded in fundamental principles of supply and demand,"[121] asserting that PJM's capacity market is not a "free market in the classical sense," but rather an administrative mechanism to achieve resource adequacy. The Illinois Commission argues that the Commission targeted state laws that address consumer demand for environmental and public health needs that PJM's administratively determined demand curve does not consider.[122] The Illinois Commission states that state laws addressing these environmental externalities compensate valuable attributes that would not otherwise be compensated in PJM's markets, and address market failures when the principles of supply and demand do not produce socially optimal results.[123] Exelon and Clean Energy Advocates similarly argue that an efficient market must account for the costs of pollution.[124] Exelon states that the Commission erred in assuming that an efficient market should not be affected by state environmental attribute payments and that offers should be based solely on production costs to be competitive.[125] This is a problem, Exelon insists, because permitting resources to pollute without bearing the pollution costs

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[121] June 2018 Order, 163 FERC ¶ 61,236 at P 2.

[122] Illinois Commission Rehearing Request at 9, 15-16; *see also* Joint Consumer Advocates Rehearing and Extension Request at 19 (if out-of-market support is eliminated, the market will select resources based only on the financial expenditures needed to bring the resource to the market, which ignores environmental externalities).

[123] Illinois Commission Rehearing Request at 9, 12-14.

[124] Exelon Rehearing Request at 2, 4, 5-8; Clean Energy Advocates Rehearing Request at 8, 32-34 ("It is Economics 101 that policies that address market failures *enhance* competition, *increase* efficiency, and result in a *more accurate* reflection of true costs and benefits in market outcomes.") (emphasis in original); *see also* PSEG Rehearing Request at 14 (arguing that thwarting state policies designed to value clean air and fuel diversity "will impose real costs on the citizens of the states that seek to promote them").

[125] Exelon Rehearing Request at 5.

allows these resources to submit bids lower than they should, when bearing the pollution costs might otherwise cause them to exit.[126]

45. Further, the Illinois Commission contends that the Commission mischaracterized state laws, and particularly the Illinois Zero Emission Standard Law, by stating that the capacity market has become "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."[127] The Illinois Commission opines that the Illinois ZEC legislation's purpose is to achieve state environmental objectives and reduce air pollutants, not arbitrary support for certain generators.[128]

46. Public Power Entities take issue with the June 2018 Order's suggestion that resources are only "economic" if they clear the market without subsidies, and argue that paying resources a capacity price that does not reflect the actual amount of capacity in the market is a form of price support for "economic" resources.[129] Public Power Entities also contend that even if state subsidies permit resources to offer lower than they might otherwise, any downward pressure on clearing prices is appropriate and expected with sufficient supply. If supplies dip, Clean Energy Advocates argue, the market will respond with higher prices, sending a signal to increase supply.[130] "This basic market function will continue to operate even if, hypothetically, a large percentage of capacity resources in the market were to receive state support," Clean Energy Advocates contend.[131] Clean Energy Advocates conclude, therefore, that the presence of state-sponsored capacity would not prevent future new entry, to the extent new entry was necessary for resource adequacy, because the price would simply rise.[132]

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[126] *Id.* at 6-7.

[127] *Id.* at 12 (citing June 2018 Order, 163 FERC ¶ 61,236 at P 1).

[128] *Id.* at 14.

[129] *Id.* at 16-17.

[130] Clean Energy Advocates Rehearing Request at 41.

[131] *Id.*

[132] *Id.*

b. Commission Determination

47. We disagree with the Illinois Commission that PJM's capacity market is not based on economic supply and demand principles. PJM's capacity market is a competitive market design grounded in the principles of supply and demand. The express purpose of the June 2018 Order is to protect the competitiveness of the market from the influence of out-of-market support and ensure resource adequacy at just and reasonable rates. Regardless of the purpose of out-of-market support, the fact remains that such subsidies are out-of-market payments that allow supported resources to offer below cost and suppress prices. Illinois Commission's argument that the Commission has mischaracterized state laws as being for the purpose of supporting entry or continued operation of preferred generation resources is therefore irrelevant. The intent of the subsidy is immaterial–what matters is that out-of-market payments convey the ability to offer below cost.[133]

48. Parties' arguments that an efficient market would price environmental externalities are not relevant to the findings of the June 2018 Order. The purpose of a capacity market is to ensure resource adequacy at just and reasonable rates, not to mitigate the negative externalities associated with the production of electricity. The Illinois Commission states that the purpose of its ZEC legislation is to promote environmental and clean air goals. Regardless of what laudable intentions may motivate a state to provide subsidies for certain resources, state out-of-market support still has the effect of keeping otherwise uneconomic resources in operation, and supports uneconomic entry of new resources.[134] By reordering the supply curve, this out-of-market support can have significant impacts by suppressing capacity prices and depriving non-subsidized resources of a capacity obligation.

49. We reject Public Power Entities' argument that non-subsidized resources in a competitive market are somehow receiving unjust and unreasonable price support. We reiterate, the Commission has an obligation to ensure just and reasonable rates in the capacity market and has found, as explained herein, that out-of-market support from state policies undermines those rates.[135] It is illogical to suggest that a competitive price outcome is analogous to an out-of-market payment designed to achieve state policy objectives unrelated to the capacity market.

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[133] *See* June 2018 Order, 163 FERC ¶ 61,236 at PP 155, 156.

[134] *Id.* PP 150, 155.

[135] 2011 MOPR Rehearing Order, 137 FERC ¶ 61,145 at P 3, *aff'd sub nom. NJBPU*, 744 F.3d at 101; *see infra* n.189.

50. We further disagree with parties who essentially argue that the market will continue to send accurate price signals for entry and exit decisions, even with a large number of subsidized resources. These parties argue that downward pressure on prices as a result of subsidies is consistent with the excess supply. In the long run, subsidies will discourage unsubsidized investment as older, unsubsidized resources retire prematurely. In addition, subsidized existing 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."[136] As the Commission found in the June 2018 Order, these "price distortions compromise the capacity market's integrity" and "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."[137]

3. Prior Precedent

a. Requests for Rehearing and Clarification

51. Some parties contend that the June 2018 Order did not provide a reasoned explanation for departing from past rulings restricting application of the MOPR to new, natural gas-fired resources.[138] Clean Energy Advocates argue that the Commission mischaracterized prior MOPR precedent in asserting that the Commission has previously recognized that resources receiving out-of-market support are capable of suppressing market prices, regardless of intent.[139] According to Clean Energy Advocates, prior orders in ISO-New England[140] and PJM[141] extending the MOPR beyond mitigating buyer-side

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[136] *Id.* P 154.

[137] June 2018 Order, 163 FERC ¶ 61,236 at P 150.

[138] Public Power Entities Rehearing Request at 10-17; Clean Energy Associations Rehearing Request at 3, 22-25; Clean Energy Advocates Rehearing Request at 26-29; Illinois AG Rehearing Request at 3, 4-5, 11-12.

[139] Clean Energy Advocates Rehearing Request at 26-27 (citing June 2018 Order, 163 FERC ¶ 61,236 at P 155 ("The Commission has previously recognized that resources receiving out-of-market support are capable of suppressing market prices, regardless of intent.")).

[140] 2011 ISO-NE MOPR Order, 135 FERC¶ 61,029 at P 170 (finding that out-of-market support suppresses capacity market prices regardless of intent).

[141] 2011 PJM MOPR Order, 135 FERC ¶ 61,022 at P 139 (accepting PJM's proposal to eliminate the state-mandate exemption).

market power to reach resources supported by state programs emerged in the context of states pursuing programs that the Supreme Court would ultimately find impermissibly interfered with wholesale market rates.[142] Parties argue that the Commission—at least prior to the CASPR Order,[143] and as recently as 2016 in representations to the D.C. Circuit—affirmed that the MOPR's purpose is to address buyer-side market power and that extending the MOPR based on out-of-market support is a departure from the MOPR's history and purpose.[144]

52. Public Power Entities, Clean Energy Associations, Clean Energy Advocates, and the Illinois AG assert that the Commission did not provide a reasoned explanation for departing from prior precedent exempting state-supported renewable resources from mitigation.[145] In particular, these parties assert that, although the Commission concluded in the June 2018 Order that "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,"[146] the June 2018 Order did not explain why its previous reasons[147] for excluding renewable resources from mitigation, specifically their low potential to engage in price suppression and *de minimis* impact on the market, no

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[142] Clean Energy Advocates Rehearing Request at 27-28 (citing *Hughes v. Talen Energy Mktg., LLC*, 136 S.Ct. 1288 (2016) (*Hughes*)).

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

[144] Clean Energy Associations Rehearing Request at 23-24; Clean Energy Advocates Rehearing Request at 26-32 (citing the Commission's brief in *NRG Power Mktg., LLC v. FERC*, Nos. 15-1452, 15-1454, 2016 WL 5405117, at *11, *12 (D.C. Cir. Sept. 27, 2016)).

[145] Public Power Entities Rehearing Request at 10-17; Clean Energy Associations Rehearing Request at 3, 22-25; Illinois AG Rehearing Request at 3, 4-5, 11-12; Clean Energy Advocates Rehearing Request at 26-32.

[146] June 2018 Order, 163 FERC ¶ 61,236 at P 155.

[147] Illinois AG Rehearing Request at 11 (asserting that FERC has said that RECs do not pose price-suppressive threats) (citing 2011 PJM MOPR Order, 135 FERC ¶ 61,022 at P 153); Clean Energy Associations Rehearing Request at 23 (citing *PJM Interconnection, L.L.C.*, 143 FERC ¶ 61,090, at P 166 (2013) (2013 PJM MOPR Order) (exempting renewable resources because the "MOPR may be focused on those resources that are most likely to raise price suppression concerns"); *N.Y. Pub. Serv. Comm'n v. N.Y. Indep. Sys. Operator*, 153 FERC ¶ 61,022, at PP 2, 47 (2015) (exempting renewable resources from MOPR that have "limited or no incentive and ability to exercise buyer-side market power")).

longer hold true.[148] Clean Energy Advocates argue that the Commission must be particularly careful to explain its departure from prior precedent exempting renewable resources from market mitigation given the reliance interests on this exemption engendered over the years.[149]

53. Public Power Entities argue that the Commission has not explained its departure from its prior rationale that a competitive offer from an existing resource would typically be low regardless of subsidies because, once built, a resource's incremental costs of taking on a capacity obligation can approximate zero.[150] Rejecting the Commission's rationale that out-of-market support could suppress offer prices of older resources that may have higher going-forward costs, Public Power Entities argue that it is not the purpose of the MOPR to adjust every resource's offer to match their exact costs.[151] Finally, Public Power Entities argue the Commission did not substantiate its claim that circumstances have changed because the Commission does not explain how the growth of out-of-market programs referenced in the June 2018 Order renders the Tariff unjust and unreasonable, as opposed to other out-of-market support pervading the industry.[152]

54. The Illinois AG suggests that the June 2018 Order frustrates all six "first principles" of capacity markets enunciated in the CASPR order and that the Commission

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[148] Clean Energy Associations Rehearing Request at 23-24; Clean Energy Advocates Rehearing Request at 26-32 (citing 2011 PJM MOPR Order, 135 FERC ¶ 61,022 at P 153 ("[W]ind and solar resources are a poor choice if a developer's primary purpose is to suppress capacity market prices. Due to the intermittent energy output of wind and solar resources, the capacity value of these resources is only a fraction of the nameplate capacity. This means that wind and solar resources would need to offer as much as eight times the nameplate capacity of a CT or CC resource in order to achieve the same price suppression effect.")); 2013 PJM MOPR Order, 143 FERC ¶ 61,090 at P 166 (rejecting arguments that the MOPR should apply to all resource types, agreeing "that the MOPR may be focused on those resources that are most likely to raise price suppression concerns").

[149] Clean Energy Advocates Rehearing Request at 19 (citing *Encino Motorcars, LLC v. Navarro*, 136 S.Ct. 2117, 2126 (2016); *FCC v. Fox Television Stations, Inc.*, 556 U.S. 502, 515 (2009) (*Fox Television Stations*)).

[150] Public Power Entities Rehearing Request at 5; *see also* Joint Consumer Advocates Rehearing and Extension Request at 11-12; Maryland Commission Rehearing Request at 16.

[151] Public Power Entities Rehearing Request at 16.

[152] *Id.* at 10-11, 15-17.

did not explain its departure from these principles, arguing that the Commission's proposed replacement rate will not facilitate competition, send clear price signals, result in least-cost resources possessing attributes sought by the market, or support price transparency, and will unfairly shift risk from investors to consumers and exacerbate existing market power.[153]

b. Commission Determination

55. We disagree with parties that the June 2018 Order contradicts, or is an unexplained departure from, prior precedent. Although the Commission has stated in the past that the MOPR is used to prevent the exercise of buyer-side market power, a purpose of the MOPR is to address price suppression that renders capacity market prices unjust and unreasonable.[154] Consistent with that policy, in 2011, the Commission accepted PJM's proposal to eliminate the state-mandate exemption from the MOPR, finding that state-supported uneconomic entry can produce unjust and unreasonable rates by artificially suppressing capacity prices.[155] Thus, the Commission previously has recognized that the MOPR is intended to address price suppression by ensuring resources offer competitively. The Commission's PJM MOPR precedent shows that the MOPR has evolved in scope out of necessity in light of changed circumstances.[156]

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[153] Illinois AG Rehearing Request at 9-11 (citing *ISO New England Inc.*, 162 FERC ¶ 61,205 (2018).

[154] *PJM Interconnection, L.L.C.*, 117 FERC ¶ 61,331, at P 34 (2006) (explaining that the MOPR would apply to sellers that "may have incentives to depress market clearing prices below competitive levels").

[155] 2011 PJM MOPR Order, 135 FERC ¶ 61,022 at P 141, *aff'd sub. nom. NJBPU* 744 F.3d at 97-102; *see also* CASPR Order, 162 FERC ¶ 61,205 at P 22 (using the MOPR to mitigate impacts of state policies on the wholesale capacity market); 2011 ISO-NE MOPR Order, 135 FERC ¶ 61,029 at P 14 (recognizing that out-of-market support suppresses capacity market prices).

[156] June 2018 Order, 163 FERC ¶ 61,236 at P 150 n.276; December 2019 Order, 169 FERC ¶ 61,239 at P 39. As Clean Energy Advocates aptly point out, prior orders discussing application of the MOPR to address out-of-market support responded to state actions to subsidize certain resources. *See NJBPU*, 744 F.3d at 87-88, 100 (finding that the Commission reasonably explained its decision to eliminate the state-mandate exemption); 2011 PJM MOPR Order, 135 FERC ¶ 61,022 at P 139. Growing out-of-market support is an explicit basis for the June 2018 Order's finding. It is inconsequential that previous out-of-market support was found federally preempted

56. Although parties point out that the Commission previously found that renewable resources do not warrant mitigation, the record in this proceeding demonstrates that circumstances have changed. Evolution of the Commission's policy is justified in response to the proliferation of out-of-market support to resources that permit these resources to offer non-competitively and suppress prices.[157] Even though the Commission previously found that renewable resources are not the most "efficient resources to suppress capacity prices,"[158] due to the intermittent energy output of wind and solar resources,[159] the Commission has not found that renewable resources are incapable of suppressing price. Rather, out-of-market support gives renewable resources the ability to suppress capacity prices because the out-of-market support means a resource can offer below its costs. This is true even if a resource has low capacity thresholds because, on aggregate, small subsidized resources can influence the clearing price. Thus, the June 2018 Order concludes that, given the proliferation in state subsidies, price suppression stemming from state choices to support certain resources or resource types is indistinguishable from price suppression triggered through the potential exercise of buyer-side market power and should therefore be addressed similarly, thus requiring the Commission to act to ensure that rates for capacity in PJM remain just and reasonable.[160]

57. We agree with Public Power Entities that an offer for an existing capacity resource would typically be low, but we disagree that the Commission erred in concluding that this may not always be true. Rather, the June 2018 Order squarely acknowledges that fact

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because the economic principle that out-of-market support distorts capacity market prices remains true whether or not the state action is preempted.

[157] *See ANR Pipeline Co. v. FERC*, 205 F.3d 403, 407 (D.C. Cir. 2000) (*ANR Pipeline Co*) (affirming Commission policy change when the Commission explains "how changed circumstances justified a new policy").

[158] 2011 PJM MOPR Order, 135 FERC ¶ 61,022 at P 153.

[159] *Id.*

[160] June 2018 Order, 163 FERC ¶ 61,236 at P 155. Notably, under the existing MOPR, prior state subsidies of concern targeted new natural gas-fired resources. *See Hughes*, 136 S. Ct. at 1294 (describing how "Maryland solicited proposals from various companies for construction of a new gas-fired power plant"); *NJBPU*, 744 F.3d at 99 ("New Jersey Petitioners claim that the new, gas-fired resources it seeks to build are needed to address New Jersey's capacity deficiency . . . .").

and the relevant precedent.[161] The June 2018 Order then explains why the Commission no longer believes that the fact that a competitive offer for an existing resource would typically be low is a sufficient reason to exempt *all* existing resources from the MOPR. Specifically, the June 2018 Order notes that not all existing resources have low going forward costs. Older, uneconomic existing resources in PJM are increasingly receiving out-of-market support to allow them to remain in the market. The June 2018 Order expressly addresses this concern, finding that the Tariff is unjust and unreasonable because it does not account for out-of-market support for these resources.[162] Thus, the changed circumstances described in the June 2018 Order warrant the expansion of the MOPR to existing and non-natural gas-fired new resources. This shift is within the Commission's discretion in light of the changed market conditions.[163]

58. While we agree with Public Power Entities that the purpose of the MOPR is not to adjust every resource's offer to match its exact costs, the June 2018 Order did not find that to be the standard. Rather, the June 2018 Order preliminarily found that an expanded MOPR "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."[164] The June 2018 Order, therefore, clearly contemplated the MOPR only applying a price floor to the offers of resources receiving out-of-market support.

59. We deny the Illinois AG's rehearing request that the June 2018 Order's discussion of the replacement is inconsistent with the capacity market principles set forth in the CASPR Order. Because the replacement rate was not determined in the June 2018 Order, how the MOPR will work in PJM had not yet been determined, making that argument

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[161] June 2018 Order, 163 FERC ¶ 61,236 at P 153 & n.285 ("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.'") (quoting 2011 PJM MOPR Rehearing Order, 137 FERC ¶ 61,145 at P 132) (citing *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)).

[162] June 2018 Order, 163 FERC ¶ 61,236 at PP 153-154.

[163] *See La. Pub. Serv. Comm'n v. FERC*, 772 F.3d 1297, 1303 (D.C. Cir. 2014) ("The Commission can depart from a prior policy or line of precedent, but it must acknowledge that it is doing so and provide a reasoned explanation.") (citing *Fox Television Stations*, 556 U.S. at 515); *ANR Pipeline Co*, 205 F.3d at 407.

[164] June 2018 Order, 163 FERC ¶ 61,236 at P 158.

premature.[165] We also disagree with Public Power Entities' argument that the Commission does not offer a reasoned explanation for its conclusion that ZECs and RPS programs render the Tariff unjust and unreasonable, when other types of out-of-market support do not. The June 2018 Order makes no such finding. Rather, the June 2018 Order found that out-of-market support in general renders the Tariff unjust and unreasonable.[166]

4. State Jurisdiction

a. Requests for Rehearing and Clarification

60. Multiple parties argue that the Commission improperly intruded into the states' traditional jurisdiction over generation and resource portfolio decisions and violated principles of cooperative federalism.[167] The Maryland Commission states that section 201 of the FPA limits the Commission's authority to the transmission and wholesale sale of electric energy in interstate commerce, and expressly excludes matters that are the subject of state regulations, such as "facilities used for the generation of electric energy or over facilities used in local distribution or only for the transmission of electric energy in intrastate commerce."[168] Parties assert that courts have recognized states' authority over generation matters and decisions concerning fuel types,[169] and that states may pursue

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[165] Also, the Commission has recognized that each RTO/ISO is different and that its market rules may therefore be different. *See* December 2019 Order, 169 FERC ¶ 61,239 at P 204 n.431 (explaining "regional markets are not required to have the same rules. Our determination about what rules may be just and reasonable for a particular market depends on the relevant facts."); *Midcontinent Indep. Sys. Operator, Inc.*, 162 FERC ¶ 61,176, at P 57 & n.133 (2018) (listing cases that reject the "one-size-fits-all-approach").

[166] *Id.* P 150.

[167] Maryland Commission Rehearing Request at 2-3, 4-14; Illinois Commission Rehearing Request at 3, 11-12; Dominion Rehearing and Clarification Request at 6-7, 13-15; New Jersey Board Rehearing Request at 2, 6-8; PSEG Rehearing Request at 3-5, 11-15; Clean Energy Associations Rehearing Request at 3, 25-27; Joint Consumer Advocates Rehearing and Extension Request at 3, 14-21; Illinois AG Rehearing Request at 3, 5, 12; Clean Energy Advocates Rehearing Request at 8, 48-51.

[168] Maryland Commission Rehearing Request at 4-5 (citing 16 U.S.C. §§ 824(a), (b)(1)); *see also* PSEG Rehearing Request at 11-12.

[169] Maryland Commission Rehearing Request at 5-6 (citing *N.Y. v. FERC*, 535 U.S. 1, 22 (2002) ("[T]he legislative history [of the FPA] is replete with statements describing Congress' intent to preserve state jurisdiction over local [generation]

measures to encourage the development of clean generation or other public policy goals.[170]

61. Further, the Maryland Commission argues that the Commission has recognized that it lacks jurisdiction over sales of state-issued RECs that are not bundled with wholesale energy because an unbundled REC transaction does not affect wholesale electricity rates, and failed in the June 2018 Order to explain its departure from this precedent.[171] Similarly, Joint Consumer Advocates and the New Jersey Board argue that the Commission conceded in its amicus brief in *Village of Old Mill Creek v. Star* that state programs such as RECs and ZECs are within the states' jurisdiction.[172] The parties argue that this concession is inconsistent with the June 2018 Order, which the parties claim exercised the Commission's authority over wholesale rates in a way that will effectively force resources participating in these state programs out of the capacity markets, without first making the requisite showing that these programs affect the wholesale electricity market or abrogate a Commission-mandated rate.[173]

62. Parties further argue that by extending the MOPR to resources receiving out-of-market payments, including renewable resources, the June 2018 Order undermines the

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facilities."); *Connecticut PUC*, 569 F.3d at 481 ("State and municipal authorities retain the right to forbid new entrants from providing capacity, to require retirement of existing generators, to limit new construction to more expensive, environmentally friendly units, or to take any other action . . . without direct interference from the Commission.").

[170] Illinois Commission Rehearing Request at 12 (citing *Hughes*, 136 S.Ct. at 1292 ("Nothing in this opinion should be read to foreclose [states] from encouraging production of new or clean generation through measures untethered to a generator's wholesale market participation.") (internal quotations omitted).

[171] Maryland Commission Rehearing Request at 8-10 (arguing that the June 2018 Order's assertion that out-of-market payments interfere with wholesale market signals departs from the Commission's statement in WSPP that unbundled REC transactions do not affect wholesale rates) (citing *WSPP Inc.*, 139 FERC ¶ 61,061, at P 18 (2012)).

[172] *See* Joint Consumer Advocates Rehearing and Extension Request at 17-18, 20 (citing Brief at 10, REC and ZEC programs are "not payments for, or otherwise bundled with, sales of energy or capacity at wholesale"); New Jersey Board Rehearing Request at 7-8 (citing *Vill. of Old Mill Creek v. Star*, 2017 WL 3008289 (N.D. Ill. July 14, 2017) and *Coal. for Competitive Elec. v. Zibelman*, 272 F.Supp.3d 554 (S.D.N.Y. 2017)).

[173] Maryland Commission Rehearing Request at 8-10; NJ Board Rehearing Request at 8; Joint Consumer Advocates Rehearing and Extension Request at 16-18.

value the states place on environmental attributes.[174] Moreover, Clean Energy Advocates argue that the Commission's statement that states can still accomplish their environmental goals by making customers pay more for capacity is incorrect because states will still have to buy extra, unnecessary capacity from polluting resources as a consequence of supporting clean resources; and, even if true, the Commission ignores the fact that imposing unnecessary capacity costs on customers violates the duty to ensure just and reasonable rates.[175] Clean Energy Associations contend that while the Commission has jurisdiction to regulate certain parameters that directly impact how the capacity price is set, even if those determinations touch on state authority, the court made clear in *Connecticut PUC* that federal regulation of capacity market prices does not negate states' authority to decide what types of generation facilities or other technologies are built to serve their customers.[176] Clean Energy Associations continue that the June 2018 Order conflicts with the court's directive in *Connecticut PUC* by directing mitigation rules to block state-supported generation resources from the capacity market and erecting a barrier for states to develop resources.[177]

63. These parties argue that the June 2018 Order's intrusion on matters left to the state was not justified. The Illinois Commission contends that the Supremacy Clause prohibits the Commission from using the June 2018 Order to work around state laws that do not seek to impermissibly intrude in the wholesale electricity market or abrogate a Commission mandated rate.[178] Arguing that there is a strong presumption against finding that the FPA supersedes powers traditionally exercised by the states, parties insist that the June 2018 Order lacked record evidence to conclude that state policies intrude on the

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[174] Maryland Commission Rehearing Request at 3, 7-8; Dominion Rehearing and Clarification Request at 14-15 (June 2018 Order will prevent supported resources from participating in the capacity market, effectively handicapping state policy subsidies at the behest of the voters); Clean Energy Associations Rehearing Request at 26-27 (Commission is exercising its wholesale rate authority in a manner that targets states' exclusive jurisdiction and effectively forces resources participating in state programs out of the market); Clean Energy Advocates Rehearing Request at 49-50 (the June 2018 Order frustrates the decisions of state environmental regulators); Illinois AG Rehearing Request at 12.

[175] Clean Energy Advocates Rehearing Request at 50-51.

[176] Clean Energy Associations Rehearing Request at 27 (citing *Connecticut PUC*, 569 F.3d at 482-83).

[177] *Id.*

[178] Illinois Commission Rehearing Request at 11.

Commission's authority over wholesale rates.[179] According to the Maryland Commission, the Commission errs in conflating RECs, which represent a state-authorized premium for emissions-free generation, with megawatts, when in fact RECs are traded outside the capacity market and are not intended to suppress wholesale prices.[180]

64. The end result of the June 2018 Order, parties contend, will be to require states' customers to pay twice for capacity, through both the state subsidy promoting the renewable resource and through PJM's capacity market, which effectively would ignore those resources and require procurement of redundant capacity.[181] Moreover, the Maryland Commission contends that it is not clear that the FRR Alternative will address this issue.[182]

65. PSEG states that the Commission should incorporate state public policy goals, such as carbon abatement and resiliency, into its market designs, consistent with cooperative federalism.[183]

b. Commission Determination

66. We deny rehearing requests that argue that the Commission improperly intruded into the states' traditional jurisdiction over generation, violating principles of cooperative

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[179] Joint Consumer Advocates Rehearing and Extension Request at 16 (citing *Niagara Mohawk Power Corp. v. Hudson River-Black River Regulating Dist.*, 673 F.3d 84, 94 (2d Cir. 2012)); Dominion Rehearing and Clarification Request at 14-15 (asserting that the Commission must accommodate state regulation unless doing so would clearly damage federal goals); New Jersey Board Rehearing Request at 8 (the June 2018 Order made no legal determination that the state policies in question impermissibly intrude on matters reserved for federal oversight); Clean Energy Associations Rehearing Request at 25.

[180] Maryland Commission Rehearing Request at 3, 10-13.

[181] Maryland Rehearing Request at 13-14; Clean Energy Associations Rehearing Request at 26 (if these resources do not receive a reasonable opportunity to clear in the capacity market and have their capacity recognized, load-serving entities will have to purchase additional unneeded capacity).

[182] Maryland Commission Rehearing Request at 14.

[183] PSEG Rehearing Request at 3-5, 12-15 (arguing that rather than frustrating state policies, the Commission should be trying to accommodate and give effect to those policies).

federalism, because the Tariff failed to account for out-of-market support..[184] The Commission explained in the June 2018 Order that state out-of-market payments, including RECs and ZECs, give resources the ability to make capacity market offers below costs, suppressing capacity prices.[185] Because these programs disrupt competitive price signals that PJM's capacity auction is designed to produce, we are obligated to act to deter uneconomic participation.[186] The Commission does not improperly intrude on the states' prerogatives to determine its energy resource mix and the development of new generation merely because the wholesale rules affect matters within the states' jurisdiction.[187] As we stated in the June 2018 Order, expanding PJM's MOPR "in no way divests the states in the PJM region of their jurisdiction over generation facilities,"[188] or prevent states from supporting preferred generation resources.[189] The Commission

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[184] *See NJBPU*, 744 F.3d at 96 (upholding the Commission's jurisdiction to eliminate the state mandate exemption, which would have permitted states to introduce thousands of megawatts of new capacity into the capacity auction, because state subsidized generation would affect wholesale capacity prices).

[185] June 2018 Order, 163 FERC ¶ 61,236 at PP 150-156; *see also* Keech Aff. ¶¶ 10-13, 15; *see also supra* section A.1.b (elaborating on how state actions impact the capacity market).

[186] *See* 16 U.S.C. §§ 824, 824d, 824e; 2011 PJM MOPR Rehearing Order, 137 FERC ¶ 61,145 at P 3 ; 2011 PJM MOPR Order, 135 FERC ¶ 61,022 at P 143 ("While the Commission acknowledges the rights of states to pursue legitimate policy interests, and while, as we have said, any state is free to seek an exemption from the MOPR under section 206, it is our duty under the FPA to ensure just and reasonable rates in wholesale markets. . . . Because below-cost entry suppresses capacity prices, and because the Commission has exclusive jurisdiction over wholesale rates, the deterrence of uneconomic entry falls within the Commission's jurisdiction, and we are statutorily mandated to protect the [capacity market] against the effects of such entry."), *quoted with approval in NJBPU*, 744 F.3d at 100, *cited in Hughes*, 136 S.Ct. at 1296.

[187] *See, e.g., FERC v. Elec. Power Supply Ass'n*, 136 S. Ct. 760, 776 (2016) ("When FERC sets a wholesale rate, when it changes wholesale market rules, when it allocates electricity as between wholesale purchasers—in short, when it takes virtually any action respecting wholesale transactions—it has some effect . . . on retail rates. That is of no legal consequence.").

[188] June 2018 Order, 163 FERC ¶ 61,236 at P 158.

[189] 2011 PJM MOPR Rehearing Order, 137 FERC ¶ 61,145, at P 3 ("Our intent is not to pass judgment on state and local policies and objectives with regard to the development of new capacity resources, or unreasonably interfere with those objectives.

recognizes that the FPA reserves to the states decisions concerning generation; but the FPA provides the Commission with the jurisdiction and authority to regulate rates for wholesale sales by those generation resources and we are obligated to ensure that such rates are just and reasonable and not unduly discriminatory. Moreover, contrary to Clean Energy Advocates' argument, courts have affirmed Commission decisions resulting in customers having to pay twice for state-preferred capacity.[190]

67. The facts that the FPA may not preempt state programs such as the Illinois ZEC program,[191] that RECs may not be intended to suppress wholesale rates, or that the Commission does not have jurisdiction over unbundled REC transactions[192] and ZEC programs, do not diminish the Commission's obligation under the FPA to ensure that

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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 [capacity auction] is designed to produce, and that PJM as a whole, including other states, rely on to attract sufficient capacity."), *quoted with approval in NJBPU*, 744 F.3d at 101, *quoted with approval in Hughes*, 136 S. Ct. at 1296. This determination also comports with precedent in other regional markets. *See, e.g.*, CASPR Order, 162 FERC ¶ 61,205 at P 21 & n.32; 2011 ISO-NE MOPR Order, 135 FERC ¶ 61,029 at P 170, *reh'g denied*, 138 FERC ¶ 61,027 (2012), *aff'd sub nom. NEPGA*, 757 F.3d at 293-95 ; *Connecticut PUC*, 569 F.3d at 481, *adopted in NJBPU*, 744 F.3d at 96-97.

[190] *See NEPGA*, 757 F.3d at 294-95; *NJBPU*, 744 F.3d at 98; *Connecticut PUC*, 569 F.3d at 481.

[191] *Elec. Power Supply Ass'n v. Star*, 904 F.3d 518 (7th Cir. 2018) (*EPSA v. Star*) (affirming that Illinois' ZECs program is not preempted by the FPA), *cert. denied*, 139 S.Ct. 1547 (2019).

[192] Contrary to the Maryland Commission's argument, the June 2018 Order did not assert authority over unbundled REC transactions, or any other state out-of-market payments. Rather, the Commission determined that such forms of out-of-market support may permit and encourage state-preferred resources to make uneconomic offers into the capacity market and thereby unreasonably suppress the price paid to competitive resources that do not enjoy such out-of-market support. *See* June 2018 Order, 163 FERC ¶ 61,236 at PP 150-156. The Commission does not usurp state jurisdiction to engage in out-of-market support for preferred resources when the Commission regulates the impact of those state policies on wholesale capacity rates. *See Connecticut PUC*, 569 F.3d at 481-83. If REC revenues are claimed to provide the justification for a lower capacity market offer, then those revenues will directly affect wholesale capacity prices and can no longer be characterized as "independent" from jurisdictional wholesale sales. *WSPP Inc.*, 139 FERC ¶ 61,061 at P 24.

wholesale rates are just and reasonable and not unduly discriminatory or preferential.[193] In discussing ZEC programs, the Seventh Circuit recently confirmed that, to the extent state efforts to support certain resource types in pursuit of state policy goals affects interstate sales, which is "an inevitable consequence of a system in which power is shared between state and national governments," the Commission may make adjustments based on those effects.[194]

5. Undue Discrimination

a. Requests for Rehearing and Clarification

68. Public Power Entities state that the Commission found PJM's Tariff unjust, unreasonable, and unduly discriminatory, but argue that the June 2018 Order did not elaborate on how the existing Tariff, under which only new natural gas-fired resources are subject to the MOPR, should be deemed unduly discriminatory. Pointing to the Commission's findings with regard to Capacity Repricing as potential support for the undue discrimination finding, Public Power Entities argue that, to the extent the Commission means to suggest that failing to apply the MOPR to resources that receive out-of-market support unduly discriminates against those not receiving out-of-market payments, the June 2018 Order does not sufficiently support a general proposition that the receipt of subsidies justifies different ratemaking treatment because the June 2018 Order does not show that subsidies have a "material effect on price."[195]

b. Commission Determination

69. We deny Public Power Entities' rehearing request that the Commission acted arbitrarily and capriciously because it did not elaborate on why the existing Tariff should be deemed unduly discriminatory. Though the Commission stated in making its determinations that PJM's then existing Tariff was "unjust and unreasonable and unduly

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[193] *See EPSA v. Star*, 904 F.3d at 524. The rehearing petitions are, in effect, making an unwarranted reverse preemption argument by contending that since the FPA does not preempt a state program, the state program preempts the Commission's jurisdiction over the wholesale market. This is simply not how federal preemption law works.

[194] *Id.* The court specifically pointed to the June 2018 Order and explained that, rather than deeming state programs such as the ZEC program preempted, the Commission in the June 2018 Order "has taken them as givens and set out to make the best of the situation they produce." *Id.*

[195] Public Power Entities Request for Rehearing at 17-19 (citing June 2018 Order, 163 FERC ¶ 61,236 at P 68).

discriminatory,"[196] we clarify here that the Commission need not make an explicit and separate undue discrimination determination if it finds and explains why the Tariff is unjust and unreasonable, which the Commission did in this proceeding. Thus, elaboration on why the Tariff is unduly discriminatory was not required to support the Commission's action here.[197] Further, as laid out in the June 2018 Order, and herein, the Commission explained why new and existing resources receiving out-of-market support require mitigation while resources not receiving out-of-market support do not, including why such out-of-market support causes price distortions in the capacity market, which affect market outcomes for all market participants, including suppressing the prices paid to non-subsidized resources.[198] Moreover, the assertion that the Commission's finding was not sufficiently supported with evidence of a "material effect on price" merely repackages arguments, which we have already rejected above, that the Commission lacked sufficient evidence to find that the then-existing MOPR was unjust and unreasonable.

6. Procedural Schedule

a. Requests for Rehearing and Clarification

70. A number of parties seek rehearing of the procedural schedule set forth in the June 2018 Order for the paper hearing to determine the replacement rate. Clean Energy Associations argue that the Commission's finding that the existing Tariff is unjust and unreasonable forces the Commission to rush to judgment on a replacement rate that can

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[196] June 2018 Order, 163 FERC ¶ 61,236 at PP 150, 156.

[197] 16 U.S.C. § 824e(a) ("Whenever the Commission . . . shall find that any rate . . . by any public utility for any transmission or sale subject to the jurisdiction of the Commission, . . . is unjust, unreasonable, unduly discriminatory or preferential, the Commission shall determine the just and reasonable rate . . . ."); *see, e.g., Cities of Bethany v. FERC*, 727 F.2d 1131, 1143 (D.C. Cir. 1984) (explaining that under section 206, "FERC itself may establish the just and reasonable rate, provided that it first determines that a rate set by a public utility is unjust, unreasonable, or unduly discriminatory.").

[198] June 2018 Order, 163 FERC ¶ 61,236 at PP 150-156. Some resources receive state subsidies favoring particular types of resources, such as renewables under RPS programs or nuclear resources through ZECs, other resources do not receive state subsides. This causes the capacity market not only to produce unjust and unreasonable rates, but also produces unduly preferential rates by allowing subsidized resources to distort the market to their benefit while unduly discriminating against non-subsidized resources.

be implemented by the next annual capacity auction.[199] To remedy this, Clean Energy Associations contend that the Commission should withdraw this finding, or, at a minimum, adjust the procedures to ensure notice of the actual proposed replacement rate and comment prior to adopting the just and reasonable replacement rate going forward.[200] Providing notice and an opportunity to comment on the proposed replacement rate prior to its implementation is important, allege Clean Energy Associations, because the Commission's rehearing rules of practice prohibit providing additional evidence when the evidence was available at the time of initial filings or raising issues for the first time on rehearing. Clean Energy Associations believe these rules would foreclose seeking rehearing of issues regarding that become apparent only when the specifics of the replacement rate are known.[201]

71. Joint Consumer Advocates compare the procedural schedule in the June 2018 Order, requiring initial comments within 60 days, to that in other significant market change proceedings in which the Commission has provided between 75 and 90 days for the submission of initial comments.[202] Joint Consumer Advocates assert that this proceeding is similar in significance to a rulemaking, for which the Administrative Procedure Act (APA) requires a minimum of 60 days for public comment and, Executive Order No. 12,866, addressing agency rulemakings, recommends 180 days or more for significant regulatory actions.[203] The compressed procedural timeline is unnecessary,

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[199] Clean Energy Associations Rehearing Request at 4, 9-10.

[200] *Id.* (stating, among other things, that a typical section 206 proceeding involves a filed proposed replacement rate with notice and a full comment opportunity on the proposed replacement rate prior to implementation); *see also* Clean Energy Advocates Rehearing Request at 54; Illinois Commission Rehearing Request at 4, 21-24 (the Commission should have determined the just and reasonable replacement rate, rather than providing vague directions with an unreasonable timeframe).

[201] Clean Energy Associations Rehearing Request at 8-9.

[202] Joint Consumer Advocates Rehearing and Extension Request at 25 (citing *Centralized Capacity Mkts. in Reg'l Transmission Org. & Indep. Sys. Operators*, 149 FERC ¶ 61,145 (2014); *Price Formation in Energy & Ancillary Servs. Mkts. Operated by Reg'l Transmission Org. & Indep. Sys. Operators*, 153 FERC ¶ 61,221 (2015)).

[203] *Id.* at 25-26 (citing Executive Order No. 12,866, *Regulatory Planning & Review*, 58 Fed. Reg. 51,735 (Sept. 30, 1993)).

Joint Consumer Advocates contend, because evidence suggests that PJM's capacity market is robust and not in need to immediate reform.[204]

72. Parties argue that the procedural timeline is overly aggressive and limits the ability of the parties and the Commission to thoughtfully consider sweeping changes.[205] The Maryland Commission and New Jersey Board state that the timeline will limit the ability for states to meaningfully participate in the process and hamper state commissions who are involved in other overlapping PJM matters.[206] Public Power Entities argue that the compressed paper hearing schedule threatens to frustrate achieving a workable resource adequacy construct by requiring stakeholders to address complex issues without the time needed to develop a full record and make effective use of the stakeholder process.[207] Further, parties argue that because state RPS programs require legislative change, they could not be implemented in response to an FRR Alternative within the June 2018 Order's timeframe, which does not provide an adequate transition mechanism to ensure that states can align their policies to a new capacity market construct.[208]

73. Parties argue that the paper hearing schedule violates due process because it does not provide parties a "realistic opportunity" to respond to the Commission's directive.[209] Pointing to the scope and volume of open questions to be explored during the paper

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[204] *Id*; *see also* Maryland Commission Rehearing Request at 22.

[205] New Jersey Board Rehearing Request at 2, 8-10; *see also* Clean Energy Associations Rehearing Request at 3-10; Joint Consumer Advocates Rehearing Request and Extension Request at 2, 4, 21-27; Illinois AG Rehearing Request at 3, 5, 14-17; PJM-ICC Rehearing and Clarification Request at 21-22; Illinois Commission Rehearing Request at 21-23.

[206] New Jersey Board Rehearing Request at 10-12; Maryland Commission Rehearing Request at 22-23.

[207] Public Power Entities Rehearing Request at 8, 23-24.

[208] Joint Consumer Advocates at 27; *see also* Maryland Commission Rehearing Request at 22-23 (stating that if an FRR Alternative is approved, it will effectively not be available to states should the replacement rate be in place for the May 2019 Base Residual Auction because states will not have enough time to enact new legislation between January 2019 and May 2019); Illinois Commission Rehearing Request at 23-24.

[209] Maryland Commission Rehearing Request at 19-23; *see also* Clean Energy Associations Rehearing Request at 4, 6 (the APA requires adequate notice and an opportunity to be heard).

hearing, parties contend that more time for consideration is warranted.[210] Joint Consumer Advocates emphasize that the replacement rate outlined in the June 2018 Order will require detailed consideration, as the FRR Alternative was raised by one entity in the stakeholder process and not discussed thoroughly by stakeholders, and that PJM has never instituted as broad a MOPR as proposed in the June 2018 Order.[211]

74. Joint Consumer Advocates assert that the paper hearing schedule "eviscerates the due process protections" embodied in the PJM stakeholder process, noting that stakeholders have invested considerable time and effort into these issues.[212] Joint Consumer Advocates argue that, after finding PJM's proposals unjust and unreasonable, the Commission should have returned the issues to the stakeholders with limited guidance, rather than foisting an under-developed concept upon them with little time to consider alternatives.[213] Joint Consumer Advocates state that by declaring PJM's Tariff unjust and unreasonable, the June 2018 Order prohibits *ex parte* communications with stakeholders, preventing constructive dialogue on the replacement rate.[214] If the Commission does not grant its request for rehearing of the June 2018 Order, Joint Consumer Advocates request that the Commission grant a six month extension of time and require PJM to reconvene a stakeholder process with guidance from the Commission to develop a capacity market construct that meets stakeholder needs.[215]

b. Commission Determination

75. We deny parties' rehearing requests that the June 2018 Order set forth a flawed procedural schedule by setting an initial 60 day comment period, with reply testimony

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[210] Maryland Commission Rehearing Request at 20-21; Clean Energy Associations Rehearing Request at 5, 6-7; Joint Consumer Advocates Rehearing and Extension Request at 23-24; Illinois AG Rehearing Request at 14-16.

[211] Joint Consumer Advocates Rehearing and Extension Request at 23-24; *see also* Illinois AG Rehearing Request at 14 (arguing that the 60-day initial comment period is "facially insufficient" in light of the number of issues to be addressed); Illinois Commission Rehearing Request at 22-24 (June 2018 Order provided limited guidance on proposed FRR Alternative and insufficient time to address changes).

[212] Joint Consumer Advocates Rehearing and Extension Request at 21-25.

[213] *Id.* at 21-22.

[214] *Id.* at 24.

[215] *Id.* at 27-28.

due 30 days thereafter (or 90 days from the date of the June 2018 Order).[216] This schedule was later extended to permit an additional 45 days for initial comments (or 105 days for initial comments), with reply comments due 35 days thereafter.[217] We are not persuaded that, under these circumstances, parties' opportunity to comment was legally insufficient. Calpine filed its complaint, in Docket No. EL16-49-000, in March 2016, providing notice that the then existing PJM Tariff may be revised to address state support for preferred resources. We further note that the comment period in this case conforms to typical comment time frames afforded by the Commission in comparable circumstances.[218] In any event, the Commission's extension of the hearing schedule moots the due process and other timing concerns raised by the parties regarding the schedule. While most parties requesting hearing would have preferred to leave the current Tariff in place and institute a more open-ended procedural schedule, with the Commission either providing preliminary guidance for a stakeholder process or instituting a traditional FPA section 206 show cause proceeding, we find that the extension, providing for more than 100 days to file initial testimony, and more than 30 days for reply testimony, afforded the parties a meaningful opportunity for comment.[219]

76. We also disagree that parties were deprived of an opportunity to comment on the actual replacement rate because the Commission sought comment on a proposed replacement rate. The Commission routinely conducts paper hearing proceedings to determine just and reasonable replacement rates, and this does not run afoul of notice protections.[220] If parties wish to comment on the replacement rate determined in the

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[216] June 2018 Order, 163 FERC ¶ 61,236 at P 72.

[217] Notice of Extension of Time, Docket Nos. EL16-49-000, ER18-1314-000, and EL18-178-000 (August 22, 2018).

[218] *See, e.g.*, *PJM Interconnection, L.L.C*, 169 FERC ¶ 61,049, at PP 142-143 (2019) (establishing 45 days to comment on capacity storage run-time rules in Commission instituted paper hearing proceeding); *Del. Pub. Serv. Comm'n v. PJM Interconnection, L.L.C.*, 164 FERC ¶ 61,035, at P 42 (2018) (*Del. Pub. Serv. Comm'n*) (finding tariff provisions unjust and unreasonable and instituting paper hearing to determine replacement with 60 day comment period).

[219] *See, e.g.*, *ISO New England, Inc.*, 131 FERC ¶ 61,065, at P 21 (2010) (establishing paper hearing procedures to address the just and reasonable replacement rate for the ISO New England capacity market, with initial comment period of 69 days and reply comment period of over 60 days).

[220] *See, e.g.*, *Del. Pub. Serv. Comm'n*, 164 FERC ¶ 61,035 at P 42 (finding tariff unjust and unreasonable and instituting paper hearing to determine replacement rate).

December 2019 Order, they will have an opportunity to do so in the compliance phase, and they had an opportunity to seek rehearing of the December 2019 Order.

7. Replacement Rate

a. Requests for Rehearing and Clarification

77. Parties object to the replacement rate proposed in the June 2018 Order, arguing that the proposed framework is not supported by substantial evidence, has not been shown to be just and reasonable,[221] and that a sweeping extension of the MOPR is not supported.[222] Public Power Entities argue that extending the MOPR to cover all existing resources benefiting from out-of-market support threatens market integrity because it could result in over-mitigation, cause customers to pay twice for capacity, and send incorrect price signals that more capacity is needed, and potentially exacerbate seller market power and opportunities for strategic behavior.[223]

78. A number of parties contend that the proposed replacement rate is unduly discriminatory, arguing that targeting some sources of out-of-market revenues while permitting other state and federal subsidies results in undue discrimination.[224] The Illinois Commission asserts that it is discriminatory against state programs providing out-of-market support for certain resources by assessing resources as competitive or non-competitive based on whether the resource receives sufficient revenues to cover their costs from PJM markets, and rejects consumer preferences.[225] PSEG states that targeting state policies that price externalities of electricity generation while permitting other federal, state, and local policies is "tantamount to picking winners and losers among

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[221] *See* PJM-ICC Rehearing and Clarification Request at 2, 8, 18-22.

[222] Public Power Entities Rehearing Request at 4-5 (noting that exempting public power self-supply would mitigate some of their concerns).

[223] Public Power Entities Rehearing Request at 19-21; *see also* Illinois Commission Rehearing Request at 17-18 (proposed replacement rate would improperly and unnecessarily raise capacity costs for customers in all PJM states and target resources that are not exercising market power).

[224] Illinois Commission Rehearing Request at 3, 18-21; Clean Energy Associations Rehearing Request at 17-18, 20-22; Clean Energy Advocates Rehearing Request at 43-44; Joint Consumer Advocates Rehearing and Extension Request at 4, 19; Joint Consumer Advocates Rehearing and Extension Request at 20-21.

[225] Illinois Commission Rehearing Request at 14-16.

various externalities."[226] Nor, Clean Energy Advocates argues, does the Commission explain why RECs and ZECs are different from other valid state property rights.[227] Clean Energy Associations add that government policies have reduced the price of fuel used by fossil fuel resources, allowing them to submit suppressed offers.[228] Parties further contend that it is unduly discriminatory to address state policies that may result in offers that are too low without addressing policies that may result in offers that are too high.[229]

79. The Illinois Commission argues that in order to apply the MOPR in a non-discriminatory manner, all resources receiving out-of-market payments should be targeted, resulting in few resources being able to participate in the capacity market without being subject to the MOPR.[230] The Illinois Commission further contends that the intent or purpose behind an offer level is an important distinction, contrary to the June 2018 Order's finding that there is no substantive difference among resource participating in the capacity market with the benefit of out-of-market support, and that treating resources that submit offers to exercise market power the same as resources that submit offers designed to recover their costs is undue discrimination.[231]

80. Parties also advocate for specific terms to be incorporated in the replacement rate. Exelon argues that any replacement rate must accommodate state-supported resources and continue to recognize the capacity these resources provide to the system, noting that the replacement rate would not be just and reasonable absent a mechanism to allow states to make their own policy choices with regard to generation facilities and to prevent capacity from being over-procured.[232] Joint Consumer Advocates urge the Commission to provide for a transition period prior to full implementation of the replacement rate to

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[226] PSEG Rehearing Request at 14-15.

[227] Clean Energy Advocates Rehearing Request at 50-53.

[228] Clean Energy Associations Rehearing Request at 17-18.

[229] *Id.* at 21-22, 26.

[230] Illinois Commission Rehearing Request at 19; *see also* Exelon Rehearing Request at 12 (agreeing with Commissioner Glick's dissent that subsidies are ubiquitous and even a broader MOPR would not address all the various subsidies for power plants).

[231] Illinois Commission Rehearing Request at 20-21.

[232] Exelon Rehearing Request at 14-16.

allow state legislative and regulatory bodies to undertake the necessary preparations for a new capacity market construct.[233]

81. PJM and PJM-ICC seek clarification that the Commission's discussion of the proposed replacement rate framework in the June 2018 Order does not preclude the consideration of other alternatives or preordain a just and reasonable replacement rate.[234] Specifically, PJM asks for clarification that the June 2018 Order does not prohibit parties from including aspects of its Capacity Repricing proposal, or the Commission's consideration of such proposals, as part of a proposed solution to the unjust and unreasonable conditions identified by the Commission.[235] PJM-ICC maintains that the June 2018 Order recognizes that the preliminary findings have not yet been supported by sufficient evidence and, to the extent that the Commission does not grant its request for clarification that the June 2018 Order did not predetermine a just and reasonable replacement rate, PJM-ICC requests rehearing of the replacement rate framework on grounds that it is not supported by substantial evidence. In particular, PJM-ICC contends that the Commission did not cite any evidence supporting the conclusion that an expanded MOPR will be just and reasonable and did not support the FRR Alternative, which is not fully described in the June 2018 Order.[236] The Illinois AG argues that the Commission improperly excluded consideration of other approaches by presenting only two avenues for the new capacity market rules, and, in particular, that the FRR Alternative was not suggested by any party, but independently identified by the Commission.[237]

82. FirstEnergy and Dominion seek clarification regarding an exemption for capacity resources owned or controlled by vertically integrated utilities.[238] FirstEnergy requests clarification that, in finding that the existing MOPR is unjust and unreasonable and rejecting PJM's proposed tariff revisions, the Commission did not determine that

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[233] Joint Consumer Advocates Rehearing and Extension Request at 3, 4, 27 (suggesting that without a transition period, states may be forced to re-regulate or leave PJM altogether).

[234] PJM Clarification and Rehearing Request at 4-6; PJM-ICC Rehearing and Clarification Request at 2, 16-18, 23.

[235] PJM Clarification and Rehearing Request at 4-6.

[236] PJM-ICC Rehearing and Clarification Request at 17-20.

[237] Illinois AG Rehearing Request at 13.

[238] FirstEnergy Clarification and Rehearing Request at 2-10; Dominion Rehearing and Clarification Request at 3, 16-17.

excluding vertically integrated resources from mitigation is not just and reasonable.[239] FirstEnergy also requests that the Commission clarify that the Commission's discussion of the replacement rate did not intend to suggest that the expanded MOPR should exclude an exemption for vertically integrated resources.[240] Similarly, Dominion requests clarification whether a self-supply exemption for vertically integrated resources is open for discussion in the paper hearing. If not, Dominion states that the Commission should restore the status quo tariff and order PJM to continue working on capacity market reforms with stakeholders.[241] In the alternative, Dominion and FirstEnergy seek rehearing if the Commission intends that no self-supply exemption be available for vertically integrated utilities, claiming that vertically integrated utilities do not raise price suppression concerns and that the record lacks evidence that this exemption would be unjust and unreasonable.[242]

b. Commission Determination

83. Regarding the requests for clarification that the June 2018 Order did not prejudge the replacement rate, we confirm that the replacement rate framework set forth in the June 2018 Order was only a proposal on which the Commission sought comment.[243] The June 2018 Order did not make findings on possible MOPR exemptions or what resources will be subject to the MOPR, stating in the June 2018 Order that we are not able to determine the just and reasonable replacement rate based on the record.[244] In fact, in the December 2019 order, the Commission considered the issues raised by the Commission previously in the June 2018 Order and the comments filed in the paper hearing proceeding to produce a just and reasonable replacement rate different from the preliminary proposal.[245] In the paper hearing proceeding, parties had the opportunity

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[239] FirstEnergy Clarification and Rehearing Request at 4-6.

[240] *Id.* at 6.

[241] Dominion Rehearing and Clarification Request at 3, 16.

[242] *Id.* at 16-17; First Energy Clarification and Rehearing Request at 4, 6-10.

[243] June 2018 Order, 163 FERC ¶ 61,236 at P 157 ("[W]e preliminarily find that modifying two aspects of the PJM Tariff may produce a just and reasonable rate.").

[244] *Id.* P 7.

[245] December 2019 Order, 169 FERC ¶ 61,239 at PP 2-16.

to,[246] and indeed many parties did, provide additional proposals for the Commission's consideration, including PJM's reiteration of its Capacity Repricing proposal in the form of Extended Resource Carve Out and an exemption for self-supply resources, including vertically integrated resources, proffered by PJM and other parties. The June 2018 Order did not establish a replacement rate, so rehearing arguments relevant to the merits and specifics of the replacement rate are beyond the scope of rehearing of the June 2018 Order and will not be addressed here. Arguments relating to the replacement rate should have been raised in briefs filed in response to the June 2018 Order, or in rehearing requests of the December 2019 Order, which will be addressed in a separate order.

8. Miscellaneous Procedural Arguments

a. Requests for Rehearing and Clarification

84. ODEC requests clarification that, by establishing a March 21, 2016 refund effective date for Docket No. EL16-49-000 (Calpine Complaint) and July 11, 2018 effective date for Docket No. EL18-178-000 (Commission *sua sponte* section 206 finding),[247] the Commission has not predetermined whether any remedy or modification to the capacity construct resulting from the proceeding will be applied retroactively back to the refund effective date. ODEC also asks that the Commission clarify that the time period for application of any remedy or design changes required as an outcome of this proceeding will be determined at a later date.[248] To the extent that the Commission does not grant this clarification, ODEC seeks rehearing on the basis that the refund effective dates will impose a retroactive remedy that will require re-running past capacity auctions, contrary to the Commission's policy against upsetting past market outcomes.[249]

85. Clean Energy Associations argue that, by consolidating the records in EL16-49-000 and ER18-1314-000 to find PJM's Tariff unjust and unreasonable, the Commission relied on an incomplete record. Specifically, Clean Energy Associations assert that the Calpine Complaint proceeding in EL16-49-000 focused on state support for existing nuclear plants and parties commented on that, whereas PJM's section 205 filing in ER18-1314-000 dealt with market redesign proposals, and parties were not on notice that the

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[246] June 2018 Order, 163 FERC ¶ 61,236 at P 172 (stating that the paper hearing will address a just and reasonable replacement rate, "including the proposal identified [in the June 2018 Order] or any other proposal that may be presented").

[247] *See id.* at P 174.

[248] ODEC Clarification and Rehearing Request at 3

[249] *Id.* at 4-6.

record compiled in one proceeding would be used in another to answer a different question.[250]

86. Illinois Commission argues that the Commission effectively took administrative notice of the combined records in Docket Nos. ER18-1314 and EL16-49, which is only appropriate where facts are not in dispute, and not where a hearing should have been held, as the Illinois Commission contends should have occurred here.[251]

87. The Illinois Commission argues that the Commission erred in failing to rule on the Illinois Commission's motion to dismiss PJM's section 205 filing in Docket No. ER18-1314-000.[252] According to the Illinois Commission, even though the Commission rejected PJM's Capacity Repricing and MOPR-Ex proposals in the June 2018 Order, the Commission nonetheless relied on the record in Docket No. ER18-1314-000 to justify opening a section 206 investigation into PJM's capacity market design, a record that the Illinois Commission contends is faulty and fails to substantiate that state subsidies cause price suppression.[253]

88. The Illinois Commission further argues that the Commission erred in failing to rule on the Illinois Commission's motion to strike answers filed by PJM and the Market Monitor in Docket No. ER18-1314-000,[254] contending that PJM's answer was untimely, and that the Market Monitor's answer misrepresented facts regarding the Illinois ZEC legislation and should therefore not be relied upon.[255] The Illinois Commission also asserts that the Commission erred by not ruling on a motion to dismiss the amended

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[250] Clean Energy Associations Rehearing Request at 10 n.15.

[251] Illinois Commission Rehearing Request at 4-6 (citing Federal Rules of Evidence Rule 201 regarding judicial notice that judicial notice is an exception to the requirement that decisions be based on evidence adduced at hearing). The Illinois Commission also contends that the Commission failed to rule on its motions to dismiss in both dockets and its motion to strike in Docket No. ER18-1314, calling into question validity of the filings). *Id.* at 5.

[252] *See* Illinois Commission, Motion to Dismiss and Protest, Docket No. ER18-1314-000 (filed May 7, 2018).

[253] Illinois Commission Rehearing Request at 24-25.

[254] *See* Illinois Commission, Motion to Strike, Motion for Leave to Answer, and Answer, Docket No. ER18-1314-0000 (filed June 14, 2018).

[255] Illinois Commission Rehearing Request at 25.

complaint filed in Docket No. EL16-49-000,[256] arguing that the amended complaint was not germane to the original complaint, which allegedly focused only on certain subsidies.[257]

b. Commission Determination

89. With regard to ODEC's clarification request regarding the established refund effective dates, we confirm that the mere setting of a refund effective date does not mean that the Commission has determined whether or when any refund would apply. In any event, this request is moot as the Commission exercised its discretion not to order refunds.[258]

90. We disagree with Clean Energy Associations that the Commission improperly consolidated the records in the Calpine Complaint and April 2018 Filing proceedings to find PJM's Tariff unjust and unreasonable. The Commission enjoys significant discretion in deciding how to process its cases.[259] The June 2018 Order explained the Commission's authority to consolidate cases and why consolidation is appropriate here.[260] We also disagree that consolidation deprived parties of notice regarding the Commission's decision to *sua sponte* commence a section 206 proceeding to determine the replacement rate. Parties were given notice and opportunity to comment in both

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[256] *See* Dayton Power & Light Co. et al., Motion to Dismiss Complaint, To Oppose Acceptance of Motion to Amend Complaint and To Dismiss Amendment to the Complaint and Request for Expedited Action, Docket No. EL16-49-000 (filed Jan. 24, 2017).

[257] Illinois Commission Rehearing Request at 25.

[258] December 2019 Order, 169 FERC ¶ 61,239 at P 3.

[259] *See Vt. Yankee Nuclear Power Corp. v. Nat. Res. Def. Council, Inc.*, 435 U.S. 519, 524-25 (1978) (agencies have broad discretion over the formulation of their procedures); *FPC v. Transcon. Gas Pipe Line Corp.*, 423 U.S. 326, 333-34 (1976) ("a reviewing court may not . . . dictat[e] to the agency the methods, procedures, and time dimension of the needed inquiry"); *Superior Oil Co. v. FERC*, 563 F.2d 191, 201 (5th Cir. 1977) ("We ordinarily will defer to an agency's choices concerning its procedures because in making such choices agencies are best situated to determine how they should allocate their finite resources.").

[260] June 2018 Order, 163 FERC ¶ 61,236 at P 6 n.9.

proceedings upon which the Commission based its section 206 finding, as well as opportunity to comment on the proposed replacement rate.[261]

91. We also disagree with the Illinois Commission that the Commission improperly took administrative notice of the records in the Calpine Complaint proceeding and PJM April 2018 Filing. In arguing this, the Illinois Commission implies that it is impermissible for the Commission to make findings based on what is provided in the record, rather than in a hearing, if there is competing record evidence. The Commission properly exercised its discretion to consolidate these proceedings and therefore appropriately considered the record in each of these dockets, and a hearing was not required.[262]

92. We disagree with the Illinois Commission that the Commission erred by not ruling on its motion to dismiss PJM's section 205 filing. As an initial matter, the Illinois Commission's motion was rendered moot, to the extent the Commission found, as the Illinois Commission urged, that PJM failed to demonstrate that its proposal was just and reasonable. To the extent the Illinois Commission argues that had the Commission dismissed PJM's April 2018 Filing, the Commission could not have relied upon the record to find PJM's Tariff unjust and unreasonable, we disagree. Even if the Commission had ruled directly on the Illinois Commission's motion, we see no basis for disregarding, and the Illinois Commission has cited no precedent requiring that the Commission disregard, the record compiled on PJM's section 205 filing. Moreover, for the reasons discussed at length above, the record supports the Commission's finding that PJM's Tariff was unjust and unreasonable.

93. As to Dayton, et al.'s motion to dismiss the amended complaint, in Docket No. EL16-49-000, the amended complaint was properly before the Commission, pursuant to the Commission's Rules of Practice and Procedure,[263] which permits amended pleadings. We are not persuaded that the subject of the amended complaint–the adoption of ZECs

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[261] *See* PJM Interconnection, L.L.C.; *Notice of Institution of Section 206 Proceeding and Refund Effective Date*, 83 Fed. Reg. 32,113 (July 11, 2018) (providing notice of opportunity to comment on replacement rate).

[262] *See Ill. Commerce Comm'n v. FERC*, 721 F.3d 764, 776 (7th Cir. 2013) ("FERC need not conduct an oral hearing if it can adequately resolve factual disputes on the basis of written submissions."); *Union Pac. Fuels, Inc. v. FERC*, 129 F.3d 157, 164 (D.C. Cir. 1997) ("FERC may resolve factual issues on a written record unless motive, intent, or credibility are at issue or there is a dispute over a past event."). Further, since the Commission is not bound by the Federal Rules of Evidence, we disagree that the Commission improperly took judicial notice of the consolidated records.

[263] 18 C.F.R. § 385.215 (2019).

legislation by the State of Illinois–was not germane to the underlying complaint, as the Illinois Commission asserts given that the complaint was about subsidies generally, not just those cited as examples.

94. Finally, we disagree with the Illinois Commission's assertion that the Commission erred by accepting the May 25, 2018 answers, submitted by PJM and the Market Monitor, while declining to accept, or otherwise address, the Illinois Commission's motion to strike those answers, effectively, an answer to an answer. The Commission's Rules of Practice and Procedure prohibit an answer to an answer unless otherwise ordered by the decisional authority, and having reviewed the disputed answers, the Commission properly exercised its discretion to accept them.[264]

9. Capacity Repricing Rehearing and Clarification Requests

a. Clarification and Rehearing Requests

95. While no party challenges the Commission's rejection of PJM's Capacity Repricing proposal, PJM, the Illinois Commission, and Clean Energy Advocates raise concerns with some of the language the Commission used in the June 2018 Order. PJM asks the Commission to reconsider the finding that the Capacity Repricing proposal would artificially inflate clearing prices.[265] PJM argues that resetting a subsidized offer to its relative level compared to the supply stack approximates the competitive outcome had there been no subsidy, similar to applying a MOPR. According to PJM this is because the clearing price and cleared quantity would be the same whether a subsidized offer was set under either Capacity Repricing or a MOPR. What differentiates Capacity Repricing from a MOPR, PJM argues, is which resources make up the cleared quantity. PJM insists that the resulting clearing price under Capacity Repricing, as opposed to the resource mix, is not "artificially inflated" and the Commission's finding on this point is contrary to fact and prior Commission orders that found that the MOPR, which PJM asserts operates like Capacity Repricing in terms of setting the clearing price, ensures just and reasonable prices.[266]

96. Stating that the Commission was correct in rejecting Capacity Repricing, the Illinois Commission nonetheless argues that the June 2018 Order's statement that Capacity Repricing "represents and unjust and unreasonable cost shift to loads who should not be required to underwrite, through capacity payments, the generation

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[264] 18 C.F.R. § 385.213(a) (2019).

[265] PJM Clarification and Rehearing Request at 6-10; June 2018 Order, 163 FERC ¶ 61,236 at P 64.

[266] PJM Clarification and Rehearing Request at 7-9.

preferences that other regulatory jurisdictions have elected to impose on their own constituents."[267] The Illinois Commission contends that there is no evidence demonstrating that the Illinois ZEC program or other state policies result in such cost shifts.

97. Clean Energy Advocates ask the Commission to narrow, reverse, or clarify the June 2018 Order's statement that "[t]he 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."[268] Clean Energy Advocates are concerned that this statement suggests that out-of-market support should apply to state-sponsored resources in all markets, including energy and ancillary services markets, and assert that this determination would not be supported by the record in this proceeding.[269]

b. Commission Determination

98. In response to PJM's request for rehearing regarding Capacity Repricing, the Commission affirms its findings regarding the Capacity Repricing proposal, including that the proposal "artificially inflates" clearing prices, noting that these findings are confined to the as-filed Capacity Repricing proposal,[270] which was offered as a stand-alone solution, and which disconnected the determination of price and quantity for the sole purpose of facilitating the participation of subsidized resources in the PJM capacity market. We disagree with PJM that Capacity Repricing as proposed in the April 2018 Filing would not artificially increase clearing prices. Although both the MOPR and PJM's Capacity Repricing proposal produce market clearing prices that are meant to approximate competitive outcomes had there been no subsidy, under Capacity Repricing, that price would be "disconnected from the price used to determine which resources receive capacity commitments" to enable the participation of state-supported resources.[271] By disconnecting the determination of price and quantity in that manner, PJM's Capacity Repricing proposal would have sent incorrect price signals to guide entry and exit

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[267] Illinois Commission Rehearing Request at 17 (citing June 2018 Order, 163 FERC ¶ 61,236 at P 67).

[268] Clean Energy Advocates Rehearing Request at 53 (citing June 2018 Order, 163 FERC ¶ 61,236 at P 68 (emphasis added)).

[269] *Id.*

[270] *See* June 2018 Order, 163 FERC ¶ 61,236 at PP 64-65.

[271] *Id.* P 64.

decisions. Accordingly, PJM's assertion that its Capacity Repricing proposal operates similarly to the MOPR—and likewise ensures just and reasonable rates—is misplaced.

99. We affirm the June 2018 Order's finding that Capacity Repricing represents an unjust and unreasonable cost shift to loads. Capacity Repricing would have allowed subsidized resources to displace more economic, unsubsidized resources, which would hinder the ability of the market to attract competitive new entry, shifting the financial and operational risks associated with providing capacity from investors to consumers, while also resulting in price increases above the offer of the marginal unit.

100. In response to Clean Energy Advocates' clarification request, the Commission's decision in the June 2018 Order is based on the record pertaining to the PJM capacity market and the Commission did not make any findings with respect to other markets. This proceeding is solely focused on the effects of various state subsidies on the capacity market. Should regulated utilities believe there is merit in the contention of Clean Energy Advocates, we invite new filings to initiate a separate proceeding.

The Commission orders:

(A) The requests for rehearing are hereby denied, as discussed in the body of this order.

(B) The requests for clarification are hereby granted, as discussed in the body of this order.

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

(SEAL)

Nathaniel J. Davis, Sr.,
Deputy Secretary.

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. EL16-49-001
v.	
PJM Interconnection, L.L.C.	
PJM Interconnection, L.L.C.	EL18-178-001
PJM Interconnection, L.L.C.	ER18-1314-002
	(Consolidated)

(Issued April 16, 2020)

GLICK, Commissioner, *dissenting*:

1. From the beginning, this proceeding has been about two things: Dramatically increasing the price of capacity in PJM Interconnection, L.L.C. (PJM) and slowing the region's transition to a clean energy future. Today's orders on rehearing make that even more clear.[1] Accordingly, I dissent as strongly as I can from both orders, which are illegal, illogical, and truly bad public policy.

2. The Commission started down this road in June 2018, when it is issued a deeply misguided order finding that PJM's capacity market was unjust and unreasonable because it did not prevent state public policies from influencing the resource mix in PJM's capacity market.[2] Then-Commissioner LaFleur aptly described that decision, which was

[1] *Calpine Corp. v. PJM Interconnection, L.L.C.*, 171 FERC ¶ 61,035 (2020) (December 2019 Rehearing Order); *Calpine Corp. v. PJM Interconnection, L.L.C.*, 171 FERC ¶ 61,034 (2020) (June 2018 Rehearing Order).

[2] *Calpine Corp. v. PJM Interconnection, L.L.C.*, 163 FERC ¶ 61,236 (2018) (June 2018 Order).

based on a tenuous theory and a thin record, as "a troubling act of regulatory hubris."[3] To address the purported problems with the capacity market, the June 2018 Order proposed a so-called "resource-specific FRR Alternative"[4] that would have bifurcated the market and cordoned off state-sponsored resources.

3. Then, in December 2019, after a year and a half of indecision, the Commission took a sharp right turn, altogether abandoning the resource-specific FRR Alternative in favor of a radical effort to extirpate state subsidies from the capacity market.[5] That order established a sweeping definition of state subsidy that will subject much, if not most, of the resources in PJM's capacity market to a minimum offer price rule (MOPR). In so doing, the Commission turned the "market" into a system of bureaucratic pricing so pervasive that it would have made the Kremlin economists in the old Soviet Union blush. In addition, the order created a number of exemptions to the MOPR that will have the principal effect of entrenching the current resource mix by excluding several classes of existing resources from mitigation. Finally, in ditching the resource-specific FRR Alternative, the Commission made clear that it had no concern for the interests of states seeking to exercise their authority over generation resources or for the customers that would be left to pick up the tab.

4. Today's orders affirm the conclusions in both the June 2018 and December 2019 Orders with a degree of condescension that is unbecoming of an agency of the federal government. And, as if that were not enough, today's orders show no interest in the careful, detailed analysis that has long been the Commission's hallmark. Instead, they turn away the several dozen rehearing requests with little more than generalities and claims that the parties misunderstood the underlying orders or the governing law—a charge that often more accurately describes the Commission's orders today than it does those rehearing requests.[6] All parties deserve better from this Commission, even the ones that will benefit financially from today's orders.

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[3] *Id.* (LaFleur, Comm'r, dissenting at 5) ("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.").

[4] "FRR" stands for Fixed Resource Requirement.

[5] *Calpine Corp. v. PJM Interconnection, L.L.C.*, 169 FERC ¶ 61,239 (2019) (December 2019 Order).

[6] Today's orders address both the requests filed in response to the June 2018 Order and the December 2019 Order. Unless otherwise indicated, citations to rehearing requests refer to requests filed in response to the December 2019 Order.

I. Today's Orders Unlawfully Target a Matter under State Jurisdiction

5. The FPA is clear. The states, not the Commission, are the entities responsible for shaping the generation mix. Although the FPA vests the Commission with jurisdiction over wholesale sales of electricity as well as practices affecting those wholesale sales,[7] Congress expressly precluded the Commission from regulating "facilities used for the generation of electric energy."[8] Congress instead gave the states exclusive jurisdiction to regulate generation facilitates.[9]

6. But while those jurisdictional lines are clearly drawn, the spheres of jurisdiction themselves are not "hermetically sealed."[10] One sovereign's exercise of its authority will

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[7] Specifically, the FPA applies to "any rate, charge, or classification, demanded, observed, charged, or collected by any public utility for any transmission or sale subject to the jurisdiction of the Commission" and "any rule, regulation, practice, or contract affecting such rate, charge, or classification." 16 U.S.C. § 824e(a) (2018); *see also id.* § 824d(a) (similar).

[8] *See id.* § 824(b)(1) (2018); *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) (*EPSA*) (explaining that "the [FPA] also limits FERC's regulatory reach, and thereby maintains a zone of exclusive state jurisdiction"); *Panhandle E. Pipe Line Co. v. Pub. Serv. Comm'n of Ind.*, 332 U.S. 507, 517-18 (1947) (recognizing that the analogous provisions of the NGA were "drawn with meticulous regard for the continued exercise of state power"). 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 how the application of a MOPR squares with the Commission's role under the FPA.

[9] 16 U.S.C. § 824(b)(1); *Hughes*, 136 S. Ct. at 1292; *see also Pac. 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").

[10] *EPSA*, 136 S. Ct. at 776; *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).

inevitably affect matters subject to the other sovereign's exclusive jurisdiction.[11] For example, any state regulation that increases or decreases the number of generation facilities will, through the law of supply and demand, inevitably affect wholesale rates.[12] But the existence of such cross-jurisdictional effects is not necessarily a "problem" for the purposes of the FPA. Rather, those cross-jurisdictional effects are the product of the "congressionally designed interplay between state and federal regulation"[13] and the natural result of a system in which regulatory authority over a single industry is divided between federal and state government.[14] Maintaining that interplay and permitting each sovereign to carry out its designated role is essential to the cooperative federalist regime that Congress made the foundation of the FPA.

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[11] *See EPSA*, 136 S. Ct. at 776; *Oneok*, 135 S. Ct. at 1601; *Coal. for Competitive Elec. v. Zibelman*, 906 F.3d 41, 57 (2d Cir. 2018) (explaining that the Commission "uses auctions to set wholesale prices and to promote efficiency with the background assumption that the FPA establishes a dual regulatory system between the states and federal government and that the states engage in public policies that affect the wholesale markets").

[12] *Zibelman*, 906 F.3d at 57 (explaining how a state's regulation of generation facilities can have an "incidental effect" on the wholesale rate through the basic principles of supply and demand); *id.* at 53 ("It would be 'strange indeed' to hold that Congress intended to allow the states to regulate production, but only if doing so did not affect interstate rates." (quoting *Nw. Cent. Pipeline Corp. v. State Corp. Comm'n of Kansas*, 489 U.S. 493, 512-13 (1989) (*Northwest Central*))); *Elec. Power Supply Ass'n v. Star*, 904 F.3d 518, 524 (7th Cir. 2018) (explaining that the subsidy at issue in that proceeding "can influence the auction price only indirectly, by keeping active a generation facility that otherwise might close . . . . A larger supply of electricity means a lower market-clearing price, holding demand constant. But because states retain authority over power generation, a state policy that affects price only by increasing the quantity of power available for sale is not preempted by federal law.").

[13] *Hughes*, 136 S. Ct. at 1300 (Sotomayor, J., concurring) (quoting *Northwest Central*, 489 U.S. at 518); *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").

[14] *Cf. Star*, 904 F.3d at 523 ("For decades the Supreme Court has attempted to confine both the Commission and the states to their proper roles, while acknowledging that each use of authorized power necessarily affects tasks that have been assigned elsewhere.").

7. In recent years, the Supreme Court has repeatedly admonished both the Commission and the states that the FPA prohibits actions that "aim at" or "target" the other sovereign's exclusive jurisdiction.[15] Beginning with *Oneok*, the Court underscored that its "precedents emphasize the importance of considering the *target* at which the state law *aims*."[16] The Court has subsequently explained how that general principle plays out in practice when analyzing the limits on both federal and state authority. In *EPSA*, the Court held that the Commission can regulate a practice affecting wholesale rates, provided that the practice "directly" affects those rates and that the Commission does not regulate or target a matter reserved for exclusive state jurisdiction.[17] And, in *Hughes*, the Court returned to this theme, explaining that the FPA prohibits one sovereign from exercising its authority in a manner that aims at or targets the other sovereign's exclusive jurisdiction, which, in that case, meant that a state could not "tether" its regulations to the Commission-jurisdictional wholesale market by requiring the resource to bid and clear in that market in order to secure a subsidy.[18] Together, those cases stand for the unremarkable proposition that the FPA prohibits one sovereign from taking advantage of the law's cooperative federalist model to aim at or target, and, thus, interfere with, the other sovereign's exclusive jurisdiction.

8. But that is exactly what the Commission's new MOPR does. The record in this proceeding makes unmistakably clear that the purpose and effect of the new MOPR is to interfere with state regulation of generation facilities. Indeed, at every turn, the

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[15] *E.g.*, *Hughes*, 136 S. Ct. at 1298 (relying on *Oneok*, 135 S. Ct. at 1599, for the proposition that a state may regulate within its sphere of jurisdiction even if its actions "incidentally affect areas within FERC's domain" but that a state may not target or intrude on FERC's exclusive jurisdiction); *EPSA*, 136 S. Ct. at 776 (emphasizing the importance of "'the *target* at which [a] law *aims*'" (quoting *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) (*Northern Natural*))).

[16] *Oneok*, 135 S. Ct. at 1600 (discussing *Northern Natural*, 372 U.S. at 94, and *Northwest Central*, 489 U.S. at 513-14).

[17] *EPSA*, 136 S. Ct. at 775-77; *id.* at 776.

[18] *Hughes*, 136 S. Ct. at 1298, 1299. In the intervening few years, the lower federal courts have carefully followed the Court's discussion of the prohibition on one sovereign regulating in a manner that interferes with the other sovereign's authority by targeting matters subject to their exclusive jurisdiction. *See, e.g.*, *Zibelman*, 906 F.3d at 50-51, 53; *Star*, 904 F.3d at 523-24; *Allco Fin. Ltd. v. Klee*, 861 F.3d 82, 98 (2d Cir. 2017).

Commission's has described the new MOPR as targeting the PJM states' exercise of their exclusive jurisdiction to regulate generation facilities under FPA section 201(b). For example, the Commission began its determination section in the June 2018 Order with a discussion of purported problems evidenced in "[t]he records [before it, which] 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"[19]—*i.e.*, the simple fact that states are exercising their reserved authority. The Commission explained that states' exercise of their reserved authority created "significant uncertainty" and left other resources unable to "predict whether their capital will be competing against" subsidized or unsubsidized units,[20] again making clear that it is the mere exercise of that authority that is the purported problem. And, ultimately, the Commission found that PJM's tariff was unjust and unreasonable because it did not prevent the ineluctable effects of state action from making their way to the wholesale market.[21]

9. The December 2019 order made the Commission's attempt to interfere with state authority even more clear. Its rationale for the new MOPR was that it was needed to combat increasing state policies and ensure that state actions do not shape entry and exit through the capacity market.[22] In addition, the Commission focused *only* on what it deemed to be states' regulation of generation facilities, explicitly ignoring other state policies that might equally affect wholesale rates, such as so-called general industrial development policies or local siting support.[23] That concession is plain evidence that the

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[19] June 2018 Order, 163 FERC ¶ 61,236 at P 149.

[20] *Id.* P 150.

[21] *Id.* P 156; *EPSA*, 136 S. Ct. at 776 (explaining that because the federal and state spheres of jurisdiction "are not hermetically sealed from each other," " virtually any action" one sovereign takes pursuant to its authority will have "some effect" on matters within the other's sphere of jurisdiction).

[22] December 2019 Order, 169 FERC ¶ 61,239 at P 37.

[23] *Id.* P 83; *see* December 2019 Rehearing Order, 171 FERC ¶ 61,035 at PP 68, 108. The Commission has never attempted to provide a rational justification for that distinction. It certainly did not distinguish between acceptable and unacceptable state policies based on their effects on wholesale rates given that there is no record evidence bearing on that point and certainly no discussion of such a distinction in any of the Commission's orders in this proceeding. *See infra* section II.B.1.c. Instead, the Commission asserted that it was concerned only with those state efforts that it determined (again with no analysis) to be "most nearly directed at or tethered to" the wholesale rate. December 2019 Order, 169 FERC ¶ 61,239 at P 68 (internal quotation marks and

new MOPR is not about the effects of state actions on wholesale rates, but rather all about blocking particular state efforts to shape the generation mix. Indeed, it is irrational in the extreme to profess concern about the effects of state policies on the generation mix, but then completely ignore whole classes of state policies that significantly affect wholesale prices in order to focus exclusively on the particular subsidies that various states have enacted pursuant to their reserved authority under FPA section 201(b). That result, and the Commission's total failure to provide a reasoned explanation for the arbitrary lines it drew, show this proceeding for what it is: An effort aimed directly at state efforts to shape the generation mix, price suppression pretext notwithstanding.[24]

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footnotes omitted); *see* Clean Energy Advocates Rehearing Request at 32 ("The Commission . . . cobbles together a test of whether policies are 'nearly directed at' or 'tethered to' new entry or continued operation of generating capacity. This test, too, lacks any substantive articulation of explanation, and the Commission does not establish how or why such policies would have the greatest impact on rates." (footnotes omitted)). That rather awkward repurposing of a preemption term of art tells us nothing. The term "untethered" first entered the FPA lexicon in *Hughes*, 136 S. Ct. at 1299, and the specific concept of "tethering" described in that opinion has played an important role in subsequent FPA preemption litigation. *E.g.*, *Zibelman*, 906 F.3d at 51-55; *Star*, 904 F.3d at 523-24; *Allco*, 861 F.3d at 102. But until December 2019, it was never used as the yardstick for targeting particular state policies that are concededly "untethered" to the wholesale rate. It is not obvious, and the Commission certainly does not explain, why being a valid exercise of state jurisdiction that is close-to-but-not preempted should be relevant to our analysis, especially if that analysis is nominally only about wholesale market effects. Preemption is a binary determination, which is distinctly unlike horseshoes or hand grenades. The failure to provide a reasoned basis for distinguishing between acceptable and unacceptable state policies is itself arbitrary and capricious and only underscores the extent to which the Commission's order targets state jurisdiction, notwithstanding its scattered statements about price suppression and wholesale rates.

[24] In addition, the disparate treatment that the Commission accords different types of state policies underscores the extent to which it is meddling in state jurisdiction. The new MOPR is laser-focused on mitigating anything that increases a resource's revenue, but expressly excludes anything that decreases its costs. *See infra* Section II.B.1.d; December 2019 Rehearing Order, 171 FERC ¶ 61,035 at P 390 (explaining that the Commission will not treat the Regional Greenhouse Gas Initiative (RGGI) as a subsidy because it "does not provide payments, concessions, rebates, or other financial benefits to resources" even though it meets every other prong of the Commission's subsidy definition, *see* December 2019 Order, 169 FERC ¶ 61,239 at P 67). That means that, in the Commission's eyes, any state policy that augments a resource's revenue is a "problem" that must be solved, but that any state policy that decreases its relative costs is not. But, in a construct where offer prices are calculated as costs *net* of revenues, *see*

10. And, lest there be any doubt, the December 2019 Order made clear that the Commission fully understood the effect of the MOPR on those disfavored state policies. As discussed further below,[25] the Commission refused to extend the MOPR to federal policies because doing so would "nullify" those policies.[26] Indeed, the Commission asserted that federal subsidies "distort competitive market outcomes" every bit as much as state subsidies[27] and that the only reason to refrain from applying the new MOPR to federal subsidies is that the Commission lacks the power to "nullify" or "disregard" federal legislation."[28] That moment of honesty revealed that the Commission knew exactly what its new MOPR did to the state regulation of generation facilities targeted in its order, undercutting its various statements about the MOPR's supposed limited effect on state resource decisionmaking. The problem for the Commission, is that it is equally impermissible for it to use its authority over wholesale rates in an attempt to nullify state regulation of the generation mix and it cannot, consistent with reasoned decisionmaking, insist that the MOPR has one effect on federal policies and a totally different effect on state policies. If the MOPR would nullify federal policies—an assessment with which I agree—than it must equally nullify state policies.

11. And, finally, the December 2019 Order admitted that its purpose was to the disfavored state actions with what the Commission described as "price signals on which investors and consumers can rely to guide the orderly entry and exit of economically efficient capacity resources."[29] That is to say, its goal was to establish a set of price signals to determine resource entry and exit in the capacity market *for the explicit purpose* of superseding state resource decisionmaking and to better reflect the

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infra Section II.B.4, as both the net cost of new entry (Net CONE) and net avoidable cost rate (Net ACR) offer floors are, *see* Section II.B.4, whether a state policy operates on the revenue or cost side of resource's equation is utterly immaterial. Putting aside whether that distinction makes any sense, it shows the extent to which the Commission is meddling in state resource decisionmaking by finding that the effects of certain state policies are legitimate while the identical effects of others are not.

[25] *See infra* Section II.B.1.a.

[26] December 2019 Order, 169 FERC ¶ 61,239 at PP 10, 89.

[27] *Id.* P 10.

[28] *Id.* PP 10, 89.

[29] *Id.* P 40.

Commission's preferences for merchant generators that do not rely on compensation they receive for addressing externalities.

12. In short, the December 2019 Order conceded that the "problem" was state efforts to shape the generation mix, that the Commission was focused *only* on those state efforts, that the Commission's action would "nullify" those state efforts, and that it would override those efforts in order to send price signals that better aligned with the Commission's preferences.[30] That directly targets states' reserved authority under section 201(b).

13. Today's orders erase any lingering doubt about the purpose and effect of the Commission's new MOPR. In addition to affirming its earlier statements, the Commission doubles down on its still unexplained "most nearly tethered" standard, this time describing it as some form of administrative grace for which states should thank their lucky stars.[31] Putting aside the dripping arrogance of that worldview, the only issue that phrase elucidates is the extent to which today's orders are focused on blocking state efforts to shape the resource mix and not on the effects of state policies on wholesale markets.[32] After all, if today's orders were actually concerned with the wholesale-market effects of state policies, they would not excuse from the new MOPR general industrial development policies and local siting support—categories which have much larger effects on the wholesale market than many of the policies targeted in today's orders.[33]

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[30] As discussed further below, it is hard to tally up the cumulative effect of today's orders and find that characterization even remotely accurate. In any case, a policy of blocking state efforts to address externalities is itself very much a policy, not the absence thereof. Elsewhere, the Commission suggests that it lacks the authority to directly address any environmental considerations. *E.g.*, December 2019 Rehearing Order, 171 FERC ¶ 61,035 at P 41. Assuming, for the moment, the accuracy of that statement, it still does not explain why the Commission should or must affirmatively block state efforts to the same using authority that no one contests they possess.

[31] December 2019 Rehearing Order, 171 FERC ¶ 61,035 at P 78; *see supra* note 23.

[32] As discussed above, *supra note* 23 and accompanying text, the Commission's unexplained focus on only certain state policies, and not others that might equally cause the sort of price suppression about which it purports to be so concerned, lays bare that today's orders is about blocking disfavored state policies and not wholesale market effects. *See* December 2019 Rehearing Order, 171 FERC ¶ 61,035 at P 106 ("[T]he expanded MOPR is not intended to address all commercial externalities or opportunities that might affect the economics of a particular resource.").

[33] *See infra* Section II.B.3.

14. But that is not even the half of it. A few hundred paragraphs later, the Commission comes right out and admits that its goal is to penalize and, ultimately, discourage states from exercising their exclusive jurisdiction. In patting itself on the back for issuing what it describes as a "decisive order," the Commission laments the fact that its supposedly decisive order was not enough to deter states from continuing to exercise their section 201(b) jurisdiction.[34] But it is no more our role to deter states from regulating generation facilities than it is the states' role to prevent us from ensuring that rates are just and reasonable.[35] And, as the Supreme Court has repeatedly made clear, the FPA does not permit FERC or the states to exercise their authority under the FPA to target the other sovereign's exclusive jurisdiction.[36]

15. All told, this simply is not a proceeding where "the Commission's justifications for regulating . . . are all about, and only about, improving the wholesale market."[37] Unlike the rule upheld in *EPSA*, where the matters subject to state jurisdiction "figure[d] no more in the Rule's goals than in the mechanism through which the Rule operates," state actions are front and center in the Commission's justification for acting.[38] To be sure, the Commission doffs its hat to "price suppression" throughout the orders. But repeating the phrase "price suppression" does not change the fact that the Commission's stated concern in the June 2018 Order, the December 2109 Order, and today's orders is

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[34] December 2019 Rehearing Order, 171 FERC ¶ 61,035 at P 319 ("Even after the June 2018 Order, certain states pursued new or expanded out-of-market support for preferred resources").

[35] Elsewhere in today's orders, the Commission suggests that federal subsidies, presumably in contrast to state subsidies, are as "equally valid" as regulations under the FPA. December 2019 Rehearing Order, 171 FERC ¶ 61,035 at P 120. There is no basis for the insinuation that state subsidies are somehow less valid than federal ones. Although it is true that state subsidies that directly regulate or aim at the Commission's exclusive jurisdiction or that conflict with a Commission regulation are preempted, *see supra* P 7, the December 2019 Rehearing Order deals with state actions that are concededly not preempted and were enacted pursuant to the states exercise of their reserved authority under the FPA. *See, e.g.*, December 2019 Rehearing Order, 171 FERC ¶ 61,035 at PP 76-77. But, although the Commission's "equally valid" rationale is unhelpful as a statement of law, it is a revealing illustration of the attitude toward state authority that pervades the order.

[36] *See supra* P 7.

[37] *EPSA*, 136 S. Ct. at 776 (citing *Oneok*, 135 S. Ct. at 1599).

[38] *Id.*

the states' exercise of their authority under section 201(b) or the fact that the goal of the new MOPR is to "nullify" and "disregard" the effects of state resource decisionmaking. Similarly, the Commission's observation that it is not literally precluding states from building new resources is beside the point. As I explained in my earlier dissent, that is the equivalent of saying that a grounded teenager is not being punished because he can still play in his room—it deliberately mischaracterizes both the intent and the effect of the action in question.[39]

16. The extent to which the Commission is attempting to interfere with state resource decisionmaking is even clearer with a little context. The MOPR was originally used to mitigate buyer-side market power within the wholesale market[40]—a concern at the heart of the Commission's responsibility to ensure that wholesale rates are just and unreasonable.[41] And for much of the MOPR's history, that is what it did. Even when the Commission eliminated the categorical exemption for resources developed pursuant to state public policy, the Commission limited the MOPR's application only to natural gas-fired resources—*i.e.*, those that would most likely be used as part of an effort to decrease capacity market prices.[42]

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[39] December 2019 Order, 169 FERC ¶ 61,239 (Glick, Comm'r, dissenting at P 13).

[40] Specifically, those early MOPRs were designed to ensure that net buyers of capacity were not able to use market power to drive down the capacity market price. *See N.Y. Indep. Sys. Operator, Inc.*, 170 FERC ¶ 61,121 (2020) (Glick, Comm'r, dissenting at P 2); *see generally* Richard B. Miller, Neil H. Butterklee & Margaret Comes, *"Buyer-Side" Mitigation in Organized Capacity Markets: Time for a Change?*, 33 Energy L.J. 459 (2012) (discussing the history of buyer-side mitigation at the Commission).

[41] *See, e.g., Nat'l Ass'n of Regulatory Util. Comm'rs v. FERC*, 475 F.3d 1277, 1280 (D.C. Cir. 2007) (noting that "FERC's authority generally rests on the public interest in constraining exercises of market power"); *Pub. Util. Dist. No. 1 of Snohomish Cty. v. Dynegy Power Mktg., Inc.*, 384 F.3d 756, 760 (9th Cir. 2004) (explaining that the absence of market power could provide a strong indicator that rates are just and reasonable); *Tejas Power Corp. v. FERC*, 908 F.2d 998, 1004 (D.C. Cir. 1990) ("In a competitive market, where neither buyer nor seller has significant market power, it is rational to assume that the terms of their voluntary exchange are reasonable, and specifically to infer that the price is close to marginal cost, such that the seller makes only a normal return on its investment."); *see also N.Y. Indep. Sys. Operator, Inc.*, 170 FERC ¶ 61,121 (Glick, Comm'r, dissenting at P 2) (explaining that "the Commission's buyer-side market power mitigation regime should focus only on actual market power" a concern that "is both more consistent with the FPA's dual-federalist design and the Commission's core responsibility as a regulator of monopoly/monopsony power").

[42] *See N.J. Bd. of Public Utils. v. FERC*, 744 F.3d 74, 106-07 (3d Cir. 2014)

17. How things have changed. Today, the Commission expressly admits that, for the first time, the MOPR is no longer about buyer-side market power.[43] Instead, as noted, it is all about and only about nullifying the effects of state public policies. That dramatic shift began only in 2018, more than a decade after the MOPR was first employed to mitigate the exercise of market power.[44] The intervening two years have been head-spinning as the Commission has rapidly transformed a narrowly tailored anti-monopsony measure into a regime for blocking state efforts to shape the generation mix.

18. At no point, however, has the Commission been able to coherently justify the MOPR's change of target. It first claimed that this transformation of the MOPR was necessary to ensure "investor confidence" and the ability of unsubsidized resources to compete against resources receiving state support.[45] A few months later, at the outset of this proceeding, the Commission abandoned "investor confidence" and asserted that the need to mitigate state policies in order to protect the "integrity" of the capacity market—another concept that it did not bother to explain.[46] And last December, the Commission added yet another new twist: That state subsidies "reject the premise of the capacity market."[47] But, as with investor confidence and market integrity, it is hard to know exactly what that premise is. Today's orders provide more of the same, reiterating those

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(*NJBPU*) (summarizing the Commission's reasoning for limiting the MOPR to only natural gas-fired resources). The Commission asserts, without explanation, that there is a "clear tension" between the 2011 order eliminating the public policy exemption to then-limited MOPR and recent state efforts to shape the generation mix. December 2019 Rehearing Order, 171 FERC ¶ 61,035 at P 320. Nonsense. The 2011 order specifically exempted all non-natural-gas-fired resources from the MOPR, squarely foreclosing whatever tension the Commission pretends to uncover today. In any case, it is hardly fair to assign states the responsibility for predicting when the Commission will abandon its precedent and entirely reorient its approach to regulating a construct like the PJM capacity market.

[43] December 2019 Rehearing Order, 171 FERC ¶ 61,035 at P 45 (stating that "the expanded MOPR does not focus on buyer-side market power mitigation").

[44] *See ISO New England Inc.*, 162 FERC ¶ 61,205, at PP 20-26 (2018). That order also came after every existing court case considering the legality of the Commission's use of the MOPR.

[45] *Id.* P 21.

[46] June 2018 Order, 163 FERC ¶ 61,236 at PP 150, 156, 161.

[47] December 2019 Order, 169 FERC ¶ 61,239 at P 17.

buzz words without any further explanation.[48] If there is one thing that those inscrutable terms share, it is their inability to conceal, much less justify, the fundamental shift in the Commission's focus.[49] The Commission's effort to recast the MOPR as always having been about price suppression at some level of generality[50] obfuscates that point and badly mischaracterizes the recent shift in the MOPR's focus.

19. Neither of the Commission's responses provide it much cover. First, the Commission asserts that the new MOPR does not intrude on states' exclusive jurisdiction just because it "affect[s] matters within the states' jurisdiction."[51] Of course that is true; *EPSA* tells as much.[52] But it is also beside the point. My argument—and the arguments made by several parties on rehearing[53]—is that the Commission is exercising its authority

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[48] *E.g.*, December 2019 Rehearing Order, 171 FERC ¶ 61,035 at P 78 (asserting that "[t]he Commission may, as here, take action to protect the integrity of federally-regulated markets against state policies" without explaining what exactly integrity means in this context); *id.* P 320 (explaining that the various exemptions provided for in the December 2019 Order are for "resources that accept the premise of a competitive capacity market" (quoting December 2019 Order, 169 FERC ¶ 61,239 at P 17)); *id.* P 337 (asserting that "[t]he replacement rate directed in the December 2019 Order addresses State-Subsidized Resources, which pose a risk to the integrity of competition in the wholesale capacity market").

[49] Public Power Entities Rehearing Request at 6-7 ("The Commission did not justify the transformation of the MOPR from a limited mechanism aimed at preventing price suppression by subsidized new entry into a sweeping restriction on almost all forms of non-federal support for generation resources.").

[50] December 2019 Order, 169 FERC ¶ 61,239 at 136; *see* December 2019 Rehearing Order, 171 FERC ¶ 61,035 at P 338 ("[T]he December 2019 Order expands the scope of the MOPR, but not its underlying purpose."). As I noted in my underlying dissent, suggesting that the MOPR has always been about price suppression is the equivalent of saying that speed limits have always been about keeping people from getting to their destination too quickly. There is a sense in which that is true, but it kind of misses the point. December 2019 Order, 169 FERC ¶ 61,239 (Glick, Comm'r, dissenting at n.35).

[51] December 2019 Rehearing Order, 171 FERC ¶ 61,035 at PP 15-16.

[52] *EPSA*, 136 S. Ct. at 776 ("[A] FERC regulation does not run afoul of § 824(b)'s proscription just because it affects—even substantially—the quantity or terms of retail sales.").

[53] *See, e.g.* Public Power Entities Rehearing Request at 13-15; Clean Energy

over wholesale sales to "aim at" or "target" matters subject to exclusive state jurisdiction. As explained above, the "goals" of the new MOPR and the mechanism "through which [it] operates" demonstrate an unmistakable focus on states' exercise of their reserved authority.[54] That means that, unlike the rule in *EPSA*, today's orders are not "all about, and only about, improving the wholesale market."[55] Accordingly, the Court's precedent regarding the incidental effects of a valid exercise of Commission authority are beside the point.

20. In addition, the Commission appears to suggest that it can overstep its jurisdictional bounds only if it *literally* requires states to build certain resources or prevents states from doing the same.[56] In other words, the Commission's theory of the case is that it exceeds its jurisdiction *only* if it directly regulates the construction of new resources. But that suggestion is inconsistent with the Supreme Court's recent cases, including *EPSA*, that make clear that the FPA does not permit federal or state regulators to use their authority in an attempt to interfere with the other's sphere of exclusive jurisdiction by aiming at or targeting the matters peculiarly within that sphere.[57] Accordingly, the Commission's reasoning is both a misapplication of the law and arbitrary and capricious insofar as it utterly misses the point of the argument made by several parties on rehearing.[58]

21. Second, the Commission points to a handful of court of appeals decisions upholding various Commission orders addressing capacity markets. None of those cases sanction the Commission's actions in this proceeding. The December 2019 Rehearing Order contends principally that the U.S. Court of Appeals for the Third Circuit's (Third Circuit) decision in *NJPBU* inoculates the Commission against any charge that it has exceeded its jurisdiction by intruding on state authority over resource decisionmaking.[59]

Advocates Rehearing Request at 85-89.

[54] *EPSA* 136 S. Ct. at 776-77.

[55] *Id.* at 776.

[56] *See* December 2019 Rehearing Order, 171 FERC ¶ 61,035 at P 17.

[57] *See supra* P 7; *EPSA* 136 S. Ct. at 776-77.

[58] *See, e.g.*, Public Power Entities Rehearing and Clarification Request at 13-16; Clean Energy Associations Rehearing and Clarification Request at 10-11; Maryland Commission Rehearing and Clarification Request at 9-13; *see also supra* P 7; December 2019 Order, 169 FERC ¶ 61,239 (Glick, Comm'r, dissenting at PP 7-17).

[59] December 2019 Rehearing Order, 171 FERC ¶ 61,035 at P 16 ("The court's

That is not how precedent works. Just because a court upheld one order against a particular challenge does not mean that it would uphold all similar orders against other challenges.

22. In any case, the orders in this proceeding bear only a surface-level similarity to *NJBPU*.[60] As the Third Circuit explained, the purpose of the MOPR on review in that case was limited to mitigating the exercise of buyer-side market power[61]—a concern that, as noted, lies at the core of the Commission's authority over wholesale rates and practices.[62] Consistent with that focus, that MOPR applied only to natural gas-fired power plants because they were the resources that a large net buyer of capacity could rationally use to suppress the capacity market clearing price.[63] In that case, the Commission eliminated an "exception" from the MOPR that had previously allowed state-sponsored natural gas-fired units to skirt the MOPR.[64] The Commission justified its decision by pointing to a pair of (ultimately preempted) state laws that subsidized new natural gas plants by effectively guaranteeing them a predetermined wholesale rate.[65]

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decision in *NJBPU* demonstrates that the findings from the December 2019 Order are within the Commission's jurisdiction."); June 2018 Rehearing Order, 171 FERC ¶ 61,034 at P 66.

[60] *See supra* PP 16-18 (discussing the MOPR's evolution).

[61] *NJBPU*, 744 F.3d at 84-85. In other words, the "aim" or "target" of the MOPR was limited to the exercise of wholesale market power. *Id.*

[62] *See supra* note 41.

[63] *NJBPU*, 744 F.3d at 106 ("[T]he only resources subject to the MOPR are natural gas-fired technologies."); *id.* ("FERC asserts that the characteristics of gas units make them more likely to be used as price suppression tools." (internal quotation marks omitted)).

[64] *Id.* at 79.

[65] *PJM Interconnection, L.L.C.*, 135 FERC ¶ 61022, at P 139 (2011); *id.* PP 128-138 (discussing the evidence in the record). In *Hughes*, the Supreme Court subsequently held that the Maryland law, which was functionally identical to the New Jersey law, was preempted because it aimed at FERC's exclusive jurisdiction over wholesales. 136 S. Ct. at 1928. That the Commission's elimination of the state resource exemption was both focused exclusively on the exercise of buyer-side market power and in response to a state's "intrusion" on FERC's exclusive jurisdiction, *id.* n.11, only underscores the differences between that decision and today's orders.

The court concluded that all the MOPR did in that case was ensure a "new resource is economical—*i.e.*, that it is needed by the market—and ensures that its sponsor cannot exercise *market power* by introducing a new resource into the auction at a price that does not reflect its costs and that has the effect of lowering the auction clearing price."[66] In addition, in reviewing those facts, the court observed that "FERC's enumerated reasons for approving the elimination of the state-mandated exception relate directly to the wholesale price for capacity."[67]

23. Today's orders are an altogether different animal. As noted above, the December 2019 Rehearing Order explicitly disavows the mitigation of market power as the basis for the new MOPR,[68] instead making it "all about and only about"[69] "nullifying"[70] state efforts to shape the generation mix[71]—or at least those state efforts that the Commission dislikes.[72] As explained above, today's orders—and, indeed, every order in this proceeding—has made clear that the aim of the new MOPR is to "deter" states from

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[66] *NJBPU*, 744 F.3d at 97 (emphasis added).

[67] *Id.*

[68] *See supra* P 7; December 2019 Rehearing Order, 171 FERC ¶ 61,035 at P 45 ("[T]he expanded MOPR does not focus on buyer-side market power mitigation."); June 2018 Rehearing Order, 171 FERC ¶ 61,034 at P 56.

[69] *EPSA*, 136 S. Ct. at 776.

[70] As noted, this is the Commission's own term for describing the effect that applying the MOPR has on a particular policy. December 2019 Order, 169 FERC ¶ 61,239 at P 87. On rehearing, several parties identified the tension between the Commission's assertions that it could not apply the MOPR to federal policies because to do so would "nullify" those policies and its statements that applying the MOPR to state policies has no effect whatsoever. December 2019 Rehearing Order, 171 FERC ¶ 61,035 at P 12. Although the Commission summarizes some of those arguments, it does not respond to them.

[71] *See supra* P 9 (explaining how the Commission's orders focus only on state efforts to regulate the generation mix and not on other state efforts that could conceivably have the same price suppressive effects). Even PJM, which brought this problem to our doorstep in 2018, criticizes the Commission for abandoning the MOPR's role as "guardrail" and turning it into an "over-broad and over-prescriptive" rule that "needlessly interferes with state resource policies." PJM Rehearing and Clarification Request at 6-9.

[72] *See supra* PP 11-12; *infra* Section II.B.1.d.

taking actions of which the Commission disapproves.[73] That makes today's orders a far cry from *NJBPU*. In addition, the new MOPR mitigates indiscriminately and explicitly does not require that the mitigated state policy actually affect the capacity market clearing price or even be likely to have such an effect.[74] That is distinctly unlike the targeted MOPR in *NJBPU* that addressed only the resources most likely to be used in an exercise of market power.[75] Simply put, the MOPR addressed in today's orders is so fundamentally different from that before the court in *NJBPU* as to render the holding in that case next to meaningless as applied to these orders.

24. The Commission also suggests that the D.C. Circuit's decisions in *Connecticut Department* and *Municipalities of Groton* support today's outcome.[76] But those cases have even less in common with the facts before us than *NJBPU*. In both instances, the court upheld the Commission's authority to require wholesale buyers to purchase particular quantities of capacity.[77] As the Court explained in *Connecticut Department*, the Commission's focus was squarely on market structures that would motivate utilities to develop or acquire the necessary capacity.[78] But the Court went out of its way to explain that nothing in the Commission's orders in any way limited the states' ability to *influence* or, indeed, directly select the resources that would meet those capacity requirements.[79] And that is where any superficial similarity to today's orders ends. As noted, the new MOPR is expressly about limiting—"nullify[ing]" to use the

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[73] *See supra* P 14.

[74] December 2019 Rehearing Order, 171 FERC ¶ 61,035 at P 132.

[75] Public Power Entities Rehearing Request at 15 (The "expansion of the MOPR fundamentally alters its purposes and impact in a way that impermissibly intrudes on state authority.").

[76] December 2019 Rehearing Order, 171 FERC ¶ 61,035 at P 15 & n.45 (citing *Conn. Dep't of Pub. Util. Control v. FERC*, 569 F.3d 477, 481-82 (D.C. Cir. 2009) and *Muns. of Groton v. FERC*, 587 F.2d 1296, 1301 (D.C. Cir. 1978)).

[77] *Connecticut Dep't*, 569 F.3d 481-85; *id.* at 482 (explaining that *Municipalities of Groton* "sustained the Commission's jurisdiction to review the 'deficiency charges' . . . charged . . . when member utilities failed to live up to their share of NEPOOL's reliability requirement").

[78] *Id.* at 482.

[79] *Id.*

Commission's word[80]—state efforts to shape the resources that meet those requirements.[81] What is more, that nullification is the express reason for of the Commission's action: The orders' goal is to block the effects of state policies and deter states from exercising their authority over generation facilities.[82]

25. Finally, it is important to be precise about my jurisdictional argument. I do not believe that any MOPR is *per se* invalid just because it complicates state efforts to regulate generation facilities.[83] After all, *NJBPU* indicates that the use of a MOPR that addresses matters squarely within the Commission's authority is permissible, at least in certain circumstances.[84] But that is not what we have here. As explained above, today's orders confirm that the Commission is deploying its new MOPR to aim at state resource decisionmaking and for the purpose of substituting its own policy preferences for those of the states. That "fatal defect" renders this particular MOPR in excess of the Commission's jurisdiction.[85]

II. The Commission's Orders Are Arbitrary and Capricious

26. Today's orders are also arbitrary and capricious. The upshot of the majority's position is that PJM's capacity market is a just and reasonable construct *only* if the Commission "nullifies" the effects of state public policies. That interpretation of the FPA is as radical as it is wrong and finds no support in the 80-year history of the Act or in any

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[80] December 2019 Order, 169 FERC ¶ 61,239 at PP 10, 89.

[81] *See supra* P 10.

[82] December 2019 Rehearing Order, 171 FERC ¶ 61,035 at P 319. The Commission is also fond of pointing to the U.S. Court of Appeals for the Seventh Circuit's statement, in resolving preemption litigation regarding Illinois's zero-emissions credits, that the Commission has the authority to make "adjustments" to its regulations in light of state action. *Star*, 904 F.3d at 524. And indeed it does. But it does not follow that the Commission can make *any* "adjustment" that it wants, certainly not one inconsistent with Supreme Court's holdings on the limit of federal authority under the FPA.

[83] As I have elsewhere explained, the proper role for MOPRs is in combatting exercises of market power, not state efforts to shape the generation mix. *N.Y. Indep. Sys. Operator, Inc.*, 170 FERC ¶ 61,121 (2020) (Glick, Comm'r, dissenting at PP 15-16).

[84] *NJBPU*, 744 F.3d at 96-98.

[85] *Cf. Hughes*, 136 S. Ct. at 1299.

Commission or court precedent.[86] I suppose it should be no surprise that installing such an unprecedented mitigation regime proves to be a difficult task. But that is no excuse for an order riddled with determinations that are unsupported by the record and deeply arbitrary and capricious. The whole purpose of the Administrative Procedure Act is to prevent an agency from relying on fundamentally flawed reasoning in order to impose its policy preferences. If ever those protections were needed to address an action of the Commission, it is this one, both because of the shoddy reasoning on which the Commission's actions are based and the tremendous damage they may ultimately do. In the following sections, I detail several of what I view to be the most serious flaws in the Commissions reasoning, any of which should be sufficient to invalidate today's orders.

A. The Commission Has Not Shown that the Existing Rate Was Unjust and Unreasonable

27. Section 206 of the FPA requires the Commission to show that the existing rate is unjust and unreasonable or unduly discriminatory or preferential before it can set a replacement rate.[87] The June 2018 Rehearing Order fails to articulate a reasoned basis for concluding that the pre-existing capacity market rules were unjust and unreasonable or unduly discriminatory or preferential. Instead, the Commission doubles down on a conclusory theory of the case that does not seriously wrestle with the contrary arguments and evidence in the record.

28. The June 2018 Rehearing Order does not rely on any evidence that state policies are actually distorting prices, much less that they are doing so in a way that imperils resource adequacy in the region. Instead, the Commission's case rests on two propositions: (1) that certain state subsidies permit resources to lower their capacity

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[86] The December 2019 Order also swept beyond what was contemplated in the original *Calpine* complaint by suggesting that voluntary commercial transactions involving renewable energy credits (RECs) would constitute a state-subsidized transaction and be subject to the MOPR. In response, several parties sought late intervention, which the Commission denies. December 2019 Rehearing Order, 171 FERC ¶ 61,035 at P 4. I would have granted those interventions. The December 2019 Order took an approach to mitigation that was far broader than any that had been contemplated to date in this proceeding and, indeed, in the Commission's history. Under those circumstances, we would be better served by letting would-be parties have their full say, rather than forcing them to sit on the sidelines.

[87] *Emera Maine v. FERC*, 854 F.3d 9, 25 (D.C. Cir. 2017) ("[A] finding that an existing rate is unjust and unreasonable is the 'condition precedent' to FERC's exercise of its section 206 authority to change that rate." (quoting *FPC v. Sierra Pac. Power Co.*, 350 U.S. 348, 353 (1956))).

market offers, which, if enough resources do it, will lower the clearing price[88] and (2) that the number of potentially subsidized megawatts in PJM appears likely to grow in coming years.[89] That is the entirety of the Commission's theory. And that is not enough, on this record, to reasonably conclude that PJM's existing tariff was unjust and unreasonable or unduly discriminatory or preferential.

29. As numerous parties argued on rehearing, the idea that resource adequacy in PJM is currently imperiled by state subsidies is, frankly, laughable. The Base Residual Auction has consistently procured more resources than required to meet PJM's reliability requirement and thousands of megawatts of additional resources have elected not to retire, even though they are not receiving any capacity market payment.[90] If state policies are, in fact, a threat to resource adequacy, there is certainly no evidence of that in PJM's current reserve margins. Instead, as discussed in some detail in another statement I am issuing today, if there is a problem in PJM's capacity market, it is not that prices are too low, but rather that the market is designed to produce prices that are too high, over-procuring capacity and dulling the price signals in the energy and ancillary service markets.[91] Faced with that fact, the Commission responds with the assertion that state subsidies will surely cause a problem in the future.[92] Maybe, but there is no evidence in

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[88] *E.g.*, June 2018 Rehearing Order, 171 FERC ¶ 61,034 at P 28 ("It is axiomatic that resources receiving out-of-market subsidies need less revenue from the market than they otherwise would. The rational choice for such resources, given their need to participate in PJM's capacity market, is to reduce their offers commensurably to ensure they clear in the market.").

[89] *E.g.*, *id.* P 29 ("Rather, the June 2018 Order emphasized the significant and continued growth of out-of-market support. As this growth continues, more subsidized resources will have the ability to offer below their costs and suppress prices" (footnotes omitted)).

[90] *See, e.g.*, Joint Consumer Advocates June 2018 Order Rehearing Request at 8 (citing PJM 2021/2022 RPM Base Residual Action Results at 1, https://www.pjm.com/-/media/markets-ops/rpm/rpm-auction-info/2021-2022/2021-2022-base-residual-auction-report.ashx (2021/2022 BRA Summary)); *see also* 2021/2022 BRA Summary ("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.*" (emphasis added)).

[91] *See PJM Interconnection, L.L.C.*, 171 FERC ¶ 61,040 (2020) (Glick, Comm'r. dissenting).

[92] June 2018 Rehearing Order, 171 FERC ¶ 61,034 at PP 29-30.

this record that suggests that state policies will cause any resource adequacy concerns whatsoever.

30. Apparently recognizing that point, the Commission pivots to economic theory as the basis for its action.[93] It is true that the Commission need not prove *basic* economic principles every time that it seeks to act on them. After all, "[a]gencies do not need to conduct experiments in order to rely on the prediction that an unsupported stone will fall."[94] Instead, agencies can rely on economic theory to make predictive judgments about how the future will play out.[95] But that does not mean that an agency can turn "economic theory" into a "talismanic phrase that does not advance reasoned decision making" and claim to have satisfied its obligations under the APA.[96] In other words, an agency cannot articulate a principle, label it "economic," make a prediction, and move on without wrestling with contrary record evidence or reasonable alternative applications of that economic theory.

31. But that is exactly what the June 2018 Rehearing Order does. It asserts that state subsidies in PJM are increasing, that subsidies reduce the costs of the resource being subsidized and, therefore, subsidies will cause more subsidized resources to clear the capacity market. All true. From that though, the Commission concludes that PJM's tariff will no longer ensure resource adequacy at rates that are just and reasonable and not unduly discriminatory or preferential, which is where its reasoning gets a little tenuous, as the economic principle articulated does not lead ineluctably to the regulatory conclusion reached. Instead, the record is replete with evidence and reasonable theories that could support an alternative conclusion. For one thing, the evidence in the record of continued high prices and entry of new resources (not to mention, retention of old ones) could just as easily support the conclusion that a more-than-adequate quantity of

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[93] *E.g.*, *id.* PP 25, 27, 29, 34, 37.

[94] *Assoc. Gas Distributors v. FERC*, 824 F.2d 981, 1008 (D.C. Cir. 1987). I cannot help but note the mild irony that the rest of that example of an assumable economic theory is that "competition will normally lead to lower prices," *id.* at 29, while the Commission's theory of the case today rests on the supposedly urgent need to raise prices.

[95] *See, e.g.*, *NextEra Energy Res., LLC v. FERC*, 898 F.3d 14, 23 (D.C. Cir. 2018); *S.C. Pub. Serv. Auth. v. FERC*, 762 F.3d 41, 65, 76 (D.C. Cir. 2014) ("[A]t least in circumstances where it would be difficult or even impossible to marshal empirical evidence, the Commission is free to act based on reasonable predictions rooted in basic economic principles.").

[96] *TransCanada Power Mktg. Ltd. v. FERC*, 811 F.3d 1, 13 (D.C. Cir. 2015).

resources will remain in the market, state subsidies notwithstanding.[97] As numerous parties point out, that has been the experience to date in PJM.[98] Why the Commission is so confident that things will change at some undefined future inflection point is never explained. Nor does the Commission explain why it is confident that those assumed effects justify an increase in customer's rates.

32. In addition, it is equally reasonable to suggest that the natural effect of state subsidies (indeed, in many cases, their intended result) will be to bring online large amounts of new resources that will themselves help to ensure resource adequacy.[99] Nothing in today's orders explains why the Commission is so confident that the deployment of state-sponsored resources will impair PJM's ability to ensure resource adequacy at just and reasonable rates rather than enhancing it. After all, it is worth remembering that, as discussed above, the FPA expressly reserved the regulation of generation facilities to the states and Congress presumably expected the states to wield that reserved authority.[100] Why the exercise of that authority is inherently unjust and unreasonable or a "problem" in need of "solving" is never clearly explained. Repeated incantations of the phrase "economic theory" does not provide a reasoned answer to the question.

33. The closest the Commission comes to explaining its confidence in a looming future problem is its series of elliptical statements about investor confidence and the merchant business model. Throughout this proceeding, the Commission has relied on

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[97] Today's orders contain several variations on the notion that "adequate reserve margins today do not necessarily mean that such conditions will continue into the future." June 2018 Rehearing Order, 171 FERC ¶ 61,034 at P 35. Sure. But the burden of proof is on the Commission to show that the current tariff is unjust and unreasonable, not on proponents of the status quo to show that the tariff will necessarily remain just and reasonable in perpetuity. *See Emera Maine*, 854 F.3d at 24 ("'The proponent of a rate change under section 206, however, bears "the burden of proving that the existing rate is unlawful."' (quoting *Ala. Power Co. v. FERC*, 993 F.2d 1557, 1571 (D.C. Cir. 1993)).

[98] June 2018 Rehearing Order, 171 FERC ¶ 61,034 at PP 16-17.

[99] It is certainly possible that the entry of those resources will lower the capacity market clearing price, which should not necessarily be a bad result in the eyes of an agency whose "primary purpose" is to protect customers. *See, e.g., City of Chicago, Ill. v. FPC*, 458 F.2d 731, 751 (D.C. Cir. 1971) ("[T]he primary purpose of the Natural Gas Act is to protect consumers." (citing, *inter alia*, *City of Detroit v. FPC*, 230 F.2d 810, 815 (1955)).

[100] *See supra* P 5.

various inscrutable principles, such as "investor confidence" or "market integrity," to justify its new MOPR.[101] At various points in the June 2018 Order, and again today, the Commission expressed concern about the challenges state policymaking may create for investors in particular resources in the capacity market[102] and the June 2018 Rehearing Order specifically raises the concern that state policies may harm unsubsidized generators.[103] These statements seem to suggest that the problem with the state policies is that they may reduce the profit margins of unsubsidized resources and make it correspondingly less likely investors will pour their money into those resources, which the Commission assumes will impair resource adequacy.

34. I recognize and appreciate the large influx of capital that investors and the merchant business model, more generally, have brought to PJM over the last two decades. Those investments have enhanced the grid's reliability while helping to decrease its carbon intensity—both good outcomes. But it is not our responsibility to protect particular businesses, business models, or their investors from state regulation. If states choose to address a market failure by promoting particular resource types or business models over others, it is not for the Commission to give a leg up to business models that might lose out as a result. In any case, PJM's generation resource mix has long reflected a mix of vertically integrated utilities and merchant generators, both of which have benefited from public policies. The June 2018 Rehearing Order does not adequately explain the Commission's apparent confidence that that cannot continue in a future in which states continue to exercise their authority under FPA section 201(b).

35. The Commission also makes the assertion that state policies are a problem because they create "significant uncertainty" and "investors cannot predict whether their capital will be competing" against subsidized resources.[104] As I explained in my dissent from the June 2018 Order, uncertainty about regulation will always be endemic in a regulated industry.[105] And nothing in the June 2018 Order or the June 2018 Rehearing Order

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[101] *Supra* P 18.

[102] *E.g.*, June 2018 Rehearing Order, 171 FERC ¶ 61,034 at P 35 ("[I]nvestors may be hesitant to invest in a market where both new entry and the viability of uneconomic existing resources is dictated largely by state subsidy programs."); June 2018 Order, 163 FERC ¶ 61,236 at P 150 (similar).

[103] June 2018 Rehearing Order, 171 FERC ¶ 61,034 at P 28 (noting the potential that state policies will "injure[] non-subsidized competitors").

[104] June 2018 Order, 163 FERC ¶ 61,236 at P 150.

[105] *Id.* (Glick, Comm'r, dissenting at 11)

explains why the purported uncertainty caused by state policymaking is more problematic than the other forms of uncertainty that pervade the industry.

36. The bottom line is that neither the June 2018 Order nor today's order on rehearing has adequately explained why the existing tariff is unjust and unreasonable or unduly discriminatory or preferential. The sum total of the Commission's analysis is that the PJM states will likely, in the future, subsidize more generating resources and that, all else equal, those subsidies will cause those resources to offer into the capacity market at lower prices than they would otherwise. But that alone does not prove the existing tariff is unjust and unreasonable, especially given the long history of state policies affecting the capacity market and the equally plausible future scenarios in which the capacity market continues to ensure resource adequacy at just and reasonable rates while state-sponsored resources co-exist with other business models. After all, to carry its burden under section 206, the Commission must do more than articulate a theory, label it "economics," and call it a day.

B. The Commission Has Not Shown that Its Replacement Rate Is Just and Reasonable

37. If the Commission meets its burden to show that the existing rate is unjust and unreasonable or unduly discriminatory or preferential, then the burden is again on the Commission to establish a "replacement rate" that is itself just and unreasonable and not unduly discriminatory or preferential.[106] The December 2019 Rehearing Order fails to articulate a reasoned basis for concluding that the new MOPR meets that burden. Instead, like the June 2018 Rehearing Order, it doubles down on a conclusory statements that do not seriously wrestle with the contrary arguments and evidence in the record.

1. The Commission's Definition of State Subsidy Is Arbitrary and Capricious

38. The crux of the December 2019 Order, and today's order on rehearing, is the Commission's definition of subsidy. That definition, however, is also the source of many of the Commission's most arbitrary and capricious determinations. Simply put, it is little

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[106] *Advanced Energy Mgmt. All. v. FERC*, 860 F.3d 656, 663 (D.C. Cir. 2017) ("When the Commission changes an existing filed rate under section 206, it is 'the Commission's burden to prove the reasonableness of its change in methodology.'" (quoting *PPL Wallingford Energy L.L.C. v. FERC*, 419 F.3d 1194, 1199 (D.C. Cir. 2005))); *see also Emera Maine*, 854 F.3d at 27 ("'Although it is not our role to tell the Commission what the correct rate of return calculation is . . . we do have an obligation to remand when the Commission's conclusions are contrary to substantial evidence or not the product of reasoned decisionmaking.'" (quoting *Pub. Serv. Comm'n of N.Y. v. FERC*, 813 F.2d 448, 465 (D.C. Cir. 1987))).

more than a series of arbitrary lines that do not comport with the Commission's explanation for why the existing tariff was unjust and unreasonable or why the new MOPR will produce a just and reasonable rate.

a. Excluding Federal Subsides Is Arbitrary and Capricious

39. No single determination is in today's orders is more arbitrary than the Commission's exclusion of all federal subsidies from the new MOPR.[107] Federal subsidies have pervaded the energy sector for more than a century, beginning even before Congress, in the FPA, declared that the "business of transmitting and selling electric energy . . . is affected with a public interest."[108] Since 1916, federal taxpayers have supported domestic exploration, drilling, and production activities for our nation's fossil fuel industry.[109] And since 1950, the federal government has provided roughly a trillion dollars in energy subsidies, of which 65 percent has gone to fossil fuel technologies.[110] Those federal policies present all the same "problems" that the Commission identifies with state policies. They 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 orders—to submit "uncompetitive" bids into PJM's markets. By lowering the marginal cost of fossil fuel-fired units, federal policies have allowed those units to operate more frequently and have encouraged the development of more of those units than would otherwise have been built.

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[107] December 2019 Order, 169 FERC ¶ 61,239 at P 89; *see* December 2019 Rehearing Order, 171 FERC ¶ 61,035 at PP 118-120.

[108] 16 U.S.C. § 824.

[109] *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).

[110] *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, *inter alia*, 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 Apr. 16, 2020)) (extending the DBL analysis through 2016).

Indeed, those subsidies, even ones that have subsequently lapsed, are a major reason why many of the current resources in PJM are able to bid into the capacity market at the levels they do.

40. Federal subsidies remain pervasive in PJM. The federal tax credit for nonconventional natural gas[111] sparked the shale gas revolution, triggering a steep decline in natural gas prices, which, in turn, drove the spike in new natural gas-fired power plants starting in the early 2000s. Similarly, federal subsidies such as the percentage depletion allowance and the ability to expense intangible drilling costs have shaved billions of dollars off the cost of extracting coal and natural gas—two of the principal sources of electricity in PJM.[112] In addition, the domestic nuclear power industry would not exist without the Price-Anderson Act, which saves nuclear power generators billions of dollars through indemnity limits that enable them to secure financing and insurance at rates far below their true cost.[113] Federal subsidies have also promoted the growth of renewable resources through, for example, the production tax credit (largely used by wind resources)[114] and the investment tax credit (largely used by solar resources).[115] These and other federal government interventions have had a far greater "suppressive" impact on the capacity market than the "state subsidies" targeted by today's orders, especially when

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[111] Energy Tax Policy at 2 n.3. That credit has lapsed. *Id.* at 18.

[112] The Joint Committee on Taxation, Estimates Of Federal Tax Expenditures For Fiscal Years 2018-2022 at 21-22 (2018); Monitoring Analytics, *Analysis of the 2021/2022 RPM Base Residual Auction: Revised* 95 (2018), *available at* https://www.monitoringanalytics.com/ reports/Reports/2018/ IMM_Analysis_ of_the_20212022_RPM_BRA_Revised _20180824.pdf (Market Monitor 2021/2022 BRA Analysis) (reporting that coal, natural gas, and nuclear collectively make up more than three-quarters of the generation mix in PJM); *see generally* Molly Sherlock, Cong. Research Serv., Energy Tax Policy: Historical Perspectives on and Current Status of Energy Tax Expenditures 2-6 (May 2011) (discussing the history of energy tax policy in the United States).

[113] 42 U.S.C. § 2210(c).

[114] U.S. Department of Energy, 2018 Wind Technologies Market Report 70, *available at* http://eta-publications.lbl.gov/sites/default/files/ wtmr_final_for_posting_8-9-19.pdf (last viewed Apr. 16, 2020).

[115] Solar Energy Industries Assoc., *History of the 30% Solar Investment Tax Credit* 3-4 (2012), https://www.seia.org/sites/default/files/resources/ History%20of%20ITC%20Slides.pdf.

you consider that resources having benefited from them make up the vast majority of the cleared capacity in PJM.[116]

41. Nevertheless, today's order affirms the December 2019 Order's decision to exclude all federal subsidies from the new MOPR on the theory that the Commission lacks the authority to "disregard or nullify the effect of federal legislation."[117] It is true that the FPA does not give the Commission the authority to undo other federal legislation. But the Commission's defense of applying the new MOPR to state policies is that it neither disregards nor nullifies those policies, but instead addresses only the effects that those policies have on the PJM market.[118]

42. "[T]he Commission cannot have it both ways."[119] If the MOPR disregards or nullifies federal policy, then it must do the same to state policy. And if it does not nullify or disregard state policy, then the Commission's justification for exempting federal subsidies collapses. The Commission, however, does not even attempt to explain its conclusion that applying the new MOPR to state policies respects authority, but applying it to federal policies would "disregard" or "nullify" federal authority. The failure to address, much less resolve, that tension is arbitrary and capricious.

43. Instead of confronting this tension, the December 2019 Order cited to a number of cases for well-established canons of statutory interpretation, such as that the general cannot control the specific and that federal statutes must, when possible, be read

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[116] Market Monitor 2021/2022 BRA Analysis 95 (reporting that coal, natural gas, and nuclear collectively make up more than three-quarters of the generation mix in PJM).

[117] December 2019 Order, 169 FERC ¶ 61,239 at P 87; December 2019 Rehearing Order, 171 FERC ¶ 61,035 at P 119.

[118] December 2019 Rehearing Order, 171 FERC ¶ 61,035 at PP 16, 17, 19; December 2019 Order, 169 FERC ¶ 61,239 at PP 7, 40; June 2018 Order, 163 FERC ¶ 61,236 at P 153. The December 2019 Rehearing Order shies away from the words "nullify" and "disregard" that it used (quite accurately) in the underlying order. I can understand why. Those terms so clearly laid bare the glaring inconsistencies in the Commission's effort to explain why the MOPR did not target state authority, but could not legally be applied to federal subsidies. Nevertheless, the rationale in today's order is the same: The new MOPR cannot be applied to federal subsidies because doing so would somehow contravene an act of Congress, which is precisely the result that the Commission insists it would not have on state policies.

[119] *Atlanta Gas Light Co. v. FERC*, 756 F.2d 191, 198 (D.C. Cir. 1985); *Cal. ex rel. Harris v. FERC*, 784 F.3d 1267, 1274 (9th Cir. 2015) (same).

harmoniously.[120] Today's order does the same.[121] But those general canons do not help much. They discuss rules of statutory interpretation that are not disputed here and they certainly do not give the Commission license to pretend that the new MOPR has one type of effect on state policies and another type on federal policies.[122] In any case, if we assume, for the sake of argument, that the Commission's benign characterization of the effect of the new MOPR on state policies is accurate,[123] then no number of interpretive canons can cure the Commission's arbitrary refusal to apply the MOPR to federal subsidies.

44. In addition, the Commission asserts that it may treat state and federal subsidies differently because it "has a reasonable basis to distinguish federal subsidies and State Subsidies, that is, whether the subsidies were established via federal law or state law."[124] But that tautology is not as helpful as it might at first seem. Just as not all discrimination is undue, irrelevant differences do not make parties dissimilarly situated.[125] Today's order does not coherently explain why the difference between federal and state subsidies is relevant to its theory of the case.

45. The Commission's apparent belief—implicit today, but stated explicitly in the December 2019 order—is that resources that receive federal subsidies are not similarly situated to resources that receive state subsidies because the Commission cannot nullify

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[120] December 2019 Order, 169 FERC ¶ 61,239 at n.177.

[121] December 2019 Rehearing Order, 171 FERC ¶ 61,035 at P 120.

[122] Today, the Commission tries a slightly different tack, responding to rehearing requests raising this very point with the assertion that the cited canons "reflect judicial guidance regarding the appropriate way to reconcile Congressional directives." December 2019 Rehearing Order, 171 FERC ¶ 61,035 at P 120. No doubt they do, but all the interpretive canons in the world cannot explain why it is rational to pretend that applying the MOPR to a federal subsidy has an inherently different effect than applying it to a state subsidy.

[123] To be clear, I vehemently disagree that is, but I'll indulge the hypothetical for the moment.

[124] December 2019 Rehearing Order, 171 FERC ¶ 61,035 at P 119.

[125] *Complex Consol. Edison Co. of N.Y. v. FERC*, 165 F.3d 992, 1013 (D.C. Cir. 1999) ("'Differences . . . based on *relevant, significant* facts which are explained are not contrary to the NGA.'" (quoting *TransCanada Pipelines Ltd. v. FERC*, 878 F.2d 401, 413 (D.C. Cir. 1989)) (emphasis added)).

or disregard federal policies, but can do that to state subsidies.[126] Putting aside whether that is true,[127] that line of reasoning just brings us back to square one as it relies on an unexplained distinction in the differing effects that the MOPR has on state and federal policies.

b. Treating Any Revenue or Other Funding Tangentially Related to a State Law As a Subsidy Is Arbitrary and Capricious

46. As discussed at the outset, the FPA divides jurisdiction between the Commission and the states, envisioning an important role for both in ensuring that the electricity sector is regulated in a manner consistent with the public interest. As the Commission explains, Congress enacted Title II of the FPA to fill the "*Attleboro* Gap" by "allow[ing] the federal government to step in and regulate interstate transactions over which no single state had authority to regulate."[128] And while the FPA did more than just "fill the gap,"[129] it was nevertheless "'drawn with meticulous regard for the continued exercise of state power.'"[130] It would be strange if, having so "meticulous[ly]" preserved state authority, Congress believed that the "continued exercise of" that authority would become inherently a problem.[131]

47. And yet that is precisely what the December 2019 Rehearing Order does. It treats many fundamental elements of state regulation as impermissible subsidies simply because the state is involved. Even putting aside the jurisdictional problems with that approach,[132] today's order does not explain why it is just and reasonable to mitigate any

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[126] December 2019 Order, 169 FERC ¶ 61,239 at P 89; December 2019 Rehearing Order, 171 FERC ¶ 61,035 at PP 118-119 & n.298.

[127] *See supra* Section I.

[128] December 2019 Rehearing Order, 171 FERC ¶ 61,035 at n.298.

[129] *New York v. FERC*, 535 U.S. 1, 6 (2002) ("[W]hen it enacted the FPA in 1935, Congress authorized federal regulation of electricity in areas beyond the reach of state power, such as the gap identified in *Attleboro*, but it also extended federal coverage to some areas that previously had been state regulated." (footnotes omitted)).

[130] *Zibelman*, 906 F.3d at 50 (quoting *Rochester Gas & Elec. Corp. v. Pub. Serv. Comm'n of N.Y.*, 754 F.2d 99, 104 (2d Cir. 1985)).

[131] *See supra* note 10 and accompanying text.

[132] *See supra* Section I.

resource that is affected by many of the most foreseeable consequences of the FPA's jurisdictional framework. Nor does it make any effort to consider the litany of practical challenges and complications that that approach creates, even though many of them were squarely presented on rehearing.

48. Take the example of state default service auctions. As PJM explained in its rehearing request, state default service auctions are state-directed "mechanisms by which load-serving entities in retail choice states acquire obligations to provide energy and related services to retail customers."[133] In layman's terms, that means that they are a market-based mechanism for ensuring that all retail customers have access to reliable and affordable electricity. As the New Jersey Board of Public Utilities—which oversees one of these auctions—explained, these mechanisms are best viewed as hedging constructs that help ensure that state-regulated retail suppliers have access to reliable electricity without wild swings in price.[134] In New Jersey's case, the default service auction is a voluntary mechanism that will rarely, if ever, produce a state-regulated contract with an actual generator (as opposed to a power marketer—*i.e.*, a middle man) or support the retention or new entry of particular resources[135]—details that are apparently too complicated or too inconvenient for the Commission to wrestle with. Today's order finds that a state default service auction qualifies as a State Subsidy because it is a state sponsored process that results in indirect payments to various resources.[136]

49. It is not clear from the record before us exactly how far reaching this decision will be. New Jersey alone serves over 7,000 MW of retail load through its BGS auctions,[137] and every indication is that other retail-choice states have similar mechanisms.[138] To start with, the District of Columbia Public Utility Commission and Pennsylvania Public Utility Commission sought clarification and rehearing of the December 2019 Order, understandably concerned that it could mean that *any* resource that serves load in those

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[133] PJM Rehearing and Clarification Request at 23.

[134] New Jersey Board Rehearing Request at 47-48.

[135] *Id.* at 48.

[136] December 2019 Rehearing Order, 171 FERC ¶ 61,035 at P 386.

[137] *See The 2019 BGS Auctions*, www.bgs-auction.com http://www.bgs-auction.com/documents/ 2019_BGS_Auction_Results.pdf (last viewed Apr. 16, 2020).

[138] *See, e.g.*, New Jersey Board Rehearing Request at n.260 ("New Jersey is not alone; PJM's other restructured states follow models similar to the BGS construct.").

states would be subject to the Commission's administrative pricing regime.[139] In addition, Maryland runs a similar default service auction that procures service for over 50 percent of the state's retail load.[140] Delaware too has a default service auction, which cleared over 500 MW in the most recent auction.[141] Additionally in Ohio each utility has its own Standard Service Offer auction for retail load.[142] It quickly becomes clear that state default auctions are a commonplace in retail choice states and can often be used to meet the needs of upwards of 50% of retail load. The Commission's decision to label these auctions—which sometimes cover more than half a state's retail load—state subsidies could have sweeping consequences for the retail-choice states that make up the majority of PJM states.

50. And is if that were not bad enough, the Commission makes no effort to wrestle with the practical challenges of its edicts. As the New Jersey Board explained in its rehearing request, the "suppliers" in New Jersey's default service auction are generally power marketers that rely on either financial or physical hedging and are not necessarily backed by particular physical generators.[143] Do the Commission's statements in today's orders mean that PJM, the Market Monitor, or someone else will have to chase down every resource power marketers use to satisfy a default service auction contract? In

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[139] DC Commission Rehearing and Clarification Request at 1-3; Pennsylvania Commission Rehearing and Clarification Request at 13. As noted, PJM also sought clarification, arguing that "it is not apparent how these auctions amount to a State Subsidy." PJM Rehearing and Clarification Request at 23.

[140] See Maryland Public Service Commission, Report to the Governor and the Maryland General Assembly on the Status of Standard Offer Service, the Development of Competition, and the Transition of Standard Offer Service to a Default Service at 5-6 (Dec. 31, 2018), *available at* https://www.psc.state.md.us/wp-content/uploads/Final-Competition-Report.pdf (discussing Maryland's default service auction).

[141] *See* James Letzelter, The Liberty Consulting Group, Inc., Delmarva Power & Light's 2020 Request for Proposals for Full Requirements Wholesale Electric Supply for Standard Offer Service (2020), *available at* https://depsc.delaware.gov/wp-content/uploads/sites/54/2020/02/Liberty-DE-PSC-Technical-Consultant-Final-Report-02-19-2020.pdf.

[142] *See How are electric generation rates set?* https://www.puco.ohio.gov/be-informed/consumer-topics/how-are-electric-generation-rates-set/ (last viewed Apr. 16, 2020).

[143] New Jersey Board Rehearing Request at 48; *see* Pennsylvania Commission Rehearing and Clarification Request at 13.

addition, default service auctions generally do not align with PJM's annual single-delivery-year capacity auctions. For example, in New Jersey the auction runs annually and covers only one-third of load at time, but with three year contracts.[144] In the District of Columbia the auctions are held annually.[145] And in Pennsylvania they are run "quarterly, or every 6 months."[146] How will PJM, the Market Monitor, or the Commission sort out which resources are to be mitigated in PJM's Base Residual Auction based on those differing state calendars?

51. I find the failure to carefully consider these impacts on a fundamental aspect of state regulation particularly troubling. This Commission has rightly enjoyed a reputation for focusing on the technical and arcane elements of providing reliable electricity at just and reasonable rates rather than on making broad policy pronouncements. Today's orders will do much to damage that reputation. It makes clear that the Commission is uninterested in the effects its orders may have on how states carry out their basic responsibilities. Instead, it is comfortable pursuing its quixotic quest to rid the wholesale market of state subsidies and leave it to the states to pick up the pieces.

c. Excluding State Actions That May Equally "Suppress" Prices Is Arbitrary and Capricious

52. Although the definition of state subsidy is overbroad, it is also irrational. Today's order on rehearing affirms the December 2019 Order's unreasoned distinctions drawn among different state public policies. In particular, the Commission expressly excludes state industrial development policies and local siting subsidies from its definition of state subsidy.[147] The rationale, while murky, seems to be that those policies are "too attenuated" from the wholesale rate to constitute an impermissible state policy while other state policies, even ones with a lesser effect on the wholesale rate, are somehow more closely related.[148] That distinction is neither reasonable nor reasonably explained.

53. Let's begin with the fact that the distinction drawn is inconsistent with the Commission's rationale for the new MOPR. As discussed, throughout this proceeding the Commission has asserted that the problem with state policies is their ability to

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[144] *See Overview* http://www.bgs-auction.com/ bgs.auction.overview.asp (last visited Apr. 16, 2020) (describing New Jersey's default service auction).

[145] DC Commission Rehearing and Clarification Request at 2.

[146] Pennsylvania Commission Rehearing and Clarification Request at 13.

[147] December 2019 Rehearing Order, 171 FERC ¶ 61,035 at P 106.

[148] *Id.*

"suppress" the wholesale rate.[149] And, in the December 2019 Rehearing Order, the Commission again dismisses arguments that the MOPR should apply only to state policies that materially affect the capacity price.[150]

54. That is irrational. "General industrial development" policies, such as reduced tax rates, can have an enormous effects on resources' going forward costs, leading resources to "reduce their offers commensurately to ensure they clear the market," exactly the way the Commission described state policies that are subject to the new MOPR.[151] Moreover, the ubiquity and potential cumulative effect of these programs—which the Commission does not contest[152]—would seem to suggest that they represent exactly the sort of threat to "market integrity" about which the Commission's purports to be so concerned.[153] If today's orders were actually concerned about the price suppressive effects of state policies, general industrial development and local siting policies would have to be front and center in any rational response. The fact that they are not shows the extent to which the new MOPR is a campaign to stamp out disfavored state efforts to shape the generation mix and not to address capacity prices themselves.

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[149] *E.g. id.* PP 36, 55, 224.

[150] *Id.* P 130.

[151] *See id.* P 38; *see also id.* P 130 (rejecting PJM's proposed materiality threshold because "out-of-market support at any level is capable of distorting capacity prices").

[152] At no point in today's order or the December 2019 Order does the Commission suggest that state industrial development or siting support programs are likely to have less of an effect on wholesale rates than the other state policies targeted by the new MOPR. *See, e.g., id.* PP 106-108 (discussing the justification for excluding these policies from the new MOPR).

[153] *Id.* PP 20, 301. In any case, the District of Columbia Attorney General's rehearing request details how these programs can provide enormous financial benefits to generators, significantly decreasing their capacity market offers in a way that affects the capacity market rate every bit as much as the state policies targeted by today's orders. DC Attorney General Rehearing Request at 22-24. In addition, that rehearing request explained how these supposed "generic" subsidies are, in fact, often deployed for the purpose of subsidizing particular resources. *Id.* at 23-24; *see* Clean Energy Associations Rehearing and Clarification Request at 40-41. The Commission's response that general industrial development policies are categorically "too attenuated" to constitute a state subsidy for the purposes of the MOPR fails to wrestle with the evidence and arguments showing the opposite to be true.

55. The Commission's effort to justify that arbitrary line drawing only underscores the point. The Commission again asserts that the new MOPR is aimed only at state policies that are "most nearly . . . directed at or tethered to the" wholesale rate.[154] But as discussed above, that awkward repurposing of a preemption term of art does not make things any clearer.[155] It certainly does not explain why it is rational for the Commission to apply the new MOPR only to those state policies that it believes are close-to-but-not-preempted[156] or why the degree of "attenuation" is relevant in a proceeding that is nominally about actual effects on wholesale rates. Indeed, at no point in this proceeding has the Commission explained why, if the "problem" at hand is the effect of state policies on wholesale rates, it is reasonable to target only certain state efforts and not others that may well have a greater wholesale market effect.[157] The failure to do so is arbitrary and capricious.

d. Addressing Only State Actions that Reduce Cost Is Arbitrary and Capricious

56. The December 2019 Rehearing Order grants clarification that the Regional Greenhouse Gas Initiative (RGGI) is not an actionable subsidy.[158] I am glad to hear it. Although I maintain that the distinction drawn in today's order is inconsistent with the most natural reading of the Commission's subsidy definition,[159] just about anything that

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[154] December 2019 Rehearing Order, 171 FERC ¶ 61,035 at P 106; December 2019 Order, 169 FERC ¶ 61,239 at P 68.

[155] *See supra* note 23.

[156] *See id.*

[157] Throughout the December 2019 Rehearing Order, the Commission responds to this point by quoting portions of the December 2019 Order that describe the Commission's action without responding to this argument. *See, e.g.*, December 2019 Rehearing Order, 171 FERC ¶ 61,035 at P 106 ("As we said in the December 2019 Order, the expanded MOPR is not intended to address all commercial externalities or opportunities that might affect the economics of a particular resource."). Although that quote accurately describes what the Commission said in its earlier order, it does not respond to the arguments that the line drawing described in that quote is arbitrary and capricious. That is a not a reasoned response; rehearing orders are an opportunity to further explain the Commission's analysis, not just regurgitate it.

[158] December 2019 Rehearing Order, 171 FERC ¶ 61,035 at P 390.

[159] December 2019 Order, 169 FERC ¶ 61,239 (Glick, Comm'r, dissenting at P 23).

limits the extent of the Commission's interference with state resource decisionmaking is a step in the right direction.

57. But although that outcome may be a good one, it vividly illustrates the arbitrariness with which the Commission is going after state policies. The Commission's single-sentence clarification regarding RGGI is a little light on reasoning, but the upshot appears to be that RGGI does not cause problems for "market integrity,"[160] "investor confidence,"[161] "the first principles of capacity markets,"[162] or the "premise of a capacity markets"[163] because it addresses the externality of climate change by raising prices, rather than by lowering them. At no point, however, does the Commission explain why a state effort to tax the harm associated with a market failure is consistent with capacity markets, but a state effort to address the same harm by subsidizing resources that do not contribute to that externality is inconsistent with capacity markets. It may well be that a so-called "Pigouvian tax" is economically preferable to a "Pigouvian subsidy,"[164] but, even if true, that does explain why the former is consistent with the Commission's various capacity market buzzwords, but the latter is not.

58. In any case, the Commission's decision to find one approach inherently problematic and the other acceptable illustrates the extent to which it is meddling directly in state resource decisionmaking. Whatever you think about the economic merits of subsidies versus taxes as ways of addressing externalities, there should be no question that a state's choice between the two approaches is entirely the state's to make or that the Commission has no business in enacting regulations that give a preference to one approach over the other. In this example, the Commission's willingness to pick and choose which of the broadly equivalent state approaches to addressing climate change are allowed to affect the wholesale rate and which are not, is clear and unmistakable evidence of its meddling in decisions that the FPA expressly reserves to the states. The

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[160] December 2019 Rehearing Order, 171 FERC ¶ 61,035 at P 301; June 2018 Rehearing Order, 171 FERC ¶ 61,034 at P 50; June 2018 Order, 163 FERC ¶ 61,236 at PP 1-2, 150, 156, 161.

[161] *ISO New England Inc.*, 162 FERC ¶ 61,205 at P 21; *see* December 2019 Rehearing Order, 171 FERC ¶ 61,035 at P 141.

[162] *ISO New England Inc.*, 162 FERC ¶ 61,205 at P 21.

[163] December 2019 Rehearing Order, 171 FERC ¶ 61,035 at P 320; December 2019 Order, 169 FERC ¶ 61,239 at P 17.

[164] Sylwia Bialek & Burcin Unel, Institute for Policy Integrity, Capacity Markets and Externalities: Avoiding Unnecessary and Problematic Reforms at 6-7 (2018).

failure to recognize, much less explain, why it is appropriate to pick and choose which state policies are acceptable and which are not is arbitrary and capricious.

59. And that is particularly so given the structure and purpose of the capacity market, which exists to provide the "missing money.[165] Because the missing money is the *net* difference between a resource's revenue and its costs,[166] a resource should be indifferent, for the purposes of the capacity market, between a state policy that forces resources to internalize the cost of the externality or one that achieve the same thing by paying resources for not contributing to the externality. In other words, the Commission is relying on a distinction that is, for our purposes today, without a difference.

2. Ignoring the Cost Impacts of the New MOPR Is Arbitrary and Capricious

60. One of the most glaring omissions from the December 2019 order was its failure to make any effort to consider the costs of the new MOPR.[167] As the Commission acknowledges, "[s]etting a just and reasonable rate necessarily 'involves a balancing of the investor and consumer interests.'"[168] The Commission's various orders in this proceeding spend plenty of time asserting that investors need sweeping reforms in order to remain "confident" in the PJM capacity market. Unfortunately, the costs to consumers of making investors so confident went unmentioned in both the Commission's June 2018 and December 2019 orders.

61. Many parties raised the Commission's failure to consider consumer interests on rehearing.[169] In response, the Commission recites general propositions about the importance of customer interests only to undercut itself almost immediately thereafter. For example, the Commission begins one paragraph by stating that it "disagree[s] that the

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[165] *I.e.*, the capacity revenue a resource needs to be economic over and above what it earns in the energy and ancillary service markets. *N.Y. Indep. Sys. Operator, Inc.*, 170 FERC ¶ 61,121 (2020) (Glick, Comm'r, dissenting at P 4).

[166] Which is, after all, why the Commission's orders use net measures as the default offer floors for resources subject to the new MOPR. *See infra* PP 81-85.

[167] December 2019 Order, 169 FERC ¶ 61,239 at PP 54-57.

[168] December 2019 Rehearing Order, 171 FERC ¶ 61,035 at P 139 (citing *NextEra*, 898 F.2d at 21).

[169] *Id.* at n.330 (non-exhaustive list of fifteen different rehearing requests raising this point).

Commission failed to consider the costs of the replacement rate."[170] But it then spends the rest of that paragraph explaining why it did not consider any estimate of the customer impacts before concluding that the resulting costs, whatever they may be, are necessarily just and reasonable because they "protect the integrity of the capacity market, which, in turn, ensures that investors will continue to be willing to develop resources to meet current and future reliability needs."[171] That sort of conclusory statement is hardly convincing evidence that the Commission actually took a hard look at the costs its orders will impose on customers.

62. The Commission dismisses as "speculative" any estimates of those costs. It would appear that a fair degree of work went into many of those estimates and I do not see the wisdom in dismissing them out-of-hand just because the details of the new MOPR have yet to be fully worked out.[172] After all, if the record provides enough evidence for the Commission to confidently assess that the costs of its new MOPR are worth it,[173] you

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[170] *Id.* P 139.

[171] *Id.*

[172] *Id.* In so doing, the Commission goes out of its way to criticize what I described as a "conservative," "back-of-the-envelope" calculation meant to help fill the void left by the Commission's failure to seriously consider the December 2019 Order's financial impact on customers. *Id.* n.352. In particular, it points to doubts raised by the Market Monitor about whether that calculation considered the right quantity of to-be-MOPR megawatts of capacity from nuclear generators. *Id.* I assumed it would be 6,000 MW. The Market Monitor suggested that number would be closer to 4,000 MW. *Id.* He may be right; it is hard to say how an unprecedented mitigation regime will work in practice.

In any case today's order makes clear that my cost estimate was, if anything, too conservative. For one thing, my estimate did not consider the cost of paying twice for capacity as a result of MOPR'ing the tens of the thousands of megawatts of renewable resources slated to be developed in the region to meet state renewable energy targets over the coming years. Clean Energy Associations estimated that that cost will be between $14 and $24 billion over the next decade. Clean Energy Associations Rehearing and Clarification Request at 22-23. My estimate also did not attempt to assess the effects of the bizarre conclusion, affirmed today, that the default service auctions in PJM retail choice states are somehow "subsidies," which will subject the resources that serve significant fractions of load in those states to the MOPR. *See supra* PP 49-51. Those are just two examples, but they illustrate why I remain confident that, when the dust settles, that back-of-the-envelope calculation will prove to have been a conservative one.

[173] December 2019 Rehearing Order, 171 FERC ¶ 61,035 at PP 139-140 (asserting

would think it would provide enough evidence to at least gauge the likely impact on consumers.

63. In addition, there is every reason to believe that the actual costs of today's orders will increase with time. Although these orders aim to hamper state efforts to shape the generation mix, they likely will not snuff them out entirely. In other words, there simply is no reason to believe that the Commission will succeed in realizing its "idealized vision of markets free from the influence of public policies."[174] As former Chairman Norman Bay aptly put it, "such a world does not exist, and it is impossible to mitigate our way to its creation."[175]

64. But that means that, as a resource adequacy construct, the PJM capacity market will increasingly operate in an alternate reality, ignoring more and more resources just because they receive some form of state support. That also means that customers will increasingly be forced to pay twice for capacity or, to put it differently, to buy more unneeded capacity with each passing year. I cannot fathom how the costs imposed by a resource adequacy regime that is premised on ignoring actual capacity can ever be just and reasonable.

65. The Commission responds to this point by asserting that the costs of double-procuring capacity are irrelevant because *NJBPU* held that states may "appropriately bear the costs" of their resource decisionmaking, including the costs associated with resources whose capacity does not clear in the capacity auction.[176] As noted above, there are good reasons to pause before applying *NJBPU* whole hog to this proceeding.[177] In any case, the Commission's citation to that decision's jurisdictional analysis does not insulate today's orders from the charge that it is arbitrary and capricious to altogether disregard the costs imposed by forcing the capacity market to ignore resources that actually exist or will developed and procuring additional resources as if those ignored resources did not

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that while the "actual cost impacts of the replacement rate are speculative at this point," they will result in a rate increase the Commission deems just and reasonable).

[174] *N.Y. State Pub. Serv. Comm'n*, 158 FERC ¶ 61,137 (2017) (Bay, Chairman, concurring).

[175] *Id.*

[176] December 2019 Rehearing Order, 171 FERC ¶ 61,035 at P 141.

[177] *See supra* PP 22-23.

exist.[178] Those are real costs that are directly traceable to the Commission's orders and cannot logically be ignored by an agency claiming to balance "consumer interests."[179]

66. The record before us provides every reason to believe that this approach will lead to other significant cost increases. For example, the new MOPR will exacerbate the potential for the exercise of seller-side market power in what the Market Monitor has described as a structurally uncompetitive market.[180] As the Institute for Policy Integrity explained, expanding the MOPR will decrease the competitiveness of the market, both by reducing the number of resources offering below the MOPR price floor and by changing the opportunity cost of withholding capacity.[181] With more suppliers subject to administratively determined price floors, resources that escape the MOPR—or resources with a relatively low offer floor—can more confidentially increase their bids up to that level, secure in the knowledge that they will still under-bid the mitigated offers. That problem is compounded by PJM's weak seller-side market power mitigation rules, which include a safe harbor for mitigation up to a market-seller offer cap that has generally been well above the market-clearing price.[182]

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[178] At various points, the Commission makes assertions, such as even the new MOPR forces customers to "pay twice" for capacity, "preserving the integrity of the capacity market will benefit customers over time by ensuring capacity is available when needed." December 2019 Rehearing Order, 171 FERC ¶ 61,035 at P 223. Conclusory assertions are the same thing as considering customers' interests.

[179] *Id.* P 139.

[180] *See* Market Monitor 2021/2022 BRA Analysis 2 ("The capacity market is unlikely ever to approach a competitive market structure in the absence of a substantial and unlikely structural change that results in much greater diversity of ownership. Market power is and will remain endemic to the structure of the PJM Capacity Market . . . . Reliance on the RPM design for competitive outcomes means reliance on the market power mitigation rules.")

[181] Institute for Policy Integrity Initial Brief at 14-16.

[182] For example, the RTO-wide market seller offer cap for the 2018 Base Residual Auction $237.56 per MW/day while the clearing price for the RTO-wide zone was $140.00 per MW/day. *See* PJM Interconnection, *2021/2022 RPM Base Residual Auction Results*, https://www.pjm.com/-/media/markets-ops/rpm/rpm-auction-info/2021-2022/2021-2022-base-residual-auction-report.ashx (last visited Dec. 19, 2019).

3. Disregarding the Effects of the New MOPR on Well-Established Business and Regulatory Models Is Arbitrary and Capricious

i. Demand Response

67. The PJM region has long benefitted from a robust participation of demand response resources. That is in part because PJM has had in place rules that accommodate short-lead-time resources. Specifically, the Commission has long recognized that demand response resources may not be identified years in advance of the delivery year.[183] Accordingly, PJM has permitted Curtailment Service Providers (CSP), *i.e.*, a demand response provider, to participate in the Base Residual Auction without identifying all end-use demand response resources at the time of the auction.[184] That has been fundamental to the demand response business model, since, without it, the short-lead time resources on which demand response depends might never be able to participate in the Base Residual Auction.[185]

68. So much for that. The December 2019 Rehearing Order states that the new MOPR "may require aggregators and CSPs to know all of their demand response resource end-users prior to the capacity auction."[186] In addition, it appears to require that,

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[183] For example, recognizing that demand response is a "short-lead-time" resource, the Commission previously directed PJM to revise the allocation of the short-term resource procurement target so that short-lead-time resources have a reasonable opportunity to be procured in the final incremental auction. *PJM Interconnection L.L.C.*, 126 FERC ¶ 61,275 (2009). The Commission subsequently removed the short-term resource procurement target only after concluding that doing so would not "unduly impede the ability of Demand Resources to participate in PJM's capacity market." *PJM Interconnection, L.L.C.*, 151 FERC ¶ 61,208, at PP 394, 397 (2015).

[184] Under PJM's current market rules, CSPs must submit a Demand Resource Sell Offer Plan (DR Sell Offer Plan) to PJM no later than 15 business days prior to the relevant RPM Auction. This DR Sell Offer Plan provides information that supports the CSP's intended DR Sell Offers and demonstrates that the DR being offered is reasonably expected to be physically delivered through Demand Resource Registrations for the relevant delivery year. *See* PJM Manual 18: PJM Capacity Market – Attachment C: Demand Resource Sell Offer Plan.

[185] As CPower and LSPower explain, such customers typically make participation decisions in a shorter time frame than the three-year forward auction designed to reflect the time needed to develop a new generation facility. CPower/LSPower Rehearing Request at 11.

[186] December 2019 Rehearing Order, 171 FERC ¶ 61,035 at P 266.

for each resource with behind-the-meter generation, the CSP must identify the relative share of its capacity that results from demand reduction versus behind-the-meter generation.[187] And the CSP will have to know all of that three years before the delivery year. That is a stunning level of paperwork to impose on CSPs, which may well require many, if not most, of them to fundamentally change or altogether abandon their business model. I fail to see anything in this record that suggests that the Commission's concerns about state policies justifies that result.

69. While the grandfathered treatment provided to existing demand response resources could help blunt the impact of the new MOPR, the confusing language in the Commission's order raises more questions than it answers, leaving CSPs, PJM, and the Market Monitor with little guidance on how to mitigate demand response resources. Rather than explaining that the grandfathered treatment attaches to the resource itself, which would seem the only logical conclusion, the Commission adds that "Aggregators and CSPs will be considered to have previously cleared a capacity auction only if *all the individual resources within the offer* have cleared a capacity auction."[188] Why an entire a CSP's portfolio must receive all-or-nothing treatment is unclear, unexplained and raises fundamental questions about how this will work when resources switch CSPs, as they often do.[189]

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[187] In response to requests to clarify offer floors for demand response resources backed by a combination of behind-the-meter generation and reduced consumption, the Commission simply reiterates that the December 2019 Order found that different default offer price floors should apply to demand response backed by behind-the-meter generation and demand response backed by reduced consumption (*i.e.*, curtailment-based demand response programs). December 2019 Rehearing Order, 171 FERC ¶ 61,035 at PP 187-188.

[188] December 2019 Rehearing Order, 171 FERC ¶ 61,035 at 265 (emphasis added).

[189] In addition, the December 2019 Rehearing Order concludes that if a demand response resource earns any revenue through a state-sponsored *retail* demand response program, it is impermissibly subsidized and subject to the new MOPR. *Id.* P 264. But just a few months ago, the Commission approved rules in NYISO that treat a state retail demand response program as a subsidy for the purposes of the capacity *only* if the purpose of that state program is to procure demand response for its capacity value. *N.Y. Pub. Serv. Comm'n v. N.Y. Indep. Sys. Operator, Inc.*, 170 FERC ¶ 61,120 (2020) ("[W]e will evaluate retail-level demand response programs on a program-specific basis to determine whether payments from those programs should be excluded from the calculation of SCRs' offer floors."). Those are radically different approaches to the permissible effects of state retail demand response programs, which cannot be papered

70. The bottom line here is that the Commission's attempt to root out certain state "subsidies" manifests itself as an out-and-out attack on the demand response business model in PJM.[190] That attack is particularly unfortunate as PJM indicated that the default offer floor for at least certain demand response resources should be at or near zero,[191] suggesting that even if demand response resources receive a subsidy, that subsidy would not reduce their offer below what this Commission calls a "competitive offer." Demand response has provided tremendous benefits to PJM, both terms of improved market efficiency and increased reliability. I see no reason to give up those benefits based on an unsubstantiated concern about state policies.

ii. Public Power

71. Today's order also continues the Commission's attack on public power, dismissing the entire business model as a state subsidy and jeopardizing the viability of a construct that has long benefited customers. As ill-advised as that attack is, it is equally unsupported. The Commission neither marshals evidence that the existence of public power has actually suppressed prices[192] nor addresses arguments that the type of balanced portfolio typically developed by public power entities will not have that effect.[193] The

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over simply by observing that one set of rules apply in PJM and another in NYISO.

[190] Indeed, buried in footnotes in the December 2019 Rehearing Order, the Commission appears to insinuate that demand response resources, among other resources, should perhaps be kicked out of the capacity market entirely. *See* December 2019 Rehearing Order, 171 FERC ¶ 61,035 at n.598. ("We pause to note that, as the capacity market has developed, an ever-growing number of resource types have come to participate in the market that were not contemplated. This proceeding . . . does not necessarily resolve issues regarding whether, to what extent, and under what terms resources that are not able to produce energy on demand should participate in the capacity market consistent with the Commission's mandate to ensure the reliability of the electric system"); *id.* n.451 ("The Commission is concerned that there may be a point where energy efficiency is unable to supply capacity when needed to maintain system reliability. However, that issue can be pursued in a separate proceeding.").

[191] PJM explains that, beyond the initial costs associated with developing a customer contract and installing any required hardware or software, it could not identify any avoidable costs that would be incurred by an existing Demand Resource that would result in a MOPR Floor Offer Price of greater than zero. PJM Initial Brief at 47.

[192] The Commission offers no data, such as sell-offer data of utilities or public power entities or provides any evidence in support of this finding. *See* SMECO Rehearing Request at 6; Allegheny Rehearing Request at 12.

[193] After all, public power entities typically procure roughly the amount of supply

Commission's unsupported treatment of public power is, as PJM points out in its rehearing request, "overbroad and unwarranted."[194]

72. Today's order leaves public power with few options. Unlike most public utilities,[195] PJM's existing FRR option is not much good for many public power entities since "participating in the FRR option is an all-or-nothing proposition, and appeals as a practical matter only to large utilities that still follow the traditional, vertically integrated model."[196] In addition, the Commission concludes that third-party contracts signed by public power entities are also state subsidies.[197] That effectively forces public power to procure capacity based only on the narrow considerations evaluated in the PJM capacity market—a result inimical to the purpose of the public power model.

73. The public power model predates the capacity market by several decades and is premised on securing a reliable supply of power for each utility's citizen-owners at a

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needed to meet their demand. In response to arguments raising this point and contending that an approach based on net long, net short thresholds (which would formally require a rough equivalence between supply and demand to avoid mitigation) would be just and reasonable and more consistent with Commission precedent, *see* Public Power Entities Request for Rehearing and Clarification at 30-32; PJM Request for Rehearing and Clarification at 13-14; ODEC Request for Rehearing and Clarification at 7-9, today's order asserts that "the expanded MOPR is premised on a resource's ability to suppress price due to the benefit it receives from out-of-market support, not based on the likelihood and ability to exercise of buyer-side market power." December 2019 Rehearing Order, 171 FERC ¶ 61,035 at P 228. But the ability to "exercise" buyer-side market power is the ability to reduce prices. If public power entities' load equals their supply, their choice of how to serve that load will not cause price suppression plain and simple. The Commission has previously found such thresholds can protect against price suppression. *See N.Y. Indep. Sys. Operator, Inc.*, 170 FERC ¶ 61,121, at P 90 (2020) (discussing buyer-side market power concerns associated with self-supply). It fails to provide a reasoned basis for rejecting the same approach today.

[194] PJM Rehearing and Clarification Request at 13.

[195] These terms get confusing quickly. Under the FPA, a "public utility" will typically be privately owned while an entity that is not a "public utility" will often be publically owned. *See* 16 U.S.C. §§ 824(e) & (f). Accordingly, "public power" is generally made up of non-public utilities.

[196] *NJBPU*, 744 F.3d at 84 (footnote omitted).

[197] December 2019 Rehearing Order, 171 FERC ¶ 61,035 at PP 243, 325.

reasonable and stable cost, which often includes an element of long-term supply.[198] The policy affirmed in today's order is a direct threat to the long-term viability of the public power model in PJM. Although the Commission exempts existing public power resources from the MOPR, it provides that all new public power development will be subject to mitigation. That means that public power's selection and development of new capacity resources will now be dependent on the capacity market outcomes, not the self-supply model on which it has traditionally relied. That fundamentally upends the public power model because it limits the ability of public power entities to choose how to develop and procure resources over a long time horizon.

iii. Energy Efficiency

74. The Commission is also arbitrary and capricious in its treatment of energy efficiency resources—*e.g.*, efficient light bulbs, air conditioning units, and water heaters whose installation reduces electricity use. Although energy efficiency resources reduce demand for electricity, they participate in the PJM capacity auction as "supply" for four years so that they can receive compensation for reducing the total amount of capacity needed in the region.[199] To make that work in practice, PJM "adds back" to the demand curve the capacity equivalent of any energy efficiency resources that participate in the auction.[200] Doing so ensures that the capacity provided by energy efficiency resources is not double counted.

75. Today's order concludes that any energy efficiency resources that participate in the PJM capacity auction and receive a state subsidy suppress prices and, therefore, must be subjected to the new MOPR.[201] The record does not support that determination. As

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[198] American Municipal Power and Public Power Association of New Jersey Initial Brief at 14-15; American Public Power Association Initial Brief at 15.

[199] PJM Manual 18B, Energy Efficiency Measurement & Verification 10-13, *available at* pjm.com/~/media/documents/manuals/ m18b.ashx. After those four years, energy efficiency resources no longer participate in the capacity auction and instead are recognized only as reductions in demand. *Id.*

[200] *Id. Participate*, not clear. That means that if an energy efficiency resource bids into, but does not clear the capacity market, its capacity is *still* added back to the demand curve. This is because as PJM explains, the auction parameters are adjusted by adding the MWs in approved energy efficiency plans that are proposed for that auction back into the reliability requirements. PJM Rehearing and Clarification Request at 15, n.41. For approved plans, that add back occurs whether or not resources will know if they cleared the auction.

[201] December 2019 Order, 169 FERC ¶ 61,239 at P 255.

PJM's Market Monitor explained, including energy efficiency in the PJM capacity auction—by treating it as supply and then adding it back to the demand curve—actually *increases* the prices in that auction by roughly 10 percent, all else equal.[202] In other words, the record does not indicate that the energy efficiency resources participating in the capacity market (subsidized or otherwise) are having any price suppressive effect whatsoever. Instead, the record indicates that the only time energy efficiency resources can decrease capacity market prices is when, after four years, those resources no longer participate in the capacity market and are no longer subject to the new MOPR.[203]

76. Today's order completely fails to address these points even though PJM itself, not to mention several other parties, argued on rehearing that the Commission's approach to energy efficiency was inconsistent with its own theory of the case and would make a hash of the markets.[204] Instead, the Commission asserts that energy efficiency resources can cause price suppression because, according to the Commission, that is the inevitable result of subsidizing any resource.[205] To support that proposition, the Commission relies on a single piece of irrelevant arithmetic. It multiples the total MWs of energy efficiency that cleared in the capacity market in a given year by the clearing price that year and asserts that the resulting figure shows that energy efficiency "has affected revenues in the PJM capacity market."[206] That may be true, but it does not shed any light whatsoever on whether energy efficiency, subsidized or not, suppresses the capacity market clearing price. Indeed, the Commission fails to wrestle with the fact that, as a result of the add-

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[202] The Independent Market Monitor for PJM, *Analysis of the 2021/2022 RPM Base Residual Auction* 20 (2018), *available at* http://www.monitoringanalytics.com/reports/Reports/2018/IMM_Analysis_of_the_20212022_RPM_BRA_Revised_20180824.pdf (2018 PJM State of the Market Report).

[203] At that point, the energy savings from energy efficiency resources are "baked into" PJM's demand forecast and, thus, the resources are no longer eligible for a capacity payment for reducing demand relative to that projection.

[204] *E.g.*, PJM Rehearing and Clarification Request at 15 & n.41; Advanced Energy Entities at 12-15; CPower/LSPower Rehearing and Clarification Request at 6-8.

[205] December 2019 Rehearing Order, 171 FERC ¶ 61,035 at P 257 ("We reject the contention that energy efficiency's market participation cannot suppress prices. State Subsidies, if effective, will by their very nature increase the quantity of whatever is subsidized. State subsidies to energy efficiency should result in additional energy efficiency resource participation.").

[206] *Id.* P 256.

back provision, energy efficiency resources will not suppress the capacity clearing price. Calculating their total revenue does not change that fact.

77. In addition, the Commission blithely asserts that energy efficiency must be subject to the new MOPR because "[d]ecreased demand resulting from a State Subsidy will suppress prices just as a State Subsidy to supply will suppress prices."[207] That general statement proves too little. It simply cannot be the case that any action a state takes to conserve electricity is a "problem" for the Commission to fix. Instead, the state action can implicate the Commission's interests through resources' participation in the capacity market, if at all. As explained above, however, the record is clear that energy efficiency resources' participation in the capacity market does not have a price suppressive effect; quite the opposite, in fact. The Commission's failure to wrestle with the actual effects of energy efficiency participating as a capacity resource renders its justification for applying the MOPR to such resources arbitrary and capricious.

iv. Voluntary RECs

78. Today's order grants clarification that "purely voluntary transactions for RECs are not considered State Subsidies." Again, I am glad to hear it. As I explained in my earlier dissent, transactions involving voluntary REC sales would not meet any reasonable definition of subsidy and would instead amount to "mitigating the impact of *consumer preferences* on wholesale electricity markets just because they may potentially overlap with state policies."[208] In addition, I noted that there were eminently reasonable ways to address the Commission's practical concerns about ensuring that voluntary RECs are not eventually used to comply with state mandates. I am glad to see that that view seems to have prevailed.

79. Nevertheless, today's order makes clear that voluntary RECs are not out of the woods yet. In a pair of ominous (and redundant) footnotes, the Commission's goes out of its way to assert that all today's order concludes is that voluntary RECs are not state subsidies and that, pardon the double negative, that conclusion is not a finding that voluntary RECs do not distort capacity market outcomes.[209] If the question is whether consumers' voluntary decision to purchase clean energy could "distort" efficient market

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[207] December 2019 Rehearing Order, 171 FERC ¶ 61,035 at P 257.

[208] December 2019 Order, 169 FERC ¶ 61,239 (Glick, Comm'r, dissenting at P 41) (footnotes and internal quotation marks omitted).

[209] *See* December 2019 Rehearing Order, 171 FERC ¶ 61,035 at n.808 ("The treatment of voluntary RECs in this order is not a determination regarding whether the revenue from voluntary REC transactions results or could result in capacity market distortions."); *id.* n.807 (exact same point).

outcomes, the answer is a straightforward no. The fact that the Commission feels the need to go out of its way to preserve that question for a future proceeding is as ominous as it is unnecessary. It is both notable and concerning that the Commission did not feel the need to preserve the same question when addressing other voluntary out-of-market for capacity resources, such as sales of coal ash, which it describes as "similarly situated" to voluntary REC sales.[210]

4. Applying Different Offer Floors to New and Existing Resources Is Arbitrary and Capricious

80. As I explained in my dissent from the December 2019 Order, the Commission's imposition of disparate offer floors for new and existing resources is unjust and unreasonable, unduly discriminatory as well as arbitrary and capricious. Today's order affirms the decision to require new resources receiving a State Subsidy to be mitigated to Net Cost of New Entry (Net CONE) while existing resources receiving a State Subsidy are mitigated to their Net Avoidable Cost Rate (Net ACR). The Commission suggested that this distinction is appropriate because new and existing resources do not face the same costs.[211] In particular, the Commission suggested that setting the offer floor for new resources at Net ACR would be inappropriate because that figure "does not account for the cost of constructing a new resource."[212] Today's order uses more words to make the same points.[213]

81. Regardless, the Commission's distinction does not hold water. As the Market Monitor explained in his comments, it is illogical to distinguish between new and existing resources when defining what is (or is not) a competitive offer.[214] That is because, as a

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[210] December 2019 Rehearing Order, 171 FERC ¶ 61,035 at P 326 (finding "to the extent coal ash sales are purely voluntary, such that they do not fall under the definition of State Subsidy, they are similarly situated to voluntary RECs, which are not mitigated under the replacement rate.").

[211] December 2019 Order, 169 FERC ¶ 61,239 at P 140.

[212] *Id.*

[213] December 2019 Rehearing Order, 171 FERC ¶ 61,035 at PP 157-159.

[214] Independent Market Monitor Brief at 16 ("A competitive offer is a competitive offer, regardless of whether the resource is new or existing."); *id.* at 15-16 ("It is not an acceptable or reasonable market design to have two different definitions of a competitive offer in the same market. It is critical that the definitions be the same, regardless of the reason for application, in order to keep price signals accurate and incentives consistent.").

result of how most resources are financed, a resource's costs will not materially differ based on whether it is new or existing (*i.e.*, one that has cleared a capacity auction). That means that there is no basis to apply a different formula for establishing a competitive offer floor based solely on whether a resource has cleared a capacity auction. To the extent it is appropriate to consider the cost of construction for a new resource it is just as appropriate to consider the cost of construction for one that has already cleared a capacity auction. That is consistent with Net CONE, which calculates the nominal 20-year levelized cost of a resource minus its expected revenue from energy and ancillary services. Because that number is *levelized*, it does not change between a resource's first year of operation and its second.

82. In addition, as the Market Monitor explains, Net CONE does not reflect how resources actually participate in the market.[215] Instead of bidding their levelized cost, both new and existing competitive resources bid their marginal capacity—*i.e.*, their net out-of-pocket costs, which Net ACR is supposed to reflect. Perhaps reasonable minds can differ on the question of which offer floor formula is the best choice to apply. But there is nothing in this record suggesting that it is appropriate to use different formulae based on whether the resource has already cleared a capacity auction.

83. It may be true that setting the offer floor at Net ACR for new resources will make it more likely that a subsidized resource will clear the capacity market, MOPR notwithstanding. Holding all else equal, the higher the offer floor, the less likely that a subsidized resources will clear, so a higher offer floor will more effectively block state policies. But that does not justify applying Net ACR to existing resources and Net CONE to new ones.

84. The purpose of a capacity market, the whole reason the market exists, is to ensure resource adequacy at just and reasonable rates.[216] It is a means, not an end. And for that purpose, a megawatt of capacity provided by a new resource is every bit as effective as a megawatt provided by an existing one. Applying entirely different bid floor formulae based only on whether the resource is new or existing does not further that basic purpose. Instead, as the Commission all but admits,[217] the purpose those disparate bid floors serve

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[215] *Id.*

[216] *Cf.* December 2019 Rehearing Order, 171 FERC ¶ 61,035 at 230 ("The objective of the capacity market is to select the least cost resources to meet resource adequacy goals.").

[217] *Id.* P 158 ("Using Net ACR as the MOPR value for new resources would not serve the purpose of the MOPR, because it does not reflect new resources' actual costs of entering the market and therefore would not prevent uneconomic State-Subsidized Resources from entering the market."); December 2019 Rehearing Order, 171 FERC ¶ 61,035 at P 159 ("Using Net CONE as the default offer price floor for new resources

is to make it easier to block the entry of state-subsidized resources. A capacity market designed first and foremost for the purpose of blocking state policies is one in which the tail truly wags the dog.[218]

III. Today's Orders Are Not about Promoting Competition

85. By this point, the irony of today's orders should be clear. The Commission spends hundreds of pages decrying government efforts to shape the generation mix because they interfere with "competitive" forces.[219] In order to stamp out those efforts and promote its vision of "competition," the Commission creates a byzantine administrative pricing scheme that bears all the hallmarks of cost-of-service regulation, without any of the benefits. That is a truly bizarre way of fostering the market-based competition that these orders claim to so highly value.

86. It starts with the Commission's definition of subsidy, which encompasses vast swathes of the PJM capacity market, including new investments by vertically integrated utilities and public power, merchant resources that receive any one of the litany of subsidies available to particular resources or generation types, and any resource that benefits even indirectly from one of the many state default service auctions in PJM.[220] Moreover, the Commission's inaptly named Unit-Specific *Exemption*[221]—its principal

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will ensure that the expanded MOPR achieves its goal and prevents uneconomic new entry from clearing the capacity market as a result of State Subsidies").

[218] To appreciate this, one need only look at the Commission's apparent willingness to set certain resources offer floor—*i.e.*, their Net CONE—above the demand curve's intercept. That means that the Commission is willing to set price floors that ensure that ensure that those resource *can never* clear the capacity market, no matter how serious the reliability need and even if that resource is the only that can meet it. *See* Illinois Commission Rehearing Request at 18. In a choice between ensuring reliability and blocking state policies, the Commission will choose the latter.

[219] June 2018 Order, 163 FERC ¶ 61,236 at P 1.

[220] *See Supra* Section II.B.1.b.

[221] In the December 2019 Order, the Commission renamed what is currently the "Unit Specific *Exception*" in PJM's tariff to be a Unit Specific *Exemption*. But, regardless of name, it does not free resources from mitigation because they are still subject to an administrative floor, just a lower one. An administrative offer floor, even if based on the resource's actual costs does not protect against over-mitigation and certainly is not market competition.

response to concerns about over mitigation—is simply another form of administrative pricing.[222] All the Unit-Specific Exemption provides is an escape from the relevant default offer floor. Resources are still required to bid above an administratively determined price floor, not at the level that they believe would best would best serve their competitive interests.[223] Nor is it clear that this so-called exemption will even be resource-specific.[224] And even resources that might appear eligible for the Competitive Entry Exemption may hesitant to take that option given the Commission's proposal to permanently ban from the capacity market any resource that invokes that exception and later finds itself subsidized.[225] Are those resources really going to wager their ability to participate in the capacity market on the proposition that their state will never institute a non-bypassable policy that the Commission might deem an illicit financial benefit?

87. To implement this scheme, PJM and the Market Monitor will need to become the new subsidy police, regularly reviewing the laws and regulations of 13 different states and the District of Columbia—not to mention hundreds of localities and municipalities—in search of any provision or program that could conceivably fall within the Commission's definition of State Subsidy. "But that way lies madness."[226] It will also

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[222] It bears repeating that the Commission has expressly abandoned market-power—the justification for cost-of-service regulation—as the basis for its new MOPR. December 2019 Rehearing Order, 171 FERC ¶ 61,035 at P 45 ("[T]he expanded MOPR does not focus on buyer-side market power mitigation.").

[223] *See* Public Power Entities Rehearing Request at 4 ("Ironically, by its latest action, the Commission has removed any remaining genuine market component . . .by requiring all 'competitive' offers to be determined administratively in Valley Forge, Pennsylvania.").

[224] The Commission is requiring that all new resources, regardless of type, must use a standard asset life. That flouts the entire premise of a Unit-Specific Exemption, which, the Commission reminds us throughout today's order, is supposed to reflect the *specific* unit's costs and expected market revenues. It is particularly, "arbitrary and illogical" to mandate that resources assume a 20-year asset life when most renewable units typical have a useful commercial life of 35 years. *See* Clean Energy Advocates Rehearing Request at 83. The Commission dismisses such concerns by stating that standardized inputs are a simplifying tool December 2019 Rehearing Order, 171 FERC ¶ 61,035 at P 290.

[225] December 2019 Order, 169 FERC ¶ 61,239 at P 162.

[226] David Roberts, *Trump's crude bailout of dirty power plants failed, but a subtler bailout is underway* (Mar. 23, 2018), https://www.vox.com/energy-and-environment/2018/3/23/17146028/ferc-coal-natural-gas-bailout-mopr.

require PJM and the Market Monitor to identify any and all contracts power marketers have with resources that may be used to serve commitments incurred in a state default service auction. Rooting through retail auctions results and hundreds of different sets of laws and regulations looking for anything that might be "nearly tethered" to wholesale rates is hardly a productive use of anyone's time.

88. And identifying the potential subsidies is just the start. Given the consequences of being subsidized, today's orders will likely unleash a torrent of litigation over what constitutes a subsidy and which resources are or are not subsidized. Next, PJM will have to develop default offer floors for all relevant resource types, including many that have never been subject to mitigation in PJM or anywhere else—*e.g.*, demand response resources, energy efficiency resources, or resources whose primary function is not generating electricity. Moreover, given the emphasis that the Commission puts on the Unit-Specific Exemption as the solution to concerns about over-mitigation, we can expect that resources will attempt to show that their costs fall below the default offer floor, with many resorting to litigation should they fail to do so. The result of all this may be full employment for energy lawyers, but it is hardly the most obvious way to harness the forces of competition.

89. Finally, although this administrative pricing regime is likely to be as complex and cumbersome as cost-of-service regulation, it provides none of the benefits that a cost-of-service regime can provide. Most notably, the administrative pricing regime is a one-way ratchet that will only increase the capacity market clearing price. Unlike cost-of-service regulation, there is no mechanism for ensuring that bids reflect true costs. Nor does this pricing regime provide any of the market-power protections provided by the cost-of-service model. Once mitigated, resources are required to offer no *lower* than their administratively determined offer floor, but there is no similar prohibition on offering above that floor.[227]

IV. Today's Orders Are Instead All about Slowing the Clean Energy Transition

90. If they do not promote competition, today's orders certainly serve an alternative, overarching purpose: Slowing the region's transition to a clean energy future. Customers throughout PJM, not to mention several of the PJM states, are increasingly demanding that their electricity come from clean resources. Today's orders represent a major obstacle to those goals. Although even this Commission won't come out and say that, the cumulative effect of the various determinations in today's orders is

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[227] Moreover, as discussed above, *see supra* P 67, PJM's capacity market is structurally uncompetitive and lacks any meaningful market mitigation. There is every reason to believe that today's orders will exacerbate the potential for the exercise of market power.

unmistakable. It helps to rehash in one place what the mitigation regime affirmed in the December 201 Rehearing Order will do.

91. First, after establishing a broad definition of subsidy, the Commission creates several categorical exemptions that overwhelmingly benefit existing resources. Indeed, the exemptions for (1) renewable resources, (2) self-supply, and (3) demand response, energy efficiency, and capacity storage resources are all limited to existing resources.[228] That means that all those resources will never be subjected to the MOPR and can continue to bid into the market at whatever level they choose, while every comparable new resource must run the administrative pricing gauntlet. In addition, new natural gas resources remain subject to the MOPR.[229] All told, those exemptions provide a major benefit to existing resources.

92. Second, as noted above, the Commission creates different offer floors for existing and new resources.[230] Using Net CONE for new resources and Net ACR for existing resources will systematically make it more likely that existing resources of all types can remain in the market, even if they have higher costs than new resources that might otherwise replace them. As the Market Monitor put it, this disparate treatment of new and existing resources "constitute[s] a noncompetitive barrier to entry and . . . create[s] a noncompetitive bias in favor of existing resources and against new resources of all types, including new renewables and new gas fired combined cycles."[231]

93. Third, the mitigation scheme imposed by today's orders will likely cause a large and systematic increase in the cost of capacity. Although that will appear as a rate increase for consumers, it will be a windfall to existing resources that clear the capacity market. That windfall will make it more likely that any particular resource will stay in the market, even if there is another resource that could supply the same capacity at less cost to consumers.

94. Finally, the December 2019 Order again dismisses the June 2018 Order's fig leaf to state authority: The resources-specific FRR Alternative.[232] That potential path for accommodation was what allowed the Commission to profess that it was not attempting

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[228] December 2019 Order, 169 FERC ¶ 61,239 at PP 173, 202, 208.

[229] *Id.* PP 2, 42.

[230] *See supra* Section II.B.4.

[231] Internal Market Monitor Reply Brief at 4.

[232] December 2019 Rehearing Order, 171 FERC ¶ 61,035 at P 348; June 2018 Order, 163 FERC ¶ 61,236 at P 157.

to "'"disregard" or "nullify" state public policies. Although implementing that option would no doubt have been a daunting task, doing so at least had the potential to establish a sustainable market design by allowing state policies to have their intended effect on the resource mix. And that is why it is no longer on the table. It could have provided a path for states to continue shaping the energy transition—exactly what this new construct is designed to stop.

95. The Commission proposes various justifications for each of these changes, some of which are more satisfying than others. But don't lose the forest for the trees. At every meaningful decision point in today's orders, the Commission has elected the path that will make it more difficult for states to shape the future resource mix. Nor should that be any great surprise. Throughout this proceeding, the Commission has focused narrowly on states' exercise of their authority over generation facilities, treating state authority as a problem that must be remedied by a heavy federal hand. The only thing that was new in the December 2019 order was the extent to which the Commission was willing to go. Whereas the June 2018 Order at least paid lip service to the importance of accommodating state policies,[233] the December 2019 Order—and today's orders—are devoid of any comparable sentiment.

96. In addition, in a now-familiar pattern, today's orders put almost no flesh on the bones of the Commission's edicts and provide precious little guidance how the new MOPR will work in practice. Most of the actual work will come in the compliance proceedings, not to mention the coming litany of section 205 filings, section 206 complaints, and petitions for declaratory orders seeking guidance on fact patterns that the Commission, by its own admission, has not yet bothered to contemplate. In each of those proceedings, the smart money should be on the Commission adopting what it will claim to be facially neutral positions that, collectively, entrench the current resource mix. Although the proceedings to come will inevitably garner less attention than today's orders, they will be the path by which the "quiet undoing" of state policies progresses.[234]

97. The December 2019 Rehearing Order is a concerning preview of that process. In the two thousand-plus pages of rehearing requests filed in response to December 2019 Order, parties raised a wide range of concerns. Today's orders duck almost every single one, falling back on generalizations and a single-minded focus on extirpating the effects of state policies. Although the order is long in pages, it is short on any serious effort to

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[233] June 2018 Order, 163 FERC ¶ 61,236 at P 161.

[234] Danny Cullenward & Shelley Welton, *The Quiet Undoing: How Regional Electricity Market Reforms Threaten State Clean Energy Goals*, 36 Yale J. on Reg. Bull. 106, 108 (2019), *available at* https://www.yalejreg.com/bulletin/the-quiet-undoing-how-regional-electricity-market-reforms-threaten-state-clean-energy-goals/.

grapple with or explain the implications of the Commission's actions. Moreover, in the few instances in which the Commission gave ground, such as voluntary RECs, it did so only with an ominous warning that is likely to cause more confusion than it clears up.[235] Everything about today's orders should concern those with a stake in a durable resource adequacy construct in PJM.

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98. At this point, the die has been cast. Today's orders make unambiguously clear that the Commission intends to array PJM's capacity market rules against the interests of consumers and of states seeking to exercise their authority over generation facilities. For all the reasons discussed above, these orders are illegal, illogical, and truly bad public policy.

99. But, even beyond that, today's orders are deeply disappointing because they will fracture PJM, the largest RTO in the country. As I predicted in my dissent from the December 2019 Order, states throughout the region are already looking for ways to pull their utilities out of the capacity market rather than remain under rules designed to damage their interests. Today's orders snuff out what little hope may have remained that the Commission would again change course and adopt a more sensible market design. As a result, states committed to exercising their rights under FPA section 201(b) will have little choice but to exit the capacity market. I strongly urge PJM to work with the states and provide them the time needed to make the transition as smooth as possible.

100. Fostering large regional markets for energy, ancillary services, and capacity, has been one of the Commission's principal successes over the last quarter century. I hate to see that success undone based on an obsession with blocking the effects of state public policies. But, unfortunately, the Commission chose the path that it did. In so doing, we have abdicated the leadership role that we ought to have taken in developing a resource adequacy paradigm that accommodates the fundamental changes currently under way in the electricity sector.

101. The irony in all this is that the Commission asserts that it is acting to "save" the capacity market even as it sets the market on a course toward its eventual demise.

For these reasons, I respectfully dissent.

Richard Glick
Commissioner

[235] *See supra* p 79; *see also supra* note 190.

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Calpine Corp.; 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. EL16-49-002 EL18-178-002 (Consolidated)

v.

PJM Interconnection, L.L.C.

PJM Interconnection, L.L.C.

ERRATA NOTICE

(April 16, 2020)

On April 16, 2020, the Commission issued an "Order on Rehearing" in the above-captioned proceeding. *Calpine Corp., et al. v. PJM Interconnection, L.L.C.*, 171 FERC ¶ 61,035 (2020). This Errata Notice corrects the Order on Rehearing to remove Paragraph 82 in its entirety and replace it with the following:

> 82. Further, we disagree that retail rate riders do not affect existing resources' continued operation or participation in the capacity market or supply-side participation in the PJM capacity market. Retail rate riders guarantee a level of cost recovery and, as such, are connected to the wholesale procurement or sale of electricity or support the construction, development, and operation of new and existing capacity resources.

Nathaniel J. Davis, Sr.,
Deputy Secretary.

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April 20, 2020

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