

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.

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Docket Nos. ER18-1314-000  
ER18-1314-001

PJM Interconnection, L.L.C.

EL18-178-000  
(Consolidated)

**COMMENTS OF THE UNION OF CONCERNED SCIENTISTS**

Pursuant to Rule 211 of the Federal Energy Regulatory Commission’s (“Commission”) Rules of Practice and Procedure, 18 C.F.R. § 385.211, the Union of Concerned Scientists (“UCS”), respectfully submits this response to the Commission’s order of June 29 (“Order”). That Order addressed matters raised in the filing of PJM Interconnection, L.L.C. (“PJM”) in Docket No. ER18-1314-001 ... etc. (“Filing”), and an earlier complaint against PJM pursuant to section 206 of the Federal Power Act (FPA), filed by Calpine Corporation, joined by additional generation entities, in Docket No. EL16-49-000 (Calpine Complaint).

In its Filing, PJM proposes changes to PJM's Open Access Transmission Tariff that address procurement of capacity through PJM's Reliability Pricing Model ("RPM") from resources with out-of-market revenues. As explained in more detail below, UCS requests that the Commission reject the PJM proposal for an expanded MOPR as inconsistent with the terms of the Commission's Order. While UCS does not agree with the Commission's conclusion in its Order that state policy poses a threat to the wholesale capacity market, UCS takes the findings in that Order as given for the purposes of its current comments on the Order's implementation. PJM's proposal is not consistent with the Commission's Order because it would arbitrarily provide an exemption for resources that have one kind of state-supported revenue, but not for other kinds of state-supported revenue. UCS does not comment on the various proposals for a Fixed Resource Requirement (FRR) alternative.

## **I. Background**

The Commission Order responds to two proceedings initiated to address the PJM capacity pricing construct, the participation of differing resources in the capacity auctions, and resulting prices that establish rates. The first proceeding is a complaint against PJM pursuant to section 206 of the FPA 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. The second proceeding addressed in the Order is PJM's recent filing of proposed revisions to its Tariff, pursuant to section 205 of the FPA, in Docket Nos. ER18-1314-000, *et al.* PJM's filing proposed designs to address the price suppressing effects of state out-of-market support for certain resources. In the Order, the

Commission rejected PJM’s proposed tariff designs but also ordered PJM to expand the MOPR “with few or no exceptions.”<sup>1</sup>

The Order posed a number of questions for parties to address in the subsequent paper hearing process. These comments will focus on the related topics of the appropriate scope of out-of-market support to be mitigated by the expanded MOPR, and the Commission request for comment on what, if any exceptions should be added to the MOPR for existing resources in future capacity auctions.<sup>2</sup> In most recent stakeholder meetings, PJM stated that it intends to propose a “self-supply” exemption for resources receiving out-of-market revenue from state-supported cost recovery.

#### **A. Generation receiving payments by direction of state action**

PJM did not make an effort to describe the majority of the investor-owned generation receiving payments directed by states, only a sample of recent and decades-old policies that address environmental externalities the market fails to recognize. PJM’s April filing describes the nuclear generation supports (Zero Emissions Credits, or “ZECs”) enacted by Illinois and New Jersey. PJM testimony described these state actions as supporting approximately 1,400 MW in Illinois and potential New Jersey payments for up to 3,360 MW.<sup>3</sup> Ten of the thirteen states in PJM, plus the District of Columbia, have implemented Renewable Portfolio Standards (RPS) for a portion of electricity supplies to be renewable sources. PJM describes these current RPS laws require nearly 5,000 MW and that requirement grows to over 8,000 MW by 2025.<sup>4</sup> The sum of

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<sup>1</sup> June Order at P 158.

<sup>2</sup> June Order at P 165, P 167.

<sup>3</sup> PJM April filing at 27.

<sup>4</sup> To reach these numbers, PJM made some assumptions regarding the amount of energy provided by installed renewable generation (capacity factor) and but has not addressed the issue of what might be the amount of capacity that could be bid into the RPM absent the proposed rule changes. See PJM April filing Affidavit of Dr. Anthony Giacomoni.

these, using the upper end of the range of these programs is 12,700 MW or roughly 6% of generation capacity in PJM.

Beyond the discussion of state ZEC and RPS policies, PJM made only superficial mention of states that provide out-of-market payments to “traditionally regulated, vertically integrated” utilities. PJM did not describe how these utilities receive revenues for costs and profits different from the 75% of the PJM generation fleet whose “financial and operational risks ... are not imposed on consumers.” PJM further stated that vertically regulated or public power utilities built 30% of the new generation added to PJM in capacity auctions from 2010 to 2017.<sup>5</sup>

PJM did not collect the list of states with out-of-market revenues for investor-owned generation under either an RPS, ZEC, or regulated cost-of-service. All of the states in PJM have one or more of these mechanisms that provide the means for generation to either enter or remain viable in PJM’s capacity market.

A comparison of the size of the investor-owned generation fleet provided with cost-of-service rates with the size of fleet that PJM propose to address with new MOPR mechanisms is also omitted. Approximately 40,000 MW, or roughly 20% of generation in PJM is owned by for-profit utilities that collect costs for this generation through state-approved customer rates. That fleet appears to represent three times the amount of capacity identified by PJM in its filing and affidavit as needing the MOPR to mitigate impacts on price.

PJM testimony regarding the impact of state-supported generation, which UCS cannot verify, asserts that “adding comparatively small quantities of subsidized offers disproportionately reduces the clearing prices paid to all resources.” PJM has provided enough information in the April filing to ascertain that 30% of the new capacity cleared in RPM auctions since 2010 was

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<sup>5</sup> PJM April filing at 9-10

from vertically-integrated utilities with out-of-market revenues. This presumably exceeds the threshold PJM testimony described. “Adding less than 2% of zero-priced supply to the area outside MAAC, for example, reduces clearing prices in the RTO by 10%.”<sup>6</sup>

### **B. PJM provisions for market-distorting bids**

PJM’s recent concern for the distorting effect of zero-priced supply is not a result of such bidding strategies recently appearing in its market. On the contrary, PJM has provisions for zero-priced bids in both its energy and capacity markets that pre-date the state policy support for nuclear power.<sup>7</sup>

The language for the PJM capacity market in PJM Manual 18 makes clear how this works for generation owners that wish to make such bids. PJM defines “Self-Scheduled Resources” as “resources specified by a resource provider in the Base Residual Auction to provide a mechanism to guarantee that the resource will clear in the Base Residual Auction. For each resource-specific sell offer, if a resource is designated as self-scheduled by the resource provider, ... the sell offer price will be set to zero. Self-Scheduled resources will be cleared first in the Base Residual Auction and cannot set the clearing price as the marginal resource, since these resources lack flexibility.”<sup>8</sup>

Further, PJM reiterates the implications for the financial viability of resources that make zero-priced bids in the capacity market. “Because PJM will self-schedule the Unit, Owner recognizes that the Unit’s offer will always clear an auction and that Owner must accept the applicable clearing price.”<sup>9</sup> The logical conclusion is that the generation owner is indifferent to

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<sup>6</sup> PJM filing at 28.

<sup>7</sup> PJM Manual 18: PJM Capacity Market at 119-120. The New Jersey RPS law pre-dates the development of the PJM capacity market.

<sup>8</sup> PJM Manual 18 at 241.

<sup>9</sup> PJM Manual 18 at 244.

the price that will be paid as a result of the auction as there is additional cost recovery available to the owner of such generation resources. Further, this practice in PJM's own tariff is evidence that state support in the form of cost-recovery results in zero-priced bids that would not otherwise occur.

## II. Comments

### A. 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.

The Commission Order and PJM proposed tariff revisions and lay out what each regards as fundamental principles regarding the functions of the RPM construct for acquiring capacity resources in a manner consistent with price signals and fairness in both supply and demand. PJM posits that state action to subsidize certain resources will distort market outcomes. The Commission agreed in principle but found that PJM's proposal did not adequately address the impacts of out-of-market revenue. To ensure the market impacts are fully addressed, Commission directed PJM to propose a MOPR that has few or no exemptions. The Commission was clear that the MOPR should address subsidies to existing resources that participate in the PJM capacity construct. UCS did not agree with PJM's views of the impacts of state policies on the market but does not further press those objections in these comments.

The Commission's Order opens with distinct statements regarding the tension between state-sponsored payments and the PJM capacity market. "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. With each such subsidy, the market becomes less grounded in fundamental principles of supply and demand.”<sup>10</sup>

The Order described the Commission’s reasoning for finding PJM cannot allow resources receiving out-of-market support to affect capacity prices.<sup>11</sup> PJM had explicitly proposed exemptions for generation owned by vertically integrated, investor-owned utilities.<sup>12</sup> The paragraph in the Order that finds the PJM Tariff is unjust and unreasonable specifically cites *older, uneconomic resources* in PJM, which may not be able to clear the market based on their costs alone.<sup>13</sup> The Commission continued, “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.”<sup>14</sup>

**B. Under the Commission Order, all state payments impacting the market must be addressed without exception, regardless of the mechanism by which it is provided.**

The principles described above were first articulated by the Commission<sup>15</sup> and repeated by PJM in the April filing. PJM describes the price impact of a state subsidy allowing an existing resource to be offered into the PJM capacity auction at a low price, due to the state subsidy. In these principles generally, and in PJM descriptions of the impacts of state subsidies supporting generating resources, there is no distinction between support payments to existing plants and payments to new plants. See for example PJM describes existing resources’ price suppression due to out-of-market:

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<sup>10</sup> June Order at P 2.

<sup>11</sup> June Order at P 156.

<sup>12</sup> April filing at 73-74.

<sup>13</sup> June Order at P 154.

<sup>14</sup> June Order at P 155.

<sup>15</sup> CASPR Order at P 21.

It undermines robust competition because other sellers cannot compete against a substantial subsidy available only to select capacity sellers;

It distorts price signals needed to guide orderly entry and exit because the clearing price does not reflect the costs of the committed resources that, in reliance on the subsidy, offered well below their net costs of committing as capacity;

It does not result in selecting least-cost resources that possess the attributes sought by the market, because those resources may be priced out by subsidized resources that are selected despite their higher costs;...<sup>16</sup>

The narration of principles, followed by only a selective application of those principles, is inappropriate. In the Order, the Commission rejected PJM's claims that PJM can reach proper prices if it identifies out-of-market payments and applies the MOPR to some existing plants, but not other existing plants. The Commission explicitly recognized the *lack of difference* in impact between out-of-market support for existing plants that interfere with plant retirement or market exit, and out-of-market support that enable selected plants' new entry into the market.

The fleet of existing resources with state-sponsored out-of-market payments is substantial. If the fundamental principles presented by both PJM and the Commission are as important as suggested, and the Commission has found that any price suppression due to out-of-market payments makes the PJM capacity auction results unjust and unreasonable, then there cannot be MOPR exemptions for investor-owned plants that have been receiving cost-recovery through state-administered rates.

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<sup>16</sup> PJM made extensive references to "first principles of capacity markets" listed in the CASPR Order. The recitation continues: "It undermines price transparency because the actual cost of providing capacity is not being transparently communicated since it is masked by the subsidy; It shifts risk *from* private capital *to* customers, because resource owners are insulated from the financial consequences of a resource that cannot, based on its economics, clear in a competitive auction, with customers (and other wholesale market participants as shown in Figure 2 above) bearing the costs of keeping the resource in operation; and It does not recognize or address any market power that may be involved in the submission of a below-cost offer." PJM April filing pages 45-46 citing CASPR Order at P 21.

PJM serves all or parts of seven states that provide rate-based cost-recovery for generation owned by vertically integrated investor-owned utilities: Indiana, Kentucky, Michigan, North Carolina, Ohio, Pennsylvania, Virginia, and West Virginia.<sup>17</sup> Under PJM's own reasoning that even small quantities of resource receiving state support can distort prices, the scale of the impact from 40,000 MWs of such capacity must be more than a historic legacy. Given PJM's analysis showing 2% of zero-priced supply to a large area reduces clearing prices in the RTO by 10%, the 20% of generation in PJM eligible for, and no doubt receiving out-of-market payments through cost-recovery cannot be dismissed.

PJM's own rationale undercuts its proposal to provide an exemption for plants that receive cost-recovery. If creating a market expectation that competitive resources will displace existing, less efficient incumbents is critical to market function, however, then there can be no justification for an exemption of state-supported cost recovery for investor-owned plants. But while PJM describes at length the state support payments for renewable energy, and the more recent creation of state payments for existing nuclear plants, it makes no effort to examine the potential of cost-of-service payments to existing investor-owned generation to affect the results of PJM's capacity auctions.<sup>18</sup> This makes any resulting rate as flawed and unacceptable as the petitioners and the Commission believe they are at present, given the significant fleet of capacity now participating in the PJM capacity market receiving cost-of-service payments.

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<sup>17</sup> States established cost-of-service rate regulation over 100 years ago. The Regulatory Assistance Project. Electricity Regulation In the USA Guide. 2011. <https://www.raonline.org/wp-content/uploads/2016/05/rap-lazar-electricityregulationintheus-guide-2011-03.pdf>

<sup>18</sup> PJM April filing at 24-27.

### III. Conclusion

The Commission sought comment on the appropriate scope of out-of-market support to be mitigated by the expanded MOPR.<sup>19</sup> As long as the Commission maintains the finding that out-of-market payments directed by a state must be subject to a MOPR, the application of such a rule cannot exempt the investor-owned generation fleet provided with cost-of-service rates. PJM has testified that participation by a much smaller amount of zero-priced generation than the investor-owned cost-of-service fleet reduces clearing prices. PJM has long provided for self-scheduled, zero-priced bids in the capacity market. The Commission must acknowledge the scale and scope of the existing generation that can impact auction clearing prices and affirm that the PJM MOPR will be applied to investor-owned generation receiving cost-recovery through state-administered rates.

Respectfully submitted on this 1st day of October 2018.

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<sup>19</sup> June Order at P 165.