

**UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION**

Calpine Corporation)	
)	
v.)	Docket No. EL16-49-000
)	
PJM Interconnection, L.L.C.)	
 PJM Interconnection, L.L.C.)	 Docket No. ER18-1314-000
		Docket No. ER18-1314-001
 PJM Interconnection, L.L.C.)	 Docket No. EL18-178-000
		 (Consolidated)

REPLY BRIEF OF THE PJM POWER PROVIDERS GROUP

Pursuant to Rule 212 of the Rules of Practice and Procedure of the Federal Energy Regulatory Commission ("FERC" or the "Commission"), 18 C.F.R. § 385.212 (2017), the PJM Power Providers Group ("P3")¹ hereby submits this reply brief in the above-captioned proceeding.

I. COMMENTS

“The fact is, we have all been a good deal puzzled because the affair is so simple, and yet baffles us all together.”

- “*The Purloined Letter*” – Edgar Allan Poe

¹ P3 is a non-profit organization dedicated to advancing federal, state and regional policies that promote properly signed and well-functioning electricity markets in the PJM Interconnection, L.L.C. (“PJM”) region. Combined, P3 members own over 84,000 MWs of generation assets, produce enough power to supply over 20 million homes and employ over 40,000 people in the PJM region covering 13 states and the District of Columbia. For more information on P3, visit www.p3powergroup.com. The comments contained in this filing represent the position of P3 as an organization, but not necessarily the views of any particular member with respect to any issue.

Perhaps no single issue has “puzzled” PJM and this Commission more for the last decade than how to address the actions of certain states, acting through their state level powers that seek to ensure that certain resources are given preferential treatment while continuing to rely on PJM for the reliability and economic efficiency benefits of a competitive, regional, FERC-jurisdictional, wholesale market. The issue has manifested itself in several forms, whether it be Pennsylvania’s demand response subsidies, New Jersey’s Long-Term Capacity Pilot Project (“LCAPP”), Ohio’s power purchase agreements (“PPAs”) for existing generation units or Maryland’s Off-Shore Wind program. Regardless of the form of state-legislated subsidies, the issue is basically the same – how can the Commission assure just and reasonable wholesale market rates when states seek to pick winners and losers in the Commission-regulated, wholesale markets?

Thousands of pages of commentary, including protests, pleadings, comments, briefs, testimony, notices, appeals and orders have been filed on the issue of state subsidies in wholesale energy markets. Over the years, the Commission has addressed the issue on a piecemeal basis, through modifications to the Minimum Offer Price Rule (“MOPR”), as well as investigated the issue in broad inquiries. Despite these well-intentioned and time-consuming efforts, the issue remains unaddressed and, by all indications, appears destined to get worse. As a result, on June 29th, the Commission issued an order which determined that PJM’s wholesale capacity rates are not just and reasonable.² This paper proceeding must fix that problem.

Sometimes, like Poe’s purloined letter, the answer rests in plain sight.

P3 respectfully suggests that the “answer” is relatively obvious and utilizes tools with which the Commission is very familiar – the MOPR and the Fixed Resource Requirement (“FRR”). These tools continue to serve important purposes that can, with targeted changes,

² *Calpine Corporation v. PJM Interconnection, L.L.C.*, 163 FERC ¶ 61,236 (2018) ("June 29 Order").

achieve the dual goals the Commission articulated in its June 29th Order. With targeted changes to both tools, the Commission will produce a market construct that: 1) stops the harm to unsubsidized resources in the face of suppressed prices as a result of uneconomic, subsidized units participating in the market; and 2) provides states a viable means to pursue their state's environmental and energy objectives. P3 respectfully urges the Commission to pursue the path of updating and refining both of these existing tools, before turning to substantially new, untested market constructs to address state subsidies.

As P3 established in its initial comments, the fundamental problem with PJM's current market construct is that states are incented to subsidize select resources. Because of this incentive, the reasons for subsidization have varied from alleged reliability concerns in Maryland and New Jersey in 2011, the environment and jobs in Illinois in 2016, and the preservation of local jobs in New Jersey in 2018. Regardless of the stated basis for the subsidy, a consistent side benefit has been that a subsidy for an individual resource lowers the cost of the remaining capacity the state's consumers must buy. While the reasons for subsidization are diverse and have evolved, the incentive to subsidize has been a consistent presence in the PJM market. As was amply established in this proceeding by numerous economic experts, including the PJM Independent Market Monitor ("IMM") and even PJM itself, subsidization for some resources leads to price suppression for the remaining unsubsidized capacity resources. As PJM has found, "subsidies beget subsidies: basing markets on subsidies, rather than on costs, incents suppliers to seek subsidies of their own."³ Given

³ PJM Interconnection, L.L.C., Capacity Repricing or in the Alternative MOPR-Ex Proposal: PJM Tariff Revisions to Address Impacts of State Public Policies on the PJM Capacity Market, Docket No. ER18-1314-000, filed April 9, 2018 ("PJM Capacity Reform Proposal"), citing FERC Staff Report to the Secretary on Electricity Markets and Reliability, U.S. Department of Energy, at p. 14 (Aug. 17, 2017) (noting that "subsidies beget subsidies"); see also State of the Market Report for PJM, Monitoring Analytics, LLC, 42 (Mar. 8, 2018).

this affirmative incentive to subsidize, it is no wonder that a myriad of reasons have emerged to justify out-of-market payments.

In order for the Commission to fix the problem it so eloquently identified, it must remove this perverse incentive to subsidize at the state level and reframe the decision for the states so that states have an ability to make an honest choice as to their future generation mix. If the questions are appropriately reframed, the existing PJM FRR may become more attractive to certain states. If a state sees more value in the ability to select its capacity resources than what the interstate market is producing and has the incentive to subsidize removed, the current FRR quickly becomes a more attractive path forward.⁴ But in doing so, a state must be prepared to bear all of the costs and responsibilities equitably associated with such a choice, not a cherry-picked parody of this type of solution.

Perhaps, if the choice was framed appropriately, states could choose to remain in the wholesale market and pursue environmental goals through more traditional regulatory means, such as pollutant-specific regulation, a carbon tax, or a cap and trade structure.⁵ In addition, regional environmental constructs like the Regional Greenhouse Gas Initiative are available to states that want an additional tool to achieve their environmental goals in a manner that is fully integrated into the wholesale markets. It is worth noting that NO_x and SO_x emissions in PJM have plummeted in PJM because those pollutants were addressed via cap and trade mechanisms that are

⁴ For example, under current New Jersey law and executive order, the State, by 2030, will be subsidizing 3500 MW's of off-shore wind and 2000 MWs of battery storage, in addition to having 40% of the delivered MWs having a zero emission credit ("ZEC") associated with them, and 50% of the delivered MWs having a renewable energy credit ("REC") associated with them. Assuming New Jersey still is comfortable with these decisions after the incentive to suppress price is removed by a Clean MOPR, New Jersey very well may be more content under an appropriate state-sanctioned and statewide FRR plan.

⁵ See, "...emissions trading would become one of the most spectacular success stories in the history of the green movement," The Political History of Cap and Trade: <https://www.smithsonianmag.com/science-nature/the-political-history-of-cap-and-trade-34711212/>

very compatible with markets.⁶ These reductions were not achieved by subsidizing gas, nuclear, hydro or wind facilities, but instead via market-based and market-compatible regulatory paradigms. If the Commission removes the incentive to suppress prices via a Clean MOPR, i.e., a MOPR applicable to all materially subsidized resources without categorical exemptions, perhaps pollutant specific strategies such as these will become more in vogue.

In specific regard to the suggested unit-specific FRR, the Commission has more than enough evidence to conclude that it simply does not address the problem it seeks to solve. Consider this limited sampling from the parade of commenters that reached the conclusion that the Commission should reject the unit specific FRR approach:

- Robert Stoddard: “The Resource Carve Out (“ReCO”) introduced by PJM differs from the FRR Alternative in some important ways but shares the same fatal flaw as the FRR Alternative: allowing state subsidies to cause unfettered distortions of federal capacity markets, ultimately gutting the ability of the markets to function properly.”⁷
- Dr. Paul Sotkiewicz: “...the idea behind FRR and the proposed FRR Alternative taking demand and supply out of the market is a great sound-bite that gives the illusion of protecting the market but does nothing of the kind. It actually can and does inflict even greater damage to the market.”⁸
- NERA: “The core problems of subsidized resources participating in the capacity market are: • Subsidies lead to suppressed prices; and as a result, • Subsidies lead to an inefficient allocation of society’s resources. . . Both problems continue to exist under the Commission’s suggested resource-specific FRR Alternative. . .”⁹

⁶ PJM: 2013-2017 CO₂, SO₂ and NO_x Emission Rates, March 15, 2018: <https://www.pjm.com/-/media/library/reports-notices/special-reports/20180315-2017-emissions-report.ashx?la=en>

⁷ Initial Brief of NRG Power Marketing, LLC, Affidavit of Robert B. Stoddard on Behalf of NRG Power Marketing, LLC., *PJM Section 206 Proceeding*, October 2, 2018, P 9.

⁸ Initial Brief of the Electric Power Supply Association (“EPSA”), Affidavit of Dr. Sotkiewicz, *PJM Section 206 Proceeding*, October 2, 2018 (“EPSA Initial Brief”), P 12.

⁹ Initial Brief of LS Power Associated, LP, Affidavit of Kurt G. Strunk and Willis P. Gefferts, *PJM Section 206 Proceeding*, October 2, 2018, P 22 and 23.

- Dr. Roy Shanker: “The inevitable, and perhaps at some level regrettable, conclusion that I reach is that a unit specific FRR just doesn’t work. From the view of other market participants, load will be decreasing for the same level of supply whether the exempted unit is a new entrant or an uncompetitive existing supplier. This makes the price suppression worse, not better.”¹⁰
- ELCON: “ELCON is concerned that . . . bifurcating the capacity market and implementing procedures for market carve-outs is ripe for unintended consequences that deter efficient market operations.”¹¹
- The Public Utilities Commission of Ohio: “The PUCO discusses several implementation issues with the proposed resource-specific FRR Alternative including state approval, administrative burden in identifying/maintaining a resource’s corresponding load in Ohio - a retail choice state. Thus, the PUCO prefers the proposed expanded MOPR because it preserves the integrity of Ohio’s retail electric market and provides certainty to market participants.”¹²
- The Maryland Public Service Commission: “The prospect of a shrinking capacity market would make that market less competitive, and it is not inconceivable that, sometime in the near future, the RPM construct would wither away. If any of the proposed FRR Alternative approaches were to move forward and the RPM were to subsequently dissolve, ratepayers would face the prospect of being locked into out-of-market payment agreements for capacity in lieu of securing capacity from a competitive market that no longer exists. Since prices in other PJM markets (*i.e.*, energy and ancillary services) would be expected to increase without a capacity market, states would face the prospect of having to deal with messy, unplanned *deregulation*. The Commission should be cautious adopting a new construct that could result in such an outcome.”¹³
- Even PJM’s economist, Dr. Hung-Po Chao, recognized that “If a subsidized (state sponsored) resource is allowed to satisfy a fixed quantity of demand carved out of the capacity auction, it would have the same economic effects (price suppression

¹⁰ Initial Brief of the PJM Power Providers Group, including Affidavit of Dr. Roy J. Shanker, *Calpine Corporation, et al. v. PJM Interconnection, L.L.C.* Docket No. EL16-49-000; DR18-1314-000, 001; EL18-178-000 (“PJM Section 206 Proceeding”), October 2, 2018 (“P3 Initial Brief”). Errata of the PJM Power Providers Group, including Affidavit of Dr. Roy J. Shanker, *PJM Section 206 Proceeding*, dated October 3, 2018, at P 39.

¹¹ Comments of the Electricity Consumers Resource Council (“ELCON”), *PJM Section 206 Proceeding*, October 2, 2018, p. 2.

¹² Argument Submitted on Behalf of The Public Utilities Commission of Ohio (“PUCO”), *PJM Section 206 Proceeding*, October 2, 2018, p. 2.

¹³ Reply Comments of the Maryland Public Service Commission, *PJM Section 206 Proceeding*, filed November 6, 2018, pp. 6-7.

and resource substitution) on the capacity market as a zero-price offer in the capacity market.”¹⁴

The Commission clearly cannot move forward with the unit-specific FRR in the face of so much resounding criticism. While P3 appreciates the Commission’s sincere attempt to find a solution that would render PJM’s capacity market rates just and reasonable, the unit-specific FRR concept simply falls short. The Commission needs to find a different path forward.

P3 continues to believe a Clean MOPR which has been vetted, briefed and discussed at length before this Commission, combined with a renewed emphasis on the existing FRR provisions, effectively meets the Commission’s goals while appropriately accommodating state interests. To reiterate, a Clean MOPR would apply to all units that receive a material subsidy. P3 does not support the numerous exceptions proposed by PJM and other parties.¹⁵ Likewise, P3 is not prepared at this time to endorse the IMM’s call for all units (subsidized and unsubsidized) to be placed into the auction at their net avoidable cost rates (“ACRs”).¹⁶

The Commission called for a MOPR with “few or no exceptions.”¹⁷ It was the right call in the June 29 Order and nothing in this paper hearing should persuade the Commission to alter its position. A Clean MOPR provides the Commission the confidence it needs that wholesale capacity rates are just and reasonable in the face of increased subsidies to selected, uneconomic capacity

¹⁴ PJM Initial Submission, Affidavit of Dr. Hung-Po Chao, P 9.

¹⁵ Comments of the American Wind Energy Association, The Solar RTO Coalition, the Mid-Atlantic Renewable Energy Coalition, Solar Energy Industries Association (collectively, the “Clean Energy Industries”), *PJM Section 206 Proceeding*, October 2, 2018.

¹⁶ Brief of the Independent Market Monitor for PJM, *PJM Section 206 Proceeding*, October 2, 2018 (“IMM Brief”).

¹⁷ “[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,” June 29 Order – P 158.

resources. Further, such a rule cannot be degraded or circumvented by a mechanism with the impairments of the suggested partial FRR.

While P3 continues to believe that there should be no exceptions for federal subsidies or for self-supply entities, P3 would be willing to accept a narrow self-supply exception, with appropriate bands, for purposes of the 2019 BRA, provided the Commission establishes a process to address issues associated with self-supply in BRAs held in 2020 and beyond. The current ability of self-supply entities to distort capacity prices is an issue that demands attention. The record evidence in this proceeding, as well as in others, clearly establishes that the current PJM tariff is not just and reasonable in regard to the treatment of self-supply entities in the capacity market.¹⁸ In order to move this process forward, P3 is willing to accept PJM's proposed exemption for public power for only the 2019 BRA, in hopes that an appropriate regulatory structure for self-supply can be in place for the May 2020 BRA.

P3 does not, however, support PJM's proposed treatment of federal subsidies, as it unnecessarily introduces complexities into the MOPR process. The impact of federal subsidies on the capacity market is, in most respects, identical to the impact of state subsidies. PJM admits as much in its filing.¹⁹ P3 agrees with PJM's assertion that FERC is, first and foremost, the ". . . price regulator. Thus, its duty to uphold competitive prices is not met merely by sanitizing the residual market from subsidized offers – it must additionally examine the price outcome in that residual market and be satisfied such prices are just and reasonable."²⁰ The Commission must mitigate the impact of federal subsidies in its jurisdictional markets in order to render PJM's capacity market

¹⁸ P3 Initial Brief, pp. 12-13.

¹⁹ PJM Initial Brief, p. 30.

²⁰ PJM Initial Submission, p. 4.

rates just and reasonable. The Commission's independent and primary jurisdictional authority is not subordinate to federal subsidies. Such subsidies obviously are lawful, but they must be harmonized with the regulatory responsibilities of the Commission under the Federal Power Act. If Congress wants to limit FERC's ability to mitigate the impact of federal subsidies on the wholesale market, it has the ability to do so. Until such time, the Commission should feel unshackled in its ability to address this concern and reject PJM's confusing and ill-advised proposal to exempt from mitigation those federal subsidies "enacted into law prior to March 21, 2016."²¹

As for the consideration of accommodation, the existing PJM FRR eliminates the need for the Commission to deal with the numerous and legitimate complexities associated with the proposed unit-specific FRR. Even if the Commission could get past the price suppression concerns associated with the unit-specific FRR, the implementation of such a concept is fraught with complexities and challenges if it is actually going to have a substantive impact. Tough decisions about transmission constraints, load allocations, ACRs for subsidized units, etc. can all be avoided by using the existing, on the books, FRR mechanism.²²

The FRR construct, as it currently exists, has not been proven (yet even seriously alleged) to result in anything other than a workable accommodation for states and the Load Serving Entities ("LSE") that desire to meet their capacity obligations outside of a centralized market construct.²³

²¹ PJM Initial Submission, p. 28.

²² P3 believes that the existing FRR mechanism requires two modest changes in order to address inequities between FRR and non-FRR LSEs. See P3 Initial Brief pp. 13 – 18.

²³ See comments submitted by the Indiana Utility Regulatory Commission stating that, "Indiana, like other traditionally regulated states, does not rely on PJM's capacity market to ensure resource adequacy." Motion for Leave to Intervene Out-of-Time, Motion to Intervene, and Reply Comments of the Indiana Utility Regulatory Commission, *PJM Section 206* Proceeding, dated November 5, 2018, pp. 4-6.

As PJM's IMM has long found, "[T]he FRR option permits utilities with cost-of-service revenue recovery for generation assets to participate in PJM energy markets on a competitive basis while not distorting the capacity market based on the fact that such companies fully recover their capacity costs outside the market."²⁴

Moreover, the current FRR has been employed in states such as Michigan, Ohio, Indiana, Tennessee, West Virginia and Virginia. These states have worked with their LSEs to establish capacity compensation mechanisms for FRR resources and the Commission has litigated disputes between state regulators and FRR capacity resources.²⁵ Many times, the capacity rates paid to FRR resources are higher than the market price for capacity; however, state regulators have been comfortable with such an outcome.²⁶

As Dr. Paul Sotkiewicz explains, price suppression concerns remain with the current FRR and it is by no means a perfect solution.²⁷ Smaller capacity markets will lead to fewer opportunities and, as a result, less liquid markets. The incorporation of resources that are more expensive than a RTO-wide determined competitive price also suppresses prices.²⁸ P3 prefers large regional markets as opposed to clunky, balkanized ones. FERC should as well. That said, the current FRR represents an existing, proven and available accommodation tool that avoids many of the problems identified with the unit-specific FRR. States still maintain the decision regarding capacity

²⁴ Capacity Markets in PJM; Dr. Joseph Bowring, Cornell University, Economics of Energy & Environmental Policy, 2013, p. 55. www.pserc.cornell.edu/empire/2_2_a03.pdf

²⁵ *American Electric Power Service Corporation*, Order Rejecting Formula Rate Proposal, 134 FERC ¶ 61,039, issued January 20, 2011.

²⁶ The current capacity rate for Appalachian Power Company, a FRR entity in Virginia, West Virginia and Tennessee, is \$435.86/MW-day as opposed to a RTO capacity price of \$164.77/Mw-day. See, <https://www.pjm.com/-/media/markets-ops/settlements/frr-lse-capacity-rates/capacity-formula-rate-summary.ashx?la=en>

²⁷ EPSA Initial Brief, Affidavit of Dr. Sotkiewicz, P 67.

²⁸ *Id.*, at p. 49.

procurement and have the option to participate in a competitive capacity market or meet their resources adequacy obligations on their own. If states do not like the prospect of opting out of the capacity markets, perhaps those state goals can be met through other means. However, if a state is only content to meet its environmental goals through the state-sanctioned selection of specific resources, such a state truly does not belong in a competitive regional capacity construct. If such a state desires to pick its own resources, instead of pursuing environmental goals through market-based mechanism, it has the ability to do so through the existing FRR mechanism, which requires very few changes. As P3 has been recommending, the existing FRR mechanism, with certain modifications, combined with a Clean MOPR with no exceptions, is well-equipped to meet that mission.²⁹

At the end of the day, the Commission needs to allow the conversations in Trenton, Harrisburg, Columbus, Springfield, Annapolis and Dover to be framed in the appropriate terms. All of these states have passed laws to encourage retail power competition in their states. All these states have developed retail markets based on a competitive wholesale market structure. Right now, these very states that have committed to competitive markets have all made decisions to favor certain resources in the name of “legitimate state policy priorities” - - in part, because they were encouraged and invited to do so by PJM’s current market rules that allow subsidies to suppress the price for the state’s remaining capacity needs.

Under P3’s approach, with the incentives to subsidize removed, a state clearly remains in control when faced with the choice of whether a state should remain in the PJM capacity market or utilize the existing FRR. If Illinois wants to have “a competitive electricity market that properly respects state choices to promote carbon-free, affordable and resilient energy sources, and provides

²⁹ P3 Initial Brief, p. 17.

states with the flexibility to design programs that address climate change,”³⁰ it can do so. Nothing in the current FRR would stand in the way of Illinois achieving these state goals for its own citizens. Perhaps, as P3 recommends, a state decides to stay in the competitive wholesale capacity market and meet its environmental (or other) goals through any number of tools that do not involving subsidizing selected resources. In this regard, a state can meet its environmental goals while allowing the competitive market to determine the lowest costs means to meet those goals.

Whichever path states decide to pursue, the Commission should strive to frame this state level conversation in precisely these terms. In doing so, the Commission can rest comfortably knowing that its jurisdictional wholesale rate is just and reasonable because a Clean MOPR is in place. Likewise, a state can honestly evaluate its options and make its decision to be in PJM’s FERC-regulated capacity markets, not based on a false choice, but rather a realistic one grounded in equitable principles. And, perhaps most importantly, the entire market will benefit from a familiar, understandable and implementable market construct that will be in place to address this long-identified challenge.

II. CONCLUSION

As P3 has stated, the problems encountered in the wholesale markets from state subsidized resources will only be rectified when the Commission takes affirmative action to do so. P3 fully supports the Commission’s resolve in maintaining the sanctity of competitive wholesale markets. State energy policies can be accommodated, but their resulting actions are best addressed through the existing FRR mechanism in which a state retains full rate and capacity performance responsibility for its desired resource adequacy decisions.

³⁰ When PJM’s Capacity Market Stops Working for Consumers, Is It Time to Leave? Utility Dive: <https://www.utilitydive.com/news/when-pjms-capacity-market-stops-working-for-consumers-is-it-time-to-leave/538605/>

A Clean MOPR combined with PJM's existing FRR mechanism is the solution hiding in plain sight. The Commission just needs to reveal it.

November 6, 2018

Respectfully submitted,

On behalf of the PJM Power Providers Group

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CERTIFICATE OF SERVICE

I hereby certify that in accordance with Rule 2010 of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.2010 (2017), I have served a copy of the foregoing to all parties on the official service list in these proceedings.

Respectfully submitted,

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November 6, 2018