UNITED STATES OF AMERICA
BEFORE THE
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.	)	ER18-1314-000
PJM Interconnection, L.L.C.	)	ER18-1314-001
PJM Interconnection, L.L.C.	)	EL18-178-000 (Consolidated)

INITIAL SUBMISSION
OF THE
NATIONAL RURAL ELECTRIC COOPERATIVE ASSOCIATION

Pursuant to the Commission's Order of June 29, 2018,[1] and the Notice of Extension of Time of August 22, 2018, the National Rural Electric Cooperative Association ("NRECA") submits initial testimony and argument in the paper hearing to address the just and reasonable replacement rate for the existing Minimum Offer Price Rule ("MOPR") in the Reliability Pricing Model ("RPM") contained in the Open Access Transmission Tariff ("Tariff") of the PJM Interconnection, L.L.C, including the proposal by the Commission in the June 29 Order.[2] As NRECA explained in its Comments of May 7, 2018, on PJM's proposed revisions to RPM

[1] *PJM Interconnection, L.L.C.*, 163 FERC ¶ 61,236 (2018) ("June 29 Order").
[2] *Id.*at PP 157-171.

submitted in Docket No. ER18-1314-000, NRECA continues to oppose the forced reliance on mandatory, centralized capacity constructs such as today's RPM. Instead of expanding an already too-expansive MOPR to mitigate supposed price suppression resulting from state energy policies, the Commission should progress toward transitioning RPM back to a voluntary, residual market of last resort, to be used after load-serving entities ("LSEs") have had an opportunity to self-supply their capacity obligations by generation ownership and long-term contracts.[3]

Nevertheless, in response to the Commission's proposal to adopt an expanded MOPR, NRECA's initial submission focuses on the critical need to preserve and encourage the self-supply of capacity by PJM's load-serving entities ("LSEs") under long-standing business models. NRECA addresses the "appropriate scope of out-of-market support to be mitigated by the expanded MOPR" and whether "an exemption [should] be included for self-supplied resources used to meet loads of public power entities."[4]

For the reasons discussed herein, a "clean" expanded MOPR is one that avoids collateral damage to the wholesale market—by, at a minimum, excluding from mitigation self-supply by public power entities, including NRECA's cooperative utility members. Contrary to arguments by some generator parties, a "clean" MOPR is not one that is applied so broadly that it treats capacity self-supply by LSEs acting under long-standing business models as inherently suspect and the enemy of competition or reliability.

As discussed in the attached Declaration of Marc D. Montalvo, President of Daymark Energy Advisors and an expert in wholesale market design, there is no basis in this proceeding, which was initiated by concerns over the impact of state initiatives on RPM capacity prices, to attack the electric cooperative self-supply business model and undermine its clear benefits for

[3] *See* Comments of NRECA, Docket No. ER18-1314-000 (filed May 7, 2018).
[4] June 29 Order, PP 165, 167.

cooperative member-consumers.[5] Mr. Montalvo, who worked for ten years at ISO New England as Director of Enterprise Risk Management, Director of Market Analysis and Investigation of the Internal Market Monitor, and Director of Market Development, concludes that "self-supplied resources used to meet the loads of Public Power utilities should not be subject to mitigation by the proposed expanded MOPR and should be exempted from the MOPR."[6] In addition, he concludes that "any policy the Commission adopts to address the impact of state subsidies on its jurisdictional markets should not impede the ability of Public Power utilities to self-supply resources to meet their loads consistent with the Commission's broader open-access transmission and competitive wholesale market policies."[7]

Mr. Montalvo bases these conclusions on three basic arguments. First, the self-supply resource investments of Public Power utilities do not receive the state-sponsored out-of-market payments that the Commission seeks to address with the expanded MOPR.[8] Second, the self-supply resource investment decisions of Public Power utilities "are consistent with the behaviors one would expect of participants in a competitive market."[9] Third, applying the proposed expanded MOPR to the self-supplied resources of Public Power utilities "would improperly interfere with the public benefits of this long-standing business model."[10]As the Commission has acknowledged and NRECA has warned, the risk of self-supplied capacity not clearing the RPM's Base Residual Auction ("BRA") creates a risk that the LSE will pay twice for capacity—first for

[5] See Declaration of Marc D. Montalvo, attached hereto. Mr. Montalvo prepared this declaration on behalf of NRECA and the American Public Power Association, and each association has attached it to its initial submission in this paper hearing.
[6] Montalvo Decl. ¶ 4. Following the convention of the Commission and PJM, Mr. Montalvo's declaration uses the term "Public Power" to refer to both municipal utilities and rural electric cooperatives. *See id.* ¶ 3.
[7] *Id.*¶ 4.
[8] *Id.* ¶ 6. *See also id.* ¶¶ 20–24.
[9] *Id.* ¶ 8. *See also id.* ¶¶ 25–45.
[10] *Id.* ¶ 11. *See also id.* ¶¶ 46–49.

the self-supplied capacity, plus a second payment to PJM. This risk can have a chilling effect on investment in the very types of long-term resources and arrangements that the Commission has traditionally encouraged.[11]

Therefore, if the Commission does not take steps to return the PJM capacity construct to its original purpose as a residual construct of last resort, then the Commission should at a minimum honor its 2011 commitment to prevent the MOPR from "unreasonably imped[ing] the efforts of resources choosing to procure or build capacity under long-standing business models."[12]

I. DESCRIPTION OF NRECA

NRECA is the national service organization for America's electric cooperatives. The nation's member-owned, not-for-profit electric co-ops constitute a unique sector of the electric utility industry. NRECA represents the interests of the nation's more than 900 rural electric utilities responsible for keeping the lights on for more than 42 million people across 47 states. Electric cooperatives are driven by their purpose to power communities and empower their members to improve their quality of life. Because of their critical role in providing affordable, reliable, and universally accessible electric service, electric cooperatives are vital to the economic health of the communities they serve. America's electric cooperatives serve 56 percent of the nation, 88 percent of all counties, and 12 percent of the nation's electric customers, while accounting for approximately 11 percent of all electric energy sold in the

[11] *See Wholesale Competition in Regions with Organized Electric Markets,* Notice of Proposed Rulemaking, 122 FERC ¶ 61,167 at P 130 (2008); *see also*, *Wholesale Competition in Regions with Organized Electric Markets*, Order No. 719, FERC Stats. & Regs. ¶ 31,281 at PP 283, 301 (2008) (In order to "facilitate the long-term contracting process by increasing the transparency of the availability of potential sellers and buyers and market participants", the Commission required RTOs and ISOs to develop website bulletin boards for posting long-term buy and sell offers); *order on reh'g*, Order No. 719-A, FERC Stats. & Regs. ¶ 31,292 (2009).

[12] *PJM Interconnection, L.L.C.*, 137 FERC ¶ 61,145 at P 208 (2011).

United States. NRECA's member cooperatives include 63 generation and transmission ("G&T") cooperatives and 834 distribution cooperatives. The G&Ts are owned by the distribution cooperatives they serve. The G&Ts generate and transmit power to nearly 80 percent of the distribution cooperatives, those cooperatives that provide power directly to the end-of-the-line consumer-owners. Remaining distribution cooperatives receive power directly from other generation sources within the electric utility sector. NRECA members account for about five percent of national generation and, on net, generate approximately 50 percent of the electric energy they sell and purchase the remaining 50 percent from non-NRECA members. Both distribution and G&T cooperatives share an obligation to serve their members by providing safe, reliable, and affordable electric service. NRECA's members participate in all of the nation's organized wholesale electricity markets, including PJM. NRECA has consistently participated in these proceedings and others regarding PJM's capacity construct and the MOPR.

II. SELF-SUPPLY IN RPM

Many of the issues raised in this proceeding and in the June 29 Order are not new to PJM or to this Commission. Instead, through the MOPR's evolution design changes and Commission proceedings, principles have been developed which must not be abandoned on the basis of unproven and unsupported economic theories. These fundamental principles include: (1) the residual nature of the capacity construct; (2) the importance of long-term contracts in bilateral markets; and (3) honoring and accommodating LSE capacity procured under long-standing business models.[13]

[13] *See, e.g.,* NRECA's Initial and Reply Post-Technical Conference Comments in Docket No. AD17-11-000, where NRECA urged the Commission to first adopt principles which include ensuring that LSEs' long-term investments in generation are honored and encouraged.

As a result, load-serving entities in PJM continue to cover the vast majority of their load obligations with owned capacity and long-term contracts. According to the most recent State of the Market Report by the PJM Independent Market Monitor, LSEs in PJM used self-supplied generation and bilateral contracts to meet over 77% of their day-ahead demand and over 73% of their real-time load in 2017.[14] Thus, LSE generation ownership and long-term contracts remain important to maintaining reliability and compensating generators.

The Commission initially approved PJM's RPM as residual in nature, stating that " . . . after LSEs have had an opportunity to procure capacity on their own, it is reasonable for PJM to procure capacity in an open auction at a time when further delay in procurement could jeopardize reliability. *This however should be a last resort.*"[15] Accordingly, Attachment DD to PJM's Tariff states that

> the Reliability Pricing Model provides: (a) support for LSEs in satisfying Daily Unforced Capacity Obligations for future Delivery Years through Self Supply of Capacity Resources; (b) a competitive auction mechanism to secure the forward commitment of additional Capacity Resources and Qualifying Transmission Upgrades as necessary to satisfy the portion of LSEs' Unforced Capacity Obligations not satisfied through Self-Supply, in order to ensure the reliability of the PJM Region for future Delivery Years; … and (g) a Reliability Backstop mechanism to ensure that sufficient generation, transmission and demand response solutions will be available to preserve system reliability.[16]

In 2006, the Commission accepted a Settlement and RPM Tariff provisions which included a two-step MOPR.[17] In the initial step, if a self-supply Sell Offer triggered application of the MOPR based on specific screens and an impact test, then PJM would calculate a replacement offer price for the self-supply that failed the screens and impact test, a replacement

[14] Monitoring Analytics, LLC, *2018 State of the Market Report for PJM*, Vol. 2 at 127 (Mar. 8, 2018).
[15] *PJM Interconnection, L.L.C.*, 115 FERC ¶ 61,079 at PP 55, 71 (2006) (emphasis added).
[16] PJM Open Access Transmission Tariff, Attachment DD, section 1.
[17] *PJM Interconnection, L.L.C.*, 117 FERC ¶ 61,331 (2006) ("2006 Order")

clearing price reflecting that new offer price, and a new volume of capacity needed in the Locational Deliverability Area ("LDA"). In the second step, the Tariff specifically required PJM to clear "first, all Sell Offers in their entirety designated as self-supply . . .",[18] Thus, while self-supply could trigger the MOPR mitigation mechanism, self-supply was guaranteed to clear the BRA, without condition.[19] This two-step MOPR protected against any attempts by load to artificially depress clearing prices but also honored and accommodated self-supply by LSEs.

In 2011, based at least in part on actions taken in New Jersey and Maryland, the Commission approved changes to the MOPR provisions in PJM's Tariff to eliminate both the state mandate exemption and the provisions for guaranteed clearing for self-supply, and to provide for a unit-specific review mechanism.[20] The impact of the April 2011 Order was to create a risk that resources owned or contracted for by LSEs outside of the capacity construct might not clear the BRA. The risk of not clearing, in turn, created the risk that load would have to pay twice for a single capacity obligation – once for the resource procured outside of the

[18] *See PJM Interconnection, L.L.C.*, Settlement Agreement and Explanatory Statement of the Settling Parties Resolving all Issues, at Attachment DD, Section 5.14(h)(5), Docket Nos. ER05-1410, -001, and EL05-148-000, -001 (filed Sept. 29, 2006).

[19] In later proceedings regarding the MOPR, some parties argued that this guaranteed clearing for self-supply did not exist. However, even parties who argued against the provisions had previously acknowledged it as guaranteed clearing for self-supply and none offered a plausible explanation for what the provision meant if not guaranteed clearing for self-supply. *See PJM Power Providers Group*, Complaint and Request for Clarification Requesting Fast Track Processing, at 48, Docket No. 11-20 (filed Feb. 1, 2011) ("P3 Complaint") (P3 acknowledged that "it appears that Sell Offers designated as self-supply will always be accepted in full even if the [MOPR] otherwise indicates that they are uncompetitive and ought to be mitigated."); *see also*, P3 Complaint, Exhibit 1, Testimony of Roy J. Shanker, Ph.D., at 32:3-7 (Dr. Shanker testified that a material exemption in the MOPR was that it "appears to completely ignore self-supply.")

[20] *PJM Interconnection, L.L.C.*, 135 FERC ¶ 61,022 (2011) ("April 2011 Order") , *order on reh'g*, 137 FERC ¶ 61,145 (2011).

capacity construct and then a second time when the resource does not clear the BRA and capacity must instead be procured through the BRA.[21]

On rehearing of the April 2011 Order, the Commission clarified its intent that the MOPR not "unreasonably impede the efforts of resources choosing to procure or build capacity under long-standing business models."[22] The Commission accepted PJM's approach for a case-by-case unit-specific exemption from the MOPR. The Commission acknowledged that the unit-specific review "will not guarantee that all resources designated as self-supply will clear in the auction" but nevertheless found that "it appropriately balances the need to protect against uneconomic entry while also mitigating parties' concerns about having to pay twice for capacity as a result of failing to clear in RPM."[23]

NRECA vigorously protested the elimination of guaranteed clearing of, and the imposition of the MOPR double-payment risk on, LSE self-supplied resources, and submitted an affidavit from economists showing the erroneous logic behind applying the MOPR to self-supplied resources.[24] Multiple parties, including NRECA, sought judicial review of the elimination of guaranteed clearing of self-supplied resources. Although the Third Circuit upheld FERC's orders, the court criticized the Commission's reasoning in applying the MOPR to self-

[21] *See Commission Staff Report on Centralized Capacity Market Design Elements*, Docket No. AD13-7-000, August 23, 2013 at 27-28 (Staff explains the double payment problem and notes that "[s]imilar concerns have been raised regarding the application of MOPR-type mitigation to a resource that is self-supplied by a load-serving entity.").
[22] 137 FERC ¶ 61,145 at P 208.
[23] *Id.* at P 209. Notably, exposing customers to paying twice for capacity as a result of operation of the MOPR, which the Commission seeks to avoid, is different than customers perhaps paying twice for capacity as a result of sate decisions, which the Commission notes the Courts have found the Commission need not protect against. *See* June 29 Order at PP 69, 159-160.
[24] Motion to Intervene, Protest and Request for Rejection or, in the Alternative, Further Procedures of the National Rural Electric Cooperative Assn., Docket No. EL11-20-000 (filed Mar. 4, 2011).

supplied resources but concluded the dispute was moot because the Commission had accepted, subject to conditions, a 2012 PJM filing containing a categorical Self-Supply Exemption.[25]

To address the unintended consequence of the April 2011 Order, which would have had a chilling effect on LSE investment in the sorts of long-term resources which the Commission encouraged,[26] PJM in 2012 submitted Tariff provisions to create two new exemptions from the MOPR, the Self-Supply Exemption and the Competitive Entry Exemption. PJM also filed to eliminate the unit-specific exemption from the MOPR because it lacked transparency, was difficult to administer, and was unnecessary with the two new exemptions in place. Significantly, with respect to self-supply, PJM explained as follows:

> To promote transparency and certainty, and ease administrative burdens on market sellers and PJM, this filing now expressly identifies the long-standing business models contemplated when the previously accepted language was drafted.
>
> Accordingly, the self-supply exemption defines the "Self-Supply LSEs" that can obtain this exemption as "cooperative and municipal utilities, including public power supply entities comprised of either or both of the same, and joint action agencies;" vertically integrated utilities, i.e., a "utility that owns generation, includes such generation in its regulated rates, and earns a regulated return on its investment in such generation;" and single customer LSEs, i.e., an LSE "that serves at retail only customers that are under common control with such LSE, where such control means holding 51% or more of the voting securities or voting interests of the LSE and all its retail customers." The definition of Self-Supply LSE makes clear that each of these is an LSE "which operates under long-standing business models."

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[25] *See N.J. Bd. of Pub. Utils. v. FERC*, 744 F.3d 74, 103-06 (3rd Cir. 2014)

[26] *See Wholesale Competition in Regions with Organized Electric Markets*, Notice of Proposed Rulemaking, 122 FERC ¶ 61,167 at P 130 (2008), where the Commission stated as follows:

> Long-term power contracts are an important element in a functioning electric power market. Forward power contracting allows buyers and sellers to hedge against the risk that prices may fluctuate in the future. Both buyers and sellers should be able to create portfolios of short, intermediate, and long-term power supplies to manage risk and meet customer demand. Long-term contracts also improve price stability, mitigate the risk of the abuse of market power, and provide a platform for investment in new generation and transmission.

> Thus, cooperatives, municipals, rate-regulated investor-owned utilities, and LSEs that are created by, and intended to serve, large end-use customers, describes the universe of traditional, long-standing capacity self-supply business models. Pursuit by these types of LSEs of the types of bilateral contracts and other power supply arrangements on which they have relied for years generally should not raise concerns of possible price suppression, absent additional facts, such as excess net short or excess net long positions, or anomalous or unusual costs or revenues. Expressly identifying in the Tariff these long-standing business models (which the current effective Tariff language fairly is read to have assumed) will help avoid over-mitigation and unintended consequences from MOPR for these LSEs.[27]

The effect of obtaining a Self-Supply Exemption was that the market seller could offer its resource at a price below the MOPR floor, "including, without limitation, an offer price of zero or other indication of intent to clear regardless of price."[28]

In an order issued May 2, 2013,[29] the Commission accepted PJM's proposed exemption for self-supply, subject to conditions and a compliance filing. One such condition was retention of the unit-specific exemption. The Commission provided the following rationale for its acceptance of the self-supply exemption from the MOPR:

> We find that, as a general matter, providing exemptions for resources properly designated as self-supply when they meet suitable net-short and net-long thresholds is reasonable. The concern giving rise to the MOPR is that buyers can reduce their total capacity cost by financing uncompetitive entry, because the cost of financing the entrant is offset by the overall cost reduction achieved by lowering the price of capacity for the remainder of the capacity purchased. While such a strategy may lower capacity costs in the short-run, over the long-run this strategy will prove more costly as it encourages early retirement and discourages new, at-risk investment. However, if a self-supply entity meets a sufficiently large proportion of its capacity needs through its own generation investment, it has little or no incentive to suppress capacity market prices. If the amount of non-self-supplied resources procured from RPM is sufficiently small, uneconomic new entry would reduce the cost of procuring this portion by less than the amount spent on the uneconomic entry.[30]

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[27] PJM's December 7, 2012 filing in Docket No. ER13-535-000, at 18 (citations omitted).
[28] *Id.* at 21.
[29] *PJM Interconnection, L.L.C.*, 143 FERC ¶ 61,090 (2013) ("May 2013 Order").
[30] *Id.* at P 108.

The Commission reaffirmed its determination on rehearing.[31] In an opinion issued July 7, 2017, the U.S. Court of Appeals for the D.C. Circuit found that the Commission exceeded its authority under Federal Power Act Section 205 by modifying PJM's proposal with these conditions.[32] Accordingly, the Court vacated and remanded the Commission's orders with respect to the unit-specific review, the Competitive Entry Exemption, and the Self-Supply Exemption.[33] Notably, the Court did not address the merits of the Self-Supply Exemption or Competitive Entry Exemption. On remand, FERC rejected the Self-Supply Exemption and Competitive Entry Exemption, and directed PJM to reinstate the pre-April 2011 Order MOPR Tariff provision.[34] Therefore, currently the only possible exemption from the MOPR is the cumbersome, uncertain unit-specific review.

III. RESPONSE TO THE PROPOSED REPLACEMENT RATE

In the instant proceedings, PJM submitted its April 9, 2018 Filing "to address supply-side state subsidies and their impact on the determination of just and reasonable prices in the PJM capacity market."[35] Through a series of complaints and amendments thereto, a varying group of merchant generators also initially sought relief from state actions, but ultimately argued without any evidentiary support that the Commission should adopt a "clean" MOPR which would apply to all new and existing resources, without exception, including LSEs' self-supply resources. The June 29 Order addressed PJM's Filing and the complaints by proposing a new "replacement rate" instead of the

[31] *PJM Interconnection, L.L.C.*, 153 FERC ¶ 61,066 (2015).
[32] *NRG Power Mktg., LLC v. FERC*, 862 F.3d 108 (D.C. Cir. 2017) ("*NRG*").
[33] *Id.*
[34] *PJM Interconnection, L.L.C.*, 161 FERC ¶ 61,252 (2017) ("Remand Order"), *reh'g pending*.
[35] April 9 Filing at 1 (citations omitted).

relief requested in PJM's Filing or the complaints, and establishing this paper hearing procedure to develop a record.

In the June 29 Order, based on the information in the complaint proceeding and PJM's FPA Section 205 filing, the Commission determined that PJM's existing Tariff is unjust and unreasonable. The Commission found that the record demonstrates 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."[36]

The out-of-market support on which the Commission based its determination in this proceeding is not *all* non-RPM revenues. The June 29 Order addressed out-of-market support provided by *states*, specifically the zero-emissions credits ("ZEC") and Renewable Portfolio Standards ("RPS"), and the Commission's determination that PJM's Tariff is unjust and unreasonable is based on those programs. The Commission makes this clear at the outset of the June 29 Order, as follows:

> 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 . . . [w]e 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.[37]

[36] June 29 Order at P 149.
[37] June 29 Order at P 1, n.1.

As a remedy, the Commission proposes a two-part replacement rate to address the determination that "state-subsidized resources – not just entities exercising buyer-side market power – can cause significant price suppression."[38] First, the Commission proposes "an expanded MOPR that covers out-of-market support to all new and existing resources, regardless of resource type."[39] The Commission reasons 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" and that "[e]xpanding 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."[40] Second, the Commission recognizes that application of the MOPR to state-subsidized resources, with few or no exemptions, could lead to some ratepayers paying twice for capacity, through both state programs providing the out-of-market support and through the capacity market.[41] In order to address this risk of double payment, the Commission proposes a resource-specific Fixed Resource Requirement ("FRR") Alternative.[42] Under the resource-specific FRR Alternative, resources that receive out-of-market support can choose to be removed from the PJM capacity construct, along with a commensurate amount of load, for some period of time.[43] Resources participating in the resource-specific FRR Alternative would not participate in the RPM capacity construct but could continue to participate in PJM's energy and

[38] *Id.* at P 158.
[39] *Id.*
[40] *Id.*
[41] *Id.* at P 159.
[42] *Id.*
[43] *Id.* at P 160.

ancillary services markets.[44] The Commission seeks comment on the overall "bifurcated capacity construct" proposal, and on several specific issues as set forth in the June 29 Order.[45]

As an initial matter, as discussed above, NRECA continues to urge the Commission to reverse course and return the RPM capacity construct to its original function as a residual, "last-resort" mechanism for LSEs to meet their capacity obligations after taking into account self-supplied resources from generation ownership and bilateral contracts, in recognition of the fact that self-supply by LSEs under long-standing business models is the primary and preferred method to satisfy capacity obligations.

The Commission's proposed expanded MOPR could undermine LSE self-supply. The Commission's determination in the June 29 Order that the MOPR is unjust and unreasonable explicitly focuses on specific *state* actions, not LSE self-supply.[46] However, in discussing the proposed replacement rate, the Commission has broadened this proceeding to address "[t]he 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"[47] and a MOPR to apply to new and existing resources receiving out-of-market support "with few to no exemptions."[48]

Having been down this road before, NRECA urges the Commission not to repeat history here by downplaying the effects of its actions on LSEs' ability to self-supply capacity resources. In the April 2011 Order, as discussed above, the Commission approved changes to the MOPR design in reaction to state policies that had unexpected, unintended adverse effects on LSE self-

[44] *Id.*
[45] *Id.* at PP 165-171.
[46] *Id.* at PP 150-156.
[47] *Id.* at P 165.
[48] *Id.* at P 167.

supply under long-standing business models. PJM's subsequent attempt to restore the security for self-supply LSEs and protections against double-payment for their customers resulted in the Self-Supply Exemption, which the Commission conditionally accepted but eventually rejected on remand from the court's decision in the *NRG* case. This time around, the Commission should take a conservative approach to MOPR design changes and ensure that self-supply by LSEs acting under long-standing business models will be accommodated in the MOPR and FRR Alternative.

NRECA's comments here focus on the expansion of the MOPR to new and existing resources receiving out-of-market support and the treatment of LSE self-supplied resources. On the issue of the resource-specific FRR Alternative, NRECA respectfully refers the Commission to the initial submissions of its members in PJM, who will be directly affected by the proposal.

A. Revenues Associated with Self-Supply by LSEs Acting Under Long-Standing Business Models Should Be Excluded from Out-of-Market Revenues or Subsidies Subject to the Expanded MOPR

The Commission seeks comment on "[t]he appropriate scope of out-of-market support to be mitigated by the expanded MOPR . . . ."[49] The answer is that resources offered by cooperative or municipal utilities should be categorically excluded from the scope of out-of-market support subject to the expanded MOPR. An exclusion for resources offered by public power Capacity Market Sellers, such that they would not qualify as resources to which the MOPR could apply, is consistent with the Commission's policy and precedent, as well as the record in this proceeding.

First, an exclusion for self-supply is consistent with the scope of this proceeding. The Commission initiated this proceeding due to concerns over "out-of-market payments provided or required by certain states for the purpose of supporting the entry or continued operation of

[49] June 29 Order at P 165.

preferred generation resources that may not otherwise be able to succeed in a competitive wholesale capacity market."[50] Although the Commission seeks comment on the appropriate definition of out-of-market payments for purposes of the replacement rate, the Commission specifically stated in the June 29 Order that it "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" and that it "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.*"[51] Based on its review of the then-existing record, the Commission found in the June 29 order 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."[52] With this clear scope of the proceeding and a record limited to state subsidies, there is no basis for including self-supply by public power LSEs in the resources subject to the expanded MOPR.

As discussed in the Declaration of Marc D. Montalvo, the Commission should use "the lightest touch practicable" in applying an expanded MOPR to remedy the market problems it has identified. [53] In this instance, Mr. Montalvo concludes that the expanded MOPR should not be applied to public power self-supplied resources because self-supply by public power utilities is "plainly distinguishable" from the out-of-market payments made or directed by states which the

[50] June 29 Order at P 1 (citations omitted).
[51] *Id.* at P 1, n.1 (emphasis added).
[52] *Id.* at P 156.
[53] Montalvo Decl. ¶ 22.

Commission determined in the June 29 Order render the MOPR unjust and unreasonable.[54] As Mr. Montalvo explains, public power LSEs employ long-term planning to make resource investment decisions based on their long-term obligation to serve load, not the short-term capacity market price.[55] Moreover, public power LSEs like NRECA's cooperative members derive benefits from assembling a portfolio of generation resources well beyond those available from the RPM capacity market – such as reliability, hedges against energy costs, and other non-price values—all of which is consistent with a well-functioning market.[56] The decision to invest in a resource – whether through ownership of the resource or through bilateral contract – as part of an LSE's portfolio cannot be judged on the basis of RPM capacity prices alone.[57] Accordingly, payments by load to LSEs for resources procured outside of the RPM construct should not be deemed "out-of-market" in the context of triggering application of a MOPR. Notably, these payments by load are not made or directed by the states as is the case with the state subsidies that are the focus of the June 29 Order.[58]

The Commission must take care not to allow all revenues received outside of the capacity construct to be deemed "out-of-market" revenues which threaten the integrity and effectiveness of the capacity market and, therefore, must be subject to mitigation. To the contrary, such legitimate investments in resources and revenues outside of the RPM capacity construct should be expected to result in less procurement through the administrative capacity construct which will, in turn, result in decreased prices in the RPM auctions. For-profit generators must not be

[54] *Id.* ¶ 24.
[55] *Id.* ¶¶ 14–19.
[56] *Id.* ¶¶ 25–37.
[57] *Id.* ¶¶ 38–44.
[58] If Public Power utilities are required to procure resources to meet state Renewable Portfolio Standards, that subset of resource investments may fall under the Commission's definition of state-sponsored resources.

shielded from this true reflection of the relationship between supply and demand, at the expense of load. As NRECA has previously explained, there is nothing magic about revenues received from the centralized capacity construct which makes them more legitimate than revenues received through bilateral contracts for resources procured outside of those constructs.[59]

Second, an exclusion from the MOPR for self-supply by public power entities is consistent with the initial purpose of RPM, which was to serve as a residual procurement mechanism of last resort, after LSEs have had an opportunity to self-supply.[60] Even with the evolved role of the MOPR to address price suppression caused by state-subsidized resources, the Commission need not and should not abandon its policy of a MOPR which does not "unreasonably impede the efforts of resources choosing to procure or build capacity under long-standing business models."[61] The circumstances here are similar to those when the Commission in the April 2011 Order approved Tariff revisions which exposed self-supply to the risk of not clearing BRAs and exposed load to the commensurate threat of double-payment for capacity, based on state actions which did not involve legitimate self-supply by entities, such as cooperative utilities. Rather than repeat the over-reaction which gave rise to the need for the previous FERC-approved Self-Supply Exemption, the Commission should exclude self-supply from the category of subsidized resources subject to the expanded MOPR, and determine that revenues received by self-supply entities are excluded from the subsidies to be mitigated by the expanded MOPR.

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[59] *See* Post-Technical Conference Comments of NRECA, filed in Docket No. AD13-7-000 on January 8, 2014, at 42.
[60] *See PJM Interconnection, L.L.C.*, 115 FERC ¶ 61,079 at P 71 (2006).
[61] *PJM Interconnection, L.L.C.*, 137 FERC ¶ 61,145 at P 208 (2011).

Third, the record in this proceeding provides the Commission with support for excluding self-supply from the expanded MOPR, and Tariff provisions to do so. In its Capacity Repricing proposal, PJM proposed to exclude from the MOPR certain categories of resources, including those "that are owned or controlled by entities with long-standing business models for capacity procurement, which do not raise concerns of possible price suppressive intent (e.g., certain vertically integrated, cooperative, and municipal utilities)."[62] As PJM explained, a self-supply exclusion is similar to the Self-Supply Exemption which the Commission previously accepted, in terms of balancing between protecting against price suppression and avoiding interference with capacity procurement under long-standing business models.[63] As PJM further explained, an exclusion for self-supply is appropriate because their business models "do not give rise to concerns related to artificial price suppression," as the Commission has found.[64]

"[T]he purpose of these market reforms is to address the price suppressive effects of material state subsidies on BRA clearing prices . . . ."[65] There is no record evidence to support an expansion of the MOPR beyond state-subsidized resources. To the contrary, PJM provided evidence in support of excluding self-supply by public power entities from the MOPR altogether. In addition to the general observation that traditional business models of public power LSEs do not give rise to artificial price suppression concerns, PJM demonstrated that with the expansion of the MOPR to new as well as existing resources, the net short/net long criteria for the previous Self-Supply Exemption is unnecessary and unworkable under the expanded MOPR.[66] Moreover, PJM demonstrated that based on past BRAs, the Self-Supply Exemption (which is similar in

[62] PJM's April 9 Filing in Docket No. ER18-1314 at 73-74.
[63] *Id.* at 75.
[64] *Id.* at 75-76 (citing May 2013 Order at P 111).
[65] *Id.* at 73.
[66] *Id.* at 76-77.

substance to the self-supply exclusion which PJM proposed in Docket No. ER18-1314) was not the vehicle used by self-supplying LSEs to clear new entry, so there is not a concern that the self-supply exclusion will allow resources that are receiving impermissible out-of-market subsidies to escape mitigation.[67]

In the attached declaration, Mr. Montalvo explains that public power LSEs' resource self-supply decisions are fully consistent with a well-functioning wholesale power market:

> Public Power utilities make decisions about whether to build capacity, enter into bilateral contracts, or purchase requirements through the PJM capacity market based on a set of investment objectives and expectations regarding future market conditions. The customer-owners of Public Power utilities bear any gain or loss associated with those decisions. The Public Power not-for-profit utility business model—i.e., ownership structure, tax treatment, and resource selection process—is consistent with and benefits from the competitive market framework. A Public Power utility seeks to add the lowest cost resources to its portfolio that meet its customers' needs and the utility's goals, and relies on competition (competitive solicitations, fuel markets, and the FERC-jurisdictional power markets) to achieve that objective.[68]

As he further explains, the implicit assumption that "the integrity of competition in the PJM capacity market requires the application of the MOPR to Pubic Power self-supply resources" rests on "the mistaken premise that all resource entry and exit must be coordinated solely by the RTO administered market to be deemed economic."[69] In fact, the prices yielded by PJM's RPM capacity market, with its single, standardized capacity product, "do not fully reflect the complete set of [market] participant preferences" and RPM thus "is incapable of signaling for the types of resources that optimally satisfy all buyers' preferences, particularly the desire for diversity, environmental and health benefits, flexibility, and security at an aggregate or economy-wide level."[70]

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[67] *Id.* at 77-78.
[68] Montalvo Decl. ¶ 25.
[69] *Id.* ¶ 26.
[70] *Id.* ¶ 33.

Accordingly, Mr. Montalvo shows that public power utilities such as NRECA's cooperative members should be allowed to continue making economic investments decisions on behalf of their customers and should not be subject to the expanded MOPR, which would rob customers of the benefits of the longstanding public power business model:

> Public Power utilities conduct detailed planning and market analysis to select self-supply investments that best meet a broad set of performance criteria while conferring the greatest portfolio benefit (cost-risk tradeoff). That the economics of investment opportunities are properly evaluated in the context of the portfolio in which they would participate given multiple selection criteria (many of which are not directly valued in the RTO-administered market) is consistent with their utility business model, not anti-competitive, and should not be subject to mitigation.
>
> In the case of Public Power, applying the MOPR to self-supply investments could have the effect of undoing the benefits (e.g., access to low-cost debt) of the not-for-profit business model that the organizational structure was intended to confer, and which are enshrined in federal and state statutes. Moreover, application of the MOPR to Public Power investment choices could undermine the portfolio benefits built into an existing and future resource mix and could expose Public Power utility customers to costs that their prudent portfolio diversification would have allowed them to avoid.[71]

PJM has already provided the Commission with Tariff language which would exclude self-supply by public power LSEs from the MOPR. In its April 9, 2018 Filing, PJM proposed to apply its Capacity Repricing to only those resources receiving a subsidy that warrants action, referred to as a Capacity Resource with Actionable Subsidy. PJM further proposed to exclude from the definition of Capacity Resource with Actionable Subsidy resources "that are owned or controlled by entities with long-standing business models for capacity procurement, which do not raise concerns of possible price suppressive intent . . . ."[72] For all of the reasons discussed here and in light of the Commission's precedent regarding self-supply in PJM's RPM, the

[71] *Id.* ¶¶ 47–48.
[72] *Id.* at 73-74 (citation omitted).

Commission should direct that self-supply by LSEs under long-standing business models, as previously defined by PJM, shall be excluded from the MOPR.[73]

B. If Revenues Associated with Self-Supply by LSEs Acting Under Long-Standing Business Models Are Included in the Scope of the MOPR, the Commission Must Adopt a Self-Supply Exemption

The Commission's proposed replacement rate would apply the MOPR to new and existing resources receiving out-of-market support "with few to no exemptions."[74] The Commission requested comment on the types of MOPR exemptions that should be included; "[f]or 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?"[75]

As discussed above, self-supplied resources for public power LSEs should be categorically excluded from application of the MOPR because the cost-based revenues received by public power LSEs are not the types of out-of-market payments that led the Commission to determine that the existing MOPR provisions are unjust and unreasonable. Cooperative utilities, like NRECA's members in PJM, receive payments from their customers, who are also their members, under cost-based supply arrangements. These cost-based rates recover the cooperative utilities' costs of owned and contracted resources procured by the cooperative utility in order to meet its load-serving obligations. They are not state-based subsidies or "out-of-market payments provided or required by certain states for the purpose of supporting the entry or continued

[73] In order to address concerns over application of the exclusion in order to prevent against unqualified resources avoiding the MOPR, the Commission can direct PJM to adopt a process for review and certification of excluded self-supply resources, similar to the process which existed for verification of the Self-Supply Exemption.
[74] June 29 Order at P 167.
[75] *Id.*

operation of preferred generation resources that may not otherwise be able to succeed in a competitive wholesale capacity market."[76]

If the Commission does not provide a categorical exclusion for self-supply resources, then it must at least include in PJM's Tariff an exemption for self-supplied resources used to meet loads of public power entities. As PJM proposed in its April 9, 2018 Filing, resources with a Self-Supply Exemption should be permitted to submit a Sell Offer of any price, including a zero Sell Offer.[77] The need for a Self-Supply Exemption has been demonstrated by PJM, self-supplying LSE interests including NRECA and its members, and the Commission. The Commission previously approved an exemption from the MOPR for self-supply by public power entities because it determined that self-supplying LSEs "lack the incentive or ability to suppress prices."[78] Those seeking to eliminate the accommodation for self-supply under long-standing business models have not demonstrated, and the Commission has not found, that this basis is no longer valid, just and reasonable. Instead, the Self-Supply Exemption was eliminated on remand of the *NRG* proceeding for reasons having nothing to do with the merits of the exemption itself.[79] Similarly, in this proceeding, the Commission rejected both PJM's self-supply exclusion from Capacity Repricing and the Self-Supply Exemption in its proposed MOPR-Ex because it found the proposals unjust and unreasonable overall. The Commission did not decide to abandon its policy of protecting self-supply by entities acting under long-standing business models.

[76] *Id.* at P 1.
[77] PJM's April 9 Filing at 79.
[78] *PJM Interconnection, L.L.C.*, 153 FERC ¶ 61,066 at PP 36-38.
[79] Remand Order at P 60 (the case "involves the Commission's improper revision of PJM's filing under FPA section 205, not the merits of the competitive entry and self-supply exemptions that were implemented during the relevant period and which the Commission found just and reasonable").

For its part, PJM has similarly explained that self-supplying public power entities' "traditional business models for capacity procurement do not give rise to concerns related to artificial price suppression."[80] Instead, the Self-Supply Exemption protects against over-mitigation which past analyses have warned could have adverse impacts on bilateral contracts and lead to unjust and unreasonable outcomes.[81]

As discussed in Mr. Montalvo's declaration, "[t]he long-term economic investments made by a Public Power utility on behalf of its customers are clearly distinguishable from decisions contingent on the receipt of state-sponsored external payments for specific resources as described in the Commission's June 29 order."[82] Public power's revenues are not state-sponsored out-of-market payments. Moreover, as Mr. Montalvo explains, self-supply decisions by public power LSEs are fully consistent with well-functioning competitive markets. Cooperative utilities are owned by the members they serve. Because they do not have shareholders, cooperative utilities must look to their customer-members to fund resources purchased to meet the cooperative's load serving obligations. Unlike state-subsidized resources and merchant generators, public power entities make investment decisions based on their long-term obligation and reflect a balance of cost-risk tradeoffs, environmental performance and reliability needs.[83] Those decisions cannot be deemed uneconomic based on business models of either subsidized resources or merchant generators whose investment decision are based on

[80] PJM's April 9 Filing at 75-76.
[81] *See* Protest of Dominion Resources Services, Inc., *et al.*, submitted in Docket No. EL16-49-000 on April 11, 2016 at 16-17, citing the Brattle Group's study which stated in part as follows: "We are particularly concerned that the MOPR will lead to over-mitigation that will undermine bilateral markets and RPM participation by entities, such as public power companies, that meet their customers' needs primarily through long-term contracts or other self-supply options" and that "[o]ver-mitigation would be particularly problematic for resources developed as self-supply or through bilateral contracts."
[82] Montalvo Decl. ¶ 7
[83] *Id.*¶¶ 25–37.

maximizing profits.[84] Nor can the Commission reasonably deem payments to LSEs for their non-RPM resources the sort of out-of-market revenues which require administrative remedy through application of the MOPR.[85]

C. The Commission Should Determine that RUS Debt Does Not Trigger Application of the MOPR to Resources from Self-Supplying LSEs

The Commission should categorically exclude from application of the MOPR, self-supply by public power entities. Alternatively, the Commission should adopt a Self-Supply Exemption from the MOPR, which would protect public power LSEs' self-supplied resources from the risk of being subject to the MOPR and the double payment which can occur where Sell Offers from self-supplied resources do not clear the BRA. In either case, the Commission will need to provide direction regarding the types of non-RPM revenues that are consistent with long-standing business models of self-supply LSEs and, therefore, should not be subject to the MOPR.

The Commission requested comment on whether federal sources of out-of-market support should be addressed by Commission action.[86] PJM's proposed definition of Material Subsidy in its April 9 Filing reflects exclusions which were previously approved by the Commission.[87] Those exclusions protect against application of the MOPR on the basis of state, federal or local payments to promote general industrial development, incent siting facilities in an area, or tax incentives that are available to all generators without regard to the geographic location of the generation.[88]

NRECA does not at this time take a position on this issue in general, but raises a concern of particular significance to cooperative utilities. NRECA agrees that not all payments or

[84] *Id.* ¶¶ 38–46.
[85] *Id.* ¶¶ 25, 46–49.
[86] June 29 Order at P 171.
[87] PJM's April 9 Filing at 70.
[88] *Id.*

concessions received by governmental entities are *per se* uneconomic out-of-market payments or subsidies which should be mitigated by the MOPR. In that same vein, NRECA brings to the Commission's attention a particular and specific federal funding source which should be treated as excluded from the types of payments that are subject to the MOPR. Specifically, many cooperative utilities receive funding and hold debt from the U.S. Rural Utilities Service ("RUS"). Cooperative utilities do not have shareholders from whom they can raise capital. Instead, many look to RUS – an agency of the federal government – for financing. The RUS funding is just that, financing. RUS funding is not made available to cooperatives "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."[89] Instead, RUS funding is such a commonplace and accepted method of cooperative financing that it serves as one of the bases for Congress providing an exemption for cooperative utilities from FERC rate regulation.[90] So that cooperative utilities are not subject to the MOPR for obtaining financing through a government program that is not the type of support which gave rise to the Commission's concerns in this proceeding, the Commission should explicitly state that if resources owned by self-supply cooperative utilities or their affiliates are financed with RUS debt, the financing alone will not trigger application of the MOPR.

IV. CONCLUSION

WHEREFORE, for the foregoing reasons, NRECA requests that if the Commission proceeds with MOPR revisions in these proceedings, the Commission specifically exclude from the MOPR self-supply by public power LSEs or, in the alternative, direct PJM to adopt a Self-Supply Exemption similar to the Self-Supply Exemption which existed prior to the Order on

[89] June 29 Order at P 1.
[90] 16 U.S.C. § 201f.

Remand of the *NRG* decision. NRECA also requests that the Commission clarify that RUS financing is excluded from any category of support which can trigger application of the MOPR.

Respectfully submitted,

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Dated: October 2, 2018

UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

Calpine Corporation, *et al.*	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)

DECLARATION OF MARC D. MONTALVO

I. Qualifications and Purpose

1. My name is Marc D. Montalvo. I am President of Daymark Energy Advisors. My business address is 370 Main Street, Worcester, Massachusetts 01608. Daymark Energy Advisors is a consultancy that provides economic analysis and advisory services to the electric and natural gas industries.

2. I have significant professional knowledge and experience with electric power markets that includes competitive power market design and economics, strategic planning, and capital budgeting and investment analysis. Before joining Daymark Energy Advisors, I spent ten years at ISO New England Inc., where I served as Director of Enterprise Risk Management, Director of Market Analysis and Investigation of the Internal Market Monitor, and Director of Market Development. I have testified before the Federal Energy Regulatory Commission ("FERC" or "the Commission") numerous times on market power mitigation

and market design issues. I hold an M.S. in Finance from Clark University and a B.S. in Mathematics from Allegheny College.

3. I have prepared this declaration on behalf of the American Public Power Association ("APPA") and the National Rural Electric Cooperative Association ("NRECA"). APPA and NRECA are trade associations that represent the interests of municipal and cooperative utilities (herein collectively referred to as "Public Power"). APPA and NRECA have asked me to address whether self-supplied resources used to meet the loads of Public Power utilities should be subject to, or exempted from, mitigation by the expanded Minimum Offer Price Rule ("MOPR") proposed by the Commission in its order of June 29, 2018, in Docket No. EL18-178-000 ("June 29 order") for the Reliability Pricing Model ("RPM"), the capacity market operated by PJM Interconnection, L.L.C. ("PJM").

4. This issue arises because in that order the Commission initiated a proceeding to investigate whether the existing MOPR should be expanded to address the effect on RPM prices of capacity resources that receive "out-of-market payments" as a result of policy initiatives by some states in the PJM region. In the June 29 order , the Commission determined 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.* (Order at ¶156, emphasis added)

This declaration does not address this finding or the Commission's proposed remedy in the June 29 order, which is an expanded MOPR applicable to existing as well as new resources, coupled with a resource-specific Fixed Resource Requirement ("FRR") Alternative. For

purposes of this declaration, I accept the Commission's finding and the principal features of its proposed remedy as givens. For the reasons explained below, I have concluded that self-supplied resources used to meet the loads of Public Power utilities should not be subject to mitigation by the proposed expanded MOPR and should be exempted from the MOPR. More generally, any policy the Commission adopts to address the impact of state subsidies on its jurisdictional markets should not impede the ability of Public Power utilities to self-supply resources to meet their loads consistent with the Commission's broader open-access transmission and competitive wholesale market policies.

II. Summary of Analysis

5. The MOPR is an administrative intervention into the PJM-administered capacity market. In considering an expansion of the MOPR, the Commission and PJM should seek the lightest touch practicable to address the price-signal issue that the Commission identifies in paragraph 156 of the June 29 order. The Commission proposes the expanded MOPR to mitigate state-sponsored payments or subsidies to specific resources. The resource investment activities of Public Power utilities, however, are well removed from these types of state support programs. An expanded MOPR should not mitigate the capacity offers of Public Power utilities' self-supplied resources. There are at least three reasons for this conclusion.

6. *First, Public Power self-supply resource investments do not receive state-sponsored payments, the effects of which the Commission seeks to address with the MOPR*.

7. Public Power utilities make resource selection decisions in the context of a resource planning process that considers and is driven by market prices and consumer preferences,

not by state-sponsored payments or other external subsidies. Public Power utilities endeavor to build power supply portfolios that efficiently meet their service obligations to their customers following capital investment strategies that balance cost-risk tradeoffs, environmental performance, reliability needs, and other objectives. The ultimate decision to self-supply by building, owning and operating generation or by entering into a long-term contract for generation is based on the application of capital budgeting principles and portfolio theory. The long-term economic investments made by a Public Power utility on behalf of its customers are clearly distinguishable from decisions contingent on the receipt of state-sponsored external payments for specific resources as described in the Commission's June 29 order.

8. *Second, the self-supply resource decisions of Public Power utilities are consistent with the behaviors one would expect of participants in a competitive market*.

9. Arguments that the integrity of the competitive market requires applying the MOPR to Public Power utilities' self-supplied resources rely on the mistaken premise that all resource entry and exit must be coordinated solely by the PJM-administered capacity market to be economic. However, that approach would only be reasonable if PJM's capacity market design accommodated contracts that allowed participants to fully reflect all their preferences. The PJM market design does not do this, however, and thus the economic preconditions for such "perfect" market outcomes do not exist.

10. Public Power utilities use standard capital budgeting techniques to select the investments that most fully reflect their preferences and optimize the performance of their power supply portfolios. The organizational structure of a Public Power utility exposes the utility's

customers, who are the owners, to any ex post gains or losses associated with those investment decisions. This result is analogous to the way any competitive market participant experiences gains or losses based on actual market outcomes through time.

11. *Third, applying the expanded MOPR to Public Power utilities' self-supplied resources would improperly interfere with the public benefits of this long-standing business model.*

12. The proposed expanded MOPR is intended to mitigate the effect on RPM prices of state-sponsored external payments directed at specific capacity resource types. Applying an expanded MOPR intended for a wholly different purpose to all self-supplied resources of Public Power utilities would have the effect of denying the customer-owners of Public Power utilities the benefits (e.g., access to managed portfolios and low-cost debt) that their organizational structure was intended to confer, and which are enshrined in federal and state statutes.

13. It would be incorrect to conflate the Public Power not-for-profit business model and tax advantages with state-sponsored external payments to preferred resources. Many market participants have business and tax advantages not shared universally and not subject to the MOPR. Applying the expanded MOPR to Public Power utilities' self-supplied resources would improperly undo the benefits of the Public Power not-for-profit business model through wholesale market design and could impose costs on Public Power utilities that, through portfolio diversification, they would have otherwise avoided.

III. The Public Power Business Model

14. Amongst the 1,031 PJM members, which include vertically integrated investor-owned utilities, developers, investors, traditional and renewable generation companies, retail suppliers, and many financial intermediaries, there are 43 Public Power utilities (made up of municipal utilities, municipal agencies, distribution cooperatives, and generation and transmission cooperatives), whose electricity sales account for about 5% of the total within PJM.[1]

15. Municipal utilities are publicly owned, follow a not-for-profit business model, and typically support the broader municipal government through payments in lieu of taxes or transfers to the general fund.[2] Municipally-based regulation and governance ensures that the utility makes investment decisions that are transparent and reflect the community's investment needs and preferences. Municipal utilities have access to tax-exempt financing and often have stronger credit ratings than investor-owned utilities. I note that "municipal" utilities can also include joint action agencies and other forms of state instrumentalities that are not necessarily limited to a single municipality.

16. Electric cooperatives are private, not-for-profit businesses owned by their member-consumers. Cooperative utilities serve the interests of their member-consumers, and the interests of owner and customer are one and the same. Cooperative utilities are generally required to return to their member-consumers or re-invest in the cooperative's business any revenue above what is needed for operating costs. Cooperative utilities raise funds through

[1] https://www.eia.gov/electricity/sales_revenue_price/ (table 10)
[2]https://www.publicpower.org/system/files/documents/The%20Future%20of%20Your%20Utility%20SellSel%20Guide%20-%20Final%204-5-18.pdf

loans offered by the Department of Agriculture's Rural Utilities Service or cooperative or private lenders.

17. Importantly, the owners and customers of both types of Public Power utilities fully bear the benefits and costs of any investment made (debt holders are paid the bond coupon). The governance structures of Public Power utilities provide for oversight by community officials or customer-owners to ensure that the resource choices are made on an economic basis and meet the long-term needs of the utilities' customers.

18. Overall, Public Power utilities have benefited from FERC's open-access transmission and wholesale competition policies. Public Power utilities have been able to build their own resources and deliver their output to their customers, have access to a competitive range of contracts with wholesale power suppliers, and purchase and sell spot energy through the RTO administered markets.[3] Existing Public Power capacity resources contribute to the reliable operation of the PJM region.

19. Public Power utilities engage in long-term planning to serve existing and forecasted customer loads. The utilities' planning and investment activities occur within the context of the Commission's open access transmission policy and wholesale competition framework. Broadly put, Public Power's investment objectives are to construct portfolios of resources (through resource ownership, bilateral contracts, and spot purchases) that meet customer loads consistent with their customer-owners' preferences and investment

[3] Jay Morrison, Public Utility Fortnightly, September 2018.

objectives (this includes reliability, cost and risk trade-offs [i.e., portfolio impacts], environmental impacts, and local economic development).

IV. The Proposed Expanded MOPR Should Not Apply to Public Power Self-Supplied Resources.

20. As the Commission notes in the June 29 order (see footnote 276), the Commission and PJM have repeatedly re-evaluated the MOPR since its adoption as part of the initial set of rules for RPM in 2006. Originally it was focused on mitigating exercises of buyer-side market power (monopsony power). Its application has expanded to include the impacts of state-sponsored payments on capacity offers and clearing prices, regardless of whether there is evidence of the exercise of buyer-side market power. The current iteration of the MOPR was put in place in response to merchant generators' concerns about state efforts to subsidize new generation resources, the effect of which, the challengers argued, would suppress revenues for existing capacity resources and distort market entry and exit signals.

21. Throughout its previous iterations, the MOPR applied only to new or planned resources and was effectively limited to gas-fired generating units. In the June 29 order, the Commission proposes to expand the MOPR to existing and new units, regardless of technology.

22. As an administrative intervention into the RTO administered capacity market, an expanded MOPR should be applied with the lightest touch practicable to address the Commission's identified concerns regarding out-of-market payments noted above.

23. In the June 29 order, as it has done in the past, the Commission describes its concept of subsidy in terms of state programs aimed at supporting specific generating resources or technologies. I do not need to assess whether resources supported through the various state programs generally described in the June 29 order should be subject to an expanded MOPR to conclude that self-supplied resources used to meet the loads of Public Power utilities should not be subject to the MOPR.

24. The traditional resource self-supply activities of the Public Power sector are well removed from and plainly distinguishable from the kinds of state programs cited in the June 29 order as the basis for the expanded MOPR. Under the business model described above, Public Power utilities make resource decisions to self-supply their loads in the context of a resource planning process that considers and is driven by market prices and consumer preferences, not by state-sponsored payments or other external subsidies.[4] Even more important from my perspective, Public Power self-supply investments are fully consistent with the behavior one would expect of a participant in a competitive market, and therefore should not be subject to mitigation by an expanded MOPR. I explain this point in the next two sections.

V. Public Power Utilities' Self-Supply Resource Decisions Are Consistent with a Well-Functioning Market.

25. Public Power utilities make decisions about whether to build capacity, enter into bilateral contracts, or purchase requirements through the PJM capacity market based on a set of

[4] Some Public Power utilities are required to procure resources to meet state Renewable Portfolio Standards. This limited subset of resource investments may fall under the Commission's definition of state-sponsored resources.

investment objectives and expectations regarding future market conditions. The customer-owners of Public Power utilities bear any gain or loss associated with those decisions. The Public Power not-for-profit utility business model—i.e., ownership structure, tax treatment, and resource selection process—is consistent with and benefits from the competitive market framework. A Public Power utility seeks to add the lowest cost resources to its portfolio that meet its customers' needs and the utility's goals, and relies on competition (competitive solicitations, fuel markets, and the FERC-jurisdictional power markets) to achieve that objective.

26. Implicit in arguments that the integrity of competition in the PJM capacity market requires the application of the MOPR to Public Power self-supply resources is the mistaken premise that all resource entry and exit must be coordinated solely by the RTO administered market to be deemed economic. The PJM capacity market should properly account for, not mitigate, the resource decisions made by Public Power entities in pursuit of a portfolio of supply resources consistent with their business objectives and their cost, risk (diversity), flexibility, security, and environmental impact goals, as these decisions are legitimate market-based decisions.

27. The term "market" refers to many different types of structures through which commerce is conducted. Markets trade many types of contracts. In this context, "contract" is a general term and can refer to all types of commercial arrangements, including asset ownership agreements, bilateral agreements, and spot purchases and sales through an exchange or pool. Participants in a market select amongst the available contracts to construct the optimal (i.e., utility maximizing) set of positions.

28. A well-functioning market is not "perfect competition" in the economics text-book sense. Rather, a market is a set of agreed-to common practices and rules developed by participants to facilitate the very practical end of commerce. A well-functioning market, then, is a set of dynamic interactions that produces prices that inform and motivate future decisions by providing information about changing conditions, and that help participants evaluate the appropriateness of past decisions and make corrections.[5]

29. A well-functioning market is not a static intersection of supply and demand curves at a point in time. The use of the theory of perfect competition is best applied as a counterfactual against which to assess the performance of the outcomes of the real market and to aid in the design of interventions that might push the market towards the theoretical ideal. The necessary conditions underlying the perfect competition model are unrealistic and ignore the compensating mechanisms of dynamic adjustment that exist in the marketplace.

> *A perfect market should motivate individual investment decisions leading to the socially optimal [resource] mix, but the conditions for this to hold are strong – the usual General Equilibrium assumption of a complete set of spot and forward markets or perfect foresight, price taking behavior by producers and consumers, risk neutrality (or adequate risk sharing contracts) and convex production possibilities (Arrow and Debreu 1954, Debreu 1959). The lack of informative distant futures markets may lead to a suboptimal degree of diversity. Herd behavior, in which investors observe others' choices and*

[5] Peter Boettke, *Where Did Economics Go Wrong? Modern Economics as a Flight from Reality*, Critical Review, 1997

assume they are based on superior information that justifies their choices, may encourage investment in one or two dominant technologies as well as investment boom and bust cycles (Ford 1999, 2001, and Olsina et al, 2005).[6]

30. Unless all the necessary conditions noted above are satisfied, it is all but impossible that the resulting market allocations would be socially optimal in the sense intended by academic economists. In fact, from a text-book perspective, suboptimal results are the most likely outcome. What we see in practice, then, are the efforts of the market participants to implement market rules, regulation, and laws that allow commerce to take place. In the best case, this combination of so-called "interventions" reduces the gap between actual market outcomes and the outcomes expected to result from perfect competition. The design and introduction of such interventions, even the most well-intended and considered interventions, can lead to outcomes that lie further from the socially optimal than those that would have resulted had the market been left to its own devices.[7]

31. It is best, then, to consider the perfectly competitive market as an ideal-type, not a thing that exists or can be achieved in practice. Rather, it is at best a model we can use to help us understand how the actual market works and how it might be improved. But in practice the best we can hope for is that the dynamic, compensating, coordinating structures and arrangements that do exist allow participants to make decisions through time that result in outcomes that are as efficient as possible. I'll refer to this as a 'workably competitive' market.

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[6] Awerbuch & Yang, 2007

[7] Refer to Lipsey and Lancaster, *The General Theory of the Second Best*, 1956.

32. It is useful to recall that in a workably competitive market, prices play two fundamental roles. *First*, prices provide market participants with information about the relative scarcity of goods to so that they can adjust their consumption or production behavior. *Second,* prices reveal the ultimate profitability or unprofitability of economic actions–such as building power plants or signing contracts–already taken. "Correct" actions are rewarded with gains; errors are penalized with losses.[8]

33. The prices provided through PJM's RPM capacity market do not fully reflect the complete set of participant preferences. The RPM market limits participants to one standardized contract type and specifies bid parameters. While it is true that typical centralized market structures, such as commodity exchanges, utilize standardized contract terms and conditions to facilitate trade and increase liquidity, it is not the case that only supply that enters and exits the marketplace subject to the standardized terms and conditions is deemed economic. In addition to the prices provided through the centralized market, participants in all markets incorporate multiple criteria, both economic and non-economic, into their capital budgeting decisions. The RPM structure, however, with its reliance on a single standardized contract, does not allow participants to fully reveal their preferences, the result of which is a potentially inefficient capital allocation. Consequently, the RPM market is incapable of signaling for the types of resources that optimally satisfy **all** buyers' preferences, particularly the desire for diversity, environmental and health benefits, flexibility, and security at an aggregate or economy-wide level.

[8] Boettke, 1997 and 2010

34. A goal of the RPM, and indeed any capacity market, is to provide sustainable unbiased investment signals to market participants. Doing so would result in the most economic resources entering and the least economic exiting the market. But the RPM may not be delivering on that goal for all participants. One observation is that, at present, the market design itself may be biasing investment incentives towards some generating technologies rather than others.

35. Consider that in PJM, market-based entry has been dominated by gas-fired combined cycle generation and the interconnection queue indicates that most planned projects are also gas-fired combined cycle projects. As is evidenced by the Quarterly State of the Market Report for PJM:

> *Of the 72,708.9 MW in the status of Active on March 31, 2018, 34,234.7 MW (47.1 percent) were combined cycle projects. Of the 16,532.1 MW in the status of under construction, 11,774.6 MW (71.3 percent) were combined cycle projects.*[9]

This data suggests that PJM's wholesale market may have a strong bias that selects for gas-fired combined cycle projects.

36. In any event, investors clearly believe that the PJM-operated capacity and energy markets reward investment in gas-fired power plants. As currently designed, the centralized market is unlikely to select investments in technology choices that satisfy the preferences of buyers who value those characteristics, unless investors in those technologies can find

[9] Quarterly State of the Market Report for PJM: January through March 2018

counterparties with complementary risk profiles to sign long-term power purchase agreements—case in point, Public Power utilities.

37. Public Power utilities, as I explained above, pursue portfolios of supply resources consistent with their business objectives and that satisfy their set of cost, risk (diversity), flexibility, security, environmental, and other preferences. Public Power is not limited by the constraints facing merchant power producers in the broader market, who face high opportunity costs of capital and limited long-term hedging opportunities. Consequently, Public Power utilities can consider investments in all resource types and a menu of contracts as part of a broader portfolio optimization problem, seeking an optimal resource mix for its load over a long-term investment horizon. Public Power's portfolio approach to resource planning constitutes economic investment decision-making that should not be mitigated by an expanded MOPR, as I discuss below.

VI. Public Power Utilities Should Be Allowed to Continue Making Economic Investment Decisions.

38. Many of the resource investment tradeoffs I described above depend on the business model and consequent priorities of the decision-makers.

39. The traditional vertically integrated investor-owned utility ("IOU") makes resource investments designed to meet customer demand, while maximizing shareholder returns subject to constraints on costs and resource preference imposed by a state regulatory commission. If the state regulator prefers renewable investments, the utility will make those investments, and is then paid a rate that recovers the prudently incurred cost of the investments made. If the prudent investment costs end up being above market, the utility's

customers bear the cost in higher rates and the utility's shareholders benefit. If the investment outperforms the market, in most cases the utility's shareholders benefit immediately, and the customers benefit only after rates are adjusted.

40. Competitive generation companies make investment decisions designed to maximize returns to their equity investors (owners). There is no regulator imposing its preferences on the company. Rather, the company assesses the market and the technology options and selects the project that meets or exceeds its investment hurdle rate, in expectation. If the investment ends up being above market, the project's equity investors bear the cost, and suffer a loss. If the investment outperforms the market, the project's equity investors enjoy the benefits.

41. Public Power utilities make investment decisions designed to meet customer demand and preferences while minimizing cost and risk (often with an explicit stable rate objective) to the customer-owners (in cooperative utilities the utility's customers are the owners; in a municipal utility, the tax-payers (i.e., residents) of the municipality are the owners). In this case, the utility assesses its supply needs and options and selects the portfolio of resources that it believes is most likely to meet its investment and business objectives through time.

42. One common Public Power business objective is to invest in different technologies are made to achieve resource diversification to mitigate exposure to market risks, electricity prices, fuel prices, and environmental risks. Public Power utilities generally strive to maintain stable rates. Thus, they seek cost effective hedges against risky future electricity and fuel prices. Given the negative correlation between energy prices and the economy, Public Power finds it in the interest of their customers to minimize, to the extent cost-

effective, fuel price volatility. Fossil fuel price risk can only be mitigated through diversification.

43. Generation owners that are not part of a vertically integrated utility bear much of the risk of their investment decisions unless they find willing counterparties with complementary risks. A retail supply company selling electricity at fixed prices to end-use customers is one natural counter-party to a generation company selling electricity at variable prices but whose fuel cost is uncorrelated with the electricity price. Vertical integration avoids the need for contracts or cross ownership of shares, reducing transaction costs. Furthermore, ignorance of other potential counter-parties' risk profiles and other information costs tends to lead companies to construct physical rather than financial portfolios of plants. Therefore, the best case for plant diversity is within the portfolio of a well-capitalized utility, including Public Power utilities, rather than amongst an aggregate of stand-alone pure plays.[10]

44. A necessary implication of portfolio-based analysis is that the relative value of, and thus the benefits of investing in, generating assets must be determined not by evaluating alternative assets, but by evaluating alternative asset portfolios. Awerbuch (1999 and 2000) evaluated the US gas-coal generation mix and showed that adding wind, photovoltaics and other fixed cost renewables to a portfolio of conventional generating assets served to reduce overall portfolio cost and risk, even though their stand-alone generating costs may be higher.[11]

[10] A pure play is a business whose cashflows are derived almost exclusively from the provision of services that share a common risk profile, such as developers of generation plants not under contract to or owned by distribution utilities or retail suppliers.
[11] Awerbuch & Yang, 2007

45. Public Power utilities make economic tradeoffs amongst multiple criteria and select the investments that maximize portfolio value. The proposed expanded MOPR is based on an evaluation of all resources as if they were pure plays without accounting for other criteria that are considered in developing a portfolio of resources. It is incorrect to assess Public Power investments as if they were pure plays. Any time the mitigated price exceeds the project cost, net of portfolio benefits, and the resource fails to clear the capacity market, the result is an economic loss to the utility and a lack of efficiency in the market, as economic capacity is not counted toward the installed capacity requirements in the region. This negative impact on Public Power is clearly inconsistent with the Commission's open access and competitive market policy objectives.

VII. Application of the MOPR to Public Power Self-Supply Would Unreasonably Interfere with Public Policies Encouraging This Long-Standing Business Model.

46. In its consideration of the appropriate application of the MOPR, the Commission should be technology neutral and avoid penalizing different business models. The Commission should not pursue policies that prefer one technology over another, nor should it adopt policies that discriminate against the unique features of the different business models.

47. The Public Power utilities' not-for-profit business model and tax advantages impact their capital structure and financing costs. Of course, many participants in the marketplace have access to low cost debt and there are a multitude of investment structures used to lower the cost of capital and effect financing. Appropriately, none of this legitimate business activity is subject to the MOPR.

48. As discussed at some length above, Public Power utilities conduct detailed planning and market analysis to select self-supply investments that best meet a broad set of performance criteria while conferring the greatest portfolio benefit (cost-risk tradeoff). That the economics of investment opportunities are properly evaluated in the context of the portfolio in which they would participate given multiple selection criteria (many of which are not directly valued in the RTO-administered market) is consistent with their utility business model, not anti-competitive, and should not be subject to mitigation.

49. In the case of Public Power, then, applying the MOPR to self-supply investments could have the effect of undoing the benefits (e.g., access to low-cost debt) of the not-for-profit business model that the organizational structure was intended to confer, and which are enshrined in federal and state statutes. Moreover, application of the MOPR to Public Power investment choices could undermine the portfolio benefits built into an existing and future resource mix and could expose Public Power utility customers to costs that their prudent portfolio diversification would have allowed them to avoid.

VIII. Conclusions

50. The Commission bases its concept of subsidy and the applicability of the expanded MOPR on state-sponsored out-of-market payments to selected resource types. The investment activities of the Public Power sector are well removed from such state-sponsored external payments to specific resources. Public Power utilities make resource selection decisions in the context of resource planning processes that considers and is driven by market prices and consumer preferences, not by state-sponsored payments or other external subsidies.

51. Public power utilities endeavor to build power supply portfolios that efficiently meet their objectives following capital investment strategies that balance cost-risk tradeoffs, environmental performance, and reliability needs. The ultimate decision to self-supply, that is to build, own and operate generation, is based on the application of capital budgeting principles and portfolio theory.

52. Arguments that the integrity of the competitive market requires application of the MOPR to Public Power self-supply resources are often made based on the mistaken idea that all resource entry and exit must be coordinated solely by the RTO administered market to be economic. The Commission should recognize the limitations of the market and its inability by construction to fully satisfy the legitimate economic preferences of all market participants.

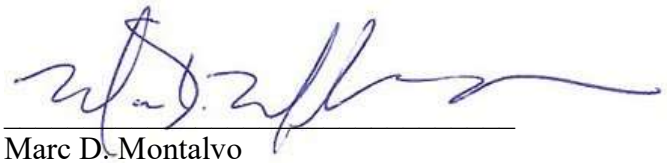
53. The Public Power sector's resource investments are made as economic business decisions and are not the result of state-sponsored external payments, the effects of which the Commission seeks to address with the expanded MOPR. Ultimately, the self-supply decisions of the Public Power sector are consistent with the behaviors one would expect of a participant in a competitive market.

54. If the Commission should adopt an expanded MOPR as proposed in the June 29 order, self-supplied resources used to meet the loads of Public Power utilities should not be subject to the MOPR or, alternatively, should be exempted from the MOPR.

Signature appears on the next page

I declare under penalty of perjury that the foregoing is true and correct.

Executed on October 1, 2018.



Marc D. Montalvo

CERTIFICATE OF SERVICE

I hereby certify that on this 2nd day of October, 2018, I have caused a copy of the foregoing to be served upon each person designated on the Official Service List in this proceeding.

/s- Adrienne E. Clair/