ADVANCED ENERGY BUYERS GROUP

the policy voice of advanced energy purchasers

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.	)	
PJM Interconnection, L.L.C.	)	ER18-1314-000 ER18-1314-001
PJM Interconnection, L.L.C.	)	EL18-178-000 (Consolidated)

REPLY COMMENTS OF ADVANCED ENERGY BUYERS GROUP

The Advanced Energy Buyers Group ("AE Buyers Group" or "Buyers Group") respectfully submits written reply comments[1] in response to the June 29, 2018 order of the

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[1] These comments represent the consensus view of the Advanced Energy Buyers Group (https://www.advancedenergybuyersgroup.org/). However, this document does not necessarily the reflect the

Federal Energy Regulatory Commission ("FERC" or "Commission") rejecting the tariff revisions of PJM Interconnection, L.L.C. ("PJM") and instituting a proceeding under Section 206 of the Federal Power Act.[2] The Buyers Group wishes to reiterate its concern regarding the speed with which the Commission proposes to make sweeping changes to the PJM Capacity Market, and with elements of the proposals currently under consideration, including the extended Minimum Offer Price Rule ("MOPR"), the Commission's proposed Fixed Resource Requirement Alternative ("FRR Alternative"), and PJM's proposed Resource Carve Out ("RCO") and related Extended Resource Carve-Out ("Extended RCO").[3]

In particular, we are concerned that the proposal put forward by PJM in its October 2 Initial Filing fails to exclude from the MOPR all voluntary renewable energy purchases by companies such as members of the AE Buyers Group, which is a significant and growing segment of the renewable energy market. Since 2013, voluntary buyers have purchased over 14 GW of offsite renewable energy across the country, including significant activity in PJM, with steady year-over-year growth that by all accounts will continue to accelerate.[4] Subjecting such projects to the MOPR would be inconsistent with the Commission's theory of harm that the June 29 Order seeks to mitigate, and would directly and adversely impact our companies and the

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position of any specific member of the AE Buyers Group, and these comments should not be attributed to any individual company or companies participating in the AE Buyers Group.

[2] *Calpine Corp. et al. v. PJM Interconnection, L.L.C.*, 163 FERC ¶ 61,236 (2018) ("June 29 Order"); *see also* "Notice of Extension of Time," FERC Docket No EL16-49-000 et al. (Aug. 22, 2018).

[3] *See* Initial Submission of PJM Interconnection, L.L.C., Docket No. EL16-49-000, et al., at 22 (Oct. 2, 2018) ("PJM Initial Filing").

[4] Business Renewables Center, Rocky Mountain Institute, "Corporate Renewable Deals: 2013 - 2018 YTD" (accessed November 6, 2018), available at http://businessrenewables.org/corporate-transactions/.

market for voluntary renewable energy purchases. We therefore urge the Commission to ensure that all such projects will be excluded from mitigation under the MOPR.

In addition, as large customers and active market participants in the PJM region, members of the AE Buyers Group have concerns regarding the unknown and potentially harmful impacts of an overly expansive MOPR and FRR Alternative or RCO on the PJM capacity market, and the potential cost increases and preservation of aging inefficient capacity that may result from the Extended RCO.

I. ABOUT THE AE BUYERS GROUP

The Advanced Energy Buyers Group is a business-led coalition of large energy users engaging on policies to expand opportunities to procure energy that is secure, clean, and affordable. Members of the Buyers Group are market leaders and major employers spanning different industry segments, including technology, retail, and manufacturing. Our companies are among the 71% of Fortune 100 companies and 43% of Fortune 500 companies that have established renewable and/or climate targets as part of our corporate sustainability commitments. We share a common interest in expanding our use of advanced energy, including renewable energy like wind, solar, geothermal, and hydropower; demand-side resources like energy efficiency, demand response, and energy storage; and onsite generation from solar photovoltaics, advanced natural gas turbines, and fuel cells.

In 2017, members of the AE Buyers Group totaled over $1 trillion in revenue and collectively consumed over 18 terawatt hours (TWh) of electricity, including over 11 TWh of renewable electricity—equivalent to the electricity sales for the states of North Dakota and

Delaware, respectively. This collective electricity use includes a significant footprint in the PJM region.

II. COMMENTS

The AE Buyers Group appreciates efforts by FERC and PJM to ensure the fair and efficient functioning of PJM's capacity market, but we have significant concerns regarding the proposals put forward to date by PJM, with the expanded MOPR and FRR Alternative outlined in the Commission's Order, and with the Extended RCO proposal submitted by PJM as a part of this proceeding on October 2, 2018. Some members of the AE Buyers Group have already experienced uncertainty in the market for renewable energy purchasing as a result of the proposed changes to PJM's capacity market, and the AE Buyers Group is concerned that a broad application of an expanded MOPR will further disrupt the growing market for voluntary corporate purchases of renewable energy and other advanced energy technologies.

A. The AE Buyers Group Reiterates its Concern Regarding the Rapid Consideration and Proposed Implementation of Such Fundamental Changes to PJM's Capacity Market.

As we noted in our Initial Comments, the AE Buyers Group is particularly concerned that FERC's Order calls for sweeping changes to PJM's capacity market on such an accelerated timeframe, with limited analysis of the magnitude of the problem it seeks to solve, or of the potential market impacts of the changes being proposed.[5] The limited window between the Initial and Reply Comment deadlines has provided stakeholders with insufficient time to analyze the

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[5] *See* Comments of the Advanced Energy Buyers Group under EL16-49-000 et al. ("Initial Comments").

various filings submitted to FERC, let alone develop recommendations to inform a final decision from the Commission that appears poised to fundamentally change the operation of PJM's capacity market. The magnitude and variety of feedback submitted through paper filings in this proceeding, including a number of counter-proposals, underscores the need for additional dialogue, analysis, and stakeholder input to ensure an equitable and efficient market design that meets the statutory requirements of being just, reasonable, and not unduly discriminatory.

Compounding our concern at the Commission's haste to move forward in this proceeding, the AE Buyers Group notes that several fundamental questions and concerns remain unresolved. Specific underlying concerns of the Buyers Group are explained in more detail in our initial filing, and have yet to be addressed. Specifically, the Buyers Group notes:

- There is ample evidence that urgent action is not needed to maintain healthy capacity margins in the PJM region;
- There is an inadequate record before the Commission regarding the magnitude, scope, and severity of the problem to be mitigated, and limited analysis of the potential direct and indirect impacts of the proposed solutions, especially on the growing number of large corporate buyers seeking to achieve voluntary clean energy goals in the PJM region;
- FERC's Order focuses arbitrarily on only a subset of 'out-of-market' subsidies, and ignores other forms of policy-driven support provided directly or indirectly to PJM resources, which also distort capacity market outcomes;
- FERC's decision to "mitigate" the impacts of state policies on wholesale markets undermines state efforts to achieve policy goals through market-based approaches, without providing any alternatives that would allow states to address policy goals through market mechanisms; and
- FERC's abrupt actions are already having distorting effects, and any changes should be analyzed carefully and implemented with more caution and/or more incrementally.

For all these reasons, the AE Buyers Group remains concerned by the approach taken by the Commission in its June 29 Order, and by the speed with which the Commission is poised to implement what has accurately been described as the biggest change to PJM's capacity market in 12 years.

B. The Commission Must Ensure that Voluntary Renewable Energy Purchases are Exempted from Classification as MOPR Resources.

The AE Buyers Group strongly reiterates our view that renewable energy procured by voluntary buyers such as our companies should not be classified as receiving "out-of-market revenues" for the purposes of application of the MOPR, and urges the Commission to ensure that all renewable energy serving voluntary buyers be explicitly excluded to avoid unnecessary and harmful over-mitigation. The Commission's July 29 Order is consistent with this principle, placing its sole focus on "meaningful out-of-market support… that *states* have provided or required" (emphasis added) that have the effect of allowing existing, uneconomic resources to remain in operation, or supporting the entry of uneconomic new resources.[6] The AE Buyers Group is concerned that PJM's proposal as outlined in its October 2 filing fails to meet this basic principle, and urges the Commission to ensure that all voluntary renewable energy purchases will be exempt from an expanded MOPR.

[6] Order at P 149-150.

1. **The approach proposed in PJM's filing would mitigate many voluntary renewable energy purchases, despite PJM's stated intent to exempt such purchases from mitigation.**

PJM's filing appears to recognize that renewable energy acquired by voluntary market actors such as members of the AE Buyers Group should not be subject to the expanded MOPR.[7] Specifically, PJM states:

> …PJM proposes excluding wind and solar renewable energy credits ("RECs") to the extent the seller sells the REC to a purchaser that is not required by a state program to purchase the REC, and that purchaser does not receive any state financial inducement or credit for the purchase of the REC. This exclusion is reasonable as it ensures only those subsidies provided through a state program, rather than through a voluntary bilateral arrangement (such as with an end-user seeking to retire the REC to fulfill its voluntary corporate green energy goals) are considered a Material Subsidy under the rules.[8]

However, PJM adds a major caveat that undermines its intent to exempt all voluntary renewable energy purchases. Specifically, PJM proposes to mitigate all RECs sold through intermediaries such as brokers, stating that, "since most ultimate REC purchases are for RPS compliance, generator REC sales to an intermediary are presumed to be for ultimate purchase to meet RPS mandates, and thus would be considered a subsidy."[9]

The result of this important caveat will be to subject any "unbundled" voluntary REC purchases or other voluntary REC purchases through brokers to MOPR despite PJM's acknowledgement that such purchases, "do not arise from a state mandate" and its conclusion that "…they are reasonably distinguished from the large bulk of REC purchases made to show

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[7] PJM Initial Filing at 22.

[8] PJM Initial Filing at 22.

[9] PJM Initial Filing at 23, n. 39.

compliance with state RPS mandates, and thus are reasonably not considered state subsidies."[10] In practice, this means that only a narrow subset of voluntary REC purchases would be exempted from MOPR; specifically, those transacted directly via bilateral contract or utility arrangement—and even then, such resources may be subject to MOPR in some cases, depending on the contractual relationships between the resource and the buyer.

If adopted, this approach would risk subjecting to the MOPR a significant segment of the voluntary renewable energy market, resulting in over-mitigation that would directly harm voluntary purchasers such as members of the AE Buyers Group while threatening the growth of this expanding market segment. The underlying justification for subjecting to the MOPR all RECs purchased through intermediaries—regardless of whether they are used for compliance with state programs or retired by voluntary purchasers—is flawed for several reasons, explained below, and should be rejected by the Commission.

2. REC Purchases through intermediaries, including "unbundled" RECs, are an important part of the voluntary renewable energy market.

In our Initial Comments, the AE Buyers Group outlined various different market transactions that our companies use to meet our renewable energy goals. These include renewable energy and/or renewable energy certificates (RECs) acquired through power purchase agreements (PPAs), virtual or financial PPAs (vPPAs), market REC purchases, utility REC programs, utility

[10] PJM Initial Filing at 22-23.

green tariff programs, or other means.[11] Across different transaction types, our companies often rely on intermediaries to supply and/or certify either bundled or unbundled voluntary RECs.

Despite increased focus among voluntary buyers on long-term, bilateral contracts, unbundled REC purchases remain an important segment of the voluntary market and a key tool for our companies to meet our renewable energy goals. According to data from the National Renewable Energy Laboratory, unbundled REC sales accounted for nearly half (46%) of all voluntary market MWh sales of renewable energy in 2017, with a total of over 51.7 million MWh of renewable energy purchased via unbundled RECs.[12]

Purchase of unbundled RECs from brokers or intermediaries is important to voluntary purchasers for several reasons. In many cases, unbundled RECs are still the only option available without a long-term commitment (as required under a PPA, vPPA, and many utility programs), which for many companies is prohibitive. Even for companies that are also pursuing long-term bilateral deals, unbundled REC purchases can provide an important tool, allowing us to meet our corporate renewable energy commitments on time through verified renewable energy generation even as we work to execute additional bilateral contracts. Furthermore, as a relatively low-cost and low-risk means to procure renewable energy, unbundled RECs remain an important component of many companies' diversified renewable energy portfolios.

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[11] *See* Initial Comments at 8-9.

[12] *See* National Renewable Energy Laboratory, "Status and Trends in the U.S. Voluntary Green Power Market (2017 Data)" (October 2018), *available at* https://www.nrel.gov/docs/fy19osti/72204.pdf ("NREL Report"), at 4.

While unbundled RECs remain vitally important to the voluntary renewable energy market, large customers such as members of the AE Buyers Group have increasingly trended toward long-term, bilateral contracts, arranged as either physical or virtual PPAs. However, intermediaries often play an important role in these transactions, also. For example, companies often rely on intermediaries to certify RECs to ensure they meet Green-e standards required to make verified claims. In addition, companies or other entities seeking to satisfy voluntary goals may sell (directly or indirectly) the RECs obtained through a bilateral arrangement for use by an entity with compliance obligations, and then purchase unbundled voluntary RECs for their own purposes.[13] This "REC arbitrage" approach enables companies to pursue projects that might not exist without their involvement, but that they could not otherwise pursue from a cost perspective. Ensuring that all of these tools continue to be available, and that none are unjustly and unreasonably impacted by application of the MOPR, is critical to continued growth of the voluntary renewable energy purchase market (and the economic benefits that market brings) in the PJM region.

Our experience clearly demonstrates that RECs purchased and sold through intermediaries cannot be reasonably assumed to be used solely, or even mostly, for compliance purposes. Subjecting all RECs sold through intermediaries to an expanded MOPR would capture a significant portion of the voluntary renewable energy market, resulting in harmful over-mitigation that the Commission must avoid.

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[13] Center for Resource Solutions, *Two Markets, Overlapping Goals: Exploring the Intersection of RPS and Voluntary Markets for Renewable Energy in the U.S.* (July 2017), *available at* https://resource-solutions.org/wp-content/uploads/2017/08/RPS-and-Voluntary-Markets.pdf, at 12.

3. Existing and future voluntary renewable energy demand represents a significant segment of the renewable energy market.

PJM downplays the importance of voluntary procurement as a driver of new renewable energy capacity—a mischaracterization that perhaps explains why PJM proposes to lump voluntary REC purchases in with compliance REC purchases. PJM's filing states that "RECs were developed, *and still are largely used,* as a means for load-serving entities to demonstrate compliance with mandatory state renewable portfolio standard programs [emphasis added]."[14] While it is true that RECs were developed as a tool to demonstrate compliance with mandatory policy objectives, it is no longer the case that they are "largely used" for this purpose. Moreover, the growth of demand for renewable energy by voluntary purchasers indicates that this characterization of voluntary renewable energy procurement as a marginal segment of the renewable energy market will only become less true with time.

In PJM, and elsewhere, voluntary renewable energy purchases are an important and growing segment of the total renewable energy market, and an especially important driver of new renewable energy. Companies rely on Green-e certified RECs to track and report on their renewable energy purchases. These purchases are motivated by cost, sustainability, and reputational drivers, and in many cases backed by voluntary commitments.

By all metrics, demand for renewable energy from the voluntary market is growing. As of 2016, 71 Fortune 100 companies had set renewable energy or energy-related sustainability targets, and the RE100 (a coalition of companies committed to sourcing 100% of their electricity needs

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[14] PJM Initial Filing at 22.

from renewable energy) has grown to over 150 leading brands, and is still expanding rapidly as more companies commit to the same goal.[15] The 78 companies that have joined as signatories of the Corporate Renewable Energy Buyers Principles as of October 2018 represent 69 million MWh of renewable energy demand by 2020.[16] Cities, universities, and hospitals have similarly made renewable energy commitments. New companies and other entities are frequently added to these lists, and companies that have already set targets continue to ramp up their goals.

Already, voluntary renewable energy purchases are significant when compared against renewable energy purchases for compliance purposes. In 2017, compliance accounted for just over half (57%) of renewable energy sales by MWh.[17] Moreover, it is important to note that market activity to date represents only a fraction of total voluntary demand for renewable energy. Only 51 companies had signed offsite PPAs as of March 2018, and even among the relatively few companies that have executed transactions, many are still far from reaching their renewable energy targets.[18] Clearly, there is a significant existing renewable energy capacity attributable to voluntary corporate buyers, as well as even greater future demand for renewable energy among these buyers, including in PJM. For all of these companies, retirement of RECs is fundamental to making verified claims regarding their renewable energy use.

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[15] *See* Advanced Energy Economy, *2016 Corporate Advanced Energy Commitments* (Dec. 2016), https://info.aee.net/growth-in-corporate-advanced-energy-demand-market-benefits-report; RE100, "The Companies," http://there100.org/companies.

[16] *See* Corporate Renewable Energy Buyers' Principles, "Eight Companies Sign on to Renewable Energy Buyers Principles" (Oct. 15, 2018), https://buyersprinciples.org/2018/10/15/eight-companies-sign-on-to-renewable-energy-buyers-principles/.

[17] NREL Report, at v.

[18] Business Renewables Center, Rocky Mountain Institute, "Corporate Renewable Deals: 2013 - 2018 YTD," *available at* http://businessrenewables.org/corporate-transactions/.

4. **Even if voluntary buyer-driven renewable energy projects are exempted from MOPR, FERC's proposal could disrupt existing renewable energy contracts, and could distort the voluntary market for renewable energy projects**

As noted in our Initial Comments, it is difficult to assess given the information currently available how the proposal would impact both our existing and future advanced energy investments, including renewable energy, demand response, energy efficiency, energy storage, and more; however, it is clear that all these resources will be impacted by changes to the capacity market, and by potential knock-on impacts in energy and ancillary services markets. This creates a direct risk for our businesses, while also creating challenges for future projects, and we urge the Commission to consider carefully the potential impacts of the proposed changes on all market participants to avoid undue adverse impacts.

C. The AE Buyers Group Has Additional Concerns and Recommendations Should FERC Move Forward with the Expanded MOPR, FRR Alternative, And/Or RCO and Extended RCO Proposals.

1. The Expanded MOPR Should be Defined Narrowly and Fairly.

The AE Buyers Group reiterates our concern that an overly expansive MOPR would create market distortions and result in inefficient capacity market outcomes. To avoid undue harm to competitive markets, FERC should ensure that an expanded MOPR is defined narrowly and focused squarely on the specific market harms identified in the June 29 Order. Specific recommendations to ensure an appropriately narrow expansion of MOPR are included in our Initial Comments.[19]

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[19] *See* Initial Comments at 10-11.

2. AE Buyers Group Supports the Goal of the FRR Alternative, but Has Concerns with the Potential Market Impacts.

As noted in our initial filing, the AE Buyers Group appreciates the intent of the FRR Alternative to prevent customers from having to pay twice for capacity resources that are subject to an expanded MOPR. However, we remain concerned by the potential for the FRR Alternative to result in an unplanned degradation of PJM's capacity market, and recommend that the Commission take this risk into account when designing the mechanism. Specifically, we reiterate our recommendation that FERC consider and prepare for the potential implications for capacity market outcomes—as well as potential knock-on effects in other markets—prior to moving forward with the proposal.

Should FERC move forward with the FRR Alternative (or, as PJM terms it, the RCO), the AE Buyers Group encourages the Commission to clearly define the process for resources eligible to select the FRR Alternative to identify commensurate load that will leave the capacity market. Without a clearly defined, transparent, and open process, the FRR Alternative will not be available in practice to many resources subject to the MOPR, especially those that may not have a clear relationship to any particular load serving entity. This would render the FRR Alternative futile in achieving its intended goal and discriminatory in its application, and could needlessly increase costs for consumers such as our companies.

3. The Extended RCO Proposal Would Increase Consumer Costs and Provides No Clear Benefits, and Should Not Be Implemented As Proposed.

As noted above and in our initial comments, the AE Buyers Group acknowledges and is concerned by the potential distortionary impacts of the FRR Alternative. However, the Buyers Group is concerned that PJM's Extended RCO proposal may needlessly layer one fix over another, all at the expense of consumers and with little or no benefit to the efficient function of PJM's capacity market. While the AE Buyers Group notes that we do not at this time have access to sufficient analysis of the Extended RCO to assess its potential impact on our companies, we do have concerns with the proposal as put forward by PJM that we urge the Commission to consider.

Specifically, the Extended RCO will almost certainly raise consumer costs, and appears to deliver little or no benefit in return. By design, the Extended RCO is intended to "preserve competitive clearing prices," i.e., increase capacity prices, to compensate for the suppressive impact on prices that may result from resources subject to MOPR leaving the capacity market through the FRR Alternative (or, in PJM's filing, the RCO) but being inserted into the capacity auction as a price taker. The higher capacity prices are not needed to cover the operating costs of capacity resources that actually receive a capacity obligation, but only serve to increase the "infra-marginal rents" (defined by PJM as "the part of the clearing price that is above a rational seller's marginal cost-based offer") that they receive. In addition, PJM's proposal would provide additional payments to units that *do not clear the market* but that *would have cleared the market* if it had cleared at the higher, re-priced level.

PJM argues that infra-marginal payments are necessary to make up for "dead-weight loss," or "reduction of market surplus," which it argues is "…needed to help finance future investments and induce competitive market entry and exit."[20] But as the AE Buyers Group and other commenters in the proceeding have noted extensively, PJM's market is having no trouble inducing

[20] PJM Initial Filing at 72.

competitive entry today. In fact, what PJM's market has failed to do is induce appropriate exit of aging uneconomic resources.

Despite this fact, PJM goes on to say that one of the benefits of the Extended RCO's proposal to provide additional marginal rent payments to uncleared resources is that it "sends an important additional signal to the subset of resources that fail to secure a capacity commitment, but are awarded infra-marginal rents—it's time to consider retirement."[21] The same signal would be sent, at no cost to consumers, in the absence of the Extended RCO, and it is unclear why funneling additional payments to those resources would send a better retirement signal. Moreover, those payments would provide the market and consumers with nothing in return, since those resources will not have a capacity obligation and little obligation to perform. Rather than avoiding deadweight loss, the Extended RCO appears to be providing a windfall to marginal units that are providing no services in the capacity market, at potentially significant cost to consumers.

The AE Buyers Group urges a more fundamental analysis of the problem that PJM is trying to solve with its Extended RCO proposal, and a detailed consideration of available solutions prior to hasty implementation of a convoluted add-on that will almost certainly raise capacity market prices and that could have other damaging implications for the market overall.

III. CONCLUSION

The AE Buyers Group appreciates the opportunity to provide input on the Commission's Order to revise PJM's capacity market, but we remain concerned by the unknown and potentially

[21] PJM Initial Filing at 74.

harmful market impacts that have been proposed on a rapid timeframe, with limited analysis of the expected market outcomes. The Buyers Group especially urges the Commission to ensure that *all* renewable energy serving voluntary customers such as our companies will not be subject to the MOPR, which is necessary to avoid unnecessary and harmful over-mitigation. The AE Buyers Group appreciates the Commission's consideration of our perspective in this case.

The Advanced Energy Buyers Group

https://www.advancedenergybuyersgroup.org/