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)

COMMENTS OF ADVANCED ENERGY BUYERS GROUP

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

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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 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.

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 has significant concerns with the speed with which the Commission proposes to make sweeping changes to the PJM Capacity Market, and with elements of the proposal itself, including both the extended Minimum Offer Price Rule ("MOPR") and Fixed Resource Requirement Alternative ("FRR Alternative"). In particular, we argue that renewable energy resulting from voluntary actions by companies such as members of the AE Buyers Group is a significant and growing segment of the renewable energy market, and should be excluded from MOPR requirements. Since 2013, voluntary buyers have purchased over 13 GW of offsite renewable energy across the country, with steady year-over-year growth that by all accounts will continue to accelerate.[3] Subjecting such projects to the MOPR would be inconsistent with the Commission's theory of harm that this Order seeks to mitigate, and directly harmful to our companies and to the renewable energy market. In addition, we have concerns regarding the unknown and potentially harmful impacts of an overly expansive MOPR and FRR Alternative on the PJM capacity market.

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

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[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] Business Renewables Center, Rocky Mountain Institute, "Corporate Renewable Deals: 2013 - 2018 YTD" (accessed September 28, 2018), available at http://businessrenewables.org/corporate-transactions/.

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, such as 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 to ensure fair and efficient function of PJM's capacity market, but we have significant concerns regarding the proposals put forward to date by PJM, and more recently the expanded MOPR and FRR Alternative outlined in the Commission's Order. The AE Buyers Group is particularly concerned that FERC's Order calls for sweeping changes—which would fundamentally change how clean energy resources participate in PJM's capacity market—on 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 it has proposed. Some members of the AE Buyers Group have already experienced how the Order has created uncertainty in the market for renewable energy purchasing, 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 clean renewable energy and other advanced energy technologies.

In these comments, the Buyers Group raises several concerns regarding the unknown but potentially harmful impacts of the Commission's proposal, and provides suggestions for designing the MOPR and FRR Alternative should FERC choose to move forward with these changes.

A. The AE Buyers Group is Concerned that the Impacts of the Expanded MOPR and FRR Alternative Are Unknown, and May Cause Harm to Buyers.

As buyers reliant on affordable and reliable electricity, and as companies seeking renewable and other advanced energy resources to meet our energy needs, the AE Buyers Group has reservations about the Commission's Order. As we have expressed in prior filings before this Commission, the Buyers Group supports efforts to maintain and enhance competition in wholesale markets, and we are concerned that FERC's proposal may actually undermine competition in PJM and create further uncertainty moving forward. This uncertainty is already disrupting our procurement of renewable and other advanced energy technologies due to the risk that potential changes to the market could harm these projects. In addition to more specific concerns regarding the impacts of the Order on our own renewable energy procurement, discussed in the next section, the Buyers Group has a few overarching concerns with the Order:

- **Urgent action is not needed to maintain healthy capacity margins.** Despite the out-of-market revenues that PJM and the Commission cite as having a suppressive effect on PJM capacity market prices, the region currently has a large surplus of capacity, and current capacity market prices are continuing to incent new market entrants, rather than significant retirements of aging uneconomic resources. Raising prices in an already oversupplied market would would risk raising costs for consumers over time by incenting buildout of unneeded new resources while causing existing, otherwise uneconomic generators to remain operational rather than exiting the market. Efforts to mitigate price suppression appear to be not only unnecessary, but actually counterproductive to the ultimate goal of bringing the PJM capacity market into better alignment with regional needs.

- **There is an inadequate record before the Commission to support the sweeping market changes being proposed.** The proposed changes could raise prices and impact market entry and exit, and may have a harmful effect on certain resource types. However, there is a lack of information or analysis regarding the actual magnitude of the problem to be mitigated and the impact of the proposed solutions. Prior to implementation of any corrective measures, the AE Buyers Group recommends additional analysis of the magnitude of the suppressive effect of "out-of-market" revenues due to state policies, and analysis of potential effects on prices and market behavior.
- **FERC's Order focuses arbitrarily on only a subset of 'out-of-market' subsidies.** FERC's Order arbitrarily concludes that PJM's capacity market has become unjust and unreasonable due to the impacts of a specific subset of resources receiving out-of-market policy support, primarily through state renewable portfolio standard ("RPS") and Zero Emission Credit ("ZEC") policies. This approach ignores other policy-driven out-of-market support provided to other resource types, which also directly or indirectly impact the prices that different generators bid into the capacity market—and, for that matter, into energy and ancillary services markets.[4] The state policies primarily addressed in FERC's Order are newer and more traceable than some other subsidies, and have recently expanded to cover more capacity in the PJM footprint, but none of these factors have any bearing on the relative magnitude of their distortionary effect.
- **FERC's decision to "mitigate" against state policies undermines state efforts to achieve policy goals through market-based approaches.** We note that for states seeking to reduce barriers for new market entrants and/or to address greenhouse gas emissions (which are generally the primary goals of state RPS and ZEC programs), the most efficient approach is one that incorporates such policies into the market, rather than mitigating them out of the market. While the AE Buyers Group is not taking a position at this time regarding RPS and ZEC policies specifically, we argue that FERC should not seek to override the impact of policies and regulations that are within states' control and that are intended to bring certain

[4] For example, FERC's proposal ignores (i) resources guaranteed a rate of return by vertically integrated utilities (which account for approximately 20% of PJM's installed capacity, a far greater portion than the resources targeted by this Order); (ii) coal and gas subsidies (implicit and explicit) that make these resources less costly, such as federal support for resource exploration, federal subsidies, federal and state tax credits, etc.; and (iii) federal and state renewable energy tax credits that make these resources less costly (although the federal production tax credit and investment tax credit, the primary credits received by renewable energy, are already set to be phased out).

externalities into the market or provide financial support to enable new innovations to enter the market.

- **FERC's abrupt actions are having distorting effects, and should be made more incrementally.** As noted above, we are concerned with the pace of FERC's actions on this matter and the abrupt nature of the Order. This Order will have far reaching impacts on energy markets and create uncertainty for clean energy procurement. If FERC is going to move forward with this effort, we ask that it be done with more caution and/or through incremental actions to allow PJM and market participants to adapt with minimal impact on market participants, including our companies.

For all these reasons, the AE Buyers Group remains concerned by the approach taken by the Commission in this 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. If FERC Moves Forward With the Expanded MOPR and FRR Alternative, the AE Buyers Group Makes A Few Initial Recommendations

1. Any final rule should exempt voluntary renewable energy purchases from classification as MOPR resources.

Renewable energy procured by voluntary buyers such as members of the Buyers Group should not be treated as "out-of-market revenues" for the purposes of the MOPR and FRR Alternative, and should be explicitly excluded to avoid unnecessary over-mitigation. This exclusion should include renewable energy and/or renewable energy certificates (RECs) acquired by voluntary market actors such as our companies through PPAs, vPPAs, market REC purchases, utility REC programs, utility green tariff programs, or other means.

These voluntary contracts and programs are all driven by the private market and private consumer decisions, and therefore do not fit the Commission's theory of harm in this Order, which states that out-of-market support provided by *state policies* allows otherwise uncompetitive resources to clear the capacity market and suppress prices. Specifically, the Commission argued that the PJM capacity market is now threatened by state polices that "provide[] or require[] meaningful out-of-market support" to "keep existing uneconomic resources in operation, or to support the uneconomic entry of new resources."[5] The Commission further argues that this out-of-market support provided by state policies allows otherwise "uncompetitive resources, for whom a competitive offer would be significantly higher than zero, to submit low or zero priced offers into the capacity market", allowing those resources to clear the market and suppress prices.[6]

In contrast, renewable energy projects financed, supported, or otherwise enabled by voluntary actions by market participants are inherently market-driven, because they are the result of buyer demand. Exclusion of these resources is key to ensure the Order does result in direct harm to our companies and other voluntary market participants, or cause undue market distortions that would be unjust and unreasonable.

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

Given the recent and anticipated future growth of voluntary buyer demand for renewable energy, subjecting such resources to MOPR requirements would significantly overextend the rule beyond the state government mandates it is designed to mitigate. Since 2013, voluntary buyers have purchased over 13 GW of offsite renewable energy across the country, with the majority of projects executed in states with organized wholesale markets.[7] Over the past five years, annual

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[5] Order at P 149-150.

[6] Order at P 151.

[7] See Business Renewables Center, "Corporate Renewable Energy Procurement: 2017 State of the Market, North America" (April 17, 2018), available at http://www.prweb.com/releases/2018/04/prweb15421076.htm, indicating that as of March 2018, approximately 75% of renewable energy contracts by large corporate purchasers had occurred in states participating in organized wholesale markets.

purchases have increased by over 1000%, from just 0.32 GW in 2013 to 3.86 GW in 2018 (with four months left in the year).[8]

However, market activity to date represents only a fraction of total corporate demand for renewable energy. 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 from renewable energy) has grown to over 150 leading brands, and is still expanding rapidly as more companies commit to the same goal.[9] In contrast, 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.[10] 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.

ii. Voluntary buyers pursue renewable energy and RECs in wholesale markets in many ways, and all resources accessed by voluntary buyers through these means should be exempted from MOPR requirements.

Members of the Buyers Group and other voluntary renewable energy buyers pursue renewable energy resources in wholesale markets in many ways, including:

- **Physical PPAs:** Under a physical PPA, the buyer signs a contract with a developer in exchange for the output of a renewable energy project. The offtaker then either serves as

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[8] Business Renewables Center, Rocky Mountain Institute, "Corporate Renewable Deals: 2013 - 2018 YTD" (accessed September 28, 2018), available at http://businessrenewables.org/corporate-transactions/.

[9] *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.

[10] See *supra* n. 8.

a power marketer and scheduler, or contracts with a third-party entity to perform these functions.[11]

- **Virtual PPAs:** Under a vPPA, the offtaker does not take title to the electricity, but rather signs a financial agreement, sometimes called a financial PPA, "fixed for floating" swap, or contract for difference. Through this contract, the offtaker pays the developer an agreed fixed or escalating price for electricity generated, and the developer delivers the project into the market. The developer then pays the offtaker based on the price and quantity settled into the market.
- **Competitive service providers:** Companies can work with competitive service providers to secure renewable energy to meet their needs, whether from long-term renewable energy contracts or market REC purchases. In some instances, large buyers find it most efficient to simply create their own wholesale energy buyer to supply their physical locations. For example, Walmart in 2007 created Texas Retail Energy to purchase electricity on the wholesale market and supply Walmart stores across ERCOT. Texas Retail Energy now supplies electricity to Walmart stores in several RTO/ISO regions.
- **Utility renewable energy programs:** Especially for buyers of vertically-integrated utilities, the utility can play a key role in enabling renewable energy procurement. For example, in Virginia, Dominion Energy offers multiple "green tariff" programs that deliver renewable energy plus RECs to participating buyers.
- **REC purchases:** Companies can pursue either long-term or short-term contracts for RECs from a specific facility (in the case of a long-term contract) or from the market.
- **Utility REC programs:** Through utility REC-purchase programs, buyers can pay their utility to retire RECs to cover a specified portion of their electricity use. This option is more commonly used by residential or small commercial buyers than large commercial buyers, but nonetheless makes up an important component of the voluntary REC market.

In addition, our companies also pursue other advanced energy technologies, including but not limited to demand response, energy efficiency, energy storage, and electric vehicle infrastructure. We argue, below, that such resources should be excluded from the MOPR altogether, whether they are purchased by voluntary buyers, by utilities, or through state programs or mandates.

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[11] For more information, *see* Business Renewable Center, *An Introduction to Renewable Energy PPAs*, available at http://www.businessrenewables.org/downloads/bbb_workshop_2016/0_Buyers_Basics/0.3.Renewable_Energy_PPAs.pdf.

iii. Even if voluntary buyer-driven renewable energy projects are exempted from MOPR, FERC's Proposal Could Disrupt Existing Renewable Energy Contracts, and is Distorting the Voluntary Market for Renewable Energy Projects

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.

Even if our renewable energy purchases are exempted from MOPR, the potential changes to market prices as a result of the Order would impact our existing projects. For example, under a vPPA, the revenue received by the buyer is primarily made up of the locational marginal price ("LMP"), while capacity and ancillary services may either be included in the value stream that flows to the buyer, or they may go to the generator and be incorporated into the PPA price. Therefore, changes to capacity markets (and any knock-on effects on LMP prices) will impact our existing renewable energy projects. This creates a direct risk for our businesses, while also creating challenges for future projects.

2. The Expanded MOPR Should be Defined Narrowly and Fairly

Unless carefully and narrowly defined, an expanded MOPR runs the risk of over-mitigating the problem it seeks to address, which is itself only loosely defined. 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 fairly. In addition to excluding voluntary renewable energy and REC purchases, the Buyers Group recommends the following minimum guidelines:

- Otherwise-competitive resources that receive an actionable subsidy, but would be competitive without it, should not be subject to MOPR, or should be subject to a MOPR price that takes this into account;
- MOPR prices for existing renewable energy and other MOPR resources should be based on going-forward avoidable cost, as suggested by PJM, which for renewable energy will likely be close to zero;
- MOPR prices for new renewable energy should be adjusted regularly to account for the fact that renewable energy prices are dropping rapidly;
- Demand-side management resources such as demand response and energy efficiency should be excluded from the MOPR; and
- MOPR should *not* exclude resources rate-based by IOUs, which make up approximately 20% of PJM capacity resources; this guarantee of full cost recovery regardless of capacity market outcomes would seem to have the same (if not more) price suppressive effect that the Commission theorizes are caused by the resources targeted in the June 29 Order.

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

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 are 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.

By taking resources out of the capacity market, the FRR Alternative could result in significant bifurcation of the market, causing the capacity market to unravel in an unplanned and unmitigated way. Without any plan to replace revenue from capacity market auctions, competitively bid resources like demand response and energy efficiency (and, to an increasing degree, energy storage) that rely on capacity market revenues would be unduly harmed. This would also harm our companies, because these resources deliver significant cost and reliability benefits in PJM. With no precedent and limited detail or analysis around the FRR Alternative, it is impossible to assess how the proposal would impact market activity and prices in PJM—including not just capacity market prices, but prices for energy and ancillary services as well. Indeed, ICF concludes, "the details around the proposal needs [sic] to be delineated before any assessment can be made on its effectiveness."[12]

Competitive markets elsewhere operate reliably and affordably without capacity markets, but any transition away from PJM's existing capacity market structure (which is central to its market design) should start with a consideration of the potential market impacts, and then make adjustments to ensure that all resources can continue to offer their services into the market. While FERC cannot determine or control how states and other market actors will react to the availability of the FRR Alternative, it should 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.

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[12] ICF, "FERC Orders New Course for Nation's Largest Capacity Market" (Jul 11, 2018), https://www.icf.com/blog/energy/ferc-order-pjm?utm_medium=email&utm_source=marketo&utm_campaign=1267-energy-digest&utm_content=blog.

The AE Buyers Group notes that there are multiple unanswered questions about how the FRR Alternative would be designed and implemented, which are key to assessing its potential impact on our companies. The AE Buyers Group looks forward to providing additional feedback in subsequent reply comments when more information becomes available from PJM and other stakeholders regarding the proposed design of the FRR Alternative.

III. CONCLUSION

As consumers dependent upon affordable and reliable electricity, and as market participants pursuing renewable and other advanced energy resources to meet our energy needs, members of the Buyers Group appreciate and support efforts to identify potential market failures, and to respond with just, reasonable, and market-based solutions. However, the Buyers Group remains concerned about unknown and potentially harmful market impacts that could harm us as electricity consumers in PJM, and as clean energy offtakers.

The AE Buyers Group appreciates the opportunity to provide input on the Commission's Order to revise PJM's capacity market, and we respectfully request the Commission's consideration of our perspective in this case. We look forward to responding to additional information filed by PJM and other stakeholders in this docket.

The Advanced Energy Buyers Group

https://www.advancedenergybuyersgroup.org/