

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

**MOTION FOR LEAVE TO ANSWER AND
ANSWER OF PJM INTERCONNECTION, L.L.C.**

PJM Interconnection, L.L.C. (“PJM”), pursuant to Rule 213 of the Federal Energy Regulatory Commission’s (“Commission”) Rules of Practice and Procedure, 18 C.F.R. § 385.213, hereby submits this Motion for Leave to Answer (“Motion”) and Answer (“Answer”) to respond to certain issues raised in comments on and protests to PJM’s March 18, 2020 filing¹ in compliance with the Commission’s December 19, 2019 order in these

¹ Compliance Filing Concerning the Minimum Offer Price Rule, Request for Waiver of RPM Auction Deadlines, and Request for an Extended Comment Period of at Least 35 Days of PJM Interconnection, L.L.C., Docket No. ER18-1314-003 (Mar. 18, 2020) (“March 18 Filing”).

proceedings.² In the March 18 Filing, PJM submitted revisions to the PJM Open Access Transmission Tariff (“Tariff”) and the Reliability Assurance Agreement Among Load Serving Entities in the PJM Region (“RAA”) related to the Minimum Offer Price Rule (“MOPR”). PJM’s approach in the March 18 Filing focused on compliance with the Commission’s directives.³

PJM appreciated the widespread acknowledgement of PJM’s efforts to implement the Commission’s December 19 Order in a manner that fully effectuates the Commission’s intent and ameliorates some of the vocal concerns raised by stakeholders in the public sphere when the June 29, 2018 order⁴ and the December 19 Order were first issued. In some cases, the remaining protests to the March 18 Filing seek to raise what were effectively rehearing issues as noted below. For these reasons, PJM urges prompt review and approval of this compliance filing, along with PJM’s second compliance filing submitted on June 1, 2020,⁵ so that the long-delayed 2021/2022 Base Residual Auction (“BRA”) and subsequent auctions can return to a more regular and predictable schedule.

I. MOTION FOR LEAVE TO ANSWER

The Commission’s rules provide that a party may answer comments where the decisional authority permits the answer for good cause shown. The Commission has accepted responses to protests when doing so will ensure a more accurate and complete

² *Calpine Corp. v. PJM Interconnection, L.L.C.*, 169 FERC ¶ 61,239 (2019) (“December 19 Order”).

³ March 18 Filing at 1.

⁴ *Calpine Corp. v. PJM Interconnection, L.L.C.*, 163 FERC ¶ 61,236 (2018).

⁵ PJM Interconnection, L.L.C. Second Compliance Filing Concerning Application of the Minimum Offer Price Rule, Docket Nos. ER18-1314-003, et al. (June 1, 2020) (“June 1 Filing”).

record, or will assist the Commission in its deliberative process by clarifying the issues.⁶ Here, PJM respectfully requests that the Commission grant its Motion because the Answer will help clarify the record and contribute to an understanding of the issues.

II. ANSWER

A. PJM Supports a 30-Day Period for Capacity Market Sellers to Notify PJM and the Independent Market Monitor for PJM of a Change in a Subsidized Capacity Resource's Status.

In the March 18 Filing, PJM proposed that all Capacity Market Sellers⁷ have a continuing obligation to notify PJM and the Independent Market Monitor for PJM (“Market Monitor”) of any material changes regarding the status of a Capacity Resource that is entitled to a State Subsidy—whether or not it is a Capacity Resource with State Subsidy.⁸ For that purpose, PJM proposed that Capacity Market Sellers notify PJM within five days of such change in status.

⁶ The Commission regularly allows answers in such cases. *See, e.g., PJM Interconnection, L.L.C.*, 139 FERC ¶ 61,165, at P 24 (2012) (accepting answers to a protest because “they have provided information that assisted [the Commission] in [its] decision-making process”); *PJM Interconnection, L.L.C.*, 104 FERC ¶ 61,031, at P 10 (2003) (accepting answer because “it will not delay the proceeding, will assist the Commission in understanding the issues raised, and will [e]nsure a complete record upon which the Commission may act”).

⁷ For the purpose of this filing, capitalized terms not defined herein shall have the meaning as contained in the Tariff, RAA, and the Amended and Restated Operating Agreement of PJM Interconnection, L.L.C. (“Operating Agreement”).

⁸ *See* March 18 Filing at 25; proposed Tariff, Attachment DD, section 5.14(h)(1)(C)(iii).

Two commenters noted that the five-day notification period was “unreasonably short,”⁹ potentially exposing sellers to “substantial compliance risk,”¹⁰ and asked for 30 days to report a change in status.¹¹ The longer notice period is reasonable, for the reasons they provide, and PJM supports a change to the March 18 Filing on this point if directed by the Commission. However, as commenters recognize,¹² when the next Reliability Pricing Model (“RPM”) Auction is within 30 days, a shorter notice period is warranted. Consistent with the commenter’s proposal, PJM therefore supports amending the proposed requirement that Capacity Market Sellers must notify PJM no later than five days prior to the commencement of the offer period of any RPM Auction if a material change in the status of a Capacity Resource with State Subsidy occurs within 30 days of the commencement of an RPM Auction.

To be clear, the requirement to notify PJM of a material change in State Subsidy status outside of the pre-auction requirements applies only when such material change results in an unsubsidized Capacity Resource becoming a Capacity Resource with State Subsidy or vice versa. In other words, if a Capacity Resource is entitled to more than one State Subsidy, the Capacity Market Seller would not be required to certify to PJM of a change in status if it later becomes entitled to another State Subsidy (or is no longer entitled to another State Subsidy). This is reasonable because such changes do not impact the status

⁹ American Electric Power Service Corporation’s Comments on Compliance Filing, Docket Nos. ER18-1314-003, et al., at 2 (May 15, 2020) (“AEP Comments”).

¹⁰ Comments of Advanced Energy Economy and Advanced Energy Management Alliance, Docket Nos. ER18-1314-003, et al., at 3 (May 15, 2020) (“AEE Comments”).

¹¹ AEP Comments at 2; AEE Comments at 4.

¹² See AEE Comments at 4.

of the resource as a Capacity Resource with State Subsidy. That Capacity Market Seller, however, would still be required to certify to PJM any change in State Subsidies no later than 120 days prior to the following RPM Auction.

Based on the foregoing, PJM supports revising Tariff, Attachment DD, section 5.14(h-1)(1)(C)(iii), as follows:

All Capacity Market Sellers shall have an ongoing obligation to certify to the Office of Interconnection and the Market Monitoring Unit a Capacity Resource's **material** change in status as a Capacity Resource with State Subsidy within ~~5~~ 30 days of such **material** change, **unless such material change occurs within 30 days of the commencement of the offer period of any RPM Auction for the 2022/2023 Delivery Year and all subsequent Delivery Years, in which case the Market Seller must notify PJM no later than 5 days prior to the commencement of the offer period of any RPM Auction for the 2022/2023 Delivery Year and all subsequent Delivery Years. Nothing in this provision shall supersede the requirement for all Capacity Market Sellers to certify to the Office of Interconnection whether its resource meets the criteria of a Capacity Resource with State Subsidy pursuant to Tariff, Attachment DD, section 5.14(h-1)(1)(C)(i).**

B. PJM's Proposal to Allow Sellers to Demonstrate an Asset Life of up to 35 Years in the Resource-Specific Exception Process Is Reasonable.

The December 19 Order directed PJM to “maintain the Unit-Specific Exemption, expanded to cover existing and new State-Subsidized Resources of all resource types” to operate as an “alternative to the default offer price floor.”¹³ As part of the expanded resource-specific exception,¹⁴ the March 18 Filing proposed a default asset life of 20 years, but also expressly allowed Capacity Market Sellers to justify a different asset life, capped at 35 years.

¹³ December 19 Order at P 214.

¹⁴ As explained in the March 18 Filing, using the term *resource*-specific is a more aptly named exception given that Demand Resources and Energy Efficiency Resources are not necessarily deemed “units.”

In its comments, the Market Monitor states it “is open to unit specific demonstrations that the financial life of any asset is longer than 20 years,” but would limit such demonstrations to “a reasonable financial life,” which the Market Monitor asserts is “25 or at most 30 years.”¹⁵ However, the Market Monitor offers no support or justification for its assertion that a reasonable financial life is at most 30 years.

By contrast, the 35 years the March 18 Filing proposes as the maximum asset life in the resource-specific exception process corresponds to the current approved Tariff’s use of a 35-year maximum asset life to determine the Avoidable Project Investment Recovery component of the Avoidable Cost Rate (“ACR”) for Sell Offers by Generation Capacity Resources.¹⁶ In addition, the Commission implied in the December 19 Order that an asset’s economic life could reasonably extend for 35 years.¹⁷ Further, ISO New England, Inc. (“ISO-NE”) allows up an asset life of up to 40 years for purposes of the forward capacity auction MOPR.¹⁸ Accordingly, the asset life permitted in the March 18 Filing is just and reasonable, as is the rest of the proposed Resource-Specific Exemption.¹⁹

¹⁵ Comments of the Independent Market Monitor for PJM, Docket Nos. ER18-1314-003, et al., at 16 (May 15, 2020) (“Market Monitor Comments”).

¹⁶ See Tariff, Attachment DD, section 6.8(a) (incorporating a Capital Recovery Factor table that employs an asset life (existing age plus remaining life) of up to 35 years for all units with an existing age of 25 years or less).

¹⁷ December 19 Order at P 153 n.301.

¹⁸ See *ISO-NE Forward Capacity Auction Template*, ISO New England Inc., https://iso-ne.com/static-assets/documents/2017/03/new_capacity_resource_models_and_user_guides.zip (last visited June 3, 2020) (allows for up to 40 years for purposes of the forward capacity auction MOPR).

¹⁹ The Market Monitor also argues that resource-specific minimum offer prices should “be calculated considering the amount of capacity offered in the auction.” Market Monitor Comments at 17. That issue is addressed in the June 1 Filing. See June 1 Filing at 14-15. The Clean Energy Associations and EDF Renewables, Inc.

C. The March 18 Filing Categorically Excluded Those Self-Supply Bilateral Transactions that Do Not Pose State Subsidy Concerns and Such Categorical Exclusion Should Not Be Expanded.

Few parties expressed opposition to PJM’s proposal to codify that certain bilateral transactions in which the buyer is a Self-Supply Entity do not result in the underlying resource receiving a State Subsidy.²⁰ However, a few commenters seek to expand on PJM’s proposal to exempt: (i) all bilateral transactions;²¹ (ii) all bilateral transactions entered into before December 19, 2019;²² or (iii) bilateral transactions with a Self-Supply Entity for which PJM and the Market Monitor have determined that the bilateral transaction “did not convey a subsidy for the uneconomic construction, development, or operation of a PJM capacity resource” based on evidence supplied by the Self-Supply Entity.²³

The Commission should adopt PJM’s proposal as filed. PJM proposed a reasonable and circumscribed approach that is consistent with the Commission’s orders in this proceeding, which will ensure any State Subsidies associated with a Self-Supply Entity are not transferred to the Capacity Resource. Specifically, any voluntary arm’s length bilateral

request that all federal tax credits incentives (e.g., the income tax credit and the production tax credits available to wind and solar resources) should be considered in resource-specific MOPR floor offer prices. *See* Comments of the Clean Energy Associations, Docket Nos. ER18-1314-003, et al., at 11-12 (May 15, 2020) (“Clean Energy Associations Comments”); Comments of EDF Renewables, Inc., Docket Nos. EL16-49-000, et al., at 6 (May 15, 2020) (“EDF Renewables Comments”). PJM clarifies that federal subsidies will be considered as applicable in the resource-specific process.

²⁰ *See* March 18 Filing at 17-18; proposed Tariff, Definition R-S (proposed definition of State Subsidy at (g)).

²¹ *See* AEP Comments at 3-5

²² *See* Comments of the Organization of PJM States, Inc., Docket Nos. ER18-1314-003, et al., at 23 (May 15, 2020) (“OPSI Comments”).

²³ Comments of Southern Maryland Electric Cooperative, Inc., Docket Nos. ER18-1314-003, et al, at 5-6 (May 15, 2020) (“SMECO Comments”).

transaction of less than a year in duration or that is the product of a competitive process²⁴ will not result in an otherwise unsubsidized Capacity Resource receiving or become entitled to receive a State Subsidy, as the benefits of such subsidy would not be able to travel upstream to the Capacity Resource.²⁵

Such bright line rules will establish market parameters under which Capacity Market Sellers can confidently enter into commercially reasonable transactions in the secondary market. In contrast, Southern Maryland Electric Cooperative's ("SMECO") proposed alternative approach for PJM and the Market Monitor to review individual bilateral transactions to determine whether the transaction conveys a subsidy for "uneconomic construction, development, or operation" of a Capacity Resource²⁶ abandons the confidence provided by PJM's approach, replacing clear parameters with a subjective, case-by-case analysis. Moreover, unlike the resource-specific exception process, which is grounded in review of a Capacity Market Seller's submittal and justification of specific costs, SMECO proposes no particular data point or standard by which PJM would differentiate between acceptable and unacceptable bilateral transactions for purposes of determining an actionable subsidy.

²⁴ To be exempt, the competitive process must not be fuel-specific and must not be "used for the purpose of supporting uneconomic construction, development, or operation of the subject Capacity Resource." Proposed Tariff, Definition R-S (proposed definition of State Subsidy at (g)).

²⁵ PJM is willing to clarify that that short term transactions are less than one year in order to align with the Commission's use of the term.

²⁶ SMECO Comments at 6.

D. The Commission Should Clarify that Customer Execution of an Interconnection Service Agreement Is Sufficient for Customer Qualification for the Renewable Portfolio Standard Exemption.

The March 18 Filing complies with the December 19 Order²⁷ by requiring, *inter alia*, an executed Interconnection Service Agreement (“ISA”) on or before December 19, 2019, to qualify for the Renewable Portfolio Standard exemption.²⁸ Hillcrest Solar I, LLC proposes that this requirement should be satisfied so long as at least the interconnection customer signed the ISA before December 19, 2019, even if other parties did not execute the agreement until after that date.²⁹ PJM views this request as reasonable, and consistent with the intent of the December 19 Order, as the customer can control only the timing of its own signature. Thus, if directed by the Commission, PJM can amend the language in the RPS exemption section to state that a Capacity Resource will also qualify for the exemption if it is the subject of an ISA that is executed by the Capacity Market Seller on or before December 19, 2019.

E. The March 18 Filing’s Approach to the Demand Resource Exemption Complies with the December 19 Order in a Manner that Limits Disruption to the Demand Resource Registration Process.

In compliance with the December 19 Order,³⁰ the March 18 Filing categorically exempts a Demand Resources that receives or may be entitled to receive a State Subsidy if such resource: (a) has successfully cleared an RPM Auction prior to December 19, 2019; or (b) has completed registration on or before that date; or (c) is supported by a post-

²⁷ December 19 Order at P 173.

²⁸ March 18 Filing at 32-33.

²⁹ See Comments of Hillcrest Solar I, LLC Regarding PJM Interconnection, LLC Minimum Offer Price Rule Compliance Tariff Filing, Docket Nos. ER18-114-003, et al., at 4-7 (May 15, 2020).

³⁰ December 19 Order at P 208.

installation measurement and verification report for Energy Efficiency Resources approved by PJM on or before December 19, 2019.³¹ For the first exemption, the March 18 Filing clarified that individual end-use customer locations that are registered (or for utility-based residential load curtailment program, based on the total number of participating customers) to a Demand Resource and cleared in an RPM Auction prior to December 19, 2019, and submitted to PJM no later than 45 days prior to the BRA for the 2022/2023 Delivery Year may be deemed eligible for the exemption.

Only the Market Monitor, in a few terse sentences,³² appears to take issue with this approach. Specifically, the Market Monitor asserts that Curtailment Service Providers (“CSP”) “must have all end use customers under contract in order to effectively apply the expanded MOPR and should be required to do so. If load management locations were not linked to a cleared Demand Resource offer prior to the December 19th Order, they should not qualify for the Demand Resource exemption.”³³ As PJM reads the Market Monitor’s comments, they appear to disadvantage CSPs for following long-standing rules before December 19, 2019 that did not require end-use customer contracts in order to submit a Demand Resource Sell Offer into an RPM Auction.³⁴ If that is the Market Monitor’s intent, the Commission should reject the Market Monitor’s alternative approach. PJM’s approach is less disruptive to existing Demand Resource Registration practices and the general

³¹ March 18 Filing at 35.

³² Market Monitor Comments at 21-22.

³³ *Id.*

³⁴ The Commission has previously approved the existing Demand Resource Registration process. *See PJM Interconnection, L.L.C.*, 131 FERC ¶ 61,069 (2010). Thus, this filing is not the appropriate procedural vehicle to effectuate the Market Monitor’s request as it would effectively result in a reversal of the Commission’s prior order.

demand response business model. At the same time, it still advances the Commission's objective of preventing price suppression from State Subsidies in the RPM Auctions by ensuring that the end-use customer locations that are ultimately registered to a committed Demand Resource must be consistent with the appropriate mitigated or unmitigated resource.

F. The Commission Should Permit a Limited Case-by-Case Demonstration that Non-Rate Based Resources Owned by Self-Supply Entities Are Eligible for the Competitive Exemption to Address Instances Where It Can Be Shown that the Resources Are Adequately "Ring-Fenced."

The December 19 Order directed PJM to include a "Competitive Exemption for both new and existing [Capacity Resources], other than new gas-fired resources, that certify to PJM that they will forgo any State Subsidies."³⁵ The March 18 Filing set forth such an exemption, which (among other attributes) makes resources of Self-Supply Entities ineligible for the exemption.³⁶

Dominion Energy Services, Inc. ("Dominion") objects that this restriction is overbroad, arguing that Dominion owns and develops certain Capacity Resources that are not in its rate base, and that are specifically designed not to be subsidized by captive ratepayers. In particular, Dominion cites certain solar projects "developed for specific customers seeking to meet their sustainability goals,"³⁷ and for which state approval "is

³⁵ December 19 Order at P 161.

³⁶ See March 18 Filing at 43-45.

³⁷ Protest and Comments of Dominion Energy Services, Inc., Docket Nos. ER18-1314-003, et al., at 8 (May 15, 2020) ("Dominion Comments").

conditioned on Dominion Energy Virginia ‘ring-fencing’ the costs of constructing and operating the resources so that retail customers are held harmless.”³⁸

In PJM’s view, Dominion has highlighted that there *could* be Capacity Resources that may be sufficiently segregated in such a fashion that they do not receive a State Subsidy solely because they are owned or controlled by a Self-Supply Entity. While Dominion did not identify in its alternative Tariff language any parameters or conditions on this issue of non-rate-base resources, it appears reasonable that the Tariff not explicitly rule out a Self-Supply Entity from self-certifying, on a case-by-case basis, that a Capacity Resource is officially, under the provisions of state regulation, truly “ring-fenced” from traditional rate base recovery and otherwise insulated from any State Subsidy to be eligible to elect the competitive exemption.³⁹ If directed by the Commission, PJM can submit a subsequent compliance filing that would allow Self-Supply Entities that own or control non-rate based Capacity Resources to self-certify, subject to PJM and Market Monitor review, that their facility is ring-fenced from traditional rate base regulation and that the Capacity Resource will not accept a State Subsidy, including any financial benefit that is a result of being owned by a regulated utility.⁴⁰ Upon request by PJM or the Market Monitor,

³⁸ Dominion Comments at 9.

³⁹ PJM reads Dominion’s request as much more narrow than SMECO’s much broader request for relief from the bilateral contracting provisions “on a case by case” basis. Unlike Dominion’s request, SMECO provides no particular standards for an entity to certify that they are not receiving subsidies nor any standards for PJM or the Market Monitor to utilize in reviewing such requests.

⁴⁰ PJM or the Market Monitor may request additional documentation to support the Market Seller’s certification. *See* Proposed Tariff, Attachment DD, section 5.14(h)(9)(A).

the Capacity Market Seller must submit evidence to demonstrate that such Capacity Resource is insulated from being subsidized by captive ratepayers and the regulated utility.

G. The Default Resource-Category Values for Cost of New Entry and ACR in the March 18 Filing Are Appropriate Elements of a Just and Reasonable Replacement Rate.

The December 19 Order directed PJM to set default values for MOPR floor offer prices at “resource-type specific Net Cost of New Entry (“CONE”) values for resources that have not previously cleared a capacity auction.”⁴¹ For each default Net CONE value, the Commission directed PJM to “provide additional explanation on how it calculated each of the proposed values on compliance, including workbooks and formulas, as appropriate.”⁴² The Commission also adopted PJM’s proposal to update the default values “annually and as part of PJM’s quadrennial review of its demand curve and CONE values.”⁴³

The December 19 Order also found that “the default offer price floor for existing resources [should be set] at the resource-type specific Net ACR.”⁴⁴ The Commission directed PJM to develop and support new values on compliance and “to develop a process to ensure all the data used in the calculation is updated annually.”⁴⁵

In the March 18 Filing, PJM provided resource-type values for the relevant resource categories, as directed, for Net CONE (including Gross CONE values, energy and ancillary

⁴¹ December 19 Order at P 143.

⁴² *Id.*

⁴³ *Id.*

⁴⁴ December 19 Order at P 148.

⁴⁵ *Id.* at P 149.

service methodology and illustrative energy and ancillary service values) and for ACR.⁴⁶ Mr. Adam J. Keech, PJM’s Vice President of Market Operations, provided an affidavit in support of the Net CONE values.⁴⁷ The Brattle Group (“Brattle”) provided an affidavit and report in support of the ACR values.⁴⁸

As Mr. Keech explained, where applicable, PJM used the CONE values approved by the Commission in the 2018 quadrennial review.⁴⁹ For resource types not addressed in that proceeding, PJM developed Gross CONE values using the most recent (February 2020) publicly available information from the U.S. Energy Information Administration and recent (November 2019) publicly available levelized cost of energy information from Lazard.⁵⁰ As explained in the March 18 Filing, PJM’s reliance on publicly available data “has the benefit of providing transparency and a clear independent source for the values presented.”⁵¹ The Commission has repeatedly found that similar reliance on transparent, publicly available data supports a finding that the resulting CONE values are just and reasonable, and has been affirmed by reviewing courts on that basis.⁵²

⁴⁶ March 18 Filing at 52-72.

⁴⁷ March 18 Filing, Attachment E, Affidavit of Adam J. Keech on Behalf of PJM Interconnection, L.L.C. (“Keech Aff.”).

⁴⁸ March 18 Filing, Attachment D, Affidavit of Samuel A. Newell, John M. Hagerty, and Sang H. Gang on Behalf of PJM Interconnection, L.L.C. (“Brattle Aff.”); *Gross Avoidable Cost Rates for Existing Generation and Net Cost of New Entry for New Energy Efficiency*, The Brattle Group and Sargent & Lundy (Mar. 17, 2020) (included as Exhibit No. 2 to the Brattle Aff.).

⁴⁹ Keech Aff. ¶ 15 & Table 2.

⁵⁰ March 18 Filing at 53; Keech Aff. ¶ 11.

⁵¹ March 18 Filing at 54.

⁵² See, e.g., *PJM Interconnection, L.L.C.*, 167 FERC ¶ 61,029, at P 75 (2019) (“We accept PJM’s CONE estimates and annual adjustments as just and reasonable. PJM’s estimate of land costs and gas interconnection costs use and

The March 18 Filing thus provides substantial evidence on which the Commission could find under section 206 of the Federal Power Act⁵³ that PJM’s CONE and ACR values are appropriate elements of a just and reasonable replacement rate. Two other key considerations further support that finding. First, these are default values; market participants can show their unit-specific net costs are below these levels, which provides inherent protection against claims that the default levels are set too high. Second, these are initial values, and will be revisited and updated as PJM gains more experience with cost estimates for these added resource categories. In that regard, PJM notes that the next quadrennial review will be in 2022.

Further, as a general matter, it is acknowledged that multiple valid methods can be used to develop the CONE and ACR values. PJM submits that the approach proposed in the March 18 Filing is a just and reasonable method of developing the default MOPR floor values. Further, given the recent economic forecast volatility and uncertainty related to the novel coronavirus pandemic, it is too early to know the full impact the current events will have on the default floor prices. As noted above, it is appropriate to assess how these default values are impacted as part of PJM’s upcoming quadrennial review in 2022.

closely track publicly-available data, and have the benefit of being transparent”); *see also PJM Interconnection, L.L.C.*, 149 FERC ¶ 61,183, at PP 76 (“Brattle’s methodology is transparent and its assumptions are well-supported.”), 106 (“PJM’s proposed labor construction values closely track publicly-available data and thus have the benefit of being transparent.”) (2014), *petition for review denied, PJM Power Providers Grp. v. FERC*, 880 F.3d 559, 563 (D.C. Cir. 2018) (“FERC reasonably relied on [PJM’s expert]’s assessment of multiple information sources—‘including a review of publicly-available data’” (quoting *PJM Interconnection, L.L.C.*, 153 FERC ¶ 61,035, at P 76 (2015))).

⁵³ 16 U.S.C. § 824e; *see Emera Me. v. FERC*, 854 F.3d 9, 21 (D.C. Cir. 2017).

Unlike other commenters, the Market Monitor contends that PJM’s proposed net CONE and ACR values are (for most resource types) too low. The Market Monitor proposes alternative (mostly higher) Net CONE and ACR values for each resource type. However, the Market Monitor does not provide on this record any support, bases, or derivation for those values. The Commission has rejected other proposed alternative replacement rates when they lacked support,⁵⁴ and should do so here for the Market Monitor’s proposed alternative values.

The Market Monitor also attempts to show that PJM’s proposed values are not just and reasonable, but its arguments are unconvincing. First, the Market Monitor contends that PJM’s CONE estimates ignore certain traditional plant capital cost line items.⁵⁵ That is incorrect; most of the referenced line items are included in the cost estimate, but simply not broken out into component line items. Specifically, the 2020 U.S. Energy Information Administration report that PJM used to develop the default floor prices states that the “[c]apital costs account for all costs incurred during construction of the power plant before the commercial online date. . . . divided between engineering, procurement, and construction costs (EPC) contractor and owner’s costs.”⁵⁶ The report’s list of the elements

⁵⁴ See, e.g., *PJM Interconnection, L.L.C.*, 171 FERC ¶ 61,153, at P 235 (2020) (“[W]e find that the PJM Load Coalition provides insufficient detail to demonstrate that PJM’s proposal is unjust and unreasonable . . .”).

⁵⁵ Market Monitor Comments at 5 (referencing the following items as not included: “Electric Interconnection and System Upgrades; Initial Spare Parts Inventory; Plant Startup Expenses; One Year Construction Period Land Lease; Development Expenses; Legal and Accounting Fees; Financing and Closing Fees; Interest During Construction; and EIS, Zoning and Plant Use Permits”).

⁵⁶ *Capital Cost and Performance Characteristic Estimates for Utility Scale Electric Power Generating Technologies*, U.S. Energy Information Administration, VIII (Feb. 2020),

of the “owner’s costs” includes most of the items the Market Monitor claims are missing.⁵⁷ Thus, the costs were not ignored; the Market Monitor simply disagrees with the estimates.

Second, the Market Monitor objects that PJM should prepare multiple separate zonal or sub-regional CONE and ACR estimates within the PJM Region, rather than using a single regional estimate.⁵⁸ This observation does not, however, render PJM’s estimates unjust and unreasonable. As noted, PJM’s estimates rely on public information—those public estimates do not attempt to capture fine sub-regional details. The Market Monitor’s approach to refine the multiple resource category estimates into multiple sub-regional estimates would necessarily entail heavy reliance on a non-public, non-transparent approach. It is for this reason PJM viewed the importance of transparency through use of publicly available data as outweighing the need for additional precision based on data that stakeholders would not be able to trace to specific sources. Moreover, given the inherent range of uncertainty in these resource category estimates, attempting to estimate regional differences seems unlikely to add much value to the estimates—that exercise would seem instead to be a pursuit of false precision.⁵⁹

https://www.eia.gov/analysis/studies/powerplants/capitalcost/pdf/capital_cost_AE_O2020.pdf.

⁵⁷ *Id.* at IX (explaining that “owner’s costs primarily consist of costs incurred to develop the project” which includes “project development, studies, permitting, legal, owner’s project management, owner’s engineering, and owner’s participation in startup and commissioning” and also consists of “land and utility interconnection costs” and “[o]utside-the-fence-line costs” which include “electrical interconnection costs and natural gas interconnection and metering costs”).

⁵⁸ Market Monitor Comments at 5-8.

⁵⁹ This is not to say this recommendation could not be considered in the future. However, the Market Monitor’s argument does not render PJM’s filing as non-compliant with the December 19 Order.

Third, the Market Monitor states in its comments that “Brattle’s adjustments to the [Nuclear Energy Institute] data are unsupported.”⁶⁰ To the contrary, Brattle did provide support for each of the adjustments that we made to the Nuclear Energy Institute data related to the capital costs and non-fuel operating costs of single-unit and multi-unit nuclear plants in the Gross ACR and Energy Efficiency Net CONE Study.⁶¹ Specifically, on pages 4 and 6 of the study, Brattle provided support for adjusting the Nuclear Energy Institute data for the single-unit nuclear plants.⁶² In addition, on page 8, PJM notes that Brattle made similar adjustments for multi-unit nuclear plants.⁶³

Finally, the Market Monitor compares its own approach for estimating the gross ACR to the approach used by Brattle, concluding: “With the exception of nuclear ACR values, PJM ACR reflects retirement ACR values and excludes major maintenance costs. With the exception of nuclear ACR, the Market Monitor values reflect mothball ACR values and exclude major maintenance costs where defined.”⁶⁴ It is unclear whether this statement is intended to critique Brattle’s analysis. However, the methodology used by Brattle followed the cost categories to be included in the ACR as set forth in Tariff, Attachment DD, section 6.8.⁶⁵

⁶⁰ Market Monitor Comments at 4.

⁶¹ Answering Affidavit of Samuel A. Newell, John M. Hagerty, and Sang H. Gang on Behalf of PJM Interconnection, L.L.C. Regarding Gross Avoidable Cost Rates ¶ 7 (“Brattle Answering Aff.”) (included as Attachment A to this filing); *see* Brattle Aff. ¶ 12 & Table 2.

⁶² Brattle Answering Aff. ¶ 7.

⁶³ *Id.*

⁶⁴ Market Monitor Comments at 10.

⁶⁵ Brattle Answering Aff. ¶ 8.

For these reasons, PJM requests that the Commission accept the CONE and ACR values presented in the March 18 Filing.

H. Capacity Market Sellers of Bilateral Transactions Should Be Allowed to Elect the Competitive Exemption Where Rights and Obligations Are Equal and the State Subsidy is Assignable.

Several commenters proposed modifications to PJM's March 18 Filing with respect to the ability for Capacity Market Sellers that have equal rights to a Capacity Resource with State Subsidy through a bilateral transaction to be allowed to elect the competitive exemption and not automatically be subject to the MOPR.⁶⁶ In particular, the commenters argue that Capacity Market Sellers should be able to elect the competitive exemption where the rights and obligations among multiple off-takers of a Capacity Resource that is the subject of a bilateral transaction are in equal shares (akin to the *pari passu* arrangement for resources that are jointly-owned), and where the underlying Capacity Resource is only entitled to State Subsidies that are assignable. This would align the ability for off-takers of bilateral transactions to elect the competitive exemption so long as there is no cross-subsidization, similar to the ability of joint owners of a Capacity Resource with State Subsidy to elect the competitive exemption where the rights and obligations are in *pari passu*.

Such commenters' proposed modifications are reasonable where the State Subsidy is assignable and the underlying resource has not received and will not receive any other form of State Subsidy. This requirement is important to ensure that the underlying owner of the Capacity Resource does not benefit from a State Subsidy, such as a tax exemption

⁶⁶ Clean Energy Associations Comments at 14-16; EDF Renewables Comments at 4-5; Comments of Advanced Energy Buyers Group, Docket Nos. ER18-1314-003, et al., at 8-10 (May 15, 2020).

or some other State Subsidy previously paid to the resource owner, that is then indirectly passed down to the various Capacity Market Sellers through bilateral transactions. In practice, this would only be possible when a resource generates Renewable Energy Credits (“REC”) and receives no other form of State Subsidy. This is because, to PJM’s knowledge, no other form of State Subsidy can be assignable among joint bilateral off-takers.⁶⁷ Thus, to ensure there is no cross-subsidization, all off-takers of a Capacity Resource must have equivalent rights to the energy, capacity, and RECs from the underlying resource. In these circumstances, PJM agrees that it is reasonable for such Capacity Market Sellers to be eligible to elect the competitive exemption where the portion of the RECs that are owned by the Capacity Market Seller can only be retired for voluntary purposes. In short, the cross-subsidization concerns are addressed where the aforementioned requirements are met and such off-takers of bilateral transactions should be allowed to elect the competitive exemption independent of other joint off-takers.

To effectuate this approach, the Capacity Market Seller that is a party to a bilateral transaction would need to certify, and be able to demonstrate if requested by PJM and the Market Monitor, that the Capacity Market Seller’s share of the rights to energy, capacity, and RECs of the underlying resources are pro rata and akin to joint owners of Capacity Resources where the rights and obligations are in *pari passu*. In addition, the Capacity Market Seller must also certify and demonstrate, if requested by PJM and the Market Monitor, that the underlying Capacity Resource did not receive, is not receiving, and will not be entitled to receive a State Subsidy that is used to support its construction, development, or operation—other than the State Subsidy that is assigned out to the off-

⁶⁷ For instance, unlike RECs, a state tax exemption for solar facilities would not be assignable to individual off-takers of a multi-party bilateral transaction.

takers (i.e., RECs). In these circumstances, individual Capacity Market Sellers of a multi-party bilateral transaction should be allowed to independently elect the competitive exemption where the RECs are to be retired solely for voluntary purposes.

If the Commission agrees with this approach, PJM can submit a subsequent compliance filing to allow Capacity Market Sellers of multi-party bilateral transactions to elect the competitive exemption where rights are proportional and RECs that are owned by the Capacity Market Seller are retired solely for voluntary purposes. To effectuate this approach, PJM proposes to add the following language, if directed by the Commission, to Tariff, Attachment DD, section 5.14(h-1)(4)(A), as shown in blackline below:

(A) A Capacity Resource with State Subsidy may be exempt from the Minimum Offer Price Rule in any RPM Auction if the Capacity Market Seller certifies to the Office of Interconnection, in accordance with the PJM Manuals, that the Capacity Market Seller of such Capacity Resource elects to forego receiving any State Subsidy for the applicable Delivery Year no later than thirty (30) days prior to the commencement of the offer period for the relevant RPM Auction. Notwithstanding the foregoing, the competitive exemption is not available to Capacity Resources with State Subsidy that (A) are owned or offered by Self-Supply Entities, (B) are no longer entitled to receive a State Subsidy but are still considered a Capacity Resource with State Subsidy solely because they have not cleared an RPM Auction since last receiving a State Subsidy, or (C) are Jointly Owned Cross-Subsidized Capacity Resources or is the subject of a bilateral transaction and not all Capacity Market Sellers of the supporting facility unanimously elect the competitive exemption and certify that no State Subsidy will be received associated with supporting (unless the underlying Capacity Resource that is the subject of a bilateral transaction has not received, is not receiving, and is not entitled to receive any State Subsidy except those that are assigned (i.e., renewable energy credits) to the off-takers of a bilateral transaction and the Capacity Market Seller of such Capacity Resource can demonstrate and certify that the Capacity Market Seller's rights and obligations of its share of the capacity, energy, and assignable State Subsidy associated with the underlying Capacity Resource are in pro rata shares).

I. PJM/Market Monitor Guidance on Compilation of State Subsidies Identified by Capacity Market Sellers Is Non-Binding.

PJM disagrees with comments from Environmental Defense Fund, EDF Renewables, Inc. and the Clean Energy Associations that stakeholders should be able to definitively rely on PJM or Market Monitor guidance on which programs constitute a State Subsidy.⁶⁸ As explained in the March 18 Filing, Capacity Market Sellers, not PJM or the Market Monitor, are in the best position to know what subsidies their Capacity Resources are eligible for. The Capacity Market Seller is best positioned to know the specific benefits and eligibility requirements of any available subsidy. The Capacity Market Seller is in the business of developing, constructing, operating, and maintaining the Capacity Resource, and is in contact with each state and local regulatory body with authority over the Capacity Resource. Further, the Capacity Market Seller is in control over the Capacity Resource's finances and is aware of each benefit available to it. Thus, the Capacity Market Sellers should be responsible for determining whether their resource is a Capacity Resource with State Subsidy.⁶⁹ If a Capacity Market Seller is uncertain about whether it is receiving a State Subsidy, the Capacity Market Seller may file a petition for declaratory order with the Commission to secure clarity.

Notwithstanding the foregoing, PJM is currently developing a process with the Market Monitor so that Capacity Market Sellers can submit individual state and local programs to PJM and the Market Monitor for review and guidance. After reviewing the specific programs, PJM will maintain a publically available list of programs that both PJM

⁶⁸ EDF Renewables Comments at 6; Clean Energy Associations Comments at 8-10; Motion to Reject, or in the Alternative, Protest of the Environmental Defense Fund, Docket Nos. ER18-1314-003, et al., at 5 (May 15, 2020).

⁶⁹ See March 18 Filing at 27-29.

and the Market Monitor agree should be deemed a State Subsidy. Importantly, however, it is ultimately the Capacity Market Seller's responsibility to ensure that they correctly certify whether its Capacity Resource is subject to a State Subsidy. The list of State Subsidies that is jointly developed by PJM and the Market Monitor is intended to be a helpful guide for Capacity Market Sellers, but is not intended to be a substitute for the requirements of individual due diligence to ensure truthful certification by the Capacity Market Sellers as required under the proposed Tariff. Further, PJM emphasizes (and asks the Commission to confirm) that the PJM and Market Monitor's jointly developed list of which programs appear to constitute a State Subsidy does not foreclose PJM from finding that any particular program in fact does or does not meet the Tariff definition of a State Subsidy.

J. MOPR Floor Offer Prices for Commercially Aggregated Resources Should Reflect the Time-and-Megawatt-Weighted Value of Each Capacity Resource.

PJM continues to support its proposal to calculate the minimum floor offer price for commercially aggregated Seasonal Capacity Resources by using the time-and-megawatt-weighted value of each aggregated Seasonal Capacity Resource. This is the same approach the Commission accepted for the New England market,⁷⁰ and is appropriate here.

The Market Monitor suggests that instead of using the time-and-megawatt-weighted value of each aggregated Seasonal Capacity Resource to calculate a minimum

⁷⁰ See *ISO New England, Inc.*, 147 FERC ¶ 61,109 (2014) (accepting tariff language setting the trigger price for new capacity resources composed of multiple technology types as the weighted average of the offer review trigger prices of the asset technology types of the assets that comprise the resource).

floor offer price, “the minimum floor offer price for commercially aggregated resources where one or more of the underlying resources is eligible for a State Subsidy be set to the higher of the applicable floors.”⁷¹ Not only is this proposal not necessary because PJM’s proposal is just and reasonable, but the Market Monitor’s recommendation is flawed because using the higher of the applicable floors as the minimum floor for a group of commercially aggregated resources would over-state the floor price when properly viewing the resource as an aggregate. This is because using the higher of the applicable price floors would necessarily mean that a Seasonal Capacity Resource will be forced to offer at a price that is higher than its applicable MOPR floor price simply because it is commercially aggregated with a different Seasonal Capacity Resource. Such a floor price would not accurately reflect the commercially aggregated resources’ representative costs. Moreover, PJM’s proposed approach for facilitated aggregation of Seasonal Capacity Resources is consistent with ISO-NE’s Commission-approved approach that uses weighted average for purposes of ISO-NE’s offer review trigger price.⁷²

K. The Commission Should Decline the Market Monitor’s Request to Delete Any Tariff Language Stating that the Market Monitor Provides PJM with Advice and Input.

The Market Monitor objects to language in the March 18 Filing stating that the Market Monitor provides “advice and input” to PJM’s implementation of market rules.⁷³ While the argument is presented in part of the Market Monitor’s comments addressing

⁷¹ Market Monitor Comments at 19.

⁷² See ISO New England Inc., Market Rule 1, Appendix A, section III.A.21.2(c), https://www.iso-ne.com/static-assets/documents/regulatory/tariff/sect_3/mr1_append_a.pdf (last visited June 3, 2020).

⁷³ Market Monitor Comments at 20-21.

special procedures in case of fraud or misrepresentation, the Market Monitor broadly requests that the Commission direct PJM “to remove on compliance all instances of language mischaracterizing the Market Monitor’s role as providing advice and input to PJM.”⁷⁴

The Market Monitor’s contention that this language mischaracterizes its proper role is incorrect. The Commission has often characterized the Market Monitor’s role as “advising and providing input to PJM” as PJM determines whether to accept Market Participant showings that their Sell Offers (or components of Sell Offers) satisfy Tariff requirements.⁷⁵ In fact, the Commission has already accepted near-identical “input and advice” language in PJM’s governing documents. For instance, Operating Agreement, Schedule 2, alone, states no fewer than four times that PJM will consider “input and advice timely received from the Market Monitoring Unit” when evaluating Sell Offer components.⁷⁶ The “advice and input” language was also previously included in Tariff,

⁷⁴ *Id.* at 21.

⁷⁵ See, e.g., *PJM Interconnection, L.L.C.*, 158 FERC ¶ 61,133, at P 69 (2017) (“Further, we agree with PJM that the proposed changes related to the Fuel Cost Policy are not designed to change the fundamental roles between the [Market Monitor] and PJM, but rather to codify the role of the [Market Monitor] in advising and providing input to PJM in its determination of whether to approve a Fuel Cost Policy submitted by a Market Seller. Accordingly, we reiterate our finding in the order that PJM has the final approval authority on Fuel Cost Policy.”), *order denying clarification*, 167 FERC ¶ 61,084, *order on reh’g*, 168 FERC ¶ 61,141 (2019); see also *PJM Interconnection, L.L.C.*, 151 FERC ¶ 61,208, at P 444 (2015) (“While the Market Monitor should be permitted to provide its input, ultimately a determination not to allow a parameter limit must be made by PJM. PJM’s tariff, in this regard, clearly defines the Market Monitor’s role, providing that PJM ‘shall consult with the [Market Monitor], and consider any input received from the [Market Monitor], in its determination of a resource’s unit-specific parameter limited schedule values.’” (alteration in original) (quoting Proposed PJM Operating Agreement, Schedule 1, section 6.6(b))).

⁷⁶ See Operating Agreement, Schedule 2, sections 2.2(a), 2.4, 3.1(b), 4.4(d).

Attachment, DD, section 5.14(h) of PJM’s initial MOPR-Ex proposal filed on April 9, 2018,⁷⁷ and in the December 19 Order, the Commission declared that “the replacement rate is derived from PJM’s initial MOPR-Ex proposal, with certain modifications.”⁷⁸ While the December 19 Order, as modified by the Commission’s April 16, 2020 order,⁷⁹ laid out those modifications, the Commission directed no modifications to that specific MOPR-Ex provision. The Commission therefore should turn aside the Market Monitor’s attempt to remove this Commission-approved language or otherwise risk turning this compliance filing into a more generic debate on the role of the Market Monitor. The language provides clear guidance to stakeholders that before acting on a specific request, PJM will seek the advice and input of the Market Monitor. This is an important procedural step, and its inclusion in PJM’s proposed compliance filing ensures an orderly and reasonable process.

L. Capacity Market Sellers Are Able to Utilize Either Production Tax Credit or Investment Tax Credit Through a Resource-Specific Exception Process.

The Clean Energy Associations request that the Commission clarify that PJM should treat all federal tax credits and incentives such as the investment tax credit (“ITC”) and production tax credit (“PTC”) comparably when calculating Gross CONE values for all applicable resource types. Specifically, the Clean Energy Associations request that the Commission instruct PJM to evaluate the impacts of the PTC when calculating default Gross CONE values for wind resources, as it has proposed to do with the ITC.

⁷⁷ Capacity Repricing or in the Alternative MOPR-Ex Proposal: Tariff Revisions to Address Impacts of State Public Policies on the PJM Capacity Market of PJM Interconnection, L.L.C., Docket No. ER18-1314-000, at 91 (Apr. 9, 2018).

⁷⁸ December 19 Order at P 6 (footnote omitted).

⁷⁹ *PJM Interconnection, L.L.C.*, 171 FERC ¶ 61,035 (2020) (“April 16 Order”).

In developing the default Gross CONE values for solar and wind resources, PJM could only select either the ITC or PTC. It would not be appropriate to utilize both the ITC and PTC in developing the default CONE value as it would account for excess credits that a resource would otherwise not be eligible to claim based on the existing tax rules. In any event, PJM selected ITC in developing the Gross CONE values for solar and wind resources, consistent with the Market Monitor's methodology. Notwithstanding, while the default Gross CONE value for solar and wind was calculated with the ITC, a Capacity Market Seller can always elect a resource-specific exception process to include PTC in place of ITC if that was the actual credit used utilized by the underlying resource.

M. PJM's Proposal to Allow the MOPR Floor Offer Price to Also Be the Offer Cap in Limited Circumstances Is Just and Reasonable.

Vistra Energy Corp. ("Vistra") and the Organization of PJM States, Inc. ("OPSI") both disagree with PJM's proposal to allow the MOPR floor offer price to be both the floor and the Market Seller Offer Cap when the applicable floor price exceeds the offer cap. In particular, Vistra and OPSI argue that PJM's proposal exceeds the scope of the instant proceeding.⁸⁰

PJM continues to support its proposal from the March 18 Filing and believes it is well within the scope of the Commission's compliance directive.⁸¹ The proposed revisions in this docket impact the MOPR floor offer price. When the floor price exceeds the existing Market Seller Offer Cap, PJM proposed a reasonable and sensible rule on compliance to ensure that Capacity Market Sellers are not left without a feasible offer to enter.

⁸⁰ Comments of Vistra Energy Corp. and Dynegy Marketing and Trade, LLC, Docket Nos. ER18-1314-003, et al., at 4 (May 15, 2020) (referencing December 19 Order at P 214); OPSI Comments at 14.

⁸¹ See March 18 Filing at 72–79.

If Capacity Market Sellers are not able to offer up to the MOPR floor offer price, there would be a chance that a Capacity Resource would be left without a feasible offer to enter because its floor price would be above the offer cap. Therefore, it is prudent to prospectively have a rule set that proactively addresses such a possibility, rather than not addressing a scenario where a Capacity Market Seller could be forced to violate the must offer requirement or request a waiver from the Commission because they are unable to submit a valid offer that comports with both the MOPR and Market Seller Offer Cap rules.

As explained in PJM's March 18 Filing, allowing the Capacity Market Seller to choose to offer at either the default or resource-specific price level, regardless of the applicable offer cap, is reasonable so as not to work as a disincentive for Capacity Market Sellers willing to open their books with resource-specific information. In PJM's view, the market is better served with a process that allows for PJM and the Market Monitor to gain experience with and compile resource-specific information rather than creating a disincentive for entities seeking to invoke this approach. Further, Vistra's proposal may not account for all scenarios where the MOPR floor offer price may exceed the offer cap. For instance, the default floor prices for different resource types may increase over time so the floor price could exceed the offer cap irrespective of the resource-specific exception process.

N. Given the Possibility for Near-Term Volatility in Economic Forecasts, PJM Supports the Joint Consumer Advocates' Request for Greater Flexibility in Updating Planning Parameters As Part of the BRA Schedule Addressed in the March 18 Filing.

PJM agrees with the Joint Consumer Advocates that there may be justifiable grounds to update the load forecast closer to the conduct of the BRA than as previously

proposed in the March 18 Filing.⁸² Given recent economic volatility and uncertainty related to the novel coronavirus pandemic, it may be prudent to be able to post planning parameters closer to the actual conduct of the auction for the next three BRAs. In particular, PJM supports reducing the number of days that the planning parameters must be posted from 100 to 60 days prior to the impacted BRAs.⁸³

Many of the national and regional economic load forecasts that PJM utilizes as inputs to its own load forecast are being updated and changing rapidly. Given the extraordinary circumstances that are affecting the forward outlook for the economy, it is appropriate to use the most updated load forecast possible in developing the planning parameters prior to the BRA. Given that Fixed Resource Requirement (“FRR”) Capacity Plans are due 30 days prior to the BRA,⁸⁴ PJM must post the planning parameters no later than 60 days prior to the BRA in order to afford FRR Entities sufficient time to procure any necessary Capacity Resources to sufficiently meet their load requirements. This effectively means that PJM will use the most updated load forecast approximately 90 days prior to the BRA in order to timely develop the planning parameters by 60 days prior to the BRA. This approach is appropriate because it strikes the appropriate balance in providing the auction parameters sufficiently in advance of the impacted BRAs to all Market Participants while retaining the flexibility to update the load forecast under these

⁸² See Comments of the Joint Consumer Advocates Regarding PJM Interconnection, L.L.C.’s March Compliance Filing Concerning the Minimum Offer Price Rule, Docket Nos. ER18-1314-003, et al., at 2-4 (May 15, 2020).

⁸³ PJM’s March 18 Filing included a request for waiver of the existing Tariff deadlines relation to pre-auction activities including posting of the planning parameters, which is normally required to be posted by February 1 of each year. March 18 Filing at 89-92. In the March 18 Filing, PJM requested this requirement be moved to 100 days prior to the affected BRAs. March 18 Filing, Attachment A at 2.

⁸⁴ See March 18 Filing, Attachment A at 3.

uncertain economic times. Accordingly, the Commission should allow PJM to post the planning parameters no later than 60 days prior to the impacted BRAs.

O. PJM’s Proposed Schedule for Conducting BRAs for the 2022/2023 Through 2025/2026 Delivery Years Reasonably Includes a Different Pre-Auction Period for the First BRA Compared to that for Subsequent BRAs.

The December 19 Order directed PJM to include in the compliance filing “revised dates and timelines for the 2019 [BRA] and related incremental auctions, along with revised dates and timelines for the May 2020 BRA and related incremental auctions, as necessary.”⁸⁵ In response, PJM proposed a schedule for conducting the BRAs for the 2022/2023 Delivery Year (for which the Tariff would have required a BRA in May 2019) through the 2025/2026 Delivery Year (for which the Tariff would require a BRA in May 2022).⁸⁶ PJM explained that its proposed schedule is intended to return the BRAs to their Tariff-required three-year-forward schedule in a deliberate and orderly manner.⁸⁷

With the March 18 Filing and the numerous comments on PJM’s proposed BRA schedule, the Commission has a sufficient record on which to approve the schedule PJM and Market Participants will follow going forward. PJM will focus here on only a limited aspect of the schedule (i.e., the length of the pre-auction period for the next four BRAs).

Specifically, the Electric Power Supply Association (“EPSA”) questions “why PJM requires six and a half months to conduct the 2022/2023 BRA and . . . why four and a half months, as PJM proposes for the three succeeding BRAs, is not sufficient.”⁸⁸ To be clear,

⁸⁵ December 19 Order at 4.

⁸⁶ March 18 Filing at 89-92; *id.* at Attachment A.

⁸⁷ *Id.* at 87.

⁸⁸ Comments of the Electric Power Supply Association, Docket Nos. ER18-1314-003, et al., at 7 (May 15, 2020). *See also* Comments of the PJM Power Providers Group,

PJM’s proposed schedule for the first auction does not differ that much from the schedule for the next three auctions. Specifically, PJM proposes to conduct the BRA for the 2022/2023 Delivery Year six and one half months after the Commission accepts the required compliance filings; the four and one half months pre-auction schedule for the subsequent BRAs for each of the three succeeding Delivery Years will begin six weeks after the posting of the prior BRA results.⁸⁹ As shown in the March 18 Filing, each of the later three BRAs is preceded by a six-week interval before the formal pre-auction schedule commences, providing Capacity Market Sellers time to take the prior auction results into account as they design their auction participation strategies. EPSA and the PJM Power Providers Group overlook that interval when contrasting the schedule for the first BRA with the schedules for the later BRAs.

Moreover, PJM’s proposed schedule for the first BRA (a) is already compressed from the standard timeline in the Tariff; and (b) must accommodate PJM’s and Market Participants’ inaugural effort to implement the greatly revised MOPR and related rules. As explained in the March 18 Filing, the current Tariff’s pre-auction schedule begins eight and one half months before the auction opens, but PJM proposes only a six and one half month pre-auction schedule for the first BRA under the new MOPR. PJM cautions against trying to compress that schedule further, while PJM and Capacity Market Sellers are working their way through the considerably revised and expanded MOPR requirements, standards, and procedures for the first time—especially when considering the potential for

Docket Nos. ER18-1314-003, et al., at 5 (May 15, 2020) (“PJM does not need over 6 months to prepare for and run an auction[, as] highlighted by PJM’s own Compliance Filing, in which it proposes a 4.5-month time period for pre-auction activities for the subsequent BRAs . . .”).

⁸⁹ March 18 Filing at 87.

significantly increased reliance on the resource-specific review process. In that regard, PJM notes that the Commission's April 16 Order added further requirements and complexity to implementing the new MOPR, which will require modifications to PJM's Capacity Exchange software. For example, PJM now must track each megawatt of each Capacity Resource with State Subsidy to ensure "that only the cleared portion of a resource is considered existing [i.e., a Cleared Capacity Resource with State Subsidy]." ⁹⁰

Under these circumstances, opening the next BRA six and one half months after the Commission issues an order accepting the substance of PJM's compliance filings is a reasonable and prudent approach.

⁹⁰ April 16 Order at P 398.

III. CONCLUSION

PJM respectfully requests that the Commission accept the March 18 Filing, as now modified by the June 1 Filing, subject to the clarifications and revisions PJM endorses herein.

Craig Glazer
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June 3, 2020

Attachment A

Brattle Answering Affidavit

**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)
v.)
PJM Interconnection, L.L.C.)

Docket No. EL16-49-000

PJM Interconnection, L.L.C.)

Docket Nos. ER18-1314-000, -001

PJM Interconnection, L.L.C.)
)

**Docket No. EL18-178-000
(Consolidated)**

**ANSWERING AFFIDAVIT OF SAMUEL A. NEWELL, JOHN M. HAGERTY
AND SANG H. GANG
ON BEHALF OF PJM INTERCONNECTION, L.L.C.
REGARDING GROSS AVOIDABLE COST RATES**

1. Our names are Dr. Samuel A. Newell, John M. Hagerty and Sang H. Gang. Dr. Newell is employed by The Brattle Group ("Brattle") as a Principal and Mr. Hagerty, as a Senior Associate. Mr. Gang is employed by Sargent & Lundy ("S&L") as a Principal Consultant. We are submitting this affidavit in support of PJM Interconnection, L.L.C.'s ("PJM") filing in compliance with the December 2019 order by the Federal Energy Regulatory Commission ("FERC") related to the expansion of the Minimum Offer Price Rule ("MOPR") in its forward capacity market.
2. Dr. Newell is an economist and engineer with more than 20 years of experience consulting in electricity wholesale design, market analysis, generation asset valuation, integrated resource planning, and transmission planning. He has led studies on the cost of generation for past PJM Quadrennial/Triennial reviews of the Net Cost of New Entry and for ISO-NE on the same and for Offer Review Trigger

Prices. Prior to joining The Brattle Group in 2004, he was the Director of the Transmission Service at Cambridge Energy Research Associates and previously a Manager in the Utilities Practice at A.T.Kearney. He earned a Ph.D. in Technology Management and Policy from the Massachusetts Institute of Technology, an M.S. in Materials Science and Engineering from Stanford University, and a B.A. in Chemistry and Physics from Harvard College.

3. Mr. Hagerty is an electricity market analyst and engineer with more than 5 years of experience analyzing and modeling electricity wholesale markets, the transmission system, and RTO market rules. He earned a M.S. in Technology and Policy from the Massachusetts Institute of Technology and a B.Sc. in Chemical Engineering from the University of Notre Dame.
4. Mr. Gang is an engineer with 10 years of experience in engineering design and consulting on a wide range of electric power projects including nuclear, gas, coal, biomass, wind, solar PV, and battery energy storage technologies. He has extensive experience assessing power plant technologies and estimating plant capital costs, operation and maintenance (“O&M”) costs, and performance characteristics. Within the last two years, Mr. Gang has been leading Sargent & Lundy’s electric power resource planning projects including evaluation of various generation and interconnection options. Mr. Gang also led the Sargent & Lundy team in working with Brattle to estimate the CONE for new merchant generation resources for PJM in its past Quadrennial Review and for the Alberta Electric System Operator in its development of a centralized capacity market in Alberta, Canada. Mr. Gang is a licensed Professional Engineer in the State of Illinois and earned a B.S. in Electrical Engineering from the University of Illinois at Urbana-Champaign.
5. On March 18, 2020, we submitted to the FERC a full report of our findings from that review and an affidavit explaining the methodology and results of our study (“Gross ACR and EE Net CONE Study”). On March 23, 2020, we submitted a supplemental affidavit correcting our characterization of the Hope Creek nuclear plant in New Jersey from a single-unit to a multi-unit plant.
6. This affidavit responds to comments submitted by the Independent Market Monitor of the PJM Region (“Market Monitor”) regarding our analysis of Gross ACR values.¹
7. The Market Monitor states in its testimony that “Brattle’s adjustments to the NEI data are unsupported.”² In the Gross ACR and EE Net CONE Study, we do in fact provide support for each of the adjustments that we made to the NEI data

¹ Comments of the Independent Market Monitor for PJM, Docket Nos. ER18-1314-003, et al. (May 15, 2020) (“Comments of the Independent Market Monitor for PJM”)

² Comments of the Independent Market Monitor for PJM at 4.

related to the capital costs and non-fuel operating costs of single-unit and multi-unit nuclear plants. On pages 4 and 6 of the study, we provide support for adjusting the NEI data for the single-unit nuclear plants. On page 8, we note that we made similar adjustments for multi-unit nuclear plants.

8. The Market Monitor compares its own approach for estimating the gross ACR to the approach we used, concluding: “With the exception of nuclear ACR values, PJM ACR reflects retirement ACR values and excludes major maintenance costs. With the exception of nuclear ACR, the Market Monitor values reflect mothball ACR values and exclude major maintenance costs where defined.”³ It is unclear to us whether this statement is intended to critique our analysis. But we wish to clarify that our methodology followed the cost categories included in the ACR as set forth in Section 6.8 of the PJM Open Access Transmission Tariff (“OATT”).
9. This concludes our affidavit.

³

Comments of the Independent Market Monitor for PJM at 10.

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)
v.)
PJM Interconnection, L.L.C.)

Docket No. EL16-49

PJM Interconnection, L.L.C.)

Docket Nos. ER18-1314-000, -001

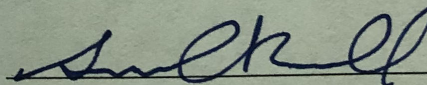
PJM Interconnection, L.L.C.)
)

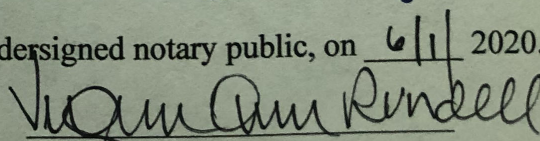
Docket No. EL18-178-000
(Consolidated)

VERIFICATION

Samuel A. Newell, being first duly sworn, deposes and states that he is the Samuel A. Newell referred to in the foregoing document entitled "Affidavit of Samuel A. Newell, John M. Hagerty, and Sang H. Gang on Behalf of PJM Interconnection, L.L.C. Regarding Gross Avoidable Cost Rates" has read the same and is familiar with the contents thereof, and that the facts set forth therein are true and correct to the best of his knowledge, information, and belief.

Subscribed and sworn to before me, the undersigned notary public, on 6/11 2020.

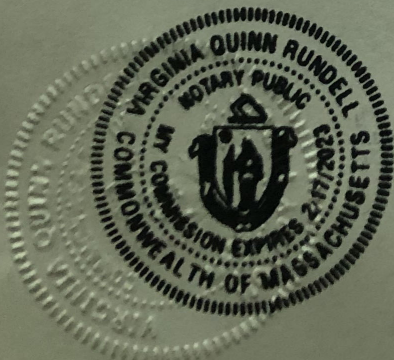




Notary Public

My Commission expires:

2/17/2023



**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)
v.)
PJM Interconnection, L.L.C.)

Docket No. EL16-49

PJM Interconnection, L.L.C.)

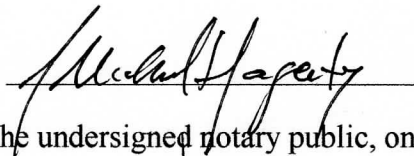
Docket Nos. ER18-1314

PJM Interconnection, L.L.C.)
)

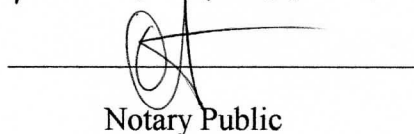
Docket No. EL18-178
(Consolidated)

VERIFICATION

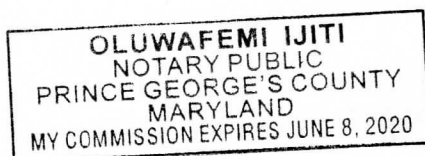
John M. Hagerty, being first duly sworn, deposes and states that he is the John M. Hagerty referred to in the foregoing document entitled "Affidavit of Samuel A. Newell, John M. Hagerty, and Sang H. Gang on Behalf of PJM Interconnection, L.L.C. Regarding Gross Avoidable Cost Rates" has read the same and is familiar with the contents thereof, and that the facts set forth therein are true and correct to the best of his knowledge, information, and belief.



Subscribed and sworn to before me, the undersigned notary public, on 4 June 2020.


Notary Public

My Commission expires: June 8 2020



**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)
v.)
PJM Interconnection, L.L.C.)

Docket No. EL16-49

PJM Interconnection, L.L.C.)

Docket Nos. ER18-1314

PJM Interconnection, L.L.C.)
)

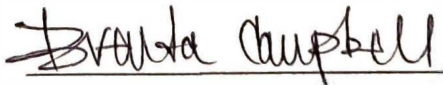
**Docket No. EL18-178
(Consolidated)**

VERIFICATION

Sang H. Gang, being first duly sworn, deposes and states that he is the Sang H. Gang referred to in the foregoing document entitled "Affidavit of Samuel A. Newell, John M. Hagerty, and Sang H. Gang on Behalf of PJM Interconnection, L.L.C. Regarding Gross Avoidable Cost Rates" that he has read the same and is familiar with the contents thereof, and that the facts set forth therein are true and correct to the best of his knowledge, information, and belief.

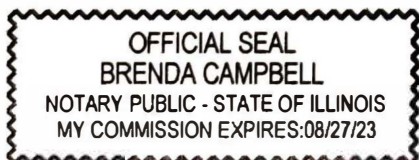


Subscribed and sworn to before me, the undersigned notary public, on June 14
2020.



Notary Public

My Commission expires: 08/21/23



CERTIFICATE OF SERVICE

I hereby certify that I have this day served the foregoing document upon each person designated on the official service list compiled by the Secretary in this proceeding.

Dated at Washington, D.C., this 3rd day of June 2020.

/s/ Victoria M. Lauterbach