UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

PJM Interconnection, L.L.C.	)	Docket No. ER15-623-000
PJM Interconnection, L.L.C.	)	
v.	)	Docket No. EL15-29-000
PJM Interconnection, L.L.C.	)	(Not Consolidated)

COMMENTS OF THE INDEPENDENT MARKET MONITOR FOR PJM

Pursuant to Rule 211 of the Commission's Rules and Regulations,[1] Monitoring Analytics, LLC, acting in its capacity as the Independent Market Monitor for PJM ("Market Monitor"), submits these comments on the filings submitted in the above captioned proceedings by PJM Interconnection, L.L.C. ("PJM") on December 12, 2014 ("December 12th Filings").[2]

I. COMMENTS

A. The Market Monitor Strongly Supports PJM's Need to Redesign Its Capacity Market.

The December 12th Filings constitute a significant, constructive effort by PJM to redesign the Reliability Pricing Model ("RPM") capacity market (and the Fixed Resource

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1 18 CFR § 385.211 (2014).

2 Terms capitalized but not otherwise defined have the meaning used in the PJM Open Access Transmission Tariff ("OATT"), PJM Operating Agreement ("OA") or PJM Reliability Assurance Agreement ("RAA").

Requirement ("FRR") Alternative component of RPM) to more closely match payments for capacity with required performance.[3] Approval of the proposed market redesign, with the changes recommended by the Market Monitor, will address many significant issues with PJM's capacity market design that have been identified based on the performance of the RPM design.[4] Approval of this filing will also resolve or make progress towards resolving numerous issues with the RPM design that have been the subject of recent Commission proceedings, some of them still pending.[5]

Although the current capacity market design implies that capacity resources must perform, the critical incentives and verification measures needed to ensure performance are not in place. The current rules allowed resources to be paid for capacity even when such resources do not provide energy when it is most needed. Events in January and February, 2014, revealed that capacity market design flaws put reliability at risk by failing to adequately link payments for capacity and incentives to perform when energy is needed.

The current design assumes physical offers of unit and resource specific capacity, but the rules do not adequately define the physical requirements and the procedures to verify physical offers, and the rules that are in place have not been effectively administered. There is uncertainty about whether and how the current rules will be enforced.[6]

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[3] OATT Attachment DD (Reliability Pricing Model) Attachment DD; RAA § 8.1.

[4] *See, e.g.,* 2014 State of the Market Report for PJM: January through September, Section 5: Capacity, Recommendations; IMM, Analysis of the 2016/2017 Base Residual Auction (April 18, 2014).

[5] *See*, *e.g.*, Complaint of the Independent Market Monitor for PJM, Docket No. EL14-20-000 (January 27, 2014); *PJM Interconnection, L.L.C.*, 147 FERC ¶ 61,108 (2014); *Centralized Capacity Markets in Regional Transmission Organizations and Independent System Operators*, Docket No. AD13-7-000.

[6] *See Duke Energy Corporation, et al. v PJM*, Docket No. EL14-45); Eagle Point Power Generation LLC, ER14-2075 (withdrawn); *Old Dominion Electric Cooperative*, ER14-2242); *Calpine Energy Services, L.P.*, ER15-376).

The current design pays capacity resources the market clearing price, but fails to impose comparable requirements for the capacity delivered.[7] The current design allows inferior capacity product types to suppress prices and drive out competing product types. The current design fails to deter resource owners from making decisions about resource availability based on economic decisions about whether to procure fuel.

PJM's proposal, which is based substantially on the proposal developed by ISO New England and accepted by FERC, ties performance to payment for capacity and corrects or takes significant steps towards correcting the problems with the current capacity market design.[8] The guiding principle is that resources that do not perform do not get paid regardless of the reason for nonperformance. The guiding principle is that there are no excuses for nonperformance. If a resource does not perform, it pays back the value of what it sold but did not deliver. In an energy only market, resources do not get paid on days with very high prices unless they provide energy. The capacity market exists only because scarcity pricing, as implemented in the energy market, does not provide adequate revenue to provide incentives to entry and retention.

The Market Monitor supports PJM's stated goals for the redesign of the capacity market. PJM's proposal generally meets the objective of pay for performance, but there are areas where the design needs to be improved. The proposal fails to contain procedural safeguards, including defined review processes that provide the Market Monitor the ability to detect and deter potential market power and manipulation. The Market Monitor supports PJM's proposed capacity market design with the proposed modifications, and with the appropriately defined review processes in place.

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7 Payments may vary in certain limited circumstances described in OATT Attachment DD § 5.14.

8 *See ISO New England Inc. and New England Power Pool*, 147 FERC ¶ 61,172 (2014), *reh'g pending*.

B. Offers in the Capacity Market.

1. Properly Defined Net Cost of New Entry ("CONE") is a Reasonable Offer Cap.

PJM proposes that net CONE should be the offer cap for Capacity Performance resources. The use of net CONE would replace the current unit specific review of Avoidable Cost Rate ("ACR") data for many Capacity Performance Resources. Unit specific review would continue to be required for units with requested offers in excess of net CONE and for units with offers less than net ACR.

The rationale for the use of net CONE is that the Capacity Performance product is a fundamentally different product than the current RPM product with both substantially increased performance requirements and correspondingly increased risks. While it was not appropriate to include a risk adder as part of offer caps under the existing RPM construct, it is appropriate to include appropriately quantified risk adder in offers of Capacity Performance resources.

The Capacity Performance product is an obligation to deliver firm energy during defined hours in a forward period. If the energy is not delivered in an hour, the seller must pay the hourly equivalent of the value of the product, defined to be net CONE divided by the expected number of performance assessment hours. For that reason, a logical offer is an offer at properly defined net CONE in an overall capacity market design that includes the appropriate number of expected performance assessment hours and does not have a monthly stop loss.

In addition, the expected equilibrium price in the capacity market is properly defined net CONE and the design goal of the market is to have relatively stable pricing in a narrow bandwidth around properly defined net CONE.

2. The Rules for Offering Resources at Levels Other Than the Net Cost of Entry Require Revision In Order Protect the Markets from Market Power, Manipulation and Potentially Inefficient Outcomes.

It is reasonable to permit offers at net Cost of New Entry ("CONE") without cost review; offers at any other level should be limited based on review of unit specific costs.

PJM proposes that net CONE should be the offer cap for Capacity Performance resources. The use of net CONE could replace the current unit specific review of Avoidable Cost Rate ("ACR") data for many Capacity Performance Resources. Unit specific review would continue to be required for any unit not offering at the Net Cost of New Entry. Sellers intending to offer in excess of net CONE, up to a maximum 1.5 times net CONE, would need to establish the highest offer by calculating a cost-based offer cap based on net ACR.

The approach proposed by PJM is sufficient to address market power concerns involving an attempt to offer too high, greater than properly defined net CONE. The proposed approach does not address potential exercise of market power and manipulation that could result from the submittal of offers that are too low. An offer that is too low may indicate an offer that is not a bona fide physical offer. An offer that is too low may indicate an attempt to engage in monopsonistic or buyer-side market power. An offer that is too low may be an attempt by a fleet owner to obtain an unfair competitive advantage for some units in its fleet over nonaffiliated competing units. The potential for this behavior is a threat to the ability of a performance-based capacity market design to operate as intended that should be addressed.

Accordingly, approval of the December 12th Filings should be conditioned on implementation of a defined mechanism to detect and deter the potential to exercise market power associated with offers significantly below net CONE and below net ACR.

The Market Monitor understands that there has been wide concern expressed with the use of net CONE as an offer cap. Generation owners have expressed concern that they could be subject to after the fact enforcement actions if their offers are not supported by

detailed cost calculations. Loads have expressed concern that in the presence of endemic market power, failure to use unit specific offer cap calculations will not adequately mitigate market power. Some generation owners have expressed concerns about offers that are below competitive levels that cannot be addressed without unit specific detailed cost reviews.

While the Market Monitor supports the use of net CONE as the offer cap in the Capacity Performance construct, the Market Monitor is willing and able to apply unit specific offer caps in the Capacity Performance construct. The Market Monitor does not believe that price outcomes will be significantly different but believes that the associated increase in confidence in market outcomes could make such an approach worthwhile. The Market Monitor also recognizes that the treatment of risk under the Capacity Performance construct is very different than under RPM. Explicit risk adders are appropriate in the Capacity Performance construct while they are not under RPM.

3. PJM's Revisions Weaken the Must Offer Requirement With No Justification; the Must Offer Rule Should Continue to Apply to Proposed Generation Capacity Resources That Have Cleared a Prior RPM Auction.

The RPM must offer requirement for generation and the must buy obligation for load are centerpieces of the RPM design. The RPM design cannot work without both. The RPM must offer requirement for generation ensures that there will not be physical or economic withholding to increase prices. The must buy obligation for load ensures that some load will choose not to buy to suppress prices.

The December 12th Filings include a proposed change to the RPM must offer requirement for generation via a change to the definition of Existing Generation Capacity Resource.[9] The proposed change would weaken the RPM must offer requirement for

[9] *See* PJM proposed revised RAA § 1.20B.

proposed generation resources that have offered and cleared in a prior auction, which protects the market from the exercise of market power and from manipulation.[10] There is no supportable justification for weakening the must offer rule for units that have offered and cleared in a prior auction. PJM explains that some units may face uncertainty about whether they will be in operation by the beginning of the delivery year and that is therefore appropriate, after clearing in a capacity auction, to make offering in subsequent auctions voluntary. PJM states that it "believes it is appropriate that resources not yet in commercial operation have the ability to offer in to the RPM market if they believe they will be in operation prior to the Delivery Year but that such ability to offer should be voluntary rather than mandatory."[11]

This proposed rule is a significant exception to PJM's stated approach of no excuses in the Capacity Performance market. The obligation to either be available or to buy replacement capacity should belong solely to the generation owner that offered and cleared in the first place. The impacts should not be borne by load or by other generation. This rule would increase the incentive of units to offer and clear in RPM auctions on a speculative basis. The result will be to suppress the price below the competitive level in the auction in which such offer clears and to increase the price above the competitive level in the subsequent auction in which the unit does not offer.

This proposed rule is also inconsistent with PJM's proposal to increase the threshold to offer in an auction in the first place. PJM proposes to require a Facility Studies Agreement (FSA) rather than just a System Impact Studies.[12]

If a unit decides to offer in an auction and clears in that auction, it is displacing another unit, whether proposed or existing. That displacement could be permanent with

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[10] *See* OATT Attachment DD § 6.6.

[11] *See* PJM transmittal letter, Docket No. EL15-29 (December 12, 2014) at 79.

[12] *See* PJM proposed revised RAA §§ 1.69A, 1.70.

permanent effects on the market. It must be clear to new entrants that by offering and clearing in an auction, they are taking on a corresponding long term obligation to the PJM market. This is not voluntary, it is an obligation. Otherwise a new entrant could clear, cause an existing unit to not clear and therefore retire and then the new entrant could decide not to offer in the next capacity auction. The effect would be to increase the price in the next auction with no risk to the generation owner. This is a potential vehicle for the exercise of market power on behalf of the owners of portfolios of capacity resources which would benefit from such actions.

Such units have the option to buy replacement capacity if they are physically not available for the delivery year. But such units should not be excused from performance. The incentives to perform for new units must be as strong as the incentives to perform for existing units.

If such a new entrant has an issue that permanently eliminates it from participation in future RPM auctions, there is a defined review process that can result in such unit being exempted from the must offer requirement.

PJM states that requiring a resource to certify that it "will not" be commercially operational by the Delivery Year is too stringent because resource developers cannot be certain about the future.[13] Sworn certification is only required for development delays, one of the bases to establish an exception due to physical unavailability.[14] Under the Capacity Performance approach to responsibility for performance, it is the sole responsibility of the developer to take on all performance risk. That performance risk should explicitly include this most basic risk, of actually making ongoing offers after clearing. There are lots of uncertainties for project developers. It is the choice of such developers to take on that risk. It is not the responsibility of load or the owners of other generation to take on that risk.

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13 *See* PJM transmittal letter, Docket No. EL15-29 (December 12, 2014) at 79.

14 *See* OATT Attachment DD § 6.6(g).

PJM does not explain why the required certification is a problem only for proposed Generation Capacity Resources that have already cleared an RPM Auction and have an existing obligation that PJM is already relying on to provide capacity. An Existing Generation Capacity Resource that is in service and seeking an exception must sign the same certification, and the owners of existing units with physical impairments have no more certainty about the future than anyone else. The rules require no such certainty, and the argument is a red herring.

If this loophole is not closed, the proposed definition change weakens the must offer rule and opens the door to the potential exercise of market power and manipulation. By applying a must offer rule to resources that clear an auction before they are in service, the current must offer rule also discourages speculative offers. Failure to apply an effective must offer rule will, by inadequately discouraging speculation, have negative consequences for capacity market prices and reliability.

Accordingly, the proposed changes to the definition of Existing Generation Capacity Resource (RAA § 1.20B) should preserve the statement: "(a) [is/are] in service; or (b) is not in service, but has cleared any RPM Auction or any prior Delivery Year" in both places where it appears.[15] Preserving this language will ensured the continued protection of the must offer rule.

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[15] The Market Monitor supports PJM's proposal to delete the following from Section 1.20B of the RAA: "Notwithstanding the foregoing, a Generation Capacity Resource for which construction has not commenced and which would otherwise have been treated as a Planned Generation Capacity Resource but for the fact that it was bid into RPM Auctions for at least two consecutive Delivery Years, and cleared the last such auction only because it was considered existing and its mitigated offer cap was accepted when its price offer would not have otherwise been accepted, shall be deemed to be a Planned Generation Capacity Resource."

4. The Special Offer Cap (1.1 x BRA Clearing Price) for Third Incremental Auctions Is Not Appropriate in the Capacity Performance Market Design and Should Be Eliminated.

The December 12th Filings include a proposed change to the offer cap available for RPM Third Incremental Auctions.[16] Under the current rules, Capacity Market Sellers may elect to use an offer cap of 1.1 times the Capacity Resource Clearing Price in the Base Residual Auction ("BRA") for the relevant Locational Deliverability Area ("LDA") and Delivery Year.[17] PJM is proposing to modify the Third Incremental Auction offer cap option for Capacity Performances Resources from the 1.1 times the BRA clearing price to the greater of net CONE or the 1.1 times the BRA clearing price.

The rationale for the offer cap of 1.1 times the BRA clearing price was to address the risks of the being subject to Capacity Resource Deficiency Charges given the RPM must offer requirement in Third Incremental Auctions at potentially low prices and the inability to purchase replacement capacity in a subsequent incremental auction if the capacity subsequently becomes unavailable.[18] At the time of the settlement agreement, the Daily Deficiency Rate was the greater of two times the resource clearing price or net CONE. Currently, the Daily Deficiency Rate is the weighted average Capacity Resource Clearing Price plus the greater of .20 times the weighted average Capacity Resource Clearing Price or $20 per MW-day.[19]

Under the Capacity Performance proposal, there is no longer any reason to retain the rule setting the default offer cap in the Third Incremental Auction at 1.1 times the BRA clearing price. There is no reason that any offer in the Third Incremental Auction should

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16 See PJM proposed revised OATT Attachment DD § 6.4(d).

17 *See Mirant Energy Trading, LLC, et al. v. PJM*, 124 FERC ¶ 61,140.

18 Docket No. EL08-8-000.

19 126 FERC ¶ 61,275 at P 180; OATT Attachment DD § 7.1(b).

exceed the proposed offer cap, which is a default of net CONE but can exceed net CONE. At the time the 1.1 times BRA offer cap was introduced, the net CONE offer cap was not available. The net CONE offer cap alone will cover the intent of the offer cap option of 1.1 times the BRA clearing price.

C. The Proposal Includes Market Design Issues That Need to Be Addressed.

1. The Number of Incremental Auctions Should Be Reduced.

PJM's proposal in Docket No. ER14-1461 ("Replacement capacity filing") to reduce the number of Incremental Auctions should be included in the Capacity Performance proposal. Holding three Incremental Auctions encourages speculative behavior by tending to lower the Incremental Auction clearing prices and by providing multiple opportunities for buying back commitments.[20] Reducing the number of Incremental Auctions would work to support PJM's physical offer proposal in OATT Attachment DD § 5.5A(a)(i)(D).

2. The Proposed Method for the Calculation of Obligation Peak Load Is Better Than the Current Method.

Getting the market price right is the first objective of the capacity market design. But that price only has its intended effect on the demand side of the market if the costs of capacity are appropriately allocated to loads. There are two key steps in the allocation process, the allocation of capacity costs to zones and the allocation of zonal capacity costs to customers and the LSEs who serve the customers. Capacity obligations in MW are allocated and capacity costs follow those obligations based on market clearing prices.

Capacity obligations are allocated to zones using the Obligation Peak Load (OPL).[21] The OPL is the sum of the highest coincident, weather-adjusted, zonal summer peak loads in the RTO from the preceding Delivery Year. This is a single coincident peak (1CP)

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[20] Docket No. ER14-1461, p 19.

[21] RAA Schedule 8 § A at 1

method. Capacity obligations are allocated to zones using the ratio of the zonal coincident peak load to the OPL.

The Electric Distribution Company (EDC) for each Zone allocates capacity obligations to each end-use customer.[22] EDCs have discretion to pick the method of allocation.[23] The allocation method results in a Peak Load Contribution (PLC) in MW assigned to each customer. The EDCs are responsible for providing the PLC information about the end-use customers to the LSEs within their zone. Although each LSE's customers' aggregate behavior is the basis for what PJM will charge an LSE, LSEs determine what to bill each customer.[24] The LSEs are charged by PJM based on the daily sum of their OPL contributions.[25]

PJM calculates and makes available a five coincident peak (5 CP) calculation, utilizing the five highest non-holiday, non-weekend RTO unrestricted daily summer peaks, for use by the EDCs.[26]

Starting with the 2018/2019 Delivery Year, PJM proposes to change the allocation of capacity obligations to zones. PJM proposes to modify the calculation of the OPL to use the four highest summer RTO coincident peak hours, the single highest RTO winter coincident

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22 FERC Docket No. ER15-623-000 § G, at 62

23 PJM Manual 19 § 4.4, at 21

24 PJM Manual 18 § 7.4, at 111

25 Locational Reliability Charge = Daily UCAP Obligation x Final Zonal Capacity Price, where the Daily UCAP Obligation is defined as: Daily UCAP Obligation = Obligation Peak Load x Final Zonal RPM Scaling Factor x Forecast Pool Requirement. PJM Manual 18 § 9.2 at 140; RAA Schedule 8 § A at 1.

26 *See PJM Interconnection, L.L.C.*, 133 FERC ¶ 61,118 (2010)("[T]he proposed tariff provisions specify how ComEd will calculate the Obligation Peak Load … that it reports to PJM, and that PJM uses the Obligation Peak Load to calculate the Locational Reliability Charge issued by PJM to LSEs utilizing the RPM to satisfy their capacity obligations… As such, the proposed tariff provisions specify methodologies that are inputs to Commission-jurisdictional charges assessed by PJM to LSEs, who are customers of PJM. In contrast to the assertion of the Illinois Commission, the proposed tariff provisions do not address how LSEs bill retail customers for such charges, and therefore do not affect the Illinois Commission's ability to allocate such charges.")

peak hour and the highest RTO load occurring during any contiguous Performance Assessment Hours, during the twelve-month period ending October 31 prior to the most recent RPM Auction conducted for such Delivery Year. This method is referred to here as the "4-1-PAH Method."

The Market Monitor supports PJM's proposed 4-1-PAH Method. The current approach to allocating capacity obligations to zones does not account for customers' contributions to winter peak loads or loads during other high load periods (performance assessment hours). Under the Capacity Performance proposal, capacity obligations will be a function of required performance during performance assessment hours, including four summer hours and one winter peak hour. It is logical to allocate those capacity obligations to EDCs and to customers based on their share of load during the same hours. That is the intent of PJM's proposed method.

For the same reasons that the allocation method should be changed, the peak load forecast method used to determine a key parameter of the VRR curve should also incorporate the 4-1-PAH Method. The current approach uses a single forecasted summer peak. Use of the same approach to calculating peak load for forecasting the reliability requirement and the costs of meeting that reliability requirement itself would be consistent, to the extent that the winter peak requires more capacity than the summer peak.

How LSEs bill their customers is not within FERC's jurisdiction. Nevertheless, it is consistent with competitive and efficient market signals to encourage consistency between how LSEs are billed and how their customers are billed. The same factors that make the 4-1-PAH Method better for calculating OPL and forecast peak loads make the 4-1-PAH Method better for customer billing.

Accordingly, PJM should discontinue reporting 5 CP calculations and should report 4-1-PAH calculations.

D. Proposed Rules Relating to Performance Issues Should Be Addressed.

1. PJM's Use of UCAP Rather Than ICAP Weakens Performance Incentives for Units with High Forced Outage Rates.

PJM uses UCAP to define the demand for capacity and to define the required performance of capacity resources. ISO-NE uses ICAP to define capacity and to define the required performance of capacity resources. The result of using UCAP is to permit the withholding of capacity. The result of using UCAP is also that a unit with a high EFORd will be paid more under the PJM design than under the ISO-NE design, holding the stop loss provisions aside,

UCAP is based on historical EFORd results. The use of historical EFORd, calculated based on performance during periods with weaker performance obligations, would effectively permit resources to withhold capacity in the BRA. For example, a resource with a 20 percent worst case EFORd can elect to use any value from zero to 20 percent for EFORd to calculate the UCAP to sell in the BRA. The resource has the option to offer 80 percent of the ICAP as CP without making significant investments to improve performance, or offer 100 percent of ICAP and invest to improve performance during the delivery year. A supplier with a large portfolio can reduce the UCAP available from some of its resources to result in a higher clearing price for the entire portfolio. Or a supplier with a large portfolio can reduce UCAP available from some of its resources to retain a hedge against unexpected outages on other units.

Ignoring any stop-loss provisions, an identical 500 MW unit performing close to expected performance using a balancing ratio of 0.74 would earn approximately $5,200/MW-Yr more in PJM than in ISO NE. If the same unit did not perform at all, the unit would earn approximately $7,000/MW-Yr more in PJM than in ISO NE.

2. An Example of How Non-Performance Charges Would Have Applied in the 2013/2014 Delivery Year Shows that the Incentives Are Not Adequate.

PJM's proposed design will not provide adequate performance incentives and needs to be modified as a result. While the basic design is sound, the parameters need to be defined correctly in order to have the intended effect.

Using the data from actual emergency events declared by PJM in the June 1, 2013 through May 31, 2014, delivery year the MMU calculated the charges that would have been paid by a non-performing resource. For this example, the unit is assumed to be in one of the zones where only RTO wide performance assessment hours apply. Any resource in the DEOK, DAY, EKPC and ComEd zones of the PJM service territory would be an example for the calculation. Assuming a resource with 500 MW ICAP, offered in the BRA with an EFORd of 0.05, the resource has a commitment of 475 MW UCAP. The RTO wide emergency events that would qualify for Performance Assessment Hours are as shown in Table 1. There were 30 performance assessment hours for RTO wide events in the 2013-14 delivery year.[27]

[27] There is a difference in the performance hours estimated by PJM and the MMU. The difference is due to the fact that the MMU considers the earlier of the times when PJM declares a maximum emergency generation action or emergency load management to be the start time. PJM considers the time when emergency demand resources start to respond as the start time of an event. The MMU disagrees with this designation because a maximum emergency generation declaration is one of the procedures that qualify as a trigger for performance assessment hours. The earliest time when any such event is declared should be used as the trigger for a performance assessment hour.

Table 1 RTO wide Performance Assessment Hours in delivery year 2013/2014

Date	Performance Region	Emergency Procedure	Start Time (EPT)	End Time (EPT)	Number of Performance Assessment Hours
3/4/2014	PJM RTO	Emergency Load Management/Maximum Emergency Generation	4:30 AM	8:30 AM	5
1/30/2014	PJM RTO	Voltage Reduction Warning	6:50 AM	7:35 AM	2
1/8/2014	PJM RTO	Emergency Load Management/Maximum Emergency Generation	5:00 AM	8:00 AM	3
1/7/2014	PJM RTO	Emergency Load Management/Maximum Emergency Generation	3:00 PM	6:16 PM	4
1/7/2014	PJM RTO	Primary Reserve Warning	12:55 AM	12:14 PM	13
1/6/2014	PJM RTO	Voltage Reduction Warning/Maximum Emergency Generation	7:27 PM	9:23 PM	3
		Total			30

3. The Stop Loss Provision Should Be Modified to Work As Intended.

PJM's stop loss, while markedly better than the ISO-NE stop loss, attenuates the performance incentives. The stop loss provision needs to be modified if it is to work as intended.

Using hourly total load and losses as a proxy for the sum of total generation and net imports, and adding back demand resource settlement MW and real time reserve requirement MW, the MMU estimated the expected performance of the example generation resource during each of the performance assessment hours. The non-performance charge and monthly stop loss is estimated using a Net CONE value of $297.92 per MW-day, which is reflective of the average Net CONE in the rest of RTO region for the delivery year 2013-14.[28] If the resource clearing price were equal to the offer cap of Net CONE, as expected under the Capacity Performance approach, the MMU estimated the total non-performance charges with and without the monthly stop loss provision and the net capacity revenue that the resource would have received in the 2013-14 delivery year.

Table 2 shows that in the month of January 2014, the monthly stop loss would have limited the non-performance charges to the resource at a value that is 6.5 million dollars

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[28] PJM, spreadsheet entitled "Planning Period Parameters" (May 17, 2010), which can be accessed at: <*http://www.pjm.com/~/media/markets-ops/rpm/rpm-auction-info/2013-2014-planning-period-parameters.ashx*>. The net CONE value is on an ICAP basis per PJM. It is not clear why PJM does not use a UCAP basis.

lower than it would have been without the monthly stop loss. On a per MW UCAP basis, the non-performance assessment charge is $13,661 per MW lower with the stop loss compared to what it would have been without the stop loss.

The non-performance charges assessed on a non-performing resource should not depend on the distribution of emergency events within a delivery year. A capacity performance resource should be held to its performance standards anytime the system is in critical capacity scarcity condition, irrespective of when it occurs. Failure to contribute to the system reliability during the most critical hours, irrespective of how these hours are distributed within a delivery year should warrant forfeiting the capacity revenues that a resource makes from the capacity market (BRA or IAs). The monthly stop loss provision proposed by PJM, set at 0.5 times the Net CONE, prevents this forfeiture of capacity revenue for non-performance. The market should signal that a non-performing resource should retire irrespective of the distribution of the capacity scarcity conditions. The monthly stop loss provision dampens this signal, and provides and incentive for unreliable resources to stay in the market. The monthly stop loss provision reduces the incentive for resource owners to invest in improving the reliability of their resources. The monthly stop loss should be eliminated. The annual stop loss provision ensures that a reasonable cap exists on the total non-performance charges assessed to any resource and the risk for a resource owner.

Table 2 Estimated non-performance charges and capacity revenues in delivery year 2013-14

Resource ICAP (MW)	500
Resource UCAP (MW)	475
Net CONE ($/MW-day)	297.92
Non-Performance Assessment Charge ($/MWh)	$3,625
Monthly Stop Loss	$25,825,940
Cumulative non-performance charges - January 2014	$32,315,027
Actual non-performance charges - January 2014	$25,825,940
Cumulative non-performance charges - March 2014	$6,038,117
Actual non-performance charges - March 2014	$6,038,117
Total non-performance charges DY 2013-14	$31,864,057
Total non-performance charges DY 2013-14, without monthly stop loss	$38,353,143
Total non-performance charges DY 2013-14 (per MW UCAP basis)	$67,082.22
Total non-performance charges DY 2013-14 without monthly stop loss (per MW UCAP basis)	$80,743.46
Initial Revenue assuming clearing price at Net CONE	$51,651,880
Net Capacity Revenue with stop loss	$19,787,823
Net Capacity Revenue without stop loss	$13,298,737

4. The Estimated Performance Assessment Hours Should Be Based on a Defined Calculation Method.

The estimated number of performance assessment hours is a key parameter in defining the incentive characteristics of the Capacity Performance design. The use of 30 hours is not adequately supported and the number of hours should be reduced and should be based on a defined calculation method.

The non-performance charge rate proposed by PJM is calculated as Net CONE (in dollars per MW-year) divided by 30. PJM explains that 30 is a reasonable value to use as the expected number of performance assessment hours to calculate the non-performance charge rate. PJM offers no analytical basis for using 30 as the expected number of performance assessment hours. The expected number of performance assessment hours within a delivery year depends on the forecast weather conditions, forecast resource mix and units' individual availability, and the triggers used to define performance assessment hours. If the number of realized performance assessment hours is lower than 30, even ignoring the monthly stop loss provision, the non-performance charges assessed will be less

than the value of net CONE. The divisor should be the expected value of the performance assessment hours considering the triggers proposed by PJM and using the same probabilistic model to achieve the 0.1 LOLE reliability target as used for the annual IRM study.

To estimate the expected value of performance assessment hours accurately, PJM should define the trigger for performance assessment hours clearly. For example, in PJM's estimate of the performance assessment hours in the delivery year 2013-14, PJM uses the start time for emergency demand resources as the trigger for performance assessment hours.[29] Even though PJM lists declaration of a maximum emergency generation action as a trigger for performance assessment, it is not used as the trigger. Taking January 8, 2014, as an example date, PJM computes only one performance assessment hour for the RTO wide emergency event due to "Emergency Load Management." Using declaration of a "Maximum Emergency Generation" as the trigger, the MMU computes three performance assessment hours on January 8.

PJM declares the emergency events that qualify as performance assessment hours based on the system operators' forward looking estimate of weather conditions, net interchange and available capacity. This is a subjective process since there is no clear line that defines critical hours. PJM should instead use a calculated metric based on the available reserves. If the available reserves in the system fall below a certain pre-defined limit, that should trigger a performance assessment hour. This limit could be defined as a percentage above the required primary reserves. For example, if the primary reserves fall below 110 percent of the required limit in either the RTO or MAD subzone, it would trigger a performance assessment hour for that region. The right level of reserve levels to be used

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[29] PJM Interconnection LLC, Spreadsheet Titled "Performance Assessment Hours for 2013/14," 12/29/2014, which can be accessed at: <*http://www.pjm.com/~/media/committees-groups/committees/elc/postings/2013-14-dy-performance-assessment-hours-xls.ashx*>.

should be adjusted annually based on prior year's operating experience. This clearly defined metric is simpler to use and model in planning studies to estimate the expected number of scarcity hours to be used for the non-performance charge rate. Without a clear metric, the planners for the annual IRM modeling would have to guess when an emergency event would be declared.

5. Balancing Ratio

The obligation of capacity resources in PJM's Capacity Performance design proposal is not to provide ICAP during performance assessment hours and it is not to provide UCAP during performance assessment hours. The obligation of capacity resources in PJM's Capacity Performance design proposal is to provide UCAP multiplied by the balancing ratio. When the balancing ratio is less than one, the obligation to deliver is also less than UCAP.

The example calculation also demonstrates that a non-performing resource could end up with positive net capacity revenue, even ignoring the monthly stop loss provisions. For example, the resource shown in Table 2 has net capacity revenue of more than 13 million dollars even when it does not produce any output during any of the 30 performance assessment hours. The non-performance charges do not offset the initial revenue that a resource is paid. This is a result of the difference in the MW quantity of the resource that is subjected to non-performance charges and the MW quantity for which the resource is paid at the BRA clearing price. The total non-performance charges are the sum across all performance assessment hours, of the product of the non-performance charge rate and the performance shortfall of a resource. Performance shortfall is calculated as the difference between expected and actual performance.

For generation and storage resources, PJM calculates expected performance as:

[(Resource Committed Capacity / All Committed Generation and Storage Capacity) * (All Actual Generation Performance, Storage Resource Performance, Net Energy Imports and Demand Response Bonus Performance)]

where:

Resource Committed Capacity = the total megawatts of Unforced Capacity of the Capacity Resource committed by such Capacity Market Seller or Locational UCAP Seller;

All Committed Generation and Storage Capacity = the total megawatts of Unforced Capacity of all Generation Capacity Resources and all Capacity Storage Resources committed by all Capacity Market Sellers, FRR Entities, Locational UCAP Sellers;

All Actual Generation Performance and Storage Resource Performance = the total amount of Actual Performance for all generation resources and storage resources during the interval;

Net Energy Imports = the sum of interchange transactions importing energy into PJM not including those associated with external Capacity Resources and therefore included in All Actual Generation Performance minus the sum of interchange transactions exporting energy out of PJM, but not less than zero;

Demand Response Bonus Performance = the sum of Bonus performance provided by Demand Response resources. Bonus performance for demand response resources is calculated as Actual performance minus expected performance for demand resources.

6. PJM's Balancing Ratio Calculation is Flawed.

PJM's definition of a resource's expected performance is its UCAP adjusted with the ratio (referred to as Balancing Ratio from here on) of All Actual Generation Performance, Storage Resource Performance, Net Energy Imports and Demand Response Bonus Performance to All Committed Generation and Storage Capacity. PJM's balancing ratio includes a different set of resources in the numerator and the denominator. While the numerator includes total output (energy and reserves) supplied by generation and storage resources, net energy imports (with a minimum value of zero) and bonus performance from demand resources, the denominator only includes the committed UCAP from generation and storage resources. The goal of the capacity market is to procure enough capacity to meet forecast peak load with the reliability goal of a 0.1 loss of load equivalent (LOLE). The

ISO procures enough resources whose capacity obligations will satisfy this reliability requirement. When a resource takes on a forward capacity obligation in the capacity market, it takes on the obligation to provide at least its share of the load and reserve requirement during every hour. To reflect this obligation, the balancing ratio should be defined as the ratio of the total load and reserve requirement during any hour to the total capacity commitment during that hour. The measure of the total load and reserve requirement (numerator of the balancing ratio) during an hour is the total output (energy and real time reserves) from all supply resources (generation, storage, demand resources, energy efficiency, and net energy imports). The denominator should also include the same set of resources used in the numerator to calculate the total committed UCAP. The MMU proposes that the right balancing ratio be defined as:

All Actual Performance (Generation Performance, Storage Resource Performance, Actual DR performance, Actual EE performance and Net Energy Imports)/(Total committed UCAP from generation and storage resources plus total committed ICAP from DR and EE resources)

where actual performance includes energy and real time reserve output. The real time reserve output should include only Tier 1 and Tier 2 synchronized reserves, non-synchronized reserves that are held offline to meet the primary reserve requirement, and settlement regulation capability MW.

The value of balancing ratio (as defined by the MMU) depends on the total load and reserve requirement on the system during each performance assessment hour. If the balancing ratio is less than 1, the expected performance of a resource is less than its UCAP. For a non-performing resource, (whose actual performance is zero), the performance shortfall therefore, is not UCAP, but a value less than UCAP. If the average of the balancing ratio over all of the performance assessment hours during a delivery year stays below 1.0, the resource will have a net positive capacity revenue even though it does not contribute anything to the system's reliability during the most critical hours. This happens when the ISO over forecasts the peak load and over procures total capacity needed to meet that peak

load with the stated reliability target. During the delivery year 2013-14 for performance assessment hours that apply for the entire RTO, the MMU estimated the average balancing ratio to be 0.74 with a maximum of 0.82 and a minimum of 0.65. Thus, in the case of the 500 MW unit example, the average expected performance of the resource, on which it is assessed the non-performance charges was 352.7 MW, whereas its committed unforced capacity on which it is paid at the BRA clearing price, was 475 MW.

One of the key principles of the capacity market redesign is to ensure that a resource that does not contribute to reliability during the most critical hours should not have any capacity market revenue. If this principle does not hold, there is no incentive for a non-performing resource to exit the market. To achieve this result, the realized scarcity hours should match the expected value used in calculating the non-performance assessment charge and the balancing ratio should be one. The MMU understands that PJM procures resources using a probabilistic analysis that uses forecast weather conditions and resource availability for the IRM study well in advance of the delivery year. These studies have forecast errors and the ISO may err on the conservative side to ensure reliability. In order to ensure that both of these conditions are met, PJM should use an annual probabilistic analysis with the same inputs used for the IRM study to estimate the appropriate non-performance assessment charge rate.

7. The Proposed Rules Do Not Define How Performance Is Calculated for Emergencies at Zonal and Subzonal Levels.

PJM has not defined how expected performance is calculated for emergencies that are declared at the zonal and sub-zonal level. If a capacity emergency is declared only in a specific region of the PJM service territory, it implies that there is a binding limit on importing energy and reserve capacity from outside this region to meet the load and reserve requirement within the region. PJM should accordingly adjust the expected performance formula, and the balancing ratio for generation and storage resources to reflect the import constraint on energy and reserves. Currently, there is only one import constrained reserve zone in PJM, the Mid-Atlantic and Dominion reserve zone. However,

PJM can declare emergency events in any zone or sub-zone. For example, on July 18, 2013, PJM declared emergency load management in PECO, PPL and ATSI control zones and the south Canton subzone of AEP. The performance obligations for such events should to be clearly defined.

8. The FRR Physical Nonperformance Assessment Option Is Inadequate.

The December 12th Filings include an alternative performance assessment option for Fixed Resource Requirement (FRR) entities.[30] FRR entities could choose to be subject to the RPM Non-Performance Charges or physical non-performance assessments. The physical non-performance assessment option is inadequate and inconsistent with the fundamentals of the Capacity Performance design. If the physical non-performance option is chosen, an FRR entity would be required to replace each MW of Performance Shortfall with only 0.5 MW of additional Capacity Performance Resources.

E. The Rules for Operational Parameters and Uplift Are Not Adequate.

1. The Rules for Operational Parameters Are Not Adequate.

Under PJM's proposal, Capacity Performance Resources that are not committed or dispatched down by PJM due to their "limitations specified by such seller in the resource operating parameters" will be subject to non-performance charges. The Market Monitor strongly supports PJM in charging resources that do not perform due to their operating parameters. Nevertheless, the Market Monitor recommends clarifying this rule. All generation resources operate following certain operating parameters, and it is not clear how PJM intends to apply this rule. It is the Market Monitor's understanding that, under the PJM proposal, Capacity Performance Resources that could not be scheduled or committed by PJM as a result of offer parameters less flexible than the approved parameters under section 6.6 of the Operating Agreement Schedule 1, will be subject to non-performance

[30] See PJM proposed revised RAA, Schedule 8, Section G.2.

charges. Capacity Performance Resources operating and offered with parameters within the values approved by the Market Monitor and PJM under section 6.6 of the Operating Agreement Schedule 1 should not be subject to non-performance charges.

2. The Rules Regarding Uplift Must Be Consistent With Capacity Performance Goals.

Generation resources are paid uplift in PJM whenever they are scheduled and dispatched by PJM and the revenues received in the energy market and net revenues received by a subset of ancillary services markets (synchronized reserves, non-synchronized reserves, regulation and reactive services) are not enough to cover the generation resources' offer, these payments are also called Operating Reserve Credits or make whole payments or uplift.[31] PJM schedules and dispatches generation resources based on their energy offer and also based on the operational parameters that they submit as part of their energy offers. For example, a generation resource with a 24 hour minimum run time can be scheduled and dispatched by PJM for 24 hours if PJM needs the resource to meet load for only one hour or relieve a transmission constraint for only one hour and be made whole for all 24 hours if needed.

PJM's proposed modifications to the Energy Market as a result of the modifications to the capacity market should provide an incentive for more flexible parameters and discourage inflexible operation. These modifications should result in lower uplift payments during tight operational conditions and greater operational flexibility to PJM dispatchers. The Market Monitor strongly supports these modifications and suggests several changes and clarifications.

PJM is proposing enhancing the current make whole payment eligibility criteria by including two new conditions that will make certain resources ineligible for make whole payments. Under the new sections 1.10.1(d), 1.10.1A(f) and 3.2.3(e) of Schedule 1 to the

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[31] *See*, *e.g.*, OA Schedule 1 § 3.2.3.

Operating Agreement, resources committed by PJM will not receive Operating Reserve Credits for hours of operation that exceed the maximum start-up and notification times. Generation owners could utilize start-up and notification times to physically withhold resources by reducing the chances of being committed by PJM. The Market Monitor agrees that resources with start-up and notification times that exceed the values agreed upon by the Market Monitor, PJM and Generation Owners under section 6.6 of Schedule 1 to the Operating Agreement should not be made whole for their operation. PJM needs to clarify this in its filing.

Also, under the new section 3.2.3(e) resources that operate outside of their physically determined parameter limits due to external requirements such as fuel delivery arrangements will not be made whole when not dispatched by PJM. The Market Monitor agrees. PJM needs to clarify what physically determined parameter limits are and how they relate to the Generator Operating Parameters defined in section 6.6 of the Operating Agreement Schedule 1. The Market Monitor understands that under the current rules, Generation Owners that operate their resources in a way not instructed by PJM should never receive make whole payments. The Market Monitor also understands that under the new rules, Generation Owners that submit their resources with parameters outside of the limits agreed upon by the Market Monitor and PJM will not be eligible to receive make whole payments and will be subject to nonperformance payments if they do not perform during the Performance Assessment Hours. PJM needs to clarify in this section that this is the intent.

The Market Monitor recommends clarifying section 3.2.3(e) so Generation Resources should only be made whole based on the unit-specific parameter limits and that any operation outside of such limits should be deemed ineligible for make whole payments. The Market Monitor recommends clarifying section 3.2.3(e) so Generation Resources that are offered with start-up times, notification times or combined start-up and notification times that exceed the unit-specific values be made ineligible to receive make whole payments for their entire operation.

The Market Monitor recommends including in section 3.2.3(b) the rules defined in section 3.2.3(e) since the same implications apply to make whole payments in the Day-Ahead Energy Market in the form of Day-Ahead Operating Reserves.

3. Parameters.

Generation resources offered their energy into the PJM market with several operational parameters that determine the way in which PJM will schedule and dispatch them. These operational parameters can be based on output or based on time. Output-based parameters are economic minimum, economic maximum and ramp rate. Time-based parameters are minimum run time, maximum run time, minimum down time, maximum daily starts, maximum weekly starts, notification time, startup time and boiler temperature retention times. PJM's proposed modifications to the capacity market recognize the significance of defining and providing incentives for performance. It is essential to ensure that resources cannot avoid their performance obligations by the use of parameters, and it is also essential that the ability to perform is not tied to greater energy costs. Parameters, like notification time, can be used by Generation Owners to avoid performing, if PJM cannot commit those resources in time. Parameters, like minimum run time, can be used by Generation Owners to perform under certain conditions that increase energy costs.

PJM's current energy market rules include provisions that define limits on certain generation operating parameters that resources have to include as part of their energy offers. These provisions exist due to concerns raised by the Market Monitor that market power could be exerted through the submission of inflexible operating parameters for the sole purpose of increasing a unit's Operating Reserve credits (make whole payments).[32] The current rules impose defined limits for five generation operating parameters by technology class: turn down ratio, minimum down time, minimum run time, maximum daily starts

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[32] *See* Protest of the Independent Market Monitor for PJM, Docket No. ER08-1569-001 (January 21, 2009).

and maximum weekly starts.[33] The current rules allow for Generation Owners to obtain unit-specific exceptions to the defined technology class operating parameter limits in cases where they can demonstrate that their units have operating parameters outside of the defined limits.[34]

Rules regarding the operating parameters used in energy offers are critical for protecting the market from the exercise of market power and manipulation. Under the PJM proposal, PJM is including three more parameters that will be subject to limitations: maximum run time, notification time and startup time. PJM is also changing the use of turn down ratio (which is the ratio between economic minimum and economic maximum) for the direct use of economic minimum and economic maximum. The Market Monitor supports PJM modifications to the current Minimum Generation Operating Parameters rules. The Market Monitor recommends including, in addition, ramp rate and boiler temperature retention times as parameters with defined limits. Ramp rate and boiler temperature retention times (time from hot to intermediate temperature state and time from intermediate to cold temperature state) are the only parameters used in energy offers not covered under PJM's proposal. These parameters can also be used by Generation Owners to limit their performance and should be included with the other unit specific parameters under the rules. The Market Monitor also recommends excluding economic maximum from the list of parameters. Resources are already required to offer their ICAP unless they are on an outage, therefore there is no reason to include a rule regarding economic maximum.

Another significant change proposed by PJM is the use of unit-specific operating limits instead of the use of the current technology class operating parameter limits. The Market Monitor supports this change. The Market Monitor also suggests clarifying the definition of unit-specific operating limits.

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[33] OA Schedule 1 § 6.6(b).

[34] OA Schedule 1 § 6.6(e)&(f).

The Market Monitor and PJM have typically relied on historical operational information for the development of parameter limits and during the parameter limits exception process. The use of historical operational information was usually sufficient for ensuring that operational parameters reflected the actual capability of a unit. Under the Capacity Performance approach, the physical operation of the unit based on historic operation and historic investment or disinvestment is no longer the metric for determining whether a unit performs or should be paid uplift. Under Capacity Performance, the role of parameters is not measure what a unit can do, but the standard of performance that a unit must meet to deliver capacity.

The Market Monitor recommends that resources be subject to OEM operating parameters. For operating parameters for which the Generation Owner does not have OEM information, the Generation Owner should be required to provide detailed documentation from a third party supporting the operating parameter. The new rules should not continue to provide incentives to resources with poor parameters. Allowing Generation Owners to offer their units with parameters based on historical behavior should no longer be a relevant test. Generation Owners may request exceptions using the current exception process, but these exceptions should not be the basis to be excused for nonperformance or to receive make whole payments. Generation Resources that are granted operating parameter limits exceptions will not be eligible to receive make whole payments for hours of operations that exceed the OEM approved operating parameter and will be subject to nonperformance charges if they cannot be committed in time during a Performance Assessment Hour. The reason to submit such exceptions is to ensure that unit owners inform PJM operations of their actual capabilities.

F. PJM's Role and the Market Monitor's Role in Developing Unit Specific Parameters Should Be Correctly Defined.

The roles of PJM, the Market Monitor and Market Sellers must be clearly and appropriately defined if the capacity market is to work as intended. The checks and balances, the division of labor, the different perspectives and roles are all critical to the

functioning of the capacity market. PJM's draft tariff language fails to clearly and appropriately define the roles of PJM, the Market Monitor and Market Sellers. PJM's draft tariff language fails to define the roles of PJM, the Market Monitor and Market Sellers based on existing practices, without explanation or rationale.

1. PJM's Role Should Be Defined Consistent with Its Tariff-Defined Role.

The December 12th Filings describe PJM's, the Market Monitor's and Capacity Market Seller's respective roles in the analysis of unit specific parameters in the last sentence of proposed Section 6.6(b) of Schedule 1 to the Operating Agreement: "Throughout the analysis process, the Office of the Interconnection shall consult with the Market Monitoring Unit, and consider any input received from the Market Monitoring Unit, in its determination of a resource's unit-specific parameter limited schedule values." Every role specified in the proposed formulation is wrong. The sentence should be deleted.

The existing tariff includes a provision clarifying PJM's and the Market Monitor's respective roles and responsibilities. Section 12A of the OATT states:

> The Office of the Interconnection determines whether an offer, bid, components of an offer or bid, or decision not to offer a committed resource complies with the PJM Market Rules. The Office of the Interconnection has the final authority to determine whether an offer, bid or decision not to offer a committed resource complies with the PJM Market Rules. The Office of the Interconnection may accept an offer, bid or decision not to offer a committed resource regardless of whether the Market Monitoring Unit has made a finding that such conduct raises market power concerns, unless the Commission issues an order determining that the offer or bid must be rejected prior to the clearing of the relevant RPM Auction.
>
> The Office of the Interconnection does not make determinations about market power, including, but not limited to, whether the level or value of inputs or a decision not to offer a committed resource involves the potential exercise of market power. Acceptance or rejection of an offer or bid by the Office of the Interconnection does not include an evaluation of whether such offer or bid represents a potential exercise of market power.

> A market participant may submit any offer or bid that it chooses or make a decision not to offer a committed resource, provided that the Office of the Interconnection determines that: (i) the market participant has participated in the review process conducted by the Market Monitoring Unit (without regard to whether an agreement is obtained) if required by the Tariff; (ii) offer is no higher, in the case of seller market power, or lower, in the case of buyer side market power, than the level to which the market participant has committed or agreed in the course of its participation in such review process; and (iii) the offer is compliant with the Tariff and PJM Manuals. The market participant assumes exclusive responsibility for any adverse findings at the Commission related to its offer.
>
> The Office of the Interconnection has the exclusive authority to administer the Tariff. The Office of the Interconnection has the exclusive authority to implement the PJM Market Rules, except with respect to Attachment M and the Attachment M-Appendix and related provisions in the PJM Manuals. The Market Monitoring Unit has the exclusive authority to perform the functions set forth in Attachment M and the Attachment M-Appendix. The Office of the Interconnection shall oversee compliance with PJM Market Rules and may take action on compliance issues and/or request that the Market Monitoring Unit take action on compliance issues.

Section 6.6 of PJM's proposed tariff provides for PJM to determine "a resource's unit-specific parameter limited schedule values." Determining the values included in a participant's offer is not the role defined for PJM in Section 12A; it is the participants' role. Section 12A does not define the Market Monitor's role as advising PJM. The Market Monitor's role is to explain its position concerning participants' behavior to participants after a defined review process.

Participants determine their own offers, and they take full responsibility for the market behavior that their offers represent. This has been a core value in the PJM markets since their inception. Participants are obligated to participate in a process with the Market Monitor that allows the Market Monitor to make a determination based on the facts and to

clearly communicate that determination to the participant. The participants, informed of the Market Monitor's position, then decide what to do.

PJM's role is to determine whether an offer complies with the PJM Market Rules. If an offer does not comply with the PJM Market Rules, PJM should not accept it. For example, under Section 12A, PJM should not accept an offer if the participant refuses to participate in the review process with the Market Monitor. Proposed Section 6.6 should state PJM's role consistent with Section 12A.

Section 12A recognizes that the Market Monitor interacts directly with Market Participants in a defined process to review whether offers raise market power concerns.

The Market Monitor's role is to follow a required and defined review process with Market Participants and reach a conclusion, which it communicates both to the Market Participant and to PJM. The defined review process includes the ability to obtain data from Market Participants and to engage in dialogue with Market Participants as part of reaching a conclusion.

This is very different from requiring PJM to consult with the Market Monitor and failing to specify the separate roles of PJM and the Market Monitor with respect to interpreting the Tariff and addressing market power.

The last sentence of Section 6.6 of PJM's proposed tariff adds nothing useful. It confuses the respective roles of PJM, the Market Monitor and Market Participants set forth in Section 12A. Accordingly, the proposed last sentence proposed in Section 6.6(b) should be rejected.

2. The Market Monitor's Role Should Be Defined Consistent with Its Tariff Defined Role and Consistent with the Current Rules for Developing Unit Specific Parameters.

The essential feature of the Capacity Performance approach is "no excuses." Including operational parameters that do not reflect the capability of the technology type with energy market offers is a means for improperly avoiding dispatch. Such inaccurate parameters include both parameters that do not reflect the current physical capabilities of

the unit but also parameters that are the result of failure to invest in the unit or even the unavoidable deterioration of the unit. Such parameters create an inappropriate "excuse." Keeping operational limits as accurate as possible is essential to ensure that PJM customers get the capacity that they are paying for. It is critical that the parameters proposed by resources owners receive careful, critical scrutiny. Any other approach is likely to create loopholes for resource owners to avoid dispatch when such failure to respond should be treated as non-performance. Under the PJM proposal, if a unit is dispatched based on its parameters, it is not considered to have failed to perform.

The process included in the December 12th Filing is inadequate. The proposal fails to carry forward the process currently used to ensure critical review of Market Participants' calculation of unit specific parameters. The Market Monitor performs a role in that process consistent with its tariff-defined role and responsibilities. In order to be just and reasonable, the process for determining unit specific parameters for all capacity resources should continue and improve upon the current process. This is a significant defect in the December 12th Filings that should be corrected. Otherwise the public cannot expect that requests for unit specific parameters will receive the objective, critical and thorough review and verification that they deserve.

The Market Monitor does not suggest that ability to review requests for unit specific parameters means the ability to deny requests. That authority should be reserved to PJM, based on a determination about compliance with the tariff and manuals. If the Market Monitor determines that the proposed value raises market power or manipulation concerns, the Market Monitor will raise the issue with the Commission, including a complaint under section 206 of the Federal Power Act or other option available under Attachment M or Attachment M-Appendix to the OATT. This division of roles is exactly consistent with the specification of roles in Section 12A of the OATT. This division of roles is consistent with the current practice for the review of unit specific parameters for exceptions to the default rules.

The Market Monitor's role is to interact with Market Participants concerning submissions by Market Participants of specific inputs that they intend to include in their offers. The Market Monitor asks questions in that process and seeks verification in the process to make a determination that such inputs are competitive and do not create market power or manipulation concerns. In the process, the Market Monitor is required to clearly state its position to a Market Participant before the Market Participant determines to submit an offer in the markets and incur the associated responsibility. If the Market Monitor seeks to enforce any determination, it would seek to do that only by taking the matter to the Commission.

It is important that the rules determining unit specific parameters in the new market design are transparent and explicit. Nothing more is required than the inclusion of transparent provisions consistent with the general explanation of roles that is included in the language of Section 12A of the OATT, which was intended to resolve such disputes over roles and process.

Accordingly, approval of the December 12th Filings should be conditioned on approval of the revisions to Section 6.6 of Schedule 1 to the Operating Agreement and to Section II.B.1 of Attachment M–Appendix to the OATT that would specify a process for review of unit specific parameters consistent with Section 12A of the OATT and consistent with the current process for the review of unit specific parameters for exceptions. Specifically, Section 6.6 should be revised to include a new subsection (b-1) that reads as follows:

> Each Generation Capacity Resource establishing unit specific parameters as provided in subsection 6.6(b) must provide to the Market Monitoring Unit data and documentation required to establish the level of the such parameters by no later than one hundred twenty (120) days prior to the commencement of the applicable Delivery Year. The Market Monitoring Unit shall provide such data and documentation to the Office of the Interconnection upon receipt. The Market Seller must promptly address any concerns identified by the Market Monitoring Unit or the Interconnection regarding the data and documentation

> provided, review the unit specific parameters proposed by the Market Monitoring Unit, and attempt to reach agreement with the Market Monitoring Unit on the values for such unit specific parameters by no later than ninety (90) days prior to the commencement of the applicable Delivery Year. The Market Seller shall notify the Market Monitoring Unit in writing, with a copy to the Office of the Interconnection, whether an agreement with the Market Monitoring Unit has been reached or, if no agreement has been reached, specifying the unit specific parameter values to which it commits by no later than eighty (80) days prior to the commencement of the offer period for the applicable Delivery Year. The Office of the Interconnection shall make a determination whether to accept or reject the unit specific parameter values as compliant with the PJM Market Rules, and notify the Market Seller and the Market Monitoring Unit of its determination in writing, by no later than sixty-five (65) days prior to the commencement of the applicable Delivery Year.
>
> Generation Capacity Resources must submit unit specific parameters 90 days after an Order approving this filing.

Section II.B.1 of Attachment M-Appendix, should be revised to replace the current language in section with language that reads as follows:

> The Market Monitoring Unit shall review data and documentation timely provided by Generation Capacity Resources for establishing all unit specific parameters. The Market Monitoring Unit shall promptly request additional information for verification and to investigate any market power concerns, and owners of Generation Capacity Resources shall promptly respond to such requests. The Market Monitoring Unit shall provide its determination by no later than ninety (90) days unit of specific parameter values that do not raise market power concerns.

The December 12th Filings include no changes to Section II.B.1, but without modifications such as those here proposed, this provision will become obsolete under the new rules. Under the proposed rules, the "Parameter Limited Schedule Matrix" to which this tariff section refers will be removed.

With these revisions, the process for the review of unit specific exceptions will be one in which the expectations and roles of all parties involved are clear, and the public can

be assured that an objective, critical and thorough review and verification of parameter limits will occur. Such a process is critical for the performance-based capacity market reform to work, and it is necessary to explicitly state the process in the operational parameters rules. Accordingly, the operational parameters rules should be revised consistent with the Market Monitor's recommendation.

3. The Commission Can Adopt the Best Approach for the Operational Parameters Rules.

The proposed revised operational parameters rules are included in a separate filing in Docket No. EL15-29, under Section 206 of the Federal Power Act, because PJM has determined that it does not have the authority to submit these revisions as tariff changes under Section 205.[35] The Market Monitor agrees that the current operational parameters rules are inadequate. Adequate rules for operational parameters are necessary elements of a just and reasonable performed-based capacity market redesign.[36] Accordingly, the operational parameters rules should be replaced with improved operational parameters rules, and the proposal should be enhanced with provisions that improve the process for the review of unit specific parameters and the requirement to use technology specific and OEM parameters..

Because these changes are submitted under Section 206, the Commission does not have to afford the same deference to this part of the December 12th Filings as it would if they were filed under Section 205. The Commission can and should approve the best proposed elements or revised elements of a performance-based capacity market design regardless of their source. Considering the unusual circumstances under which the

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35 *See* 16 U.S.C. §§ 824d, 824e.

36 The Market Monitor disagrees with PJM's position (Transmittal letter in Docket No. ER15-623 at 5) that the Commission could just and reasonably approve PJM's Section 205 proposals and take no action the operational parameters rules filed under Section 206. Without the improved operational parameters rules, the performance-based capacity market redesign cannot be expected to work.

December 12th Filings were developed, the Commission should assert more authority than it might ordinarily assert even with regard to the provisions that are submitted under Section 205. The Market Monitor supports the core elements of PJM's proposal, and appreciates PJM's urgency in reacting to the problems now evident in the existing design. It is essential that a reformed capacity market design include rules both for process and substance that will ensure its success.

G. The Requirement to Make Physical Offers of Capacity Should be Clarified in the Tariff.

The current RPM market design requires physical offers from physical units. The design cannot work unless the requirement for physical offers is clearly defined, monitored and enforced. The proposed performance-based capacity market redesign continues to require physical offers to work. It is critical under the proposed redesign that all Capacity Performance offers are physical, with defined attributes, because participants making Capacity Performance offers are competing with other such units and it is essential that units not capable of performing not crowd out units that are capable of performing.

The requirement for physical offers is needed because otherwise some offers will involve speculation. Speculation means sellers without resources clearing in the capacity auction and covering those obligations with replacement transactions. The result is that the prices received by physical suppliers are suppressed.

The December 12th Filings include language explicitly requiring physical offers, but are not explicit enough about requiring resources to be physical at the time of the offer in the capacity auction. Proposed Section 5.5A(a)(i) of Attachment DD provides:

> In submitting a Sell Offer for a Capacity Performance Resource in an RPM Auction for a Delivery Year, a Capacity Market Seller is representing that it:
>
> A. has made, or is capable of demonstrating that it will make, the necessary investment to ensure the Capacity Resource has the capability for the entire such Delivery Year to provide energy at any time when called upon by the Office of the Interconnection;

B. shall be capable of complying with the performance obligations specified in this Attachment DD and in Schedule 1 of the Operating Agreement by the relevant Delivery Year;

C. meets the criteria for obtaining an exception to the Capacity Import Limit as contained in section 1.7A of the Reliability Assurance Agreement, to the extent the underlying Capacity Resource is an external Generation Capacity Resource; and

D. contemplates the physical delivery of the Capacity Performance Resource underlying such Sell Offer by no later than the commencement of the applicable Delivery Year. A Sell Offer shall not meet the standard of physical delivery, for purposes of this section, if at the time it is submitted in an RPM Auction, the Capacity Market Seller intends to satisfy its obligation for the applicable Delivery Year by subsequently securing a replacement Capacity Performance Resource through either an Incremental Auction or bilateral transaction(s). Capacity Market Sellers acknowledge and agree that the Office of the Interconnection will rely on this representation to meet the physical capacity resource adequacy objectives upon which RPM is based. A Capacity Market Seller that is unable to make such representation shall not submit a Sell Offer for that resource into an RPM Auction. Capacity Market Sellers are cautioned that representations made hereunder that are knowingly false or otherwise inconsistent with the requirements of this section may constitute a violation of, and may subject the Capacity Market Seller to penalties under, the PJM Market Rules and the FERC Market Rules.

Although this language provides useful guidance about what is expected, representations are not enough. The proposed rules still do not go as far as needed to set clear, appropriately stringent, consistent standards for what "physical" means, particularly for demand response resources, planned generation and imports.

A strong process for case-by-case review and verification of the operational and performance capabilities of Capacity Resources is necessary for performance based capacity market redesign to work.

H. The Market Monitor's Role in Evaluating Whether Offers Are Bona Fide Capacity Performance Offers Should Be Defined Consistent with Its Tariff Defined Role.

The proposed rules include a process for Capacity Market Sellers to provide information to PJM, for PJM to evaluate the information, and for PJM to reject Sell Offers that PJM determines do not meet the necessary requirements.[37] PJM's role is consistent with its role ensuring compliance with the tariff rules under Section 12A of the OATT. The proposed rules provide for the Market Monitor to advise PJM when PJM performs its role, but this is not required by or consistent with Section 12A.[38] The Market Monitor will offer its advice to PJM, if asked, but this does not need to be included in the tariff.

The Market Monitor has its own role to play in the process for reviewing whether offers represent capacity that meets quality standards needed to be reliable (proposed Section 5.5A(a)(i)(A)&(B)) and represents a resource intended for physical delivery (proposed Section 5.5A(a)(i)(C)&(D)). Offers for resources that do meet standards will suppress prices, as inferior products drive out higher quality products that are more costly to provide. Offers that are not physical also suppress prices and are a potential form of market misconduct. The review should consider whether the offer involves speculation or otherwise represents an attempt to defeat the efficient operation of the capacity market. Determinations on market power and market conduct concern the Market Monitor, and the rules should also specify a process that allows it to perform its tariff-defined role. The

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[37] *See* PJM proposed Section 5.5A(a)(ii)(A)&(B).

[38] *See* PJM proposed Section 5.5A(a)(ii)(B).

December 12th Filings do not include such a process, and its omission is not just and reasonable.

The role of the Market Monitor in the review of Capacity Performance offers is essential to the competitive functioning of the capacity market. If Capacity Market Sellers make Capacity Performance offers without the capability to meet the associated obligations to perform, the result would be an inferior product substituting for a capacity resource and the associated suppression of capacity market prices and a weakening of expected capacity performance and therefore reliability. The Market Monitor has established, in the ACR review process, a clear and rigorous approach to the review of participant offers. That process has led to agreement on ACR values almost without exception and avoided filings to extend auction deadlines and filings to modify auction outcomes.

The rules need to establish a process that explains, consistent with Section 12A and other review processes specified in the tariff, that Capacity Market Sellers must interact directly with the Market Monitor.[39] Such a process must require participants to provide information to the Market Monitor sufficient for the Market Monitor to make a market power and market conduct determination consistent with its responsibilities.[40] Unlike PJM, the Market Monitor does not reject offers, but it does inform Capacity Market Sellers of its determination and may seek to vindicate that position by taking action at the Commission.[41] Although participants may submit and take full responsibility for offers submitted over the Market Monitor's objections, participation in the process is required. The process allows the Market Monitor to make an informed determination and to communicate that determination to Capacity Market Sellers.

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39 *See* OATT § 12A.

40 *See id*.

41 *Id*.

Accordingly, the Market Monitor requests that approval of the December 12th Filings be conditioned on approval of the revisions to Section 5.5A of Attachment DD to the OATT and the addition of a new Section II.K to Attachment M–Appendix to the OATT, which would together set forth a process for review of whether an offer for a Generation Capacity Resource will represent a physical resource, meaning that such resource can meet the operational and performance requirements of Capacity Performance Resources. Section 5.5A(a)(ii) should be revised to include a new subsection (A-1) as follows:

> The Market Monitoring Unit shall review any requested supporting data and information. The Capacity Market Seller must promptly address any concerns identified by the Market Monitoring Unit regarding the data and documentation provided and attempt to reach agreement with the Market Monitoring Unit. The Capacity Market Seller shall, prior to submitting any Sell Offer for such resource, notify the Market Monitoring Unit in writing, with a copy to the Office of the Interconnection, whether an agreement with the Market Monitoring Unit has been reached or, if no agreement has been reached, specifying why the Capacity Resource meets the operational and performance requirements of a Capacity Performance Resource.

Section 5.5A(a)(ii) should be revised to delete material from subsection (B) as follows:

> The Office of the Interconnection ~~and the Market Monitoring Unit~~ shall review any requested supporting data and information, and the Office of the Interconnection~~, considering advice and recommendation from the Market Monitoring Unit,~~ shall reject a request for a resource to offer as a Capacity Performance Resource if the Capacity Market Seller does not demonstrate to the satisfaction of the Office of the Interconnection that the resource meets the necessary requirements. The Office of Interconnection shall provide its determination to reject eligibility of the resource as a Capacity Performance Resource, and notify the Market Monitoring Unit, by no later than sixty-five (65) days prior to the date on which the offer period for the applicable RPM Auction commences. A Capacity Market Seller that is dissatisfied with any determination hereunder may seek any remedies available to it from FERC; provided, however, that the Office of the

> Interconnection will proceed with administration of the Tariff and market rules unless and until ordered to do otherwise by FERC.

Attachment M-Appendix, should be revised to include a section II.K specifying the Market Monitor's role in the verification of Capacity Performance offers in RPM to ensure that they are bona fide physical offers of Capacity Performance resources:

> The Market Monitor shall review and verify data and information that it receives from Capacity Market Sellers under section 5.5A of Attachment DD and determine whether it has concerns about whether the underlying Capacity Resource can meet the operational and performance requirements of Capacity Performance Resources, and, if there are such concerns, whether those concerns raise market power or manipulation concerns or otherwise raise concerns that such sellers conduct is inconsistent with the unit specific physical resource procurement that the capacity market rules are designed to effect. The Market Monitor shall communicate any such concerns within 30 days after its determination that it has received adequate data and information and attempt to reach an agreement on whether the offer is a bona fide physical offer.

With these revisions, the process for the review of physical offers of Capacity Resources will be one in which the expectations and roles of all parties involved are clear, and the public can be assured that an objective, critical and thorough review and verification of whether offers of Capacity Performance resources will be backed with physical resources capable of meeting the obligations of such resources. Such a process is critical for the performance-based capacity market reform to work and it is necessary to explicitly state the process in the market rule. Accordingly, the proposed rules should be revised consistent with the Market Monitor's recommendation.

I. The Provisions for Treatment of Demand Response in the Market Redesign Are Not Compatible with the Performance-Based Market Redesign.

A fully functioning demand side of the electricity market means that end use customers or their designated intermediaries will have the ability to see real time energy price signals in real time, will have the ability to react to real time prices in real time and will have the ability to receive the direct benefits or costs of changes in real time energy use.

The Capacity Proposal from PJM does not advance Demand Resources towards a fully functioning demand side of the market. There are design flaws with the current rules and proposed rules for PJM Demand Response.

Demand Resources should be on the demand side of the market and not on the supply side.[42] If structured correctly, demand side resources would continue to be significant participants in the market but without inefficient price suppressing effects and without concerns about inadequate and inaccurate measurement and verification methods.

In PJM's proposal, the requirements for Demand Resources are not identical to other capacity resources. PJM has not offered any reasons for continuing to treat Demand Resources differently. This special treatment is inconsistent with the fundamental Capacity Performance approach. Demand Resources should be treated in the same way as other capacity resources if they are to remain on the supply side of the capacity market. That is the only to ensure that the market can function competitively.[43]

Generation and Demand Resources are treated differently in the PJM proposal in a number of ways:

i. Generators must respond any hour of the delivery year while Demand Resources are limited to 10AM to 10PM June through October and the following May and 6AM to 9PM November through April.

ii. Demand Resources do not have a must offer requirement for the day ahead energy market.

iii. Demand Resources have a higher energy offer price cap than generation resources.

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42 *See* PJM Filing, Docket No. ER15-852-000 (January 14, 2015).

43 The Market Monitor has reported all of the following recommendations in the 2014 State of the Market Report for PJM: January through September, Section 6: Demand Response.

iv. Generators require five minute interval meters that update PJM in real time while Demand Resources have hourly interval meters that must submit data within 60 days of an event.

v. Direct Load Control customers do not require any metering requirement.

vi. Demand Resources aggregate compliance data across Compliance Aggregation Areas while generators are not allowed to aggregate data for compliance purposes.

vii. Demand Resources do not have to provide nodal location when registering customers while every generator is registered to a specific node.

Unlike Generation Resources, Demand Resources that are cleared as the capacity performance product are not required to respond all 8,760 hours of a delivery year. Demand Resources are only required to respond from 10AM to 10PM during June through October and the following May, and 6AM to 9PM for November through April. Generators are not given the opportunity to respond for only part of the delivery year. This is granting Demand Resources an unfair advantage over other capacity performance resources.

Demand Resources are not being treated as an economic resource in the capacity market, even though they are clearing the capacity market as economic resources. Generators have the requirement of a must offer into the day ahead energy market, while Demand Resources do not. Demand Resources should be held to the exact same standard as other cleared capacity resources, which includes a must offer into the day ahead energy market.

Measurement and verification issues will always be part of Demand Resources as long as demand is estimated rather than metered. Instead of allowing demand the ability to face real time prices and make an economic decision in real time, PJM creates estimated load usage for each location (customer baselines) and measure reductions from that baseline. The creation of an artificial baseline from which reductions are measured will never be completely accurate. Normal fluctuations with daily operations create changes that result in positive and negative measurements for demand reductions. Instead, Demand Resources should pay the real time price of electricity and have the ability to respond in real

time. This will remove the need for a customer baseline and instead, only charge a customer for what each customer consumed.

Compliance for customers registered with the Firm Service Level (FSL) method occur from the customers registered Peak Load Contribution (PLC). This is inherently flawed for anytime a customer's load is not at their PLC. If a customer's normal operations change during the Delivery Year, the Curtailment Service Provider (CSP) will receive the benefit of a phantom reduction for any future event, even though the customer does not actively reduce for a demand response event. Guaranteed Load Drop (GLD) customers are faced with the same problem of a customer baseline. Customers that are registered with GLD have a customer baseline from which reductions must occur. Normal fluctuations with daily business operations create changes that will result in theoretical reductions of demand. A customer could receive credit for a reduction that did not occur.

When there are demand response events in the winter, or any off peak period, customers are generally not at peak load levels consistent with the definition of PLC. To address this, PJM proposed, in Capacity Performance, to add a customer baseline (CBL) methodology for measuring the compliance of capacity resources during off peak periods. This is the same method used with the GLD method. To avoid double counting demand reductions, GLD requires that the reduction occur from a baseline that is less than the PLC level for a customer. However, PJM's proposed application of the CBL method in Capacity Performance does not also require that reductions occur from a baseline less than a customer's PLC level. This can result in double counting and should be modified. The CBL method for use in Capacity Performance should only include reductions that occur from a baseline below the customer's registered PLC.

Direct Load Control (DLC) is not required to have meters, but is based on an assumed reduction, as long as the central control switch is on. Consistent with the fundamental approach of Capacity Performance, all resources should be metered in order to ensure that all capacity is actually performing as required.

In general, the metering requirements for Demand Resources are not as strong as for generation resources. To participate as a Demand Resource, only an hourly interval meter is required if registered as FSL or GLD. For any demand response event, the data submitted to PJM is only hourly data. When Demand Resources are dispatched for any time besides full clock hours, reductions are based on estimates. Demand resources should be required to have five minute interval meters in order to ensure that all capacity is actually performing as required.[44]

Demand Resources are permitted to aggregate reductions for all resources dispatched over a Compliance Aggregation Area. This enables resources that are in very different electrical locations to be used as substitutes. Demand Resources under Capacity Performance should be required to provide a nodal location and should be dispatched nodally in order to ensure that all capacity is actually performing as required.

PJM's methodology for data collection on reductions and calculation of compliance are also flawed and should be addressed in the Capacity Performance matter. PJM does not require data to be submitted to real time for demand response events.

PJM's compliance calculations ignore any data that show a customer had a negative reduction (load increased). By ignoring negative reductions, and only counting positive reductions, PJM is skewing the compliance results and the actual effect of Demand Resources. For example, in 2014, PJM calculated compliance for demand response events 8.5 percent higher, at 37.7 percent compliance compared to 29.2 percent compliance if negative reductions were included.[45]

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[44] *See* 2014 State of the Market for PJM: January through September, Section 6 (Demand Response), Recommendations.

[45] *See* 2014 State of the Market for PJM: January through September, Section 6 (Demand Response), Table 6-32.

Since their inception, the PJM market rules have capped offers in the PJM Energy Market from Generation Capacity Resources at $1,000 per MWh.[46] Demand Resources are allowed, and do offer into the energy market above the limit for generators. Generators are capped at an offer of $1,000 per MWh, but Demand Resources can go as high as ($1,000 + Scarcity Penalty - $1) per MWh. Demand Resources should have the same offer cap as generators; $1,000 per MWh.[47] There is no reason to apply a higher offer cap to Demand Resources than to generation. If a higher offer cap is warranted for the market and the RPM net revenue offset method is refined, then offer caps should be raised for all resource types.[48]

Under the current rules, a Capacity Market Seller may request relief from Capacity Resource Deficiency Charges for a Demand Resource if "it demonstrates that the inability to provide the level of demand response specified in its Sell Offer is due to the permanent departure (due to plant closure, efficiency gains, or similar reasons) from the Transmission System of load that was relied upon for load response in such Sell Offer[.]"[49] If the proposed Capacity Performance changes are accepted, the Relief from Charges provision should be eliminated. The Relief from Charges provision creates a loophole for Demand Resource providers and is inconsistent with the intent and goal of the Capacity Performance proposal. There is nothing analogous for generation or other capacity resources that participate in the capacity market. In order to ensure that all capacity is actually performing as required and treated comparable, this provision should be removed from the tariff.

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46 *See* OA Schedule 1 § 1.10.1A(d).

47 *See* 2014 State of the Market for PJM: January through September, Section 6 (Demand Response), Recommendations.

48 *See* Complaint and Motion to Consolidate of the Independent Market Monitor for PJM, Docket No. ER14-20-000 (January 27, 2014); 142 FERC ¶ 61,027 at PP 27–30; ISO New England Market Rule 1 § III.1.10.1A(d).

49 OATT Attachment DD § 8.4.

Accordingly, the Market Monitor proposed revisions to the tariff that would address these issues. The Market Monitor proposes to revise Section K of Attachment DD-1 to the OATT as follows:

> For Load Management Events occurring during the months of October through May of the 2018/2019 Delivery Year and subsequent Delivery Years:
>
> Compliance is determined on an individual customer basis by ~~comparing actual metered load to an end-use customer's Customer Baseline Load or alternative CBL determined in accordance with the provisions of Section 3.3A.2 or 3.3A.2.01 of the Operating Agreement.~~
>
> (i) the lesser of (a) comparison load used to best represent what the load would have been if PJM did not declare a Load Management Event or the CSP did not initiate a test as outlined in the PJM Manuals, minus the Load and then multiplied by the LF, or (b) the PLC minus the Load multiplied by the LF. A load reduction will only be recognized for capacity compliance if the Load multiplied by the LF is less than the PLC.
>
> (ii) Curtailment Service Providers must submit actual loads and comparison loads for all hours during the day of the Load Management Event or the Load Management performance test, and for all hours during any other days as required by the Office of the Interconnection to calculate the load reduction. Comparison loads must be developed from the guidelines in accordance with the provisions of Section 3.3A.2 or 3.3A.2.01 of the Operating Agreement.

The Market Monitor proposes to revise Section 1.1A of the RAA as follows:

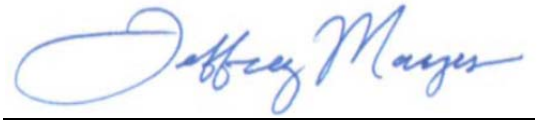
> Annual Demand Resource shall mean a resource that is placed under the direction of the Office of the Interconnection during the Delivery Year, and will be available for an unlimited number of interruptions during such Delivery Year by the Office of the Interconnection, and will be capable of maintaining each such interruption ~~between the hours of 10:00AM to 10:00PM Eastern Prevailing Time for the months of June through October and the following May, and 6:00AM through 9:00PM Eastern Prevailing Time for the months of November through April unless there is an Office of the Interconnection approved maintenance outage~~

~~during October through April~~ for any hour of a Delivery Year. The Annual Demand Resource must be available in the corresponding Delivery year to be offered for sale or Self-Supplied in an RPM Auction, or included as an Annual Demand Resource in an FRR Capacity Plan for the corresponding Delivery Year.

II. CONCLUSION

The Market Monitor respectfully requests that the Commission afford due consideration to these comments as the Commission resolves the issues raised in this proceeding.

Respectfully submitted,



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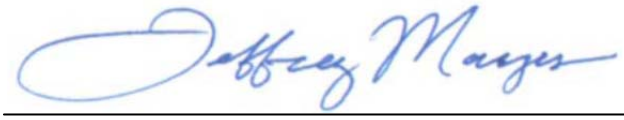
Dated: January 20, 2015

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 Eagleville, Pennsylvania,
this 20th day of January, 2015.



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