UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

PJM Interconnection, L.L.C. ) Docket No. EL15-29-000

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


I. MOTION FOR LEAVE TO ANSWER

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

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1 *PJM Interconnection, L.L.C.*, Docket No. EL15-29-000 (Dec. 12, 2014) (“Section 206 Filing”). Where PJM refers herein to provisions in Schedule 1 of the Operating Agreement, those references also are intended to encompass the identical, parallel provisions in Attachment K-Appendix of the Tariff.

2 See 18 C.F.R. Section 385.213(a)(2).
assist the Commission in its deliberative process by correcting errors and clarifying the issues.\textsuperscript{3} As demonstrated below, all of these criteria are met. Therefore, PJM respectfully requests that the Commission grant its Motion because the Answer will help clarify the record and contribute to an understanding of the issues.

II. BACKGROUND AND SUMMARY

On December 12, 2014, PJM submitted proposed revisions to the Operating Agreement and related revisions to the Tariff to correct present deficiencies in those agreements on matters of resource performance, and excuses for resource performance, in the wholesale markets administered by PJM.\textsuperscript{4} PJM requested an April 1, 2015 effective date. As PJM explained in the Section 206 Filing, PJM also filed concurrently under Section 205 of the Federal Power Act, 16 U.S.C. §824d, proposed modifications to the Tariff and RAA to better ensure that committed capacity resources will perform when called upon to meet the reliability needs of the PJM Region.\textsuperscript{5} In developing those capacity market design changes, PJM also more broadly reviewed issues of resource performance, and excuses for resource performance, arising outside the PJM capacity market. Based on that review, PJM identified, and proposed reforms to, four areas of its current energy market rules that enable, or could enable, unreasonable excuses for Market Participant performance in PJM’s markets. Specifically:

\textsuperscript{3} PJM seeks leave to answer the protests and comments to its December 12 Filing to assist the Commission’s decision-making process and clarify the issues. The Commission regularly allows answers in such cases. See, e.g., PJM Interconnection, L.L.C., 139 FERC ¶ 61,165, at P 24 (2012) (accepting answers to a protest because “they have provided information that assisted [the Commission] in [its] decision-making process”); PJM Interconnection, L.L.C., 104 FERC ¶ 61,031, at P 10 (2003) (accepting answer because “it will not delay the proceeding, will assist the Commission in understanding the issues raised, and will [e]nsure a complete record upon which the Commission may act”); Ne. Utils. Serv. Co., 86 FERC ¶ 61,161, at 61,568 (1999) (accepting an answer to a pleading that sought affirmative relief and because the response aided in the Commission’s analysis and disposition).

\textsuperscript{4} Capitalized terms not otherwise defined herein have the meaning specified in, as applicable, the Tariff, Operating Agreement, or Reliability Assurance Agreement Among Load Serving Entities in the PJM Region (“RAA”).

\textsuperscript{5} PJM Interconnection, L.L.C., Docket No. ER15-623-000 (Dec. 12, 2014) (“Section 205 Filing”).
• The current energy market rules allow Market Sellers in certain circumstances to condition their Day-ahead Energy Market offers on acceptance of parameter limitations that extend beyond the operating design characteristics of their specific resources;

• the Operating Agreement’s current force majeure rules are unreasonably over-broad as applied to transactions and commitments in PJM’s wholesale markets, and should be dramatically narrowed to excuse PJM Market Participant performance only when catastrophic conditions broadly preclude performance by all or most Market Participants in the PJM Region;

• the current market rules extend an overbroad opportunity to sellers of Generation Capacity Resources to avoid energy market performance, and potentially engage in economic withholding, by submitting uneconomic (“Maximum Emergency”) offers in the Day-ahead Energy Market, even in circumstances when PJM has issued certain alerts or warnings, which indicates a heightened need for capacity; and

• the current Operating Agreement should be clear, but is not, that PJM can withdraw or rescind prior approval of a generator maintenance outage when necessary for resource adequacy or reliability reasons in anticipation of, or to avoid, emergencies, and also fails to clearly provide for other PJM actions that would better enable PJM to strike the right balance between system reliability needs and the needs of sellers for prudent and cost-effective maintenance of their generation facilities.

All of these provisions principally arise under the Operating Agreement, which can be amended only upon a supermajority vote of the PJM Members. Because these changes were considered in connection with the Capacity Performance changes, pursuant to a special stakeholder process that proceeded directly to the PJM Board of Managers without a stakeholder vote, no such vote was held for these changes. PJM therefore asked the Commission to revise these Operating Agreement provisions pursuant to Section 206 of the Federal Power Act, 16 U.S.C. § 824e.6

As required under Federal Power Act Section 206, PJM supported its proposed modifications by showing the current energy market rules are unjust, unreasonable, unduly discriminatory or preferential. As PJM explained, the common thread in each of the four areas noted above is that “PJM’s current rules include provisions that Market Participants have used, or might attempt to use, to excuse performance by their resources. These current provisions are

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6 The Commission can approve the Tariff changes under Section 205 of the Federal Power Act.
inconsistent with the overriding theme of both the Section 205 Filing and this filing, i.e., resource performance responsibility should rest with Market Sellers, and should not be transferred to loads.” PJM also showed that its proposal is just and reasonable and not unduly discriminatory or preferential, the other half of the burden of proof under a Section 206 filing, because the proposal remedies those specific deficiencies in a manner that promotes reliability, resource accountability, and efficient and competitive markets.

Various market participants supported PJM’s Section 206 Filing as necessary to carry out the goals of PJM’s Capacity Performance proposal. Nevertheless, PJM’s filing also drew challenges to which PJM responds herein.

III. ANSWER

A. PJM’s Proposed Modifications to Parameter Limited Schedules Resolves Present Shortcomings that Render the Current Provisions Unjust and Unreasonable

1. PJM has satisfied its burden to demonstrate that the current provisions are unjust and reasonable, and that the proposed changes are just and reasonable.

Despite the contention of several protesters, PJM has satisfied its burden under Section 206 of the Federal Power Act to demonstrate that its existing parameter limited schedules (“PLS”) provisions applicable to generation resources are unjust and unreasonable and has shown that its proposed revisions are just and reasonable. As PJM indicated in its Section 206 Filing, market rule changes will be needed if FERC accepts the Section 205 Filing because its

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7 Section 206 Filing at 4.
8 Id. at 4-5.
current rules will become unjust and unreasonable to the extent they allow resources to submit inflexible operating parameters on the basis of inflexible fuel supply arrangements or due to a lack of necessary investment in their physical resources. If the Capacity Performance rules are adopted, the existing PLS rules will undermine the reliability and efficiency benefits that the Capacity Performance changes are designed to provide. As Dominion acknowledges, the existing rules need improvement to “enhance PJM’s ability to handle extreme weather events.”

Further, as PJM indicated in the Section 206 Filing transmittal letter, the common thread in each of the four areas that PJM proposed to change is

PJM’s current rules include provisions that Market Participants have used, or might attempt to use, to excuse performance by their resources. These current provisions are inconsistent with the overriding theme of both the Section 205 Filing and this filing, i.e., resource performance responsibility should rest with Market Sellers, and should not be transferred to loads. Consistent application of that principle compels changes in each of the areas described below. Moreover, the particular replacement provisions proposed in this filing are just and reasonable because they remedy those specific deficiencies in a manner that promotes reliability, resource accountability, and efficient and competitive markets.

2. **PJM’s proposed minimum standards based on a resource’s physically achievable operating design characteristics are reasonable.**

There were concerns raised regarding what physically achievable operating characteristics would be considered by PJM in the determination of unit-specific PLS values, and whether changes in resources that can no longer operate based on their original design or capabilities would be taken into account.

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11 Dominion Protest at 22.
12 Section 206 Filing at 4-5.
Guidance on what factors PJM takes into consideration in unit-specific PLS exception reviews, which would be consistent with what PJM will consider in the determination of unit-specific PLS values, can be found in PJM Manual 11, Section 2.3.4 regarding exceptions to default PLS values, which “include but are not limited to, metallurgical restrictions due to age and long term degradation; physical design modifications; operating permit limitations; operating limits imposed by federal, state or local regulatory requirements or insurance carrier requirements; consent decrees; manufacturer technical bulletins; or environmental permit limitations under non-emergency conditions.”\(^{14}\) PJM will need to revise Manual 11 to incorporate specific guidance regarding the factors that will be considered in the determination of unit-specific PLS values.

Consistent with its PLS exception process, PJM will permit changes to unit-specific PLS values for changed circumstances. Thus, when PJM conducts its PLS reviews it will take changed operational capabilities into consideration. PJM’s proposed revisions to Section 6.6 already clearly reflects PJM’s intent to reconsider its determination of the unit-specific parameters for a resource that upgrades, makes other remedial changes to its resource, or performs other ongoing capital investments and maintenance on the resource, that affect the physically achievable operating parameters of the resource. PJM’s proposed revision to Section 6.6(b) specified, in relevant part that “the Office of the Interconnection shall determine the unit-specific physically achievable operating parameters for each individual resource on the basis of its operating design characteristics, recognizing that remedial and ongoing investment and maintenance may be required to perform on the basis of those characteristics . . . “\(^{15}\)


\(^{15}\) Proposed revisions to Section 6.6(b) (emphasis added).
In addition, as the current rules already provide, if the Market Seller believes the PLS is no longer appropriate for the resource, it can request an exception to the PLS based on changed operational conditions and PJM and the Independent Market Monitor for PJM (“IMM”) will evaluate the request and PJM will determine whether an exception should be granted.\footnote{Current Operating Agreement, Schedule 1, Section 6.6(f).}

PJM understands that “a unit may not be able to achieve its maximal performance in adverse weather conditions”\footnote{Motion to Intervene and Protest of LS Power Associates, L.P., Docket No. EL15-29-000, at 6 (Jan. 20, 2015) (“LS Power Protest”).} as LS Power indicates. However, PJM disagrees that “to the extent PJM maintains unit-specific parameter limited schedules, these schedules must be based on what a unit owner determines is reasonably achievable, in accordance with good utility practice.”\footnote{Id. at 7.} PJM’s proposed Operating Agreement provisions allow for historical evaluation and Market Seller input into the establishment of those parameters. Consistent with Order No. 719, PJM must have the authority to determine on what values a resource would be settled, subject to the Market Seller having the ability to seek a different determination from the Commission if it disagrees with PJM’s determination.

Further, contrary to Essential Power’s belief that eliminating the Parameter Limited Schedule Matrix from Section 6.6 of Schedule 1 of the Operating Agreement “puts market participants in the unjust and unreasonable position of possibly not being aware of their unit-specific requirements prior to offer deadlines for capacity market auctions,”\footnote{Essential Power Protest at 17.} PJM intends to provide such initial PLS values for Generation Capacity Resources prior to the commencement of the upcoming Base Residual Auction scheduled to be held in May 2015. In addition, after the unit-specific PLS for a generation resource has been determined by PJM for the first time, the
same PLS shall apply to the resource until PJM becomes aware that operational conditions of the resource require a change in its unit-specific PLS in which case the Market Seller should seek to obtain an exception to its unit-specific PLS values determined by PJM. Thus, until that time, Market Sellers will be aware of their unit-specific requirements prior to the offer deadlines for Reliability Pricing Model (“RPM”) Auctions. PJM further suggests that any Capacity Market Seller concerned about their PLS values should contact PJM’s Day-ahead Market Operations Department as soon as possible to initiate those discussions.

3. **PJM’s proposed parameter limits are not unduly discriminatory.**

Several stakeholders argue that PJM’s proposal is unduly discriminatory, or is unjust and unreasonable, because it applies different operating parameters and performance obligations to resources depending on resource type.\(^{20}\) Thus they believe that as a result, some units may have a competitive market advantage or disadvantage as compared to other units because they have either shorter or longer combined start-up and notification times and minimum down times than other resource types.\(^{21}\) Specifically, they point to the fact that Capacity Storage Resources have a shorter start-up and notification time than other resource types, and that the start-up and notification time for gas-fired units are discriminatory relative to resources that have onsite fuel reserves and capability. Further, AMP, ODEC and SMEC allege that PJM’s proposal unreasonably treats a generating resource’s requirement to operate ratably to address pipeline constraints as market manipulation.\(^{22}\)

\(^{20}\) *Id.*; LS Power Protest at 4-5 (*citing* 16 U.S.C. § 824d(b)(1) (2012)).

\(^{21}\) Essential Power Protest at 17; LS Power Protest at 4 (referring to shorter start-up and notification times for Capacity Storage Resources); Protest of Rockland Electric Company, Docket No. EL15-29-000, at 28–29 (Jan. 20, 2015) (“the start-up and notification time limits discriminate against gas-fire units relative to their onsite fuel counterparts”) (“Rockland Protest”).

\(^{22}\) ODEC/SMEC/AMP Protest at 15-16.
The applicable parameter limits proposed by PJM will be based on physically achievable operating design characteristics that are unit specific. As illustrated by the default PLS Matrix that is currently in Section 6.6, the parameter limits will differ based on the resource technology type since different resource types have different physical operating characteristics and capabilities. Resources that desire less flexible operating parameters because of contractual costs, such as maintenance contracts or inflexible fuel contracts, can reflect these costs in the RPM Sell Offer. This approach is more efficient because the costs to address them are longer term contractual costs not daily operational costs. PJM believes it is unreasonable to continue to allow increasingly inflexible unit operating parameters based on contractual limitations because these inflexible parameters cause cost shifts in the form of increased uplift payments. Further, it is entirely reasonable that a more flexible resource have a competitive advantage in the energy market over a less flexible unit because the more flexible unit can be operated more efficiently and therefore at a reduced cost to serve load.

For example, resources with inflexible gas contracts submit longer than normal minimum run times into the energy market during days when the gas pipeline is restricted. Large numbers of such long run time resources create severe scheduling problems in power system operations and require system operators to “over schedule” generation during most hours of the day in order to have sufficient resources to cover either one four-hour peak period as occurs in the summer, or both a morning and evening peak period as occurs in the winter. As demonstrated during the January 2014 severe weather conditions, this phenomenon causes substantial price suppression and market uplift cost that is socialized to all consumers.

PJM’s Capacity Performance proposal is designed to provide incentive for the resources to acquire more flexible gas contracts, install additional pipeline connections to multiple
pipelines where reasonably available or install dual fuel capability. The proposal also permits costs associated with obtaining firm fuel supplies to be reflected in the RPM Sell Offer, which is the appropriate place for them and the most efficient mechanism to provide this incentive. This incentive is necessary to promote the appropriate infrastructure investment to allow efficient operation and scheduling of the power system. If these costs continue to be reflected through inflexible resource offers, then the costs are hidden because they reveal themselves as uplift costs in the energy market which cannot be hedged or predicted by consumers. PJM’s intent is not that Market Sellers can’t shift the costs of these natural gas constraints to electric consumers – they just need to do so by including those costs in their Sell Offers in RPM so as to ensure that these costs are considered but subject to competitive pressure in the choice of resources arising from the RPM Auction.

4. The proposed reductions to resource start-up and notification-time requirements are just and reasonable.

Several commenters allege that PJM’s proposed market rule changes to limit combined start-up and notification time to 14 hours, and notification time to one hour, for Capacity Performance resources when a Hot Weather Alert or Cold Weather Alert has been issued is unjust and unreasonable.\(^{23}\) They further allege that these “more stringent operating parameters” could force older generation resources out of the market because they are not as flexible as gas-fired resources, which would “increase[e] the region’s reliance on gas-fired generation and undermining efforts to promote fuel diversity and increase reliability.”\(^{24}\) They argue that these older base load resources bring value to the system because they increase fuel diversity and

\(^{23}\) ODEC/SMEC/AMP Protest at 12-15; Dominion Protest at 11-16.  
\(^{24}\) Dominion Protest at 11.
contribute to system reliability, and for that reason PJM should allow them additional start-up time so they can start in a safe and reliable manner.\textsuperscript{25}

In PJM’s view, a resource that cannot start within the shortened time frames is, and should be considered, a Base Load Generation Resource. A Base Load Generation Resource is defined as “a Generation Capacity Resource that operates at least 90 percent of the hours that it is available to operate, as determined by the Office of the Interconnection in accordance with the PJM Manuals.”\textsuperscript{26} Such resources are not, and should not be, scheduled by PJM. Rather, they run whenever they are available to run so their startup and notification time should be irrelevant. PJM does not need to commit these resources in advance, unlike non-Base Load Generation Resources which it does need to commit.

On the other hand, resources that are not Base Load Generation Resources and take over 14 hours to start do not provide the value in the market that non-Base Load Generation Resources that can meet the startup requirements provide. The RPM capacity market provides the competitive forum by which investment in resources can be accurately assessed. If the investment required for an existing non-Base Load Generation Resource to enable it to meet the required startup parameters is greater than that which is required to construct a new resource that is able to meet those parameters, then the economic choice is to defer to the new unit. RPM provides the correct venue to make this evaluation of the most economic set of resources to meet system reliability needs. Resources that choose not to make the investment required to meet these parameters should be incented to self-schedule in the energy market in order to meet PJM dispatch requirements, rather than being able to submit longer startup parameters and thereby shifting the operational risk to the load.

\textsuperscript{25} \textit{Id.} at 12, 22.

\textsuperscript{26} Tariff, Attachment DD, Section 2.3.
Dominion also expresses concern that PJM’s proposal does not “demonstrate that the run-time, start-up and notification limitations it proposes are consistent with the operational characteristics of resources participating in the PJM capacity markets.”

Dominion is correct. PJM does not attempt to demonstrate that the run-time, start-up time and notification time limitations are consistent with the operational characteristics of resources that are participating in RPM. That is because it is not necessary to do so given that all cleared Capacity Resources are expected to be ready to operate at PJM’s direction 365/366 days per year. Capacity Performance Resources will be paid a premium to be available on 14 hours or less notice during pre-emergency and emergency conditions, and the purpose of that premium is to pay for upgrades to the resource so that it can start on less than 14 hours combined start-up and notification time. As explained in the Section 206 Filing, the referenced start-up and notification time requirements for Capacity Performance Resources during Hot and Cold Weather Alerts were determined based on PJM’s scheduling needs in preparation for a summer or winter peak load event.

5. Market Sellers will have input into the determination of unit-specific PLS values.

Several protesters object to PJM’s proposal because they believe that PJM intends to establish unit-specific PLS without input from or consultation with the owner of the generation resource for which the parameters are being established. To the contrary, PJM will develop the unit-specific PLS with input from the Market Sellers who offer the resources into PJM’s markets and from the IMM.

27 Dominion Protest at 13.
28 Section 206 Filing at 11.
Under PJM’s current market rules, all resources are subject to the default PLS values set forth in the PLS Matrix found in Section 6.6(c) of Schedule 1 of the Operating Agreement unless they request and obtain approval from PJM for an exception to the default values under the process described in Section 6.6(h) of Schedule 1 of the Operating Agreement and Section II.B of Attachment M-Appendix of the Tariff. Outside of this process, no unit-specific PLS values are determined for a Generation Capacity Resource. Most Market Sellers prefer to use the default values to take advantage of the flexibility they provide to them in the operation of their resources.

In determining whether to approve a unit-specific exception to the default PLS values for a Market Seller’s resource, PJM has used the original equipment manufacturers’ operating parameter specifications to determine unit-specific exceptions to the default PLS for Planned Generation Capacity Resources since historical data is unavailable for such resources. PJM obtains this information from the Market Seller or the generator manufacturer in question.

PJM has used historical data that it has received from Market Sellers and historical data regarding the actual operation of the resource in PJM’s databases in determining whether to approve an exception to the default parameter limits of Existing Generation Capacity Resources. In this process, if PJM has questions about the data it contacts the Market Seller for further information.

Under PJM’s proposed market rule changes to allow for PJM and the IMM to review, and PJM to determine, unit-specific PLS values for every Generation Capacity Resource, PJM will continue to employ this same process it currently utilizes in the PLS exception process to develop unit-specific PLS for resources whereby it will obtain from Market Sellers (and possibly

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30 See Operating Agreement, Schedule 1, Section 6.6(h).
generator manufacturers) original equipment manufacturer operating parameter specifications for Planned Generation Capacity Resources, and will in addition utilize historical information it already has in its systems and obtain additional historical information from Market Sellers as necessary, for Existing Generation Capacity Resources.

PJM disagrees with the IMM that PJM should only use original equipment manufacturer operating parameter specifications for resources rather than historical operating data in making its determination of the unit-specific PLS for a resource. On the other hand, PJM understands and agrees with the IMM that its new market rules “should not continue to provide incentives to resources with poor parameters.” Nevertheless, in PJM’s view the historical operating data for each resource is relevant albeit not dispositive of the determination of the appropriate PLS values for that resource.

6. The flexibility of a unit is as important on non-critical days as it is on critical days.

The Coalition of Gas Generators and Project Finance Resources requests that the Commission direct PJM to modify Section 6.6 to indicate “that generation resources are not required to provide the same level of flexibility on critical and non-critical days.” Rockland Capital contends that PJM does not understand that firm natural-gas transportation does not alleviate all reliability issues and PJM assumes that owners of gas-fired resources can always “purchase relief from the physical constraints pipeline operators impose on all gas users in order to ensure safe and reliable operation of the natural gas transmission system.”

31 IMM Comments at 29.
32 Id.
33 Gas Generators Coalition Protest at 21.
34 Rockland Protest at 26.
35 Id.
Under the Capacity Performance proposal, Generation Capacity Resources must ensure they will be available to PJM when they are needed, not just on critical days. PJM is very much aware that firm natural gas transportation does not ensure reliability and that resource owners cannot always obtain relief from physical gas pipeline restraints. Nevertheless, the Market Seller (or generation resource owner) is in the best position to manage these risks and make necessary investments to ensure that PJM has the same flexibility to call on their resources on both critical and non-critical days (such as through the installation of dual fuel capability in order to address non-deliveries of gas). If the generator never bears this risk they have no incentive to hedge it or take steps to pursue these alternative means to ensure fuel assurance. The market rule changes that are being proposed in PJM’s Section 205 Filing will provide the necessary financial incentives for investment by generation owners in the fuel assurance infrastructure that will allow them to prepare their resources to have increased flexibility on these days.

Capacity Performance resources will be compensated through RPM at a higher level than Capacity Resources are compensated today to ensure that they will be available during the peak periods when PJM needs them most. The expectation is that Market Sellers (or generation owners) will use this additional compensation to upgrade their generation resources to either ensure they have dual fuel capability, ensure they have fuel stored on site or readily available, or to engage in more flexible fuel supply arrangements so they can perform as directed by PJM or accept the risk of needing to operate outside of PJM’s direction, at their own expense, in order to meet PJM’s dispatch instructions.

7. **PJM clarifies that PLS only applies to Capacity Resources.**

Dominion asks that PJM clarify “that resources that are not capacity resources, but that are nonetheless participating in the energy markets, are not subject to the parameter
limitations” and that “resources participating in the energy markets that are not capacity resources are not subject to the more stringent parameter limitations PJM has proposed.” By definition, PLS only applies to Generation Capacity Resources both today under the existing market rules and in the future if its proposed revisions in this docket are accepted. This is clearly reflected in the first sentence of Section 6.6(a) which provides that “Market Sellers submitting Offer Data for Generation Capacity Resources shall submit and be subject to pre-determined limits,” i.e. parameter limited schedules, under the circumstances set forth in Section 6.6.

8. The IMM’s requests for clarification are unnecessary.

The IMM requests that PJM clarify several issues in the Tariff and Operating Agreement that PJM does not believe require clarification and for that reason, PJM asks that the Commission reject the requests as discussed below.

First, the IMM requests clarification that resources with start-up and notification times during an Operating Day that exceed the resource’s unit-specific start-up and notification times determined by PJM should not be made whole for their operation. Similarly, the IMM recommends that PJM clarify 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” and “so Generation 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.”

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36 Dominion Protest at 24.
37 Id. at 25.
38 IMM Comments at 26.
39 Id.
PJM disagrees that resources with start-up and notification times during an Operating Day that exceed the resource’s unit-specific start-up and notification times determined by PJM should never be made whole for their operation. In short, the IMM’s recommendation is simply too absolute. Under PJM’s proposal, Market Sellers that operate their resources at PJM’s direction will be made whole regardless whether these resources’ exceeded their PJM-determined unit-specific start-up and notification times. That is because PJM wants resources to be operated according to its direction. Notwithstanding the foregoing, resources with start-up and notification times that exceed its unit-specific start-up and notification time values determined by PJM will be subject to Non-Performance Charges if they cannot meet those shorter unit-specific time frames.

The IMM also recommends that PJM include “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.” PJM does not think this change is necessary. It is PJM’s intention that the proposed revision in Section 3.2.3(e) apply to all Operating Reserve credits, not just balancing Operating Reserves.

Further, the IMM recommends that PJM include “ramp rate and boiler temperature retention times as parameters with defined limits” because they can “be used by Generation Owners to limit their performance.” PJM understands the IMM’s rationale for recommending the inclusion of these additional parameter limits. However, PJM does not agree that ramp rates and boiler retention times should be included in the parameter limited schedules because in PJM’s opinion it would be extremely difficult if not impossible to measure and track ramp rates and boiler temperature retention times.

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40 Id. at 27.
41 Id. at 28.
9. **PJM agrees with the IMM that economic maximum should not be a PLS value.**

The IMM recommends that Economic Maximum should be excluded from the list of parameter limits since Generation Capacity Resources “are already required to offer their ICAP unless they are on an outage.”\(^{42}\) PJM agrees with the IMM’s recommendation. The Capacity Performance requirement provides that a Capacity Performance resource may not offer any portion of its capability as Maximum Emergency and this makes the inclusion of Economic Maximum in the PLS requirements redundant.

10. **PJM requires data regarding actual resource operation as well as PLS values used to determine compensation for resource operation.**

PJM proposed revisions to clarify in Section 6.6 that the PLS provisions do not affect or change a Generation Owner’s obligation under NERC Reliability Standards to notify PJM of its actual or expected actual physical operating conditions during the Operating Day. Dominion states the proposed revisions imply “that there can be an inconsistency between a resource’s offers in the market and its actual capabilities as specified in its communications to PJM.”\(^{43}\) Thus, Dominion argues that “[r]ather than subject all resource types to the same stringent run time, start-up and notification requirements, or require resources to submit offers inconsistent with their actual capabilities, PJM should instead allow resources to define the parameters under which they are capable of operating, thereby maintaining a diverse mix of fuel while still allowing PJM to dispatch resources to meet its needs based on the operational characteristics of those resources.”\(^{44}\)

\(^{42}\) *Id.*

\(^{43}\) Dominion Protest at 13.

\(^{44}\) *Id.*
There are two different issues involved here. First is the resource’s actual operating conditions during the Operating Day. Second is the resource’s capability. With regard to the first issue, PJM operators need to know the resource’s actual operating conditions during the Operating Day so that they can determine the parameters under which that resource is actually available for operation at PJM’s direction. With regard to the resource’s capability, this is information that PJM Settlements Inc. utilizes to determine compensation for Market Sellers based on the operation of their resources during an Operating Day. The operating capability of a resource and how the resource actually physically operates will not necessarily always be the same during an Operating Day. For example, if the design of a combustion turbine generator is such that it must be off or idling (and not putting megawatts onto the grid) for at least three hours between starts, its Minimum Down Time PLS value would be established at three hours. However, if the resource cannot cycle during a particular Operating Day, the Capacity Market Seller may need an actual Minimum Down Time of eight hours that day in order to fix the feed pump on the generator so that it will be able to cycle. In that case, there would be a difference in the PLS value for Minimum Down Time for the resource and the actual operation of the resource during the Operating Day.

It is important for PJM operators to know the actual operational conditions of generation resources in their determination of which resources to call on to maintain reliability of the system. Therefore, PJM will maintain two sets of parameters – those that the resource submits to reflect its actual physical operation during the Operating Day and those by which (the PLS values) the resource will be compensated.
11. PJM’s proposal provides for appropriate defined roles in the unit-specific PLS process for PJM, the IMM and Market Sellers.

In addition to obtaining input from Market Sellers in its determination of unit-specific PLS values, PJM will discuss with the IMM the unit-specific PLS for each resource and will take the IMM’s analysis, input and feedback into consideration in determining the appropriate PLS for each resource, as reflected in PJM’s proposed revisions to Section 6.6(b). The unit-specific start up and notification times and thresholds identified for each generation resource will be based on the data available as well as conversations with the Market Seller and the IMM.

The IMM avers that determining unit-specific PLS values is not a role defined for PJM in Section 12A of the Tariff. PJM has an exhaustive list of responsibilities, the vast majority of which are not described in Section 12A but elsewhere in the Tariff and Operating Agreement, including its role in the determination of default PLS values and exceptions to those values. Section 6.6 of Schedule 1 of the Operating Agreement describes the roles of PJM, the IMM and Market Sellers with respect to the determination of PLS values.

The IMM’s Tariff-defined role is in the development of the default PLS values that are incorporated into the PLS Matrix. However, there is no defined role for the IMM in a unit-specific PLS review process in PJM’s current Tariff because there is no existing process to determine unit-specific PLS values. Section II.B of Attachment M-Appendix only addresses the IMM’s role in annually reviewing and proposing revisions to the default values in the PLS

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45 Proposed revision to Section 6.6(b) (“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.”).

46 Id. at 31.
Matrix, and its role in notifying Market Sellers of any market power concerns it has regarding a period or persistent PLS exception request submitted by the Market Seller.

Moreover and most importantly, the roles that PJM proposes for the IMM and for itself in the unit-specific PLS determination is wholly consistent with the Commission’s determination of the roles of the IMM versus PJM in Order No. 719 and related orders. PJM’s proposed rules clearly define the appropriate roles of PJM and the IMM in the determination of unit-specific PLS values for Market Sellers. The IMM’s proposed language appears to seek to assign the IMM a role to negotiate parameter limits with resources, which is not appropriate. In fact, the Commission specifically determined that the determination of “the physical parameters of offers (e.g., ramp rates and start-up times) at or before the time they are considered in a market solution” is prospective mitigation which market monitoring units are prohibited from conducting.
Finally, PJM agrees with the IMM that it should incorporate deadlines in the Operating Agreement for the unit-specific PLS review process.\textsuperscript{51} If directed to do so by the Commission, PJM will propose deadlines for the same.

B. PJM’s Catastrophic Force Majeure Proposal is Just and Reasonable and Ensures the Current Force Majeure Provisions Cannot be Used to Frustrate PJM’s Markets in a Manner that is Unjust and Unreasonable

As PJM explained in its Filing, the current force majeure provisions contained in PJM’s Tariff, Operating Agreement and other governing documents are unjust and unreasonable as they provide an expansive list of excuses that are fundamentally incompatible with, and would frustrate, PJM’s markets.\textsuperscript{52} PJM proposed revisions to explicitly narrow the force majeure provision utilized in the market context. The intent was to more closely align the provision with the underlying goals of PJM’s markets, which is to ensure adequate supply of resources to meet PJM’s needs especially in times of emergency conditions. Considering PJM’s increased focus on performance as the guiding principle behind its Capacity Performance proposal, PJM determined this filing was the appropriate time to ensure its force majeure provisions aligned with that focus. Thus, for markets, only those events that rise to be “Catastrophic Force Majeure” events will be accepted as a force majeure excuse for non-performance.\textsuperscript{53}

To that end, PJM proposed the definition of Catastrophic Force Majeure to be a widespread, systemic failure where “(i) all, or substantially all, of the Transmission System is unavailable, or (ii) all, or substantially all, of the interstate natural gas pipeline network,

\textsuperscript{51} See IMM Comments at 34-35.

\textsuperscript{52} Section 206 Filing at 16.

\textsuperscript{53} PJM also proposed to clean up, but leave largely unaltered the force majeure provisions to be used in non-market contexts such as in the case of open-access transmission service and generation interconnection. Section 206 Filing at 21-22.
interstate rail, interstate highway or federal waterway transportation network serving the PJM Region is unavailable.”

Various parties challenged PJM’s Catastrophic Force Majeure proposal, claiming (1) PJM had not shown its current force majeure provisions are unjust and unreasonable or that the proposed changes are just and reasonable; (2) it is overly broad, unreasonably shifting risks to generators for events that are beyond their control (including risks created by PJM); and (3) it should not apply to resources that have already cleared an RPM Auction. Commenters also suggest the catastrophic event should not have to match PJM’s footprint, such as the case with Hurricane Sandy. Finally, one commenter says it is unclear whether an event of Catastrophic Force Majeure would excuse performance only, or both performance and any related payments. These arguments fail for the reasons discussed below. Thus, the Commission should accept PJM’s proposed revisions as just and reasonable.

1. The current force majeure provisions could be used to frustrate intended outcomes in PJM’s markets and are unjust and unreasonable as a result.

In an effort to support their claim that PJM failed to meet the Federal Power Act’s Section 206 burden of showing the current provisions are unjust and unreasonable, protesters point out that, to date, no market participants have used the current force majeure provisions to excuse a failure to perform. PJM does not dispute that the force majeure provisions have not, to date, been used by market participants –PJM also pointed to that fact in its Section 206

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54 Proposed Operating Agreement, Section 1.6.01.
55 AMP/ODEC/SMEC at 18-20; Dominion Protest at 25-29.
57 Essential Power at 11.
58 E.g., Comments of Homer City Generation, L.P., Docket No. EL15-29-000, at 9 (Jan. 20, 2015).
59 Rockland Protest at 30.
60 P3 Comments at 4. See also AMP/ODEC/SMEC Protest at 18.
Filing.\textsuperscript{61} PJM proposes to fix the force majeure provisions before they create a problem. There is a difference. Just because the force majeure provisions have not previously been invoked offers no reason to ignore their obvious deficiencies until a real world incident arises. And, as currently written, the force majeure provisions could be used to excuse for performance in direct conflict with the underlying objectives of PJM’s markets to provide energy and reserves when needed the most, particularly during the emergency situations. In fact, given PJM’s proposed Capacity Performance revisions offer only a few, very circumscribed reasons to excuse non-performance, PJM is concerned that “clever” counsel, on behalf of their non-performing generating clients, might pursue more aggressive readings of the PJM rules in search of “loopholes” that might serve to relieve their clients from the adverse financial impacts of non-performance. The alarms raised about PJM doing away with force majeure provisions which have never previously been invoked should give the Commission pause and misgivings that indeed some might wish to frustrate the carefully designed performance framework essential to PJM’s Capacity Performance proposal should an opportunity to do so arise. PJM agrees with Exelon’s comment that the expansive force majeure provisions are entirely inconsistent with the Capacity Performance proposal (and the designed operation of PJM’s other markets) which is intended to hold generators to their commitments precisely at the times when operating conditions are the most difficult.\textsuperscript{62}

2. \textit{PJM’s proposal is just and reasonable.}

Various parties contend PJM’s proposal is not just and reasonable because it goes too far and shifts risks to generators that are beyond the generators’ control.\textsuperscript{63} Another protester argues

\textsuperscript{61} See Section 206 Filing at 15.

\textsuperscript{62} Exelon Comments at 3.

\textsuperscript{63} See, e.g., AMP/ODEC/SMEC Protest at 18-20; Essential Power Protest at 8.
the proposal is unjust and unreasonable as it seeks to apply the new Catastrophic Force Majeure provision retroactively to capacity that has already cleared a Base Residual Auction for the 2014/2015 through 2017/2018 Delivery Years. These arguments fail to appreciate the nature of PJM’s proposal and should be rejected. Even during the types of events that protesters use to exemplify why the current, broader, force majeure is needed – such as Hurricane Sandy, or last year’s polar vortex, or the June 2012 derecho – not one entity sought to invoke storms as an excuse from performance required by PJM’s market rules. Now that rules have been proposed that would hold entities to higher performance standards, suddenly for some, preserving this dusty corner of PJM’s Operating Agreement has taken on critical importance. Now is the time to eliminate broad provisions that, if ever invoked, could swallow up more particular and more carefully considered rules.

As noted above, all PJM seeks to do here is conform its force majeure provisions as they relate to market activities to both the intended design of PJM’s markets as evident from over a decade of performance without invocation of force majeure. In circumstances where an excuse from performance is intended – such as PJM proposal for when a Capacity Performance Resource is on an approved Generator Planned Outage, Generator Maintenance Outage, or is dispatched down by PJM – PJM has included such excuse explicitly in its tariff provisions. As currently devised, the force majeure provisions can be used as an escape hatch from the specific excuses PJM has carefully crafted to cover specific situations.

In a multilateral market such as PJM’s, there is no opportunity for a buyer and a seller to come together to negotiate which party will take on risks that neither can control. Generally, in

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64 See P3 Comments at 5-7.
65 Proposed Tariff, Attachment DD, Section 10A(d). The specificity of parameter limited schedules as such rules are relevant in both energy and capacity markets offers further illustration of carefully considered rules that should not risk being swept aside by a generator’s claimed force majeure.
PJM’s markets, the market participant assumes performance obligations under all conditions, unless the tariff specifically provides otherwise. For instance, a market participant offering in the Day-ahead Energy Market does not submit a “unit specific” offer such that if a particular resource which it might have expected to schedule in real time is out for any reason, it is not excused from “cover” costs if real time prices settle higher than day-ahead prices nor from imbalance charges. Other market participants should not bear risks associated with one market participant’s specific resource. But if read plainly, PJM’s present force majeure provision would permit just that result if the non-performing entity claimed excuse on grounds its resource suffered an accident or breakage to equipment. PJM seeks to avoid not just an anomalous, but an unjust and unreasonable, outcome by closing the potential loophole created by its current force majeure provisions.

Additionally, the Commission should reject the argument that PJM seeks to inappropriately apply its Catastrophic Force Majeure provision retroactively because such retroactive application will expose parties to new risks that they did not plan for and could not have included in Sell Offers. PJM is not imposing a new obligation on market participants that did not already exist in the Operating Agreement. As noted previously, notwithstanding the unduly expansive scope of the current force majeure language purporting to excuse entities under all manner of more or less routine operational “hiccups,” the fact is neither the rule, nor the design of PJM’s markets, was intended to provide this kind of excuse, as evident from over 15

66 The Electric Power Supply Association and PJM Power Providers (“P3”) cite a California ISO decision as support for their contention that the Commission has found it may be appropriate to avoid effectuating tariff provisions that would be punitive. Comments of the Electric Power Supply Association, Docket No. EL15-29-000, at 7 (Jan. 20, 2015) (“EPSA Comments”) and P3 Comments at 5, citing California Independent System Operator Corporation, 139 FERC ¶ 61,207 at P65 (2012). But in that case, the Commission specifically avoided the issue of whether the event would have allowed the equivalent of a force majeure excuse since in that case the Commission found grounds to grant a waiver of the tariff provision that would have required performance by the generators. This case, however, does offer a helpful reminder that should a market participant believe it has suffered a manifest injustice due to the strictures of PJM’s proposed force majeure language, it is free to seek from the Commission a waiver of any financial consequences occasioned by their non-performance.
years operating a large regional market free from claims of force majeure. To now suggest that this provision provided market sellers with a “right” upon which they relied and anticipated in making their Sell Offers is patently implausible. PJM seeks only to close a “loophole” that will align PJM’s force majeure provisions to the more fundamental intent, design and longstanding historic operation of PJM’s markets.

In response to Rockland Capital as to whether a Catastrophic Force Majeure event, should it ever be invoked, would relieve performance as well as penalties, PJM confirms through these comments that its intent would be a Catastrophic Force Majeure would relieve performance and any non-performance charges that would have otherwise accrued without if there was no Catastrophic Force Majeure to excuse the performance. Language concerning members’ payment obligations seems to be the source of confusion. This language is standard in force majeure provisions. It is designed simply to relieve temporarily a party from making payment owed for an already outstanding obligation. For instance, if a market participant incurred a charge from an earlier time period, one which is due on the date of the Catastrophic Force Majeure event, the proposed provision (as modified) would suspend the participant’s obligation to make payment, until such time that the event of force majeure had passed.

C. PJM has Shown its Current Energy Market Rules Allowing Maximum Emergency Offers are Unjust and Unreasonable and its Proposed Solution is Just and Reasonable

Under current market rules, certain resources are allowed to submit offers into PJM’s Day-ahead Energy Market as Maximum Emergency offer which precludes PJM from

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67 Rockland Protest at 30, citing Section 206 Filing at 19 (event of Catastrophic Force Majeure may suspend but shall not excuse any payment obligation by a Member).

68 The categories of resources that qualify to submit Maximum Emergency offers are (1) environmentally limited resources; resources with temporary fuel limits; resources experiencing temporary emergency conditions; and (iv) resources that can provide additional megawatts on a temporary basis by engaging in certain techniques. Operating Agreement, Schedule 1, Section 1.10.1A(d).
dispatching such resource in real time unless PJM has declared a Maximum Generation Emergency. Protests that PJM has failed to show its current Operating Agreement provisions are unjust and unreasonable\textsuperscript{69} should be rejected. As PJM explained in its filing, the declaration of a Maximum Generation Emergency only occurs after PJM has implemented various emergency warnings and actions. These escalating emergency procedures on their own signify PJM’s system is about to experience or is experiencing an emergency condition. Thus, contrary to protests, it is unjust and unreasonable that PJM cannot rely on Capacity Resources, which have committed themselves to be there when needed, especially during emergency conditions (albeit emergency conditions that have not yet risen to a “Maximum Generation Emergency”). It is unjust and unreasonable, and unduly discriminatory and preferential, to allow some Capacity Resources this additional excuse from performance when other Capacity Resources are required to perform.

PJM’s proposal does not restrict resources from being able to submit Maximum Emergency offers in all circumstances. Rather, PJM narrowly tailored its solution to restrict Maximum Emergency offers during periods, when it is more likely than not, PJM will head into an emergency condition.\textsuperscript{70} Although it is possible a resource may be forced to take an outage, which AMP/ODEC/SMEC say would be an unintended consequence of reducing the amount of resources available during extreme conditions,\textsuperscript{71} such a resource would not be relieved of performance by virtue of taking a forced outage, and if it takes a forced outage, it could be

\textsuperscript{69} AMP/ODEC/SMEC Protest at 17.

\textsuperscript{70} See Proposed Operating Agreement, Schedule 1, Section 1.10.1A(d). Essentially, Base Capacity Resources cannot submit a Maximum Emergency Offer during June through September when PJM has issued a Hot Weather Alert or any Emergency Condition; and Capacity Performance Resources cannot submit a Maximum Emergency at any time of the year when PJM has issued a Hot or Cold Weather Alert or any Emergency Condition.

\textsuperscript{71} AMP/ODEC/SMEC Protest at 17.
subject to non-performance charges. A resource that cannot commit to being available during emergency conditions should not participate in PJM’s capacity market.

D. PJM’s Modifications to Generator Planned Outages and Generator Maintenance Outages Appropriately Address Shortcomings in Those Provisions Which if Left Unfixed Lead to Unjust and Unreasonable Results

In its Section 206 Filing, PJM proposed modifications to the process around approved Generator Planned Outages and Generator Maintenance Outages to ensure resource adequacy and reliability. Generator Planned Outages are those which are planned to conduct inspection, maintenance or repair of a generating facility, while Generator Maintenance Outages are taken to perform repairs on specific components of a generating facility.72 Generator Planned Outages typically are taken for a longer period of time and, as such are subject to a more deliberate approval process than has been the case for Generator Maintenance Outages.73

PJM explained, “[p]reservation of reliability is essential, and clear rules and clear authority in this area are essential.”74 Thus, for Generation Maintenance Outages, PJM proposed adding details similar to those that presently govern Generator Planned Outages, and to add details regarding the generator’s obligations to come back into service if PJM rescinds approval because the generator is needed during an emergency. With respect to Generator Planned Outages, PJM proposed that each Market Seller would be required to provide PJM “with an estimate of the amount of time it needs to return to service any Generation Capacity Resource on Generator Planned Outage that is already underway.”75 To be clear, PJM did not propose a right of rescission for approved Generator Planned Outages that are underway. Rather, PJM seeks

72 Operating Agreement, Schedule 1, Sections 1.3.8 and 1.3.9.
74 Section 206 Filing at 26.
75 See Section 206 Filing at 27. Proposed Operating Agreement, Schedule 1, Section 1.9.2(b); proposed Operating Agreement, Schedule 1, Section 1.9.2(b).
only information that could be used to facilitate a voluntary solution with the Market Seller should emergency conditions approach or arise that could implicate a need for the particular generation resource.

Those protesting PJM’s outage modifications argue the changes to outage schedules could result in Market Sellers incurring additional costs when a previously approved Generator Maintenance Outage is rescheduled or when PJM requires a resource to come out of an outage within 72 hours, as PJM proposed. Some commenters are not opposed to establishing a process for PJM to modify or rescind a Generator Maintenance Outage, but they argue the Commission should require compensation to cover increased costs associated with postponement of outages. PSEG, in support of this position, notes that the Midcontinent Independent System Operator, Inc.’s (“MISO”) tariff contains a provision that allows for such compensation.

The Commission should not require PJM to include a compensation provision to account for any costs a Market Seller incurs if PJM has to reschedule a Generator Maintenance Outage or request that a Generator Maintenance Outage that is already underway be curtailed within 72 hours. In its Section 205 Filing, PJM proposed that approved Generator Planned Outages and Generator Maintenance Outages are two of only three limited excuses that would allow a Capacity Market Seller to avoid non-performance charges it would otherwise incur during a Performance Assessment Hour. In doing so, however, PJM very carefully balanced the

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76 AMP/ODEC/SMEC Protest at 21; P3 Comments at 8; EPSA Comments at 4; Gas Generators Coalition Protest at 17-18; and Dominion Protest at 31.
77 Essential Power Protest at 12-13; Comments and Limited Protest of the NRG Companies and the Dynegy Companies, Docket Nos. ER15-623-000 and EL15-29-000, at 28-29 (Jan. 20, 2015); and PSEG Protest at 3-4.
79 With respect to ISO-NE’s Pay-for-Performance proposal, some commenters suggested approved outages should provide an excuse for non-performance. In that proceeding, the Commission did not require such an excuse. ISO-NE and NEPOOL, 147 FERC ¶ 61,172 (2014). Thus, PJM believes it is more than reasonable to be able to reschedule or rescind a Generator Maintenance Outage if reliability of the system is otherwise at risk.
interests of Market Sellers in scheduling and completing maintenance, with PJM’s responsibility to the reliability of the system, including the adequacy of reserves and when PJM anticipates implementing, or seeks to avoid, emergency procedures. Thus, PJM proposed rules to ensure that there was a reasonable, transparent, process for PJM to take needed action for reliability – such as to address an unexpectedly high level of forced outages or other unexpected circumstances required withdrawal or rescission of a prior outage approval.

Simply, for the Generator Maintenance Outage construct to work, PJM has to have the rules for rescheduling, withholding approval, or rescinding a prior approval to account for changing conditions that may impact reliability that were not foreseen at the time of the outage request. This is not a new concept; PJM simply is ensuring its rules are spelled out and transparent for the sake of both PJM and Market Participants. If PJM is not permitted to have this flexibility, the alternative may be to remove Generator Maintenance Outages from the Operating Agreement altogether, and require any resource that needs to conduct maintenance to take a Forced Outage. This is not PJM’s preferred alternative however as allowing for Generator Maintenance Outages – with the modifications proposed herein – is beneficial to PJM (and in turn thus consumers) and Market Participants. Consumers benefit because PJM has input into the scheduling of such maintenance outages by virtue of the approval process and therefore can coordinate outages and schedule them when there is the lowest impact on the system. Market Participants benefit because there is the opportunity to perform maintenance with reduced risk of getting into a situation where a non-performance charge would apply.

Finally, the fact that MISO’s tariff provides for compensation for rescheduling generator outages does not mean all other RTOs and ISOs should have a similar provision. The Commission has consistently recognized that because the market design of each RTO and ISO is
different, each is entitled to determine the most appropriate market rules to respect their market design differences.\textsuperscript{80} Thus, a one-size-fits-all approach is not required, nor appropriate, given the needs of each region.\textsuperscript{81}

\textbf{IV. CONCLUSION}

PJM respectfully requests that the Commission (1) grant its Motion and (2) consider its Answer herein.

Respectfully submitted,

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\textsuperscript{80} Order No. 719 at P 129, 158, 234.  
\textsuperscript{81} Id. at P 534.