

**UNITED STATES OF AMERICA  
BEFORE THE  
FEDERAL ENERGY REGULATORY COMMISSION**

**PJM Interconnection, L.L.C.**

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**Docket No. ER14-822-000**

**MOTION TO INTERVENE,  
COMMENTS AND LIMITED PROTEST  
OF THE PJM POWER PROVIDERS GROUP**

On December 24, 2013, PJM Interconnection, L.L.C. (“PJM”) submitted modifications<sup>1</sup> to the PJM Open Access Transmission Tariff (“Tariff”), Amended and Restated Operating Agreement of PJM Interconnection, L.L.C. (“Operating Agreement”) and the Reliability Assurance Agreement Among Load Serving Entities in the PJM Region (“RAA”) to increase flexibility of Demand Resources.

On December 24, 2013, the Federal Energy Regulatory Commission (the “Commission”) issued a Combined Notice of Filings #1 setting January 13, 2014, as the deadline for filing an intervention or protest regarding PJM’s 205 Filing. On January 2, 2014, the Commission issued an Errata Notice extending the comment date to January 14, 2014. Pursuant to Rules 211 and 214 of the Rules of Practice and Procedure of the Commission, 18 C.F.R. §§ 385.211 and 385.214 (2014), the PJM Power Providers Group (“P3”)<sup>2</sup> hereby moves to intervene, and provides these comments and limited protest in the above-captioned proceeding.

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<sup>1</sup> *PJM Interconnection, L.L.C.*, Docket No. ER14-822-000 (filed December 24, 2013) (“PJM Filing”).

<sup>2</sup>The comments contained herein represent the position of P3 as an organization, but not necessarily the views of any particular member with respect to any issue. For more information on P3, visit [www.p3powergroup.com](http://www.p3powergroup.com).

## **I. MOTION TO INTERVENE**

P3 is a nonprofit corporation dedicated to promoting policies that will allow the PJM region to fulfill the promise of its competitive wholesale electricity markets. P3 strongly believes that properly designed and well-functioning competitive markets are the most effective means of ensuring a reliable supply of power to the PJM region, facilitating investments in alternative energy and demand response technology, and promoting prices that will allow consumers to enjoy the benefits of competitive electricity markets. Combined, P3 members own over 87,000 megawatts (“MWs”) of generation assets, own over 51,000 miles of transmission lines, serve nearly 12.2 million customers and employ over 55,000 people in the PJM region – encompassing 13 states and the District of Columbia. Thus, P3 has a substantial interest in this proceeding.

P3 is an interested party, and its intervention and participation will promote the public interest in viable and competitive wholesale markets. P3 is not now, nor will be, adequately represented by any other party in this proceeding, and may be bound or adversely affected by the Commission’s action herein.

All correspondence and communications concerning this filing should be directed to:

Glen Thomas  
GT Power Group  
1060 First Avenue, Suite 400  
King of Prussia, PA 19406  
gthomas@gtpowergroup.com  
610-768-8080

## **II. COMMENTS AND LIMITED PROTEST**

As discussed in greater detail below, PJM’s current market rules as they relate to the dispatch of Demand Resources in the energy markets have led to market inefficiencies that render the current rules unjust and unreasonable. While P3 supports PJM’s effort to resolve the

shortcomings of its current market rules, the proposed means of achieving that effort will not achieve their desired outcome, will continue many of the problems associated with the current rule and fail to make the necessary changes to fix the problem that PJM has appropriately identified. Therefore, P3 recommends that the Commission reject certain components of the proposal.

**A. PJM’s Current Market Rules Do Not Provide Sufficient Flexibility for PJM’s Operators and Are Increasing Costs to Consumers**

Under its current Tariff provisions, 94% of all Demand Resources are not required to curtail load until two hours after PJM has called upon them.<sup>3</sup> Moreover, these same Demand Resources are registered as Emergency Load Resources which effectively means they can be called only after PJM has declared a NERC-EEA2 Emergency. Combined, these two factors have created enormous operational challenges for PJM that have led to significant market inefficiencies. As PJM stated, “current rules leave PJM with little ability to flexibly address changing conditions on its system.”<sup>4</sup>

Twice during the summer of 2013, PJM called Demand Resources two hours before an anticipated capacity shortage, only to discover those resources were not needed in real time operations. PJM was not able to reverse its prior decision based on changes to system conditions until two hours after the resources had achieved their load reductions, despite the fact that the operational need for the resources had disappeared.<sup>5</sup>

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<sup>3</sup> Under the current PJM Tariff, Demand Resources have the option to register with either one hour notification lead time to curtail, or two hours of notification lead time to curtail. PJM Filing at p. 2-3.

<sup>4</sup> PJM Filing p.4.

<sup>5</sup> PJM Filing at p. 4-8.

Two serious market inefficiencies arise from the current two hour notification requirement that demand response enjoys. First, price signals during times of relative shortage are skewed. For example, on July 18, 2013, during the peak of afternoon temperatures, prices in PJM dropped from \$465 MWh to \$62 MWh due to a flood of excess capacity in the form of demand response.<sup>6</sup> Calling Demand Resources so far in advance, despite uncertainty regarding supply and demand fundamentals, caused LMPs to crash. In this case, PJM experienced an influx of imports that resulted in an unnecessary supply glut. As a result, during otherwise tight system conditions, LMP failed to reflect the cost of both dispatched demand response and peaking units also dispatched coincidentally. End users still paid for the full cost of both classes of resources, but energy prices (and resulting energy forward prices) failed to reflect the tight fundamentals to the long term detriment of the market.

Second, the need to call Demand Resources two hours ahead of their need leads to consumers paying millions of dollars for resources that they do not need. In the case of July 18, 2013, PJM was required to pay \$3.96 million in make-whole payments.<sup>7</sup> Similarly, on September 11, 2013, PJM was required to make payments totaling \$38 million to the unneeded Demand Resources.<sup>8</sup> As PJM stated, the additional millions of dollars in costs largely could have been avoided if PJM had the flexibility to wait to call Demand Resource until closer to the time when needed.<sup>9</sup> Moreover, these amounts do not include

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<sup>6</sup> PJM Filing at p. 6.

<sup>7</sup> *Id.*

<sup>8</sup> PJM Filing at p.8.

<sup>9</sup> PJM Filing at p. 6-7.

uplift associated with the re-dispatch of committed generators that PJM required to back down.

Michael E. Bryson in his Affidavit on behalf of PJM (“Bryson Affidavit”) explains the current situation at PJM as follows:

PJM’s ability to call on or terminate the use of Demand Resources when system conditions change rapidly is very limited. As a result of these limitations, PJM must make a decision to call for Emergency Mandatory Load Management Reductions two hours in advance, which increases the margin of error in the forecast of system conditions, such as temperatures and precipitation, load, and available energy imports/exports from neighbors. PJM must always take the most conservative approach with regard to the system projections to ensure reliability and minimize the need to implement firm load shedding. As a result, PJM almost always calls on more Emergency Mandatory Load Management Reduction amounts than actually required, which is often reflected in reductions in, rather than increases in, LMPs, contrary to what one would expect when Emergency Mandatory Load Management Reductions are implemented.<sup>10</sup>

As Bryson further explains, the two events of the past summer show how conditions rapidly change and the necessity for operational flexibility in calling Demand Resources to ensure reliability while also using Demand Resources as efficiently as possible.<sup>11</sup> P3 agrees that the current problems should be addressed and corrected.

**B. Despite Having Several Positive Features, PJM’s Proposed Solution is Sufficiently Vague, Unjust and Unreasonable That It Must Be Modified Prior to Commission Approval to be Considered Just and Reasonable.**

The proposed change to a 30-minute default notification rule is a positive change that P3 wholeheartedly supports. As PJM articulated quite effectively, the proposed change will allow PJM to deploy Demand Resources more effectively and efficiently while preventing market inefficiencies similar to those experienced in the summer of 2013. However, in order for this rule to have its intended effect, 30 minutes should be the rule and exceptions to the rule should

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<sup>10</sup> PJM Filing, Attachment A Affidavit of Michael E. Bryson (“Bryson Affidavit”), at ¶13.

<sup>11</sup> Bryson Affidavit at ¶15.

be narrowly drawn and extremely limited. Unfortunately, the proposal put forth by PJM is so riddled with vague exceptions and other problems that the effectiveness of the 30-minute default notification is questionable at best.

Recognizing the necessity and immediacy of improving Demand Resources dispatch in PJM, there are several specific aspects of the rule that cannot be considered just and reasonable and should be rejected by the Commission. For these provisions, PJM offers virtually no explanation or justification. The Commission should address these issues listed below in order for the proposed change to a 30-minute notification to have its intended effect:

**1. PJM's proposed pre-emergency category should be eliminated and Demand Response should be required to offer into the day ahead market - - just like generation.**

PJM has appropriately recognized the problems associated with almost all demand response registering as emergency demand response. The underlying cause of these problems is that PJM does not require Demand Resources to submit economic offers in the day-ahead market. However, PJM's proposal to add a new category of "pre-emergency" demand response does not address the underlying flaw in PJM's market. Although PJM's proposal will expand the operational ability of PJM to dispatch Demand Resources prior to declaring an emergency, as structured, PJM's proposed rule will effectively continue the long-standing practice of demand response almost solely participating in the PJM energy market under emergency conditions.<sup>12</sup> This practice continues to be problematic because it limits the economic dispatchability of Demand Resources that PJM relies on to meet real-time conditions. It is notable in this context that the prevailing motivation of most demand response providers is to get paid as a capacity resource and not get called in the energy market. It is both fair and reasonable to assume that

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<sup>12</sup> PJM Filing at pp.3-4.

even if PJM's proposed changes are put in place, demand response will be highly motivated to seek any available path to avoid energy market dispatch.

Unfortunately, PJM's proposed rule continues to provide a readily available avenue for demand response to avoid participation in the energy market. The definition of "Pre-Emergency Operations" makes it patently clear that PJM will "strive to exhaust" all economic resources prior to initiating a pre-emergency event.<sup>13</sup> In other words, PJM will call all economic resources, then call pre-emergency Demand Resources, then emergency resources. Practically speaking, while PJM is adding another step to the process, they are really just continuing the status quo while providing an additional path for demand response to not participate in the energy market.

In ISO-NE, the Commission found the proposal that any demand resource that is a capacity supply resource should be required to offer into the day-ahead and real-time markets to be just and reasonable.<sup>14</sup> As the Commission found in ISO-NE, requiring demand response to offer in the energy markets benefits consumers, suppliers and demand response providers while leading to a more efficient grid.<sup>15</sup> The Commission should require PJM to implement a similar requirement for Demand Resources to offer into the day-ahead and real-time markets. Absent

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<sup>13</sup> PJM Filing at p. 17, quoting proposed Section 8.5 of the Schedule 1 of the Operating Agreement.

<sup>14</sup> *ISO New England Inc.*, 142 FERC ¶ 61, 027 (2013), pp. 10-12.

<sup>15</sup> *Id.* "We further find that ISO-NE's proposal will be beneficial to both demand response providers and wholesale electricity customers. First, the proposal would allow a demand response resource to specify the minimum energy price at which it is willing to provide service, allowing the resource to recoup its legitimate opportunity costs and sending improved price signals. The existing rules do not allow a demand response resource to submit an energy offer that specifies a price at which the resource would be willing to clear the market; rather, demand response resources currently are dispatched without consideration to whether the resources are economic during emergency events, which tends to artificially lower energy prices below competitive levels. We agree with ISO-NE that such lower prices can send the wrong price signals to market participants. During emergency events, prices should signal that marginal supplies are costly, so as to encourage additional supply offers and discourage additional consumption. By dispatching demand response resources without considering the cost of the resources, the existing rules may fail to provide accurate price signals."

this comprehensive, and just and reasonable solution, the issues associated with Demand Resources offering limited participation in the market will continue to create problems and inefficiencies within PJM.

The Commission should use the opportunity presented by this filing to put PJM on a similar path. Rather than confusing the matter with an additional category of demand response that does little to change the status quo, PJM should be required to amend its tariff so that demand response that has a capacity obligation is required to submit offers in the day-ahead and real-time energy markets. To do anything else would discriminate against generators who already are required to participate in the market with the must offer obligation.

**2. The proposed exemption process lacks transparency.**

To obtain temporal granularity in dispatching demand response in real time operation, PJM requires a default 30-minute dispatch lead time unless physical impediments to such dispatch warrant a 60- or 120-minute notice. PJM enumerates classifications that warrant exception from the 30 minute default, but the exceptions invite gaming and are likely to swallow the rule. PJM has proposed an opaque process to grant exemptions to this 30-minute rule. PJM is under no obligation to disclose that requests for exemptions to the 30-minute rule have been made and there is no means of evaluating whether exemptions have been appropriately granted. PJM will make decisions within 10 days and those decisions will be made at PJM's "sole option and discretion."<sup>16</sup>

P3 finds this lack of transparency to be extremely troubling. Although P3 realizes that PJM needs some flexibility, the exemptions are very vague. While P3 understands the administrative burden that the exemption process could place on PJM and is sensitive to the need

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<sup>16</sup> PJM Filing at p. 23-24; PJM Filing Attachment C Revisions to the PJM Open Access Transmission Tariff, PJM Operating Agreement and PJM Reliability Assurance Agreement (Marked / Redline Format), p. 118, Proposed Tariff section Attachment DD-1 part A(2)(b)(4).



of PJM to dispose of these requests quickly, nonetheless, a process that is not transparent and based on vague standards places PJM, the Commission and all stakeholders in an untenable position that should not be acceptable to the Commission. P3 urges the Commission to demand that PJM add transparency and clarity to the process.

**3. The economic components of the “manufacturing process” exemption should be eliminated.**

PJM proposes an exception to the 30-minute default lead time for manufacturing processes that require gradual reduction to avoid damage to major industrial equipment. While such exception is reasonable, other provisions of the exception that provide for accommodation due to damage to “the product generated or feedstock” provide a discriminatory economic option not enjoyed by competing capacity resources. As written, the exception allows a committed capacity resource to forego its capacity obligation to further the resource owner’s economic interest in maintaining the value of the input or output to the equipment or process. In effect, during a capacity emergency, the resource owner would be putting the value of the inputs or outputs of the process above the value of the curtailment commitment that it undertook. Such economic “buy through” of the capacity obligation threatens system reliability and provides a discriminatory economic option to one class of capacity market competitors that is not available to others. In comparison, generation resources are compelled to offer in the energy market and run when dispatched unless the unit is forced out (thus diminishing the opportunity to make future capacity sales) or if there are physical events outside of management control that prevent the operation of the generator.

Exceptions should be granted only for bona fide physical jeopardy to the manufacturing machinery. Unfortunately, the “manufacturing process” exemption, as proposed and written by PJM, provides an “economic out” from the rule that should not be available. If economic

reasons prevent a demand response resource from complying with the 30-minute rule, then that resource should not be granted an exception.

PJM offers absolutely no justification for this economic exemption and provides no explanation why it is just and reasonable. For resources that would seek this exemption there is no “physical reason” why these resources cannot comply with the 30-minute rule. Economic harm that may occur as a result of compliance with the 30-minute rule should be considered by the demand response resource when offering into a capacity auction and its offers priced accordingly to cover for loss of the inputs or outputs of the equipment or process in the event of dispatch during tight market conditions.

**4. The proposed rule will encourage dirty behind the meter generation.**

PJM’s proposed rule change will create a perverse incentive for demand response to enter the market as dirty behind the meter (“BTM”) generation. As the rule is currently written, all demand response will be required to register as pre-emergency demand response “unless the Demand Resource meets its obligations through generation that is behind the meter and has strict environmental restrictions on when it can operate” in which case the demand response can register as Emergency Load Response.

By registering as Emergency Load Response, the demand response resource that is in the form of behind the meter generation can effectively limit the risk of getting called while still receiving compensation similar to other capacity resources. The significant economic benefit will incent proliferation of dirty behind the meter generation to enter the market. Again, PJM offers no explanation for an exemption that applies only to one class of resources and is most certainly not just and reasonable.

Indeed, as far as can be discerned, the premise underlying this exemption has been discredited by the filing itself. PJM's target in creating this exemption appears to have been to permit BTM generators to operate within the special category created in the Environmental Protection Agency's ("EPA") RICE NESHAP<sup>17</sup> rule for uncontrolled diesel engines that participate in demand response programs called only during emergencies. Yet, EPA created this category of exemption to fit within the construct then used by PJM and other RTO/ISOs based on what EPA perceived as a special status accorded to a class of capacity resources – emergency demand response -- that run only under emergency conditions. Therefore, PJM's proposed tariff exemption is based on an EPA regulatory exemption that PJM is now seeking to abandon. Absent a compelling showing that the dirty diesel engines are needed for PJM reliability, the exemption cannot be sustained.

**5. The “residential exemption” should be rejected.**

PJM proposes that an exemption be granted for mass market residential demand response programs that cannot notify customers of a demand response event due to an “unavoidable communications latency.”

PJM offers no definition of “unavoidable communications latency” and it is not clear how PJM will determine whether a “communications latency” is avoidable or unavoidable. As residential demand response programs grow and further penetrate the PJM market, these programs should be built so that they comply with the 30-minute rule to ensure that observed impacts of limited operational flexibility (observed in summer 2013) are not repeated. If an “unavoidable communications latency” (whatever that may be) exists, it should be addressed and eliminated.

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<sup>17</sup> *National Emissions Standards for Hazardous Air Pollutants for Reciprocating Internal Combustion Engines; New Source Performance Standards for Stationary Internal Combustion Engines*, 78 Fed. Reg. 6,674 (Final Rule, Jan. 30, 2013).

Further, mass market residential programs employing direct load control measures (e.g., A/C & water heaters) are fully capable of responding in less than 30 minutes. However, voluntary “behavioral” programs that result in curtailments from public appeals for curtailment via phone calls, press announcements and the like require much longer time for the appeals to result in end user response. Such programs should not even be considered as capacity resources given the uncertainty of *voluntary* end user response. Nonetheless, if they are to compete in the wholesale market, then they should be able to provide the system operator with an option that is viable for dispatch in real time reasonably close in time to the events warranting the dispatch of such “emergency” resources. P3 notes that such curtailment programs may still garner revenue via economic energy market dispatch or by reducing the end user peak load contribution via the curtailment and thus garnering lower subsequent capacity obligations.

As written, this exemption is vague, unnecessary, unsupported, unjust and unreasonable. The Commission should eliminate it.<sup>18</sup>

#### **6. Stratification of demand response offer caps is bad market policy.**

P3 is very troubled by the proposed stratification of offer caps for Demand Resources based on the notification times. Assuming that most demand response bids in at the offer cap, the proposal creates tiered pricing of Demand Resources based on notification lead time. This approach to the setting of offer caps is troubling for several reasons:

a.) Stratification of offer caps should be unnecessary if the default notification time is 30 minutes and demand response is only permitted to obtain a longer notice period in very limited circumstances.

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<sup>18</sup> While P3 urges the Commission to eliminate the exemption, if the Commission decides the exemption is warranted, PJM should be directed to clarify that subject exemption is applicable to *utility sponsored* mass market residential programs. To do otherwise will invite competitive demand response providers to seek an exemption designed for a utility’s residential customers.

b.) Stratification invites poor precedent. By analogy, stratification of offer caps applied to generation would permit resources with faster start time to offer higher than a unit with a slower start time but with a higher variable cost.

c.) Finally, the stratification of prices for demand response places PJM operators in the untenable of position of wondering whether to call “cheaper” demand response two hours before it is needed or risk calling more expensive demand response 30 minutes before it is needed. The events of the past summer make it eminently clear the challenges faced by PJM operators when calling demand response prior to when it is needed. Now, because the stratification of prices, the PJM operator will be forced to factor in economics to that decision since the two hour lead time demand response will be less expensive than the 30-minute lead time demand response.<sup>19</sup> While the better solution is to eliminate the stratification, at minimum, the tariff should be clarified so the PJM operators should not call 2 hour lead time resources when they have sufficient 30-minute lead time resources (since 30 minutes is the rule and 2 hours is the exception).

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<sup>19</sup> Note that the PJM filing is not clear on how they will handle the interjection of economics into the decision whether or not to call demand response with different strike prices. On page 12, the filing says, “PJM will take into account the strike price of the resource when determining whether to dispatch such resource.” While on pages 26-7, the filings says, “As long as the dispatchers believe they have sufficient short lead time resources to meet the anticipated peak, they will forego calling upon longer time resources (even though such resources have a lower offer price), to get closer to the time when the Demand Resources might be necessary”

### III. CONCLUSION

For the foregoing reasons, P3 respectfully requests that the Commission grant this motion to intervene, consider its comments, and accept certain elements of PJM's filing while rejecting the proposed changes as detailed above.

Respectfully submitted,

On behalf of the PJM Power Providers Group

By: /s/ Glen Thomas  
Glen Thomas  
Diane Slifer  
GT Power Group  
1060 First Avenue, Suite 400  
King of Prussia, PA 19406  
gthomas@gtpowergroup.com  
610-768-8080

January 14, 2014

CERTIFICATE OF SERVICE

I hereby certify that I have this day served the foregoing document upon each person designated on the Official Service List compiled by the Secretary in this proceeding.

Dated at Washington, D.C., this 14th day of January, 2014.

On behalf of the PJM Power Providers Group

By: /s/ Glen Thomas \_\_\_\_\_

Glen Thomas

GT Power Group

1060 First Avenue, Suite 400

King of Prussia, PA 19406

gthomas@gtpowergroup.com

610-768-8080