UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

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PJM Interconnection, L.L.C.	)	Docket No. ER14-503-000
	)	

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"),[2] submits these comments on the filing submitted in the above captioned proceeding by PJM Interconnection, L.L.C. ("PJM") on November 29, 2013 ("November 29th Filing"). The Market Monitor agrees that revisions to the PJM market rules are needed to ensure that the level of imported capacity offered into and cleared in the RPM Base Residual Auctions does not exceed the maximum level transferrable across PJM interfaces. The November 29th Filing proposes a process for determining a Capacity Import Limit ("CIL") that would modify capacity import limits to be consistent with the actual level of available physical import capability. But the proposed rules for CIL are not adequate to address the fundamental issue related to capacity imports which is that they are not comparable to internal capacity resources.

The November 29th Filing does propose a solution to the critical issue that, under the current rules, capacity imports may exceed the physical capability of the system to import the associated energy. The November 29th Filing also explicitly recognizes that there is a

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1 18 CFR § 385.211 (2013).

2 Capitalized terms used herein and not otherwise defined have the meaning used in the PJM Open Access Transmission Tariff ("OATT") and/or PJM Operating Agreement ("OA")(collectively, "PJM Tariff"). Citations to sections of the PJM Tariff can be found in both the OATT Attachment K–Appendix and the OA Schedule 1.

class of external generation resources that does not raise the issues addressed by the Filing. These external resources have firm transmission to the PJM border and have established a pseudo tie with PJM. PJM recognizes (at 23) that this class of resources is "electrically equivalent to resources internal to PJM." In other words, this class of external resources is fully comparable to internal capacity resources.

The proposed exception recognizes that some external resources do not create the issues that the November 29th Filing identifies. To qualify for the exception, an external resource must obtain firm transmission service for the relevant Delivery Year prior to offering into RPM Base Residual Auctions, must commit to creating a pseudo tie with PJM before the relevant Delivery Year, and must agree in writing before submitting a capacity offer that it will be subject to the Capacity Must-Offer Requirement imposed on Generation Capacity Resources located in the PJM region. These requirements are consistent with the need to ensure physical offers of deliverable capacity from external resources and to ensure that external capacity is comparable to internal capacity resources. The enforcement of a consistent definition of the capacity product across all sources of capacity is essential to a functioning, efficient and competitive capacity market in PJM.

The November 29th Filing should be modified and approved in a form that makes the identified exceptions the rule. All capacity imports should be required to meet the three identified conditions. This requirement would eliminate the risk that firm transmission may not be available or too costly to acquire after the auction clears, making the capacity resource unavailable, and would mitigate the risk of firm transmission curtailments of external capacity resources. Requiring all external capacity resources to meet these three conditions would ensure that all capacity has the same definition and the same value to the customers that pay for it.

I. COMMENTS

A. The November 29th Filing Recognizes the Need to Limit Offers from External Capacity Resources to the Level that Can Be Transferred Across PJM Interfaces.

The November 29th Filing recognizes the need to limit offers from external capacity resources to the level that can be reliably and simultaneously transferred across PJM interfaces. The November 29th Filing would establish the Capacity Import Limit ("CIL"), a calculation of the transmission capability that is available to accommodate imports minus the Capacity Benefit Margin ("CBM"). The CBM accounts for the capacity necessary to import capacity from neighboring systems under emergency conditions.

The current capacity import rules are flawed because they allow more offered imports to clear than can be delivered. This artificially increases the supply of capacity and suppresses capacity market prices. The current rules allowing oversupply are inconsistent with a fundamental requirement of the RPM market design, that the interaction of all load and all physical capacity resources available in the PJM region establish locational capacity prices. External capacity resources are not required to participate, but if external capacity resources choose to participate, they must be comparable to internal generation resources and be physical and fully capable of delivery. Capacity has value because it results in the availability of energy when it is needed. The capacity market was developed as a result of net revenue shortfalls in the PJM energy market and the goal of the capacity market is to make the PJM energy market work.

Establishment of the CIL is an important step in ensuring that capacity markets reflect these economic fundamentals. But the CIL does not address the risk that offers of capacity in RPM auctions may not have actually acquired firm transmission and that such transmission may be too expensive or not available for the Delivery Year. The CIL does not directly address the issue that even the energy imports associated with external capacity with firm transmission may be interrupted under certain conditions, meaning that they are not comparable to internal resources. In addition, the CIL does not directly address the fact that a generating unit in Pennsylvania or Ohio or New Jersey or Maryland does not provide the same product to PJM customers as a unit in Wisconsin or Louisiana or any location distant from PJM. Allowing external resources to clear an RPM auction without actually having firm transmission may result in sellers choosing to or needing to cover their capacity obligation with replacement capacity. Capacity imports without firm transmission are not physical resources as required by RPM. Permitting capacity imports without firm transmission means that such sellers are making speculative offers. This raises exactly the same issues that are currently under discussion elsewhere in Commission proceedings and the PJM stakeholder process.[3]

B. Firm Transmission Service, a Pseudo Tie, and a Must Offer Commitment Are Necessary to Ensure Comparability Between External and Internal Capacity Resources.

1. Firm Transmission Service Is a Necessary Requirement for Comparability.

The November 29th Filing is inadequate to address the problem that it seeks to solve and it does not seek to solve an additional critical issue that PJM recognizes. PJM acknowledges the first point and explains why (at 10–11):

> As a practical matter, an external resource that clears an auction as PJM capacity but then learns that transmission upgrades necessary to make the required firm transmission service feasible will outweigh the revenue earned via its capacity commitment is very unlikely to proceed with its plans to be an external capacity resource. Moreover, the external generation owner's cost-benefit analysis may well consider only a single year of PJM capacity market revenues, since it may have other capacity sale options in its own region.

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3 *See*, *e.g.*, Comments of the Independent Market Monitor for PJM, Docket No. ER13-2108 (December 3, 2013); IMM, Analysis of Replacement Capacity for RPM Commitments: June 1, 2007 to June 1 (September 12, 2013), which can be accessed at: < *http://www.monitoringanalytics.com/reports/Reports/2013/IMM_Report_on_Capacity_Replacement_Activity_2_20130913.pdf*>.

> If external resources clear in the auction and later find that the cost of transmission upgrades required to provide for their service is too great, they then cannot deliver the physical resource that was the basis of their cleared offer.

So long as the PJM market rules allow for the acceptance and clearing of offers from external resources that may not be willing or able to deliver and that do not have an obligation to deliver, the rules fail to prevent speculative nonphysical offers. The inclusion of such offers is a key part of the problem with capacity imports. The November 29th Filing proposes an upper limit to the harm and inefficiency that this behavior could cause, but it would not prevent the harm that results from offers that are based only on plans to acquire firm transmission without the actual acquisition of firm transmission and that are therefore not required to be physical.

There is no reason to propose and no reason to adopt measures that fall short of the protection that the PJM market needs. Approving a CIL is an important step but it will fail to solve a significant market problem. There is no reason to accept this approach when an effective alternative is available.

The November 29th Filing includes reasonable requirements to ensure physical bona fide offers. These requirements are proposed as exceptions to the application of the CIL to resources that have established deliverability by having obtained firm transmission service to the PJM border, have established a pseudo tie with PJM and have agreed to the must offer rule. Such resources are not relying on transfer capability not yet subscribed. PJM can also reasonably assume that such resources would submit bona fide physical offers into RPM auctions, which is precisely the assurance that PJM needs. These exceptions should be the rule.

The CIL requires a forecast of firm transmission capability that will exist during the Delivery Year. As PJM explains (at 10–11), the CIL does not account for the costs of physical delivery and the relationship of those costs to offers from external resources.

There should be requirements for qualifying offers from external capacity resources in addition to calculation and enforcement of the CIL. Consistent with PJM's definition of exceptions, these requirements should include that external resources obtain firm transmission capacity for the relevant Delivery Year prior to making offers in the BRA, that external resources have established or have clear plans and a corresponding obligation to establish a pseudo tie and the external resources agree to a must offer commitment.

The upfront commitment required to acquire firm transmission service also demonstrates that the offers are bona fide. Showing an intent to acquire the firm transmission does not go far enough in providing a bona fide offer, and therefore should be a requirement upon offer submission for all capacity resources, and not just in the exception process.

Requiring firm transmission service to the PJM border does not impose an artificial market barrier to entry. It is necessary that the supply of capacity in RPM Base Residual Auctions reflect capacity that can be delivered, and can be delivered at the cleared price. A requirement for firm transmission service is the best way for PJM to have reasonable assurance that offered external capacity is deliverable.

Requiring firm transmission service would ensure that the supply curve in Base Residual Auctions includes only external capacity that can be delivered, but it does not ensure, as it should, that the capacity will be delivered when needed.

2. A Pseudo Ties Is a Necessary Requirement for Comparability.

If a TLR-5 is issued during a time when PJM is relying on energy from an external capacity resource, the transaction may be curtailed and PJM may not receive the energy. PJM customers pay the same price for external and internal capacity, but PJM cannot rely on external resources that are not subject to PJM dispatch at a level comparable to an internal resource. In contrast, pseudo tied external resources do not need to submit NERC tags and therefore are not at risk of curtailment based on TLRs.

For capacity to fully serve its reliability and market purpose, PJM must have dispatch control over the energy from capacity resources. For imports, this requires a pseudo tie, an arrangement that places a resource under PJM dispatch control. An imported capacity resource is not comparable with internal capacity unless it is subject to PJM dispatch. A pseudo tie is needed to preserve the comparability of the capacity product and the ability of the market to efficiently, justly and reasonably price that product. Accordingly, having a pseudo tie, or committing to creating a pseudo time prior to the Delivery Year, should be a minimum requirement to offer capacity in PJM.

The work required to create a pseudo tie includes network modeling enhancements to ensure the system impacts of the resource are captured, telemetry work to allow for communications between the resource and Energy Management Systems and administrative coordination between all affected parties. Because the existing network model extends to adjacent systems, creating a pseudo tie for resources located electrically close to PJM and in a system immediately adjacent to PJM can be established without large incremental expense, particularly relative to the typical cost of obtaining firm transmission service. Requiring a pseudo tie in such cases imposes a relatively low cost, and is not an inefficient or uncompetitive barrier to market entry.

Developing modeling needed for resources more remote from PJM could become costly, and coordinating a pseudo tie across multiple system operators could become complex. The costs of acquiring firm transmission, which the rules currently require in order to deliver capacity, would also increase and would be the primary cost component for creating a pseudo tie. These increased costs reflect the true cost of providing a capacity resource to PJM and reflect the relative value to PJM customers of capacity obtained from remote resources. Costs that must be incurred in order to provide a service do not pose anti competitive barriers to entry.

3. Imported Resources Are at Risk of Curtailment from TLRs Unless Pseudo Tied.

TLRs are issued to help control flows on electrical facilities.[4] Level 5 TLRs are initiated when one or more transmission facilities are at their system operating limit or interconnection operating reliability limit; all interchange transactions using non-firm point-to-point transmission service that affect the constraint by greater than 5 percent have been curtailed; no additional effective transmission configuration is available; and a transmission provider has been requested to begin an interchange transaction using previously arranged firm point-to-point transmission service. Level 5 TLRs curtail interchange transactions that utilize firm transmission. Figure 1 shows the number of TLRs by TLR level by reliability coordinator issues from January 1, 2013 through September 30, 2013. As the table shows, while Level 5 TLRs are issued less frequently than Level 3 TLRs, they are still frequent occurrence. Of the 798 total TLRs issued from January 1, 2013 through September 30, 2013, 239 (29.9 percent) permitted the curtailment of firm transmission.

Figure 1 Number of TLRs by TLR level by reliability coordinator: January through September, 2013[5]

Year	Reliability Coordinator	3a	3b	4	5a	5b	6	Total
2013	ICTE	0	0	0	0	0	0	0
	MISO	91	32	1	107	54	0	285
	NYIS	3	0	0	0	0	0	3
	ONT	7	0	0	0	0	0	7
	PJM	24	19	0	1	1	0	45
	SOCO	0	0	0	0	0	0	0
	SWPP	241	83	0	54	12	0	390
	TVA	26	25	1	5	5	0	62
	VACS	3	3	0	0	0	0	6
Total		395	162	2	167	72	0	798

4 *See* IMM, 2012 State of the Market Report for PJM (March 14, 2013) at 257–258, 408.

5 *Id*. at 408.

While a Level 5 TLR allows for the curtailment of transactions utilizing firm transmission, the volume of firm transmission curtailments can vary from TLR event to TLR event. Between January 1, 2009, and September 30, 2013, there have been a total of 1,205 TLR level 5s issued by all reliability coordinators. Not all of these TLRs resulted in firm import curtailments to PJM. The largest volume of firm PJM import curtailments for a single TLR event issued since January 1, 2009, occurred on July 18, 2012, when 1,111 MW of transactions were curtailed. The average volume of firm PJM import curtailments for all TLR level 5 events that resulted in PJM import curtailments was 79 MW for the period from January 2009 through September 2013.

4. A Must Offer Commitment Is a Necessary Requirement for Comparability.

The must offer commitment requires that offers of external capacity resources agree to be long term capacity resources for PJM and to be fully comparable to internal capacity resources. An external capacity resource that only offers for one year is clearly not comparable to a generating unit internal to PJM which makes a long term commitment to PJM markets by locating there.

This is an important but modest step for a generator that has obtained firm transmission service to the PJM border and established a pseudo tie. Acceptance of an obligation to offer into RPM auctions should be required by the PJM market rules prior to participation by an external generation resource in any PJM capacity Auction.

Internal Generation Capacity Resources have a must offer requirement in the RPM Market Rules.[6] DR does not have a must offer requirement as a resource, but it does have a must buy requirement through its associated Load Serving Entity that it avoids by offering DR.[7] The must offer and must buy rules are necessary to ensure full representation and

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6 OATT Attachment DD § 6.6.

7 *See* PJM Reliability Assurance Agreement Among Load-Serving Entities in the PJM Region.

participation of demand and supply in all RPM auctions. The efficiency and competitiveness of RPM pricing depends upon full participation by demand and supply so that capacity prices can reflect the underlying market fundamentals.

II. CONCLUSION

If PJM capacity markets are to work efficiently and competitively and provide reliability to PJM customers, all offers of capacity must be comparable and consistent with the definition of capacity resources. This is a standard of market design. The current rules that allow nonphysical offers from capacity imports are flawed and have created a significant problem that is well documented. The November 29th Filing recognizes the problem and proposes a step towards a solution, but PJM's proposal does not go far enough. The November 29th Filing does identify good solutions in its proposed exceptions to CIL. Those exceptions constitute just and reasonable requirements to ensure physical and comparable offers. Accordingly, the November 29th Filing should be modified such that the exceptions to CIL are established as the requirements for submitting an offer of external capacity in PJM.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: December 20, 2013

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 December, 2013.

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