

filing, which PJM made on October 13, 2023. In its filing at ER24-99, PJM describes the package of reforms as a substantial step forward; however, PJM is “committed to continuing to assess the design of [the] capacity construct, including whether and how a seasonal capacity construct could help support reliability and efficiency for the PJM Region.” The PAPUC intervened in this proceeding on October 18, 2023, and respectfully offers these comments as follows.

A. Seasonality Of The Capacity Market Design

Historically, PJM has estimated that almost all of its loss of load risk would occur in summer. PJM’s peak load occurs during summer, and its modelling indicated the loss of load risk would follow the times of the highest demand. However, following Winter Storm Elliott and the 2014 Polar Vortex, common sentiment evolved. Following a refresh in PJM’s reliability risk modelling that evaluated correlated outages to a greater degree, it was revealed that patterns of reliability risks shifted to the winter season.¹

When reliability risks were dominated by one season (summer), PJM’s capacity procurement could focus on procuring resources with attributes which could satisfy reliability in the summer. If PJM procured enough resources to meet peak summer demand, it would almost necessarily meet winter reliability needs. By contrast, if reliability risks exist in multiple seasons, then PJM must more strongly consider the attributes needed to procure summer reliability and independently procure resources with the necessary attributes to satisfy winter reliability. As the generation fleet evolves,

¹ <https://www.pjm.com/-/media/committees-groups/cifp-ra/2023/20230530/20230530-item-03---reliability-risk-modeling.ashx>

resources with attributes needed for summer reliability are no longer the same resources needed for winter reliability. Appropriate signals must be sent to developers to build the right resources, and PJM must clear its markets to obtain commitments from the right resources in each season to serve load.

During the CIFP process, PJM concluded that because of the changes revealed by its updated reliability risk modelling, the reliability and efficiency benefits of moving to a seasonal design are now greater, outweighing the increased administrative complexity of a seasonal market.² We agree. The circumstances for dispatch and risk appear clearly distinct between summer and winter. Establishing separate capacity seasons would move toward a more granular market design that better accredits resources based on their operational profiles under these distinct seasons. The PAPUC is interested in a granular capacity market design that will enable all resources to match their unique availability to the varying reliability needs of the grid system throughout the calendar year. Also, prices paid for capacity should be more commensurate with the reliability value of the energy resource.

A seasonal model combined with marginal effective load carrying capability (ELCC) and improved reliability analysis will improve the signal being sent to the market enabling developers to understand what type of resources are likely to be competitive and also to preserve reliability in each season. Seasonal and marginal ELCC would also pay

² See slide 3, <https://www.pjm.com/-/media/committees-groups/cifp-ra/2023/20230614/20230614-item-02---pjm-cifp-stage-3-proposal.ashx>

resources for capacity more commensurate with the reliability value of the energy resource. With the evolving resource mix and changing seasonal reliability risks, an annual market with a single price and annual accreditation will no longer send meaningful information to the market so that it can respond to reliability risks that shift between seasons. Seasonal rather than annual design would function well both during the delivery year and during the forward market.

The PAPUC understands implementation concerns by PJM; however, we encourage movement in the direction towards granular seasonal structure. The PAPUC supports implementing other improvements immediately and implementing a seasonal design after a couple of auctions in order to give PJM more time to make preparations.

B. Capacity Must-Offer Requirement

The general rule in PJM is that all resources with Capacity Interconnection Rights (CIRs)³ must offer into the capacity market.⁴ Intermittent resources and limited duration resources were originally exempt from this requirement because they were “physically incapable” of satisfying the requirements of Capacity Performance.⁵

As they increase their percentage of cleared capacity, it will become increasingly important to treat all resources identically with respect to the must-offer obligation. This is particularly the case since intermittent and storage resources will become a larger share of cleared capacity and will become more able to exercise supply-side market power.

³ Effectively, CIRs are the right provided to a generator by PJM to offer capacity because they were shown to be deliverable during constrained periods. A CIR may also be thought of as a right to the headroom on the transmission system allowing a generator to be deliverable during periods of peak demand.

⁴ PJM Tariff, Attachment DD, Sections 6.6, 6.6A.

⁵ PJM Interconnection, L.L.C., 155 FERC ¶ 61157, ¶206 (May 10, 2016).

Moreover, the premise underlying the original exemption no longer holds. It is true that intermittent and limited duration resources may not always be able to perform during emergency circumstances, but PJM's newest iteration of the Capacity Performance framework provides several mechanisms which reduce the obligations of intermittent and limited duration resources so that they can bear the risk of non-performance during a Performance Assessment Interval. First, Marginal ELCC substantially lowers the performance obligations of these resource types. Second, the unit-specific performance adjustment determines performance of individual units and accredits those units accordingly. And third, PJM's implementation of prospective Performance Assessment Interval replacement transactions allow intermittent resources to hedge against the awkwardness of a flat performance obligation during Performance Assessment Intervals.⁶ The PAPUC supports coordinating penalty and revenue structures with resource-availability parameters ensuring resources are properly incentivized to participate in the capacity market. PJM's latest proposal substantially accomplishes that coordination.

Finally, all generation and storage resources that hold CIRs should be included thereby reducing a potential exercise of market power related to exclusion of these resources. By allowing some resources to retain CIRs but not submit capacity market offers, reliability is negatively impacted because there is a misallocation of costly and scarce transmission access rights. Allowing this could cause inflation on interconnection

⁶ Proposed in PJM's companion filing, *PJM Interconnection L.L.C.*, Docket No. ER24-98, at 40-43.

costs as well as baseline transmission project costs to maintain transmission access for resources not recognized for capacity value.

Therefore, PAPUC supports a must-offer obligation on all generation resource types including intermittent and limited duration resources.

II. CONCLUSION

The PAPUC generally supports PJM's filing in this docket. However, including a seasonal market design and a capacity market must-offer requirement for all generation and storage resource types would have improved the PJM filing. The PAPUC also supports PJM's continued efforts to move toward a more granular market, which PJM has indicated it expects to continue immediately, and the inclusion of a must-offer requirement in future capacity market rules.

Respectfully Submitted,

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CERTIFICATE OF SERVICE

I HEREBY CERTIFY that the foregoing has been served in accordance with 18 C.F.R. Section 385.2010 upon each person designated on the official service list compiled by the Secretary in this proceeding.

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