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Ake Almgren  
Chair, PJM Board of Managers

March 11, 2020

VIA Electronic Delivery

Hon. Talina R. Matthews, President  
Organization of PJM States, Inc.  
700 Barksdale Rd, Suite 1  
Newark, DE 19711

Dear President Matthews,

Thank you for your letter of February 13, 2020, which expresses OPSI's position regarding the on-going stakeholder effort to address fuel assurance for blackstart generation resources.

As your letter notes, there are a variety of factors that may contribute to any generating resource – blackstart or otherwise – being unavailable when dispatched. While some of those items have been or can be addressed through modest measures,<sup>1</sup> the focus on fuel assurance itself grew out of a recommendation by a joint FERC/NERC study on system restoration.<sup>2</sup> That study concludes that while reliability coordinators such as PJM have adequate blackstart resource capability, reliability coordinators should mitigate against the restoration risks associated with blackstart resources that rely upon a single fuel.<sup>3</sup> Given PJM's changing fuel mix over the last decade, this recommendation seemed very important and timely to explore in this region.<sup>4</sup>

Mitigating a risk, however, is not binary proposition. A risk may be mitigated in different ways and to different extents. Any mitigation solution comes with trade-offs requiring contemplation, as OPSI has noted. It is incumbent upon PJM to help inform interested parties of these trade-offs. I trust analyses<sup>5,6</sup> provided by PJM thus far have helped to do so, and further analysis is certainly possible.

From a process perspective, prior to your letter the PJM stakeholder body were next scheduled to vote on various proposals at its next regularly scheduled meeting of March 11, 2020.

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<sup>1</sup> For example, PJM's Tariff and manuals have restrictions regarding planned and maintenance outages

<sup>2</sup> "Report on the FERC-NERC-Regional Entity Joint Review of Restoration and Recovery Plans, Recommended Study: Blackstart Resources Availability," May 2018, <https://www.ferc.gov/legal/staff-reports/2018/bsr-report.pdf>

<sup>3</sup> *Id.* at Pp. 3, 25-27

<sup>4</sup> This exploration demonstrated that across PJM's 19 transmission zones, there is a range of fuel assurance. About half of the zones hold restoration plans comprised of resources that are fully or near fully fuel assured. Remaining zones have wide ranges. <https://www.pjm.com/-/media/committees-groups/committees/oc/20190611-special/20190611-item-04-frbsr-pjm-education.ashx> at p. 4

<sup>5</sup> PJM analysis has determined that the absence of fuel availability may increase system restoration time by an average of 5- to 11-hours, with about 30 percent of sampled load realizing increased restoration times of 15- to 40-hours (outside PJM's expertise, various independent economic analyses may be used to ascribe the estimated hourly economic impact of a blackout). An upper-end option of the cost to mitigate would be the complete mitigation of these incremental restoration times. To achieve that result, occurs at a cost, across the nine affected transmission zones, ranging from \$0.01/MWh to \$0.72/MWh per zone for restoration plans comprised of *fully* fuel assured resources.

<sup>6</sup> PJM analysis on pipeline disruption depicts an average of 1.1 pipeline disruptions per winter months of the delivery year distributed across a range of days.

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PJM has been working with the member sponsors of the various packages in anticipation of the March 11 meeting. Based on input from your letter and the numerous discussions with your staff, as well as other stakeholders, PJM has recommended a hiatus in this stakeholder process to allow for us to perform additional analysis.

This analysis will focus on the risk and impacts of any increased restoration time, areas of risk from a fuel supply perspective, and economic impact of delayed restoration.

PJM has reviewed this plan with stakeholders and received supportive feedback at a March 2, 2020 meeting. Once this analysis is available, we will share it with you and other stakeholders and then resume the stakeholder process related to this issue.

Sincerely,

/s/ Dr. Ake Almgren

Dr. Ake Almgren  
Chair, PJM Board of Managers