February 8, 2023

VIA ELECTRONIC MAIL

Mr. Mark Takahashi, Chairman
Mr. Manu Asthana, President and CEO
PJM Board of Managers
PJM Interconnection, L.L.C.
2750 Monroe Boulevard
Audubon, PA 19403

RE: PJM Energy Market Circuit Breaker

Dear Chairman Takahashi, Mr. Asthana, and the PJM Board of Managers:

The PJM Markets and Reliability Committee (MRC) approved an Issue Charge on June 23, 2021 regarding the Operating Demand Curve and Transmission Constraint Penalty Factors that included a Key Work Activity to:

Explore potential “circuit breaker(s)” or other stop loss approach(es) that could limit extreme pricing whose cost likely far exceeds the value of any contribution to preserving grid reliability.

The PJM stakeholders were ably led by PJM staff, Susan Kenney and Andrea Yeaton, through a process that provided a civil forum to informatively discuss and pursue electricity market design changes.

We appreciate the support already offered by PJM leadership and the PJM Board of Managers as you have repeatedly acknowledged the importance of a “circuit breaker” in the energy market in PJM. PJM directly raised the issue before the U.S. Senate Committee on Energy and Natural Resources on March 11, 2021, through testimony offered by President and CEO, Manu Asthana. The Board of Managers has expressed support for a “circuit breaker” in letters to PJM stakeholders including to OPSI on October 22, 2021. The PJM Board also urged action in a letter to multiple parties, including the undersigned Joint Stakeholders, on August 31, 2022. Finally, the Board expressed its continued support for a “circuit breaker” in a letter to OPSI dated December 20, 2022.

Despite the tremendous support expressed by PJM’s leadership and the PJM Board along with the great work of the PJM stakeholders, the Membership was unable to reach supermajority support for a single package. However, the MRC did send a strong message on December 21, 2022, with a vote on two potential “circuit breaker” packages. The Joint Stakeholder package, which provides more substantial protections to the PJM membership and market, received 58% support, near supermajority. The Calpine package was only able to secure 21% support. The
details of the vote by sector demonstrate support from within every sector for the Joint Stakeholder package.

<table>
<thead>
<tr>
<th>Sector</th>
<th>Joint Stakeholder Package</th>
<th>Calpine Package</th>
</tr>
</thead>
<tbody>
<tr>
<td>ED</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>TO</td>
<td>0.25</td>
<td>0.125</td>
</tr>
<tr>
<td>OS</td>
<td>0.50</td>
<td>0.583</td>
</tr>
<tr>
<td>GO</td>
<td>0.13</td>
<td>0.235</td>
</tr>
<tr>
<td>EUC</td>
<td>1</td>
<td>0.105</td>
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<tr>
<td>Sector-Weighted Total</td>
<td>2.88 (58%)</td>
<td>1.049 (21%)</td>
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Just days after the December 2022 MRC vote, PJM prices observed during Winter Storm Elliott demonstrated the extremely high levels that can be quickly reached and sustained even if PJM is struggling to obtain response from additional resources. Indeed, all PJM zonal LMPs were in excess of $2,500/MWh on an hourly integrated basis at the beginning of the event on December 23, 2022.

Source: Item 0X-1 – Winter Storm Elliott Additional Detail – Post Meeting, MIC 1/11/2023

The circuit breaker market design question that needs to be answered is whether additional resources responded due to the extreme pricing or were all resources already providing all energy available? The Joint Stakeholders believe the PJM Board should use this recent event to reassess as to whether these extremely high prices significantly contributed to greater grid reliability or simply resulted in unjustly enriching suppliers at the expense of consumers? Thankfully, the late December 2022 bomb cyclone was relatively short lived but the event raises
an important question for the forward viability of PJM’s wholesale power markets - what would have happened during a weeklong event (or even longer) with pricing similar to that seen during Winter Storm Elliott?

Accordingly, consistent with the PJM Board’s previously expressed support for the concept, Joint Stakeholders urge the Board to direct PJM to file a “circuit breaker” to prevent a future runaway pricing event that results in unjust and unreasonable pricing to PJM Members rather than supportive of grid reliability. We suggest that the “circuit breaker” that PJM files should exclude any of the PJM developed packages which stopped short of the interventions needed. At a minimum the PJM-filed package should include:

• Objective criteria for triggering a “circuit breaker” that are easily observed, such as the total locational marginal price triggers in the Joint Stakeholder package.
• Zero discretion for triggering of the circuit breaker.
• Administrative capping of the locational marginal prices well below the existing maximums but no greater than $1,000/MWh for total locational marginal price.
• Discretion for PJM to exit the circuit breaker price capping as conditions warrant and automatically after 72 hours without the need for the continued price capping.

Joint Stakeholders eagerly look forward to the Board’s response and its next steps.

Sincerely,

David E. Schleicher  
President and CEO  
Northern Virginia Electric Cooperative

Marcus Harris  
President and CEO  
Old Dominion Electric Cooperative

Sonja Cox  
President and CEO  
Southern Maryland Electric Cooperative, Inc.