

A decorative graphic consisting of numerous thin, white, wavy lines that flow from the top left towards the bottom right, creating a sense of movement and depth against the blue background.

Final Review and Recommendation 2020 RTEP Proposal Window 3

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2020 RTEP Proposal Window No. 3

As part of its 2020 RTEP process cycle of studies, PJM identified clustered groups of flowgates that were put forward for proposals as part of 2020 RTEP Window No. 3. Specifically discussed in this Final Review and Recommendation report which includes those flowgates listed in **Table 1** and in **Figure 1**.

Table 1. 2020 RTEP Window No. 3 List of Flowgates

Flowgates	Voltage Level	Driver
AEP-T431, AEP-T464, AEP-T475, AEP-T430, AEP-T474, AEP-T485, AEP-T473, AEP-T484, AEP-T472, AEP-T483, AEP-T471, AEP-T482, AEP-T470, AEP-T481, AEP-T480, AEP-T429, AEP-T469, AEP-T424, AEP-T479, AEP-T467, AEP-T478, AEP-T466, AEP-T477, AEP-T476	69 kV, 138 kV	Thermal

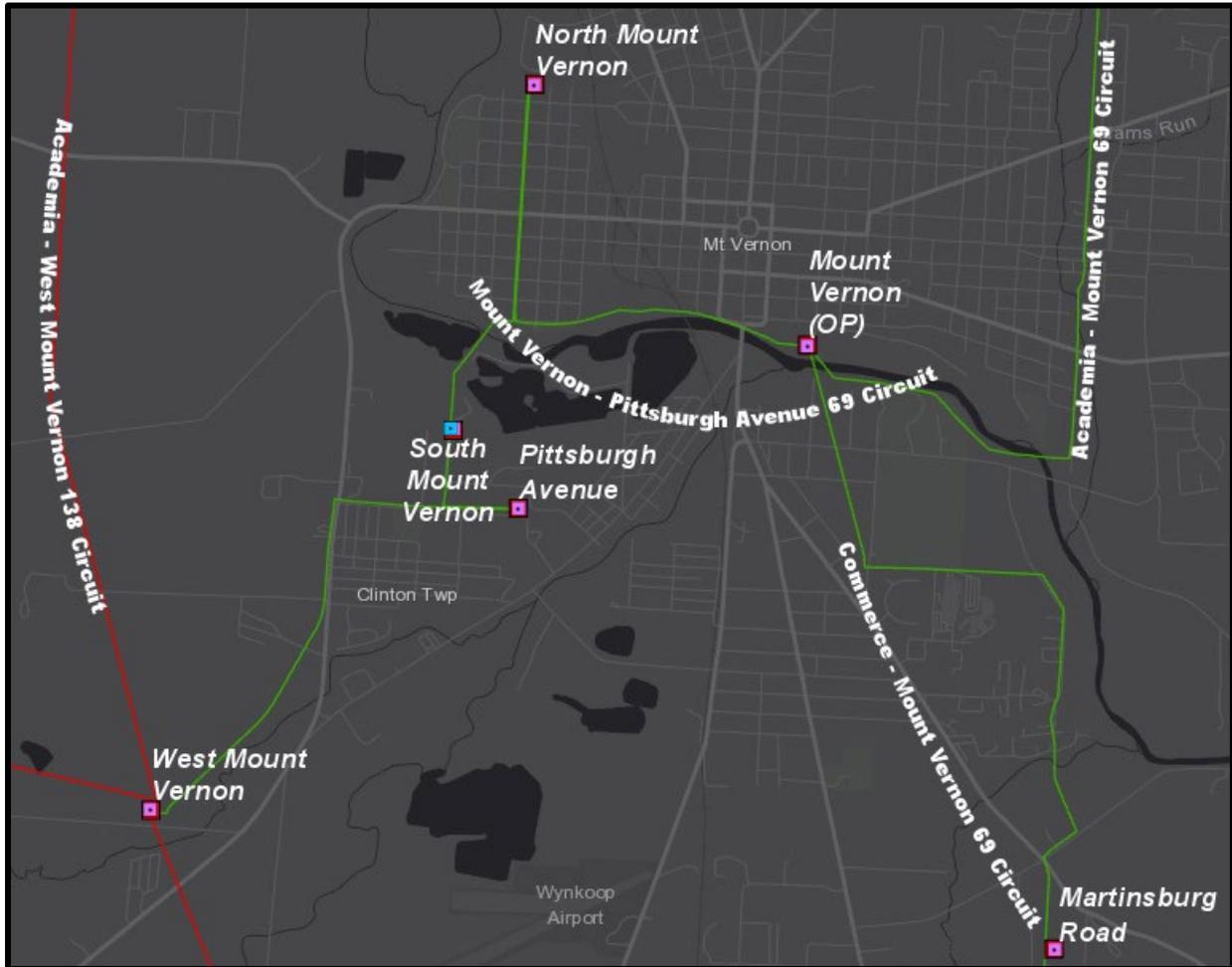
Proposals Submitted to PJM

PJM conducted 2020 RTEP Proposal Window No. 3 for 30 days beginning September 18, 2020 and closing October 19, 2020. During the window, several entities submitted three proposals through PJM's Competitive Planner Tool. The proposals are summarized in **Table 2**. Publicly available redacted versions of the proposals can be found on PJM's web site: <https://www.pjm.com/planning/competitive-planning-process/redacted-proposals.aspx>.

Table 2. 2020 RTEP Proposal Window No. 3 List of Proposals

Proposal ID#	Project Type	Project Description	Estimated Total Construction Cost (\$, millions)	Cost Capping Provisions (Y/N)
860	Upgrade	West Mount Vernon - Mount Vernon 69 kV Line	12.93	N
533	Greenfield	Wolf Run – Gambier - Martinsburg 69 kV Lines	21.13	Y
697	Upgrade	Commerce-Mount Vernon and Sharp Road-Utica 69 kV Lines	1.29	N

Figure 1 – West Mount Vernon - Mount Vernon 69 kV



Final review and Recommendation

PJM has completed a Final Review and Recommendation for the proposals listed in **Table 2** above based on data and information provided by the project sponsors as part of their submitted proposals. The data and information included the following preliminary analytical quality assessments:

Initial Performance Review – PJM evaluated whether or not the project proposal solved the required reliability criteria violation drivers posted as part of the open solicitation process.

- *Initial Planning Level Cost Review* – PJM reviewed the estimated project cost submitted by the project sponsor and any relevant cost containment mechanisms submitted as well.
- *Initial Feasibility Review* – PJM reviewed the overall proposed implementation plan to determine if the project, as proposed, can feasibly be constructed.
- *Additional Benefits Review* – PJM reviewed information provided by the proposing entity to determine if the project, as proposed, provides additional benefits such as the elimination of other needs on the system

Initial performance reviews yielded the following results:

1. No significant difference among the three proposals as to their respective ability to solve the identified reliability criteria violations.
2. No creation of additional reliability criteria violations.

Initial cost reviews showed cost commitment provisions from Proposal No. 533 that, in summary, would cap total rate base recovery; Proposal Nos. 860 and 697 did not contain cost commitment provisions.

PJM also notes that Proposal No. 533 incorporates Greenfield construction that will require new or additional easements, and siting of a new 345kV substation. The proposing entity believes that the existing Gambier 69V substation can be expanded inside the existing substation fence line to accommodate a new 69kV line from the new 345kV substation. This siting of a new 345kV substation offers some significant risk to the proposal.

A high level review of the plans identified in each of the proposals did not reveal any other concerns.

PJM presented a First Read and Second Read of the Initial Performance Review and Recommended Solution at the December 2020, and January 2021, TEAC meetings, respectively. No stakeholder comments in opposition to the selected solution were received at those meetings nor afterward via Planning Community.

Additional Benefits

To facilitate PJM's identification of more efficient or cost effective transmission solutions to identified regional needs, PJM may consider the secondary benefits a proposal window-submitted project may provide beyond those required to solve identified reliability criteria violations. As discussed in Section 1.1 and Section 1.4.2 of PJM Manual 14B, Transmission Owner Attachment M-3 needs and projects are to be reviewed to determine any overlap with solutions proposed to solve the violations identified as part of opening an RTEP proposal window.

A review of these overlaps as part of PJM's 2020 Window No. 3 screening has identified secondary benefits beyond solving identified reliability criteria violations. Based on the information provided by the sponsor, Proposal No. 860 will address needs associated with aging infrastructure as outlined below:

- Project will replace a 1950's wood pole line that utilizes copper conductor. Proposal will also replace a 1952 vintage 138/69 kV transformer along with a 1951 oil breaker at West Mount Vernon station.

Mount Vernon-West Mount Vernon 69 kV Circuit (4.68 miles)

- From 2015 – 2020 this circuit has experienced 2 momentary and 5 permanent outages resulting in approximately 21k CMI.
- The circuit currently has 45 open conditions on 38 structures (49% of the total structures), including pole damage, top rot, heart rot, and missing ground lead wires.
- Structures are made up of wood poles from the 1950s (50 structures). Some structures have been replaced since the 1980s (28 structures).

- The circuit conductor was installed in 1952 consisting of 3/0 Copper.

Recommended Solutions

Proposal No. 860 solves the identified reliability criteria violations and offers additional benefits in the form of eliminating an Attachment M-3 need (not observed in the other proposals in this cluster). Proposal No. 697, while indicating less costs for the individual proposal, will not address the existing aging infrastructure issues identified above. Proposal No. 533 offers to solve the violations through addition of a source to the Gambier 69kV substation, which currently does not have facilities with which it might serve the load in the area but would be required should the Attachment M-3 need (indicated as additional benefits for Proposal No. 860) be left unresolved in the future. This would lead to a need for further expansion at the Gambier substation to provide transformation capabilities, as well as additional circuits from Gambier, to serve load addressed in the facilities identified in the additional benefits for Proposal No. 860.

In addition to being more costly, Proposal No. 533 incorporates Greenfield construction which may impact the ability to timely complete the project, while Proposal No. 860, in contrast, is an upgrade to existing facilities. Finally, while cost capping provisions are provided in Proposal No. 533, the costs for Proposal No. 533 are significantly higher than the costs estimated for Proposal No. 860.

Based on this information, Proposal No. 860 is the more efficient or cost effective solution in Window No. 3. PJM's initial planning level cost review and initial feasibility review suggests that further constructability review and financial analysis would not materially contribute to the analysis of the other proposals submitted for this cluster.

The projected in service dates for Proposal 860 is June 2025

PJM presented this Recommended Solution with stakeholders at the January 6, 2021 TEAC. A final recommendation will be made to the PJM Board at its meeting scheduled for February 8th and 9th, 2021 for PJM Board review and approval.