

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

Final Review and Recommendation 2021 RTEP Proposal Window 1 – Cluster No. 4

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2021 RTEP Proposal Window No. 1 - Cluster No. 4

As part of its 2021 RTEP process cycle of studies, PJM identified clustered groups of flowgates that were put forward for proposals as part of 2021 RTEP Window No. 1. Specifically, Cluster No. 4 - discussed in this Final Review and Recommendation report - includes those flowgates listed in **Table 1**.

Table 1. 2021 RTEP Proposal Window No. 1 – Cluster No. 4 List of Flowgates

Flowgate	kV Level	Driver
N2-SVM8, N2-SVM9, N2-SVM10, N2-SVM11, N2-SVM12, N2-SVM13, N2-SVM16, N2-SVM17, N2-SVM18, N2-SVM19, N2-SVM26, N2-SVM27, N2-SVD1, N2-SVD2, N2-SVD3, N2-SVD4, N2-SVD5, N2-SVD6, N2-SVD7, N2-SVD8, N2-SVD9, N2-SVD10, N2-SVD11, N2-SVD12, N2-SVD15, N2-SVD16	230 kV	Summer & Winter N-1 and N-1-1 voltage

Proposals Submitted to PJM

PJM conducted 2021 RTEP Proposal Window No. 1 for 60 days beginning July 2, 2021 and Closing August 31, 2021. 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. 2021 RTEP Proposal Window No. 1 – Cluster No. 4 List of Proposals received for

Proposal ID#	Project Type	Project Description	Total Construction Cost M\$	Cost Capping Provisions (Y/N)
498	Upgrade	Grover Substation: Install two reactors and install line breakers	\$5.312	N
634	Upgrade	Grover 230 kV Substation: Install dual reactors and convert the station to a ring bus	\$16.32	N
745	Upgrade	Marshall 230 kV Substation: Install dual reactors and expand existing ring bus	\$5.83	N

Final Review and Recommendation

PJM completed a Final review of 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 assessment:

- *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. All three proposals solve the identified reliability criteria violations
2. None of the proposals create a new reliability issue

The cost reviews provide no significant factors to consider other than the differences in apparent costs. A high level review of the plans identified in the proposals did not reveal any concerns.

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

Additional Benefits

In order to ensure that PJM develops more efficient or cost effective transmission solutions to identified regional needs, RTEP Process consideration must be given to the additional 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 must 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 2021 Window No. 1 screening has identified potential benefits beyond solving identified reliability criteria violations. Based on the information provided by the sponsors:
 - Proposal No. 745 provides operational flexibility at Marshall Substation. Expanding the ring bus at Marshall Substation and staggering the sources allows for generation at the Marshall substation and the proposed

reactors to remain active for stuck breaker contingencies that would otherwise outage the entire Marshall Substation by removing both sources or line exits to the substation simultaneously.

- Proposal No. 634, converts the Grover Substation to a ring bus eliminating the simultaneous outage of multiple components at the substation including a Penelec distribution bank that serves approximately 1491 customers, 12 of which are critical customers

Recommended Solution

Based on this information, Proposal No. 745 is the more efficient and cost effective solution in Cluster No. 4. with a projected in-service date of 6/1/2026.