Final Review and Recommendation
2022 RTEP Proposal Window 1 – Cluster No. 3

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2022 RTEP Proposal Window No. 1 - Cluster No. 3

Final Review and Recommendation

As part of its 2022 RTEP process cycle of studies, PJM identified clustered groups of flowgates that were put forward for proposals as part of 2022 RTEP Window No. 1. Specifically, Cluster No. 3 - discussed in this Final Review and Recommendation report - includes the flowgate listed in **Table 1**.

Table 1. 2022 RTEP Proposal Window No. 1 – Cluster No. 3 List of Flowgates

Flowgate	kV Level	Driver
2022W1-GD-S595	500/230 kV	Summer Generation Deliverability

Proposals Submitted to PJM

PJM conducted 2022 RTEP Proposal Window No. 1 for 60 days beginning July 1, 2022 and Closing August 30, 2022. During the window, one entity submitted three proposals to address cluster 3 needs 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. 2022 RTEP Proposal Window No. 1 – Cluster No. 3 List of Proposals received for

Proposal ID#	Project Type	Project Description	Total Construction Cost M$	Cost Capping Provisions (Y/N)
127	Upgrade	Reterminate the Lackawanna T3 and T4 500 / 230 kV transformers on the 230 kV side to remove them from the 230 kV buses and bring them into dedicated bay positions that are not adjacent to one another.	$10.65	**Y**
553	Upgrade	Replace the existing Lackawanna 500/230 kV T3 and T4 transformers with larger 1250 MVA units. Upgrade bay equipment to accommodate the new higher rated transformers.	$55.97	**Y**
907	Greenfield	Install a new 1500 MVA 500/230 kV transformer at Lackawanna substation. Re-terminate the Lackawanna - Lackawanna Energy to the Lackawanna 500kV using the new 500/230 kV transformer	$51.48	**Y**

Final Review and Recommendation

PJM completed a Final Review and Recommendation of the proposals listed in **Table 2** above based on data and information provided by the project sponsors as part of their submitted proposals. This review and screening 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 violation

Initial 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 does not reveal any concerns at this stage of review.

PJM presented a First Read and Second Read of the Initial Performance Review and Recommended Solution at the October 2022, and November 2022, TEAC meetings, respectively. 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 the 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 proposals as part of PJM's 2022 Window No. 1 screening has identified potential benefits beyond solving identified reliability criteria violations as discussed below.

Proposal No. 127 - Eliminates the specific common mode event of concern along with other common mode events.

Proposal No. 553 – Provides additional transformation capacity at the Lackawanna substation.

Proposal No. 907 - Based on study results using future queue projects, this option may potentially have a longer lifespan than the option of replacing the existing transformers with larger units.

Recommended Solution

Based on this information, proposal No. 553 and 907 solve the violation, however, are not the most cost effective solution. Proposal No. 127 appears to be the more efficient and cost-effective solution in Cluster No. 3, with a projected in-service date of January 2026. 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.

PJM presented this Recommended Solution with stakeholders at the November 1, 2022 TEAC. A final recommendation will be made to the PJM Board at its meeting scheduled for December 6, 2022 for PJM Board review and approval.