



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

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

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. 1 - 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. 1 List of Flowgates

Flowgate	kV Level	Driver
APS-VD45 & APS-VD46	230 kV	Voltage Drop

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 four 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. 1 List of Proposals

Proposal ID#	Project Type	Project Description	Total Construction Cost M\$	Cost Capping Provisions (Y/N)
919	Upgrade	Upgrade the Shingletown #82 230-46 kV Transformer Circuit by installing a 230 kV breaker and disconnect switches, removing existing 230 kV switches, replacing 46 kV disconnect switches, replacing limiting substation conductor, and installing/replacing relays.	1.66	N
779	Upgrade	Convert Shingletown 230 kV Substation into a six-breaker ring bus. The current configuration is a straight bus with three 230 kV lines and two 230-46 kV transformers. The scope of work includes the installation of five 230 kV breakers & disconnect switches, relocation of one 230 kV breaker, CVT installations, Wavetrap installations, bus & substation conductor construction, SCADA/communications, and relaying. There will be remote-end upgrades at Lewistown & Shawville substations.	11.92	N

Proposal ID#	Project Type	Project Description	Total Construction Cost M\$	Cost Capping Provisions (Y/N)
608	Greenfield	The Persia - Yeagertown 230kV Transmission Project will include a new 3-position ring bus interconnecting the Dale - Milesburg 230kV transmission line. The proposed project will include a 230kV transmission line to connect the new substation with a new line position at the existing Yeagertown 230kV Substation.	77.59	Y
560	Greenfield	The Persia - ElimSPORT 230kV Transmission Project will include a new 3-position ring bus interconnecting the Dale - Milesburg 230kV transmission line. The proposed project will include a 230kV transmission line to connect the new substation with a new line position at the existing ElimSPORT 230kV Substation.	135.54	Y

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. 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. Performance of proposal 919 resolves the voltage drop reliability criteria violation at Shingletown 230 kV. Proposal 779 was not evaluated due to the cost being roughly seven times higher than proposal 919. Proposal 608 and 560 were also not evaluated due to significantly higher cost in spite of the proposals having cost containment.

2. Proposal 919 doesn't create any additional reliability criteria violations. Proposal 779, 608 and 560 were not tested for any reliability analysis because the cost is considerably higher than proposal 919 and no significant additional benefits could be determined for these proposals 779, 608, and 560.

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 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 November 2, 2021, and November 30, 2021, TEAC meetings, respectively. No stakeholder comments in opposition to the selected solution were received at those meetings nor afterward via Planning Community.

Recommended Solution

Based on this information, Proposal No. 919 is the more efficient and cost effective solution in Cluster No. 1 with a projected in service date of 6/1/2025.