



Final Review and Recommendation 2021 RTEP Proposal Window 1 - Cluster No. 5

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2021 RTEP Proposal Window No. 1 - Cluster No. 5

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. 5 - 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. 5 List of Flowgates

Flowgate	kV Level	Driver
GD-S12, GD-S17, GD-S715, GD-S37, GD-S717, N1-ST49	230 kV	Thermal

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, two 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. 5 List of Proposals

Proposal ID#	Project Type	Project Description	Total Construction Cost M\$	Cost Capping Provisions (Y/N)
445	Upgrade	Increase the ampacity of 230kV Line #2114 between Remington CT and Gainesville (Remington CT - Elk Run - Gainesville) to a summer rating of 1574 MVA by fully reconductoring the line and upgrading the wave trap and substation conductor at Remington CT and Gainesville	30.68	N
333	Upgrade	Increase the ampacity of 230kV Line #2114 between Remington CT and Gainesville (Remington CT - Elk Run - Gainesville) to a summer rating of 1574 MVA by fully reconductoring the line and upgrading the breakers and terminal equipment at Remington CT and Gainesville to achieve a 4000 A single breaker rating.	39.69	N
298	Greenfield	Construct greenfield Lee District 500 kV station with 6-breaker ring bus. Tap Loudoun – Meadow Brook 500 kV line into Lee District. Tap Front Royal – Morrisville 500kV line into Lee District. Install two 500/230 kV transformers at Lee District. Tap Lucky Hill-	72.88	Y

		<p>Batna 230 kV line: Connect Lucky Hill 230 kV line directly into 500/230 kV XF #1 and Batna 230 kV line directly into 500/230 kV XF #2. Install a 3%, 13 ohm series reactor on Lee District – Batna 230 kV line. (hereinafter, "the Project")</p>		
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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. No significant difference between proposals 333 and 445 as to their respective ability to solve the identified reliability criteria violations. Proposal No. 298 was not evaluated due to its cost.
2. No creation of additional reliability criteria violations from proposals 333 and 445.

The cost reviews showed cost commitment provisions from Proposal No. 298 that, in summary, would cap return on equity (ROE) and provide a binding equity percentage cap for the project; remaining proposals did not include cost commitment provisions. PJM also notes that Proposal No. 298 incorporates greenfield construction which may impact the ability to timely complete the project. A high level review of the plans identified in the proposals does not reveal any concerns.

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

Proposal no. 445 and 333 solve the identified reliability criteria violations for cluster no. 5 and do not cause any new reliability criteria violations. Proposal 298 was not evaluated as the additional flowgate that it was meant to solve, GD-S30 was eliminated as a result of the 2021 RTEP re-tool. In addition, the cost of the project in relation to the other 2 proposals was considerably higher.

Proposal 333 expands the scope of proposal 445 to include the upgrade of breakers to achieve a 4000A rating at Remington CT and Gainesville. This adds approximately \$800k in additional cost at the Remington CT terminal and \$8.2M in additional cost at the Gainesville terminal for the use of GIS hybrid breakers at Gainesville due to space limitations.

Based on this information, Proposal No. 445 is the more efficient and cost effective solution in Cluster No. 5 with a projected in service date of 6/1/2026.