
Dominion Virginia Power

PROJECT PROPOSAL

2016_1-3E_Rogers Rd-Maclins 500kV Line,
Maclins-Clubhouse 230kV Line

for:

2016 RTEP Proposal Window 1

March 31, 2016

PUBLIC VERSION

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A. Executive Summary

A.1. Name of proposing entity

This proposal is submitted by Dominion Virginia Power (Dominion).

A.2. Proposal window and associated violations/issues addressed

2016 RTEP Proposal Window 1

A.2.a. Reliability violation(s) addressed by project

This solution addresses the following violations that were identified by PJM as a result of generator deliverability analysis and posted at the opening of this window.

- Flowgate 102: Rogers Rd – Carson 500kV Line overloaded for the loss of LN 511.
- Flowgate 68: Chesterfield – Messer 230kV Line overloaded for the loss of LN 228.
- Flowgate 78: Messer – Charles City Rd 230kV Line overloaded for the loss of LN 228.

A.2.b. Violations caused by proposal/nearby violations not addressed by this proposal

Although this solution has the side benefit of addressing Flowgates 68 and 78, there are additional nearby flowgate violations for the Chesterfield to Messer to Charles City Road line that are not addressed.

There are no new violations caused by this proposal.

A.3. Project interrelation with other entities

This project does not span between two PJM Transmission Owner zones or between PJM and a neighboring Balancing Authority.

A.4. Intention to construct/own/operate/maintain

For this proposal, Dominion seeks to be the designated entity to construct, own, operate, maintain and finance the Project.

A.5. Description of the proposed solution and corresponding violation(s) it resolves

To resolve the violations noted in section A.2. above, Dominion proposes to construct **2016_1-3E_Rogers Rd-Maclins 500kV Line, Maclins-Clubhouse 230kV Line** (the "Project") in Virginia. The Project includes the following facilities:

- **New Greenfield Transmission Line:** Rogers Road Substation to Maclins Substation, 500kV, 2.04 miles.
- **Rogers Road Substation Modification:** Add (1) 500kV breaker and associated fiber.
- **New Greenfield Substation:** To be named "Maclins Substation"; Add (1) 500kV breaker, (1) 230kV breaker, (1) 500/230kV transformer, and associated fiber.
- **New Greenfield Transmission Line:** Maclins Substation (new) to Clubhouse Substation, 230kV, 4.82 miles.
- **Clubhouse Substation Modification:** Add (3) 230kV breakers.

For the purpose of this proposal, Dominion developed a feasible route (the "Conceptual Route") based on a desktop review of publicly available data. The Conceptual Route was used as the basis for the designs and estimates contained in this proposal. However, the Conceptual Route is not intended to represent a preferred, alternate or final route for purposes of the applicable siting, permitting and other regulatory approval processes.

A geographic map of the Project study area is provided as Appendix A.

A.6. How this project should be considered

This project should be considered as a whole.

A.7. Cost and cost commitment overview

The estimated total capital cost in today's dollars for all components of the Project, including components that PJM may consider as upgrades, is approximately \$34.5 million.

PJM can have confidence in the reasonableness of this cost estimate. Dominion, the incumbent Transmission Owner in the PJM Southern region of the Project, has extensive knowledge and experience developing, constructing, operating and maintaining similar facilities in Virginia. These estimates were derived using actual cost from recent projects.