

Dominion Supplemental Projects

Transmission Expansion Advisory
Committee
August 31, 2021

Needs

Stakeholders must submit any comments within 10 days of this meeting in order to provide time necessary to consider these comments prior to the next phase of the M-3 process

Dominion Transmission Zone: Supplemental Equipment Material Condition, Performance and Risk

Need Number: DOM-2021-0044

Process Stage: Need Meeting 08/31/2021

Project Driver: Equipment Material Condition, Performance and Risk

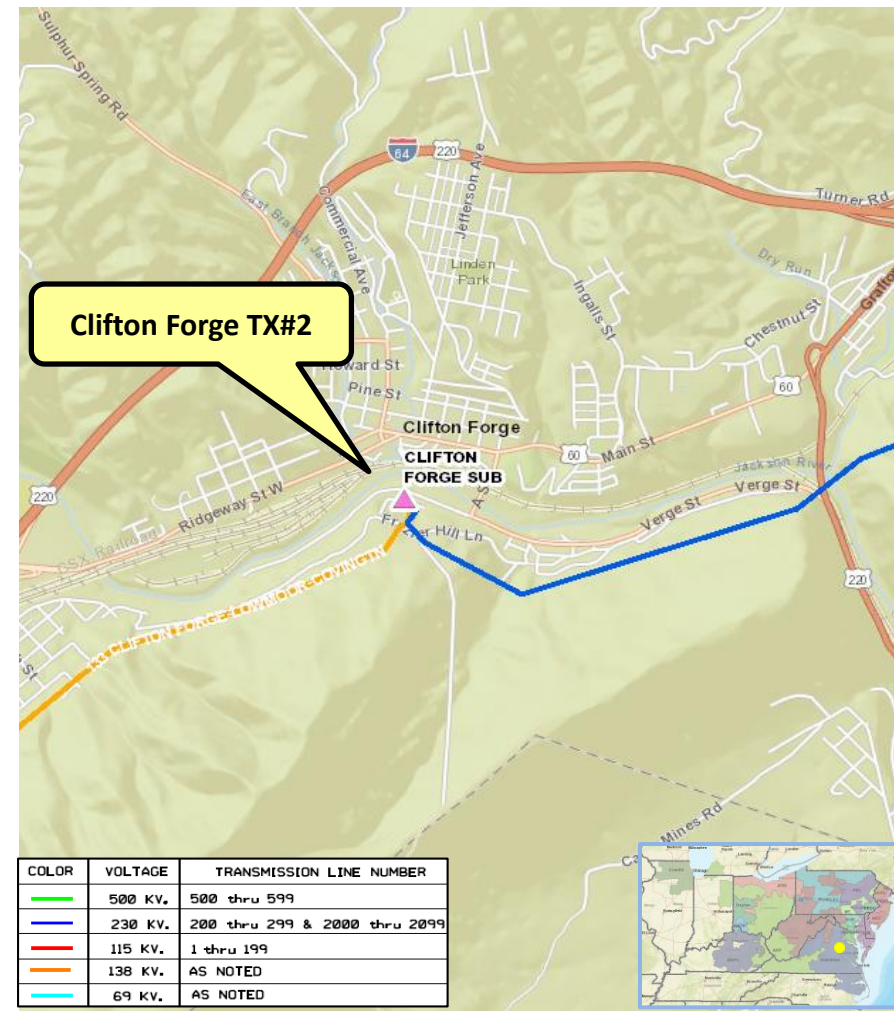
Specific Assumption References:

See details on Equipment Material Condition, Performance and Risk in Dominion's Planning Assumptions presented in December 2020.

Problem Statement:

Clifton Forge TX#2 is a 250 MVA, 230/138/13.2 kV three-phase auto transformer bank that was manufactured in 1996. This transformer bank has been identified for replacement based on the results of Dominion's transformer health assessment (THA) process. Detailed drivers include:

- Age (approaching 30 years old).
- Reduced BIL ratings (2 levels below standard).
- Degraded porcelain type bushings.
- Oil DGA shows elevated levels of CO and CO2 indicating potential degradation of dielectric paper insulation.
- Mechanical design issue was observed with conservator tank mounting (tank began to collapse and start pulling away from the tank anchor points).
- THA score less than 80.



Dominion Transmission Zone: Supplemental Equipment Material Condition, Performance and Risk

Need Number: DOM-2021-0060

Process Stage: Need Meeting 08/31/2021

Project Drivers: 1) Operational Flexibility and Efficiency
2) Customer Service

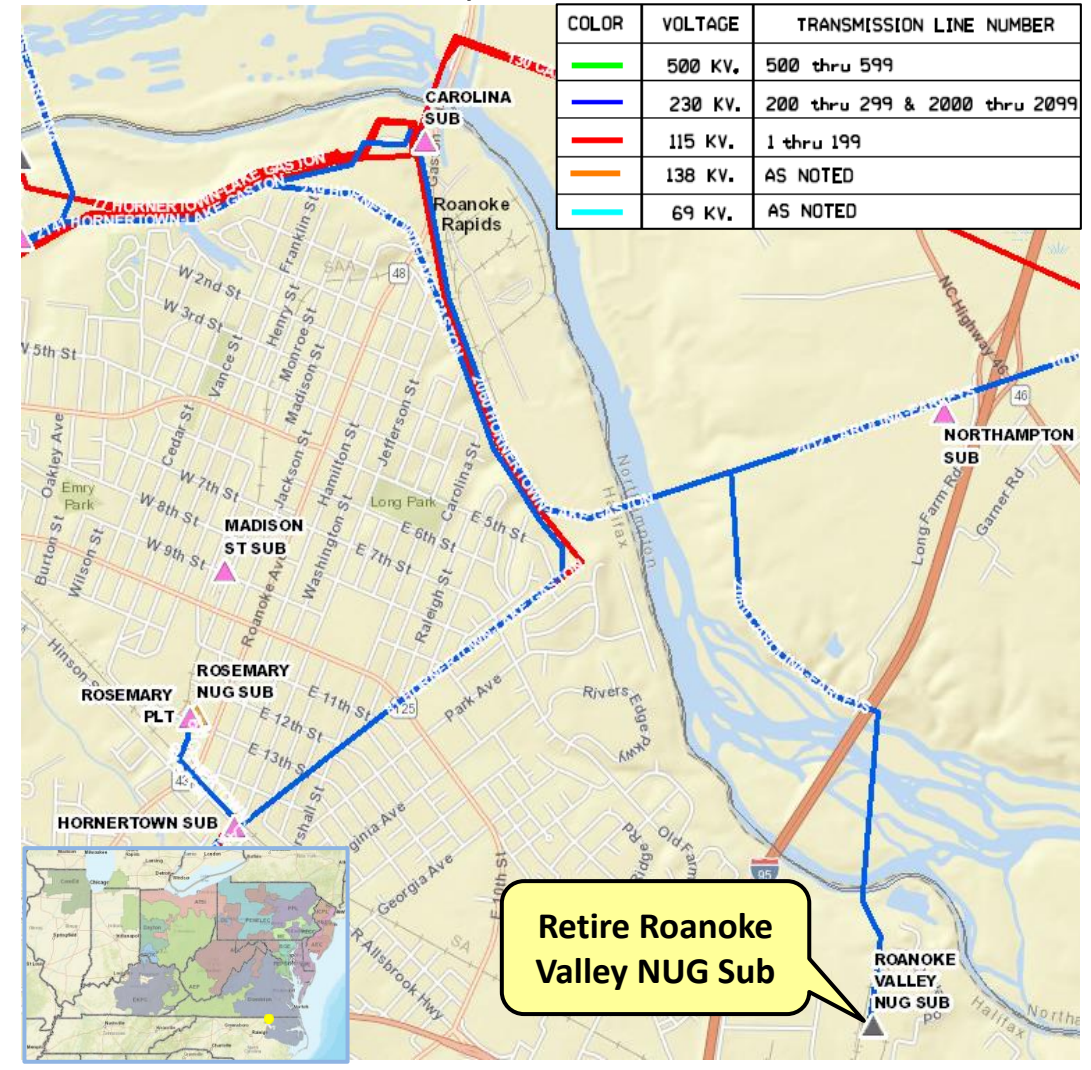
Specific Assumption References:

See details on Operational Flexibility and Customer Service in Dominion’s Planning Assumptions presented in December 2020.

Problem Statement:

Dominion Energy has identified a need to retire Roanoke Valley NUG 230kV Substation and to remove the terminations of the double circuit Lines #2012 and #2060.

- No load is served from Roanoke Valley NUG 230kV Substation post retirement of the generator. The assets are no longer required, will need continuous maintenance to avoid risk to reliability.
- DEV Distribution has a customer locating on the property.



Solutions

Stakeholders must submit any comments within 10 days of this meeting in order to provide time necessary to consider these comments prior to the next phase of the M-3 process

Dominion Transmission Zone: Supplemental Do No Harm Analysis

Need Number: DOM-2021-0032 DNH

Process Stage: Solutions Meeting 08/31/2021

Project Driver: Do No Harm Analysis

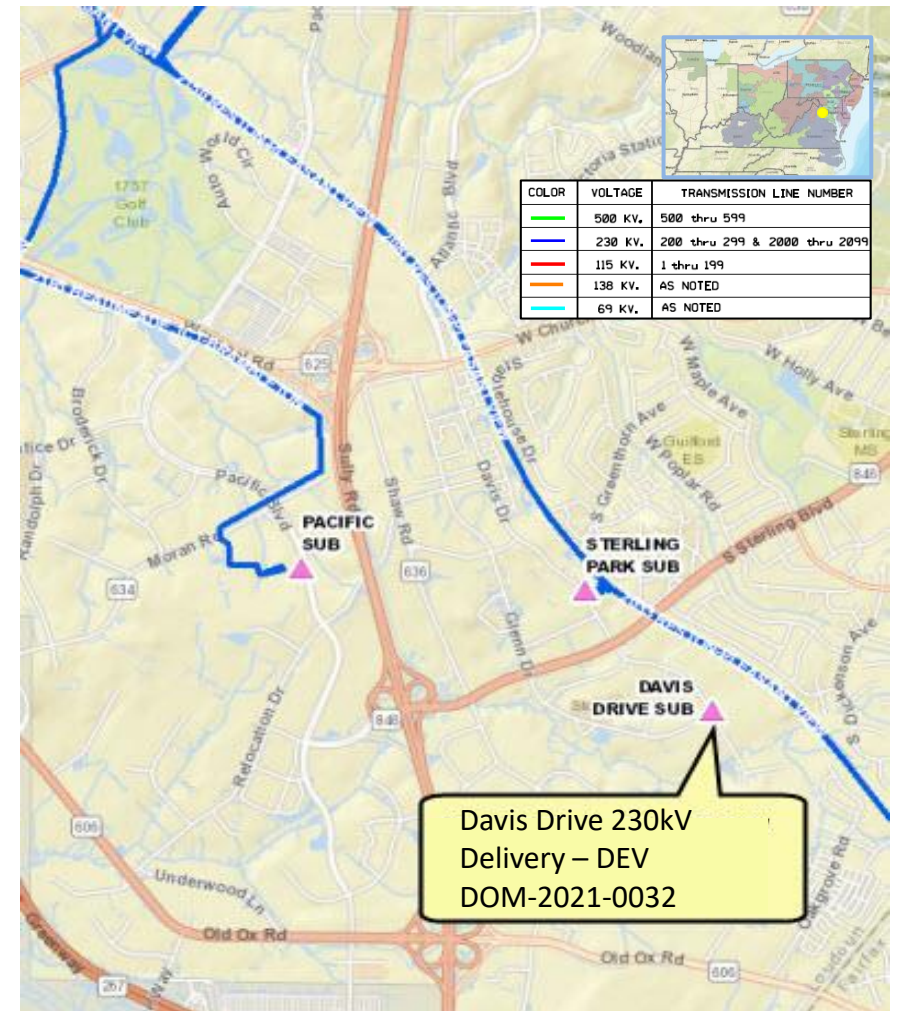
Specific Assumption References:

Customer load request will be evaluated per Dominion's Facility Interconnection Requirements Document and Dominion's Transmission Planning Criteria.

Problem Statement:

PJM has identified a 300MW N-1-1 Load Drop violation for the loss of Line #2081 (Paragon Park to Sterling Park) and Line #2033 (Davis Drive to Reston) during the 2021 Do-No-Harm analysis.

The violation was caused by Supplemental Project DOM-2021-0032 in the Dominion Zone.



Dominion Transmission Zone: Supplemental Do No Harm Analysis

Need Number: DOM-2021-0032 DNH

Process Stage: Solutions Meeting 08/31/2021

Proposed Solution:

Cut and Loop Line 2079 (Sterling Park - Dranesville) into Davis Drive substation and install two GIS 230kV breakers.

Alternatives Considered:

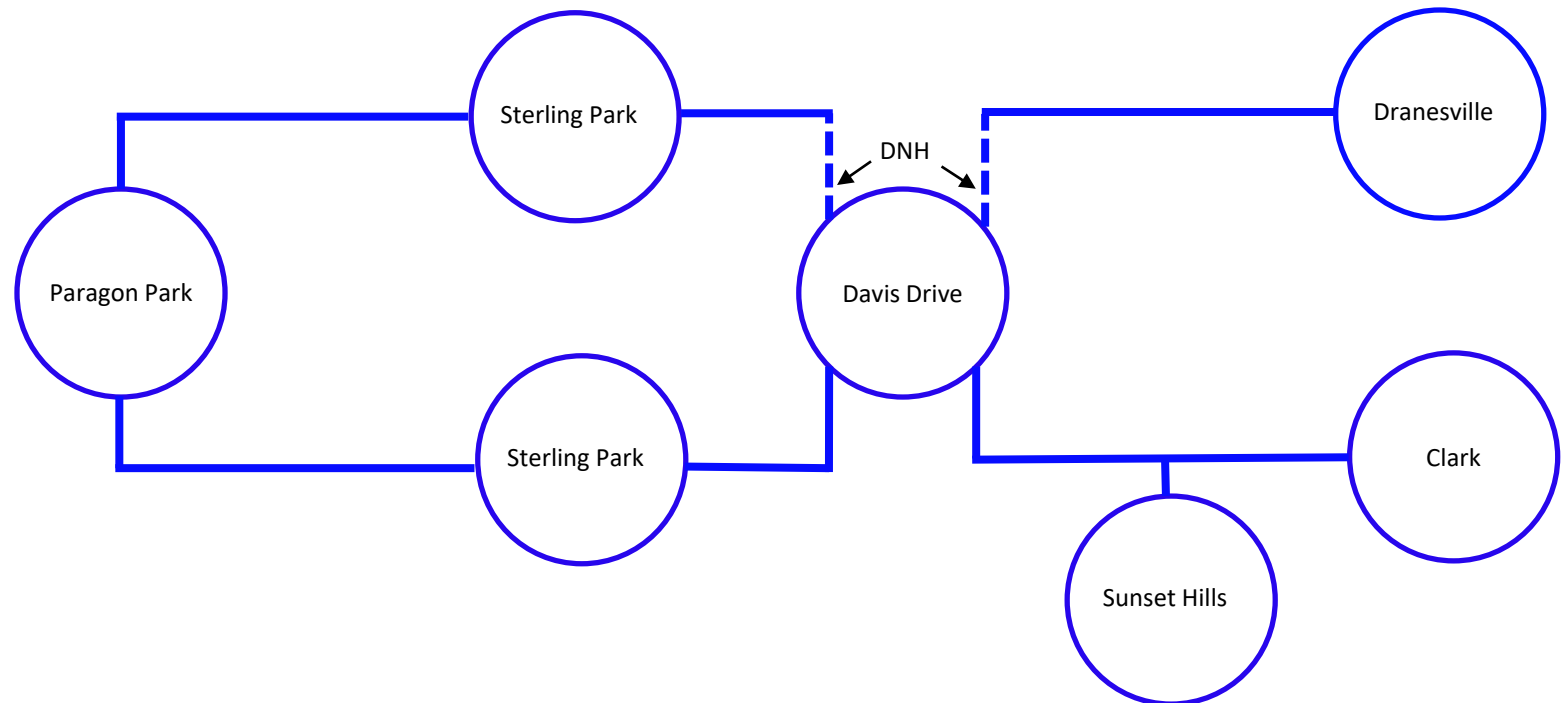
No feasible alternatives

Estimated Cost: \$15.0M
Transmission Line: \$5M
Substation: \$10M

Projected In-service Date: 06/15/2026

Project Status: Engineering

Model: 2025 RTEP



Appendix

High level M-3 Meeting Schedule

Assumptions	Activity	Timing
	Posting of TO Assumptions Meeting information	20 days before Assumptions Meeting
	Stakeholder comments	10 days after Assumptions Meeting
Needs	Activity	Timing
	TOs and Stakeholders Post Needs Meeting slides	10 days before Needs Meeting
	Stakeholder comments	10 days after Needs Meeting
Solutions	Activity	Timing
	TOs and Stakeholders Post Solutions Meeting slides	10 days before Solutions Meeting
	Stakeholder comments	10 days after Solutions Meeting
Submission of Supplemental Projects & Local Plan	Activity	Timing
	Do No Harm (DNH) analysis for selected solution	Prior to posting selected solution
	Post selected solution(s)	Following completion of DNH analysis
	Stakeholder comments	10 days prior to Local Plan Submission for integration into RTEP
	Local Plan submitted to PJM for integration into RTEP	Following review and consideration of comments received after posting of selected solutions

Revision History

08/20/2021 – V1 – Original version posted to pjm.com.