SRRTEP Committee Southern
Dominion Supplemental Projects

July 16, 2020

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 End of Life Criteria

Need Number: DOM-2020-0014

Process Stage: Need Meeting 07/16/2020

Project Driver: End of Life Criteria

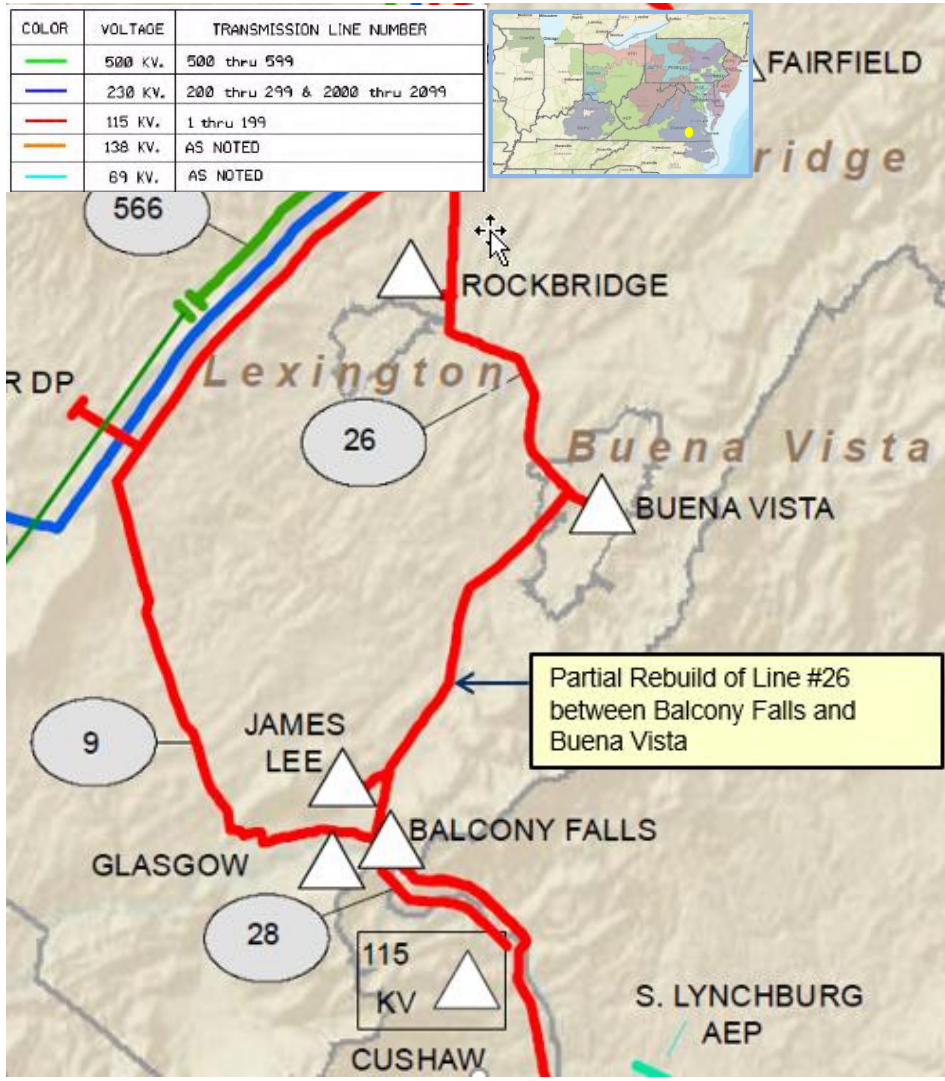
Specific Assumption References:

See details on Dominion Energy's End of Life Criteria in Dominion's Planning Assumptions presented in December 2019 and updated in June 2020

Problem Statement:

The 26 line extends 20.82 miles between Lexington to Balcony Falls. The 7.63 mile section between Balcony Falls and Buena Vista was constructed primarily on Blaw Knox structures in 1928 and includes ACSR conductor and 3#6 static. Industry guidelines indicate equipment life for wood structures is 35-55 years, conductor and connectors are 40-60 years, and porcelain insulators are 50 years. Within this section there are 18 structure locations that need to be replaced due to condition which makes up more than 21.7% of the segment structures.

Removing this segment of Line #26 from service creates a violation of Dominion Energy's Transmission Planning Criteria whereby the loading on the resulting radial transmission line exceeds the 700 MW-Mile Exposure limit (MW-Mile = Peak MW X Radial Line Length).



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 Customer Load Request

Need Number: DOM-2020-0020

Process Stage: Solutions Meeting 07/16/2020

Previously Presented: Need Meeting 06/16/2020

Project Driver: Customer Service

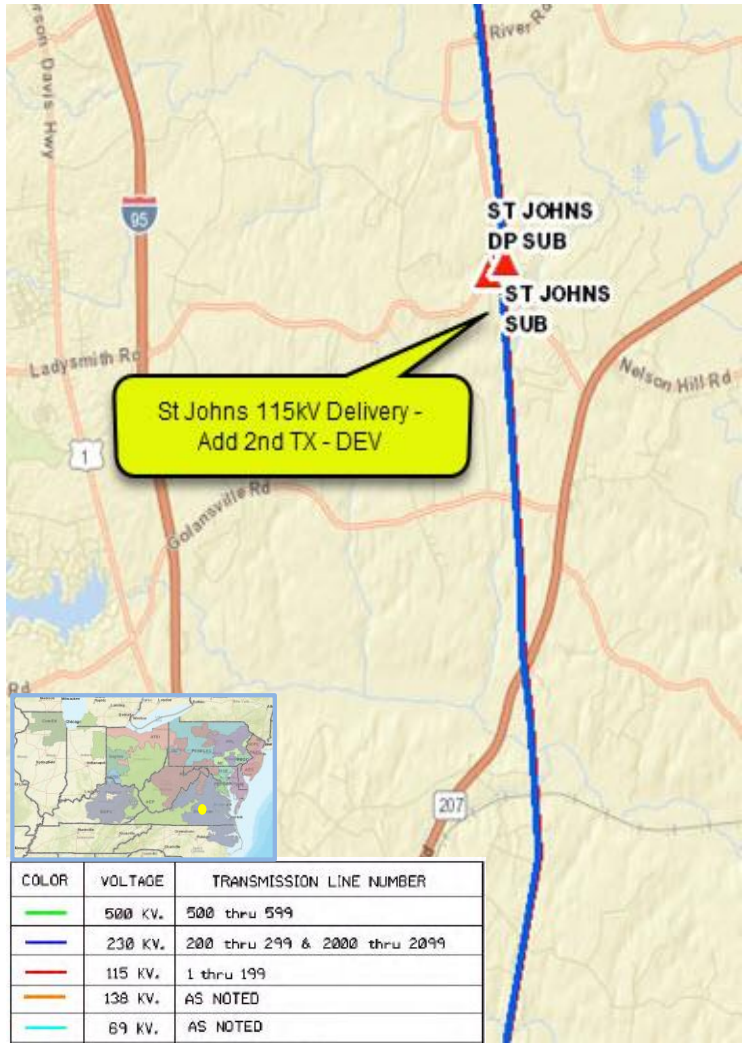
Specific Assumption References:

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

Problem Statement:

DEV Distribution has submitted a DP Request to add a 2nd, 12.5 MVA distribution transformer at St. Johns Substation in the Caroline County. The new transformer is needed to mitigate load loss for a transformer contingency. Requested in-service date is 11/15/2021.

Initial In-Service Load	Projected 2025 Load
Summer: 11.1 MW	Summer: 11.9 MW



Dominion Transmission Zone: Supplemental St. Johns 115kV Delivery- Add 2nd TX - DEV

Need Number: DOM-2020-0020

Process Stage: Solutions Meeting 07/16/2020

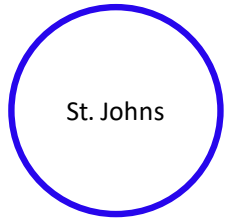
Proposed Solution:

Install a 1200 Amp, 25kAIC circuit switcher and associated equipment (bus, switches, relaying, etc.) to feed the new transformer at St. Johns.

Estimated Project Cost: $0.5 M

Alternatives Considered:

No feasible alternatives



Projected In-service Date: 11/15/2021

Project Status: Engineering

Model:

Dominion Transmission Zone: Supplemental Customer Load Request

Need Number: DOM-2020-0025

Process Stage: Solutions Meeting 07/16/2020

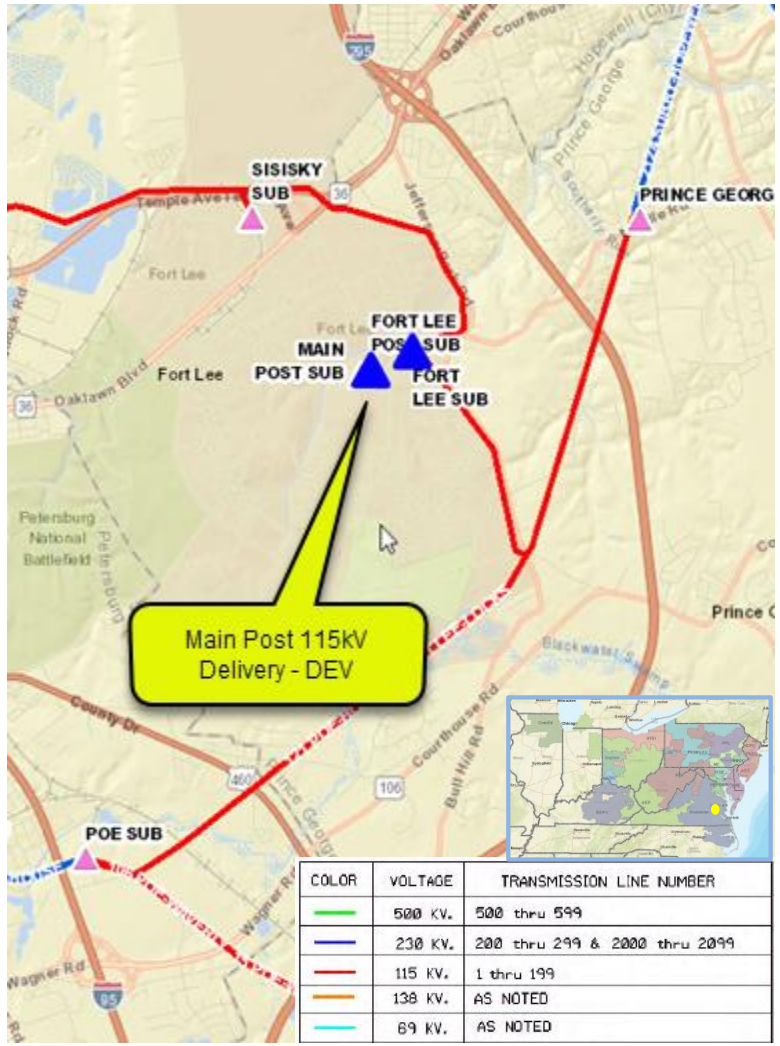
Previously Presented: Need Meeting 06/16/2020

Project Driver: Customer Service

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

Problem Statement:
DEV Distribution has submitted a DP Request for a new substation (Main Post) to serve existing load (<100 MW) at Fort Lee Army Post in Prince George County. The Army has requested the new substation (on their property) to isolate their load from the regulated 13.2 kV circuits fed by Fort Lee Substation and will bear the full cost of the project. Requested in-service date is 03/15/2021.

Initial In-Service Load	Projected 2025 Load
Summer: 30.0 MW	Summer: 30.0 MW



Dominion Transmission Zone: Supplemental Main Post 115kV Delivery - DEV

Need Number: DOM-2020-0025

Process Stage: Solutions Meeting 07/16/2020

Proposed Solution:
Cut Line #97 (Harvell-Prince George) and build a double-circuit 115kV line (loop in-and-out) approximately 0.35 miles to the proposed new substation site. The new section of line will have a minimum rating of 260 MVA. The transmission cost includes high-side bus work at the substation, three 115kV switches, and two circuit switchers. As mentioned previously, the Army will bear the full cost of the project.

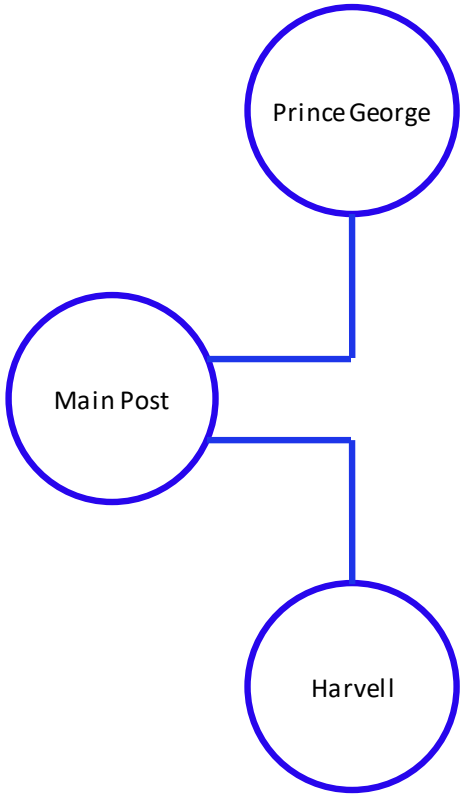
Estimated Project Cost: $4.0 M

Alternatives Considered:
No feasible alternatives

Projected In-service Date: 03/15/2021

Project Status: Engineering

Model:



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

7/6/2020 – V1 – Original version posted to pjm.com