

# Dominion Supplemental Projects

Transmission Expansion Advisory  
Committee  
January 6, 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 Customer Load Request

**Need Number:** DOM-2021-0001

**Process Stage:** Need Meeting 01/06/2021

**Project Driver:** Customer Service

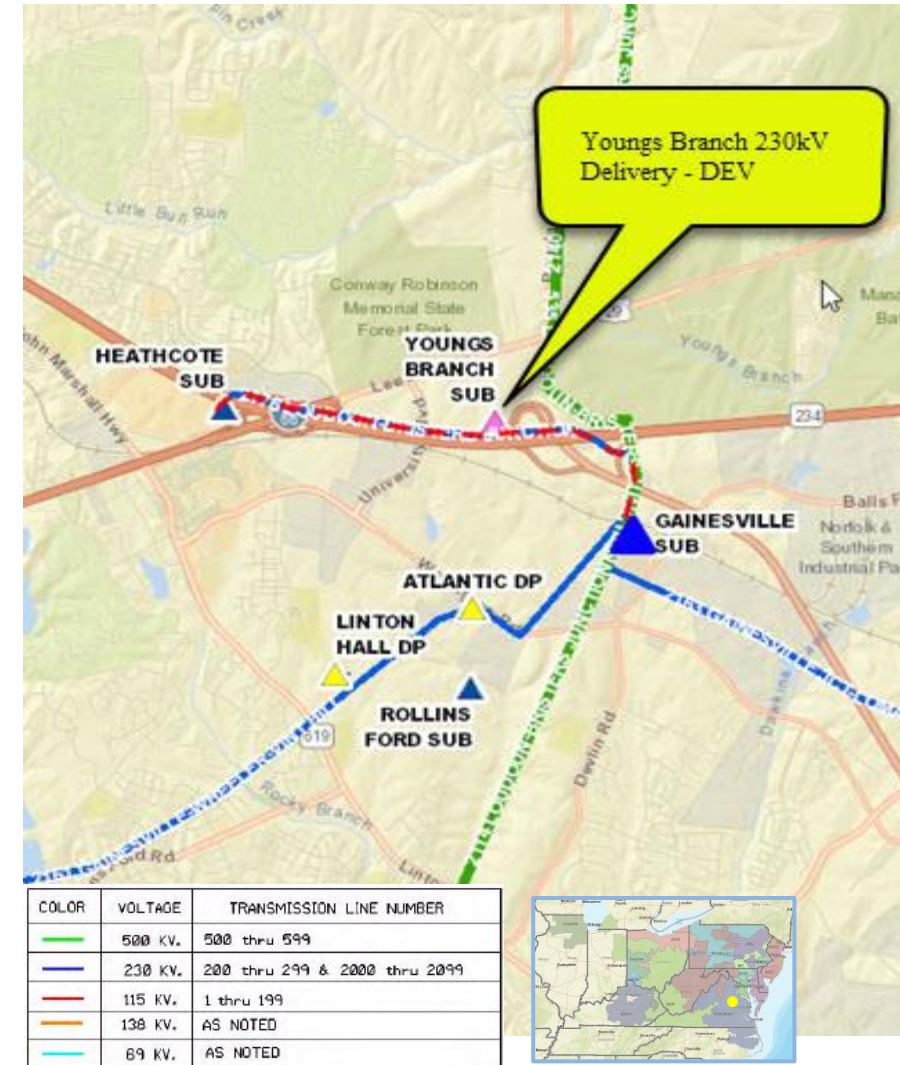
**Specific Assumption References:**

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 (Youngs Branch) to accommodate a new datacenter campus in Prince William County with a total load in excess of 100MW. Requested in-service date is 10/30/2022.

Initial In-Service Load	Projected 2026 Load
Winter: 31.0 MW	Winter: 143.3 MW



# Dominion Transmission Zone: Supplemental Customer Load Request

**Need Number:** DOM-2021-0002

**Process Stage:** Need Meeting 01/06/2021

**Project Driver:** Customer Service

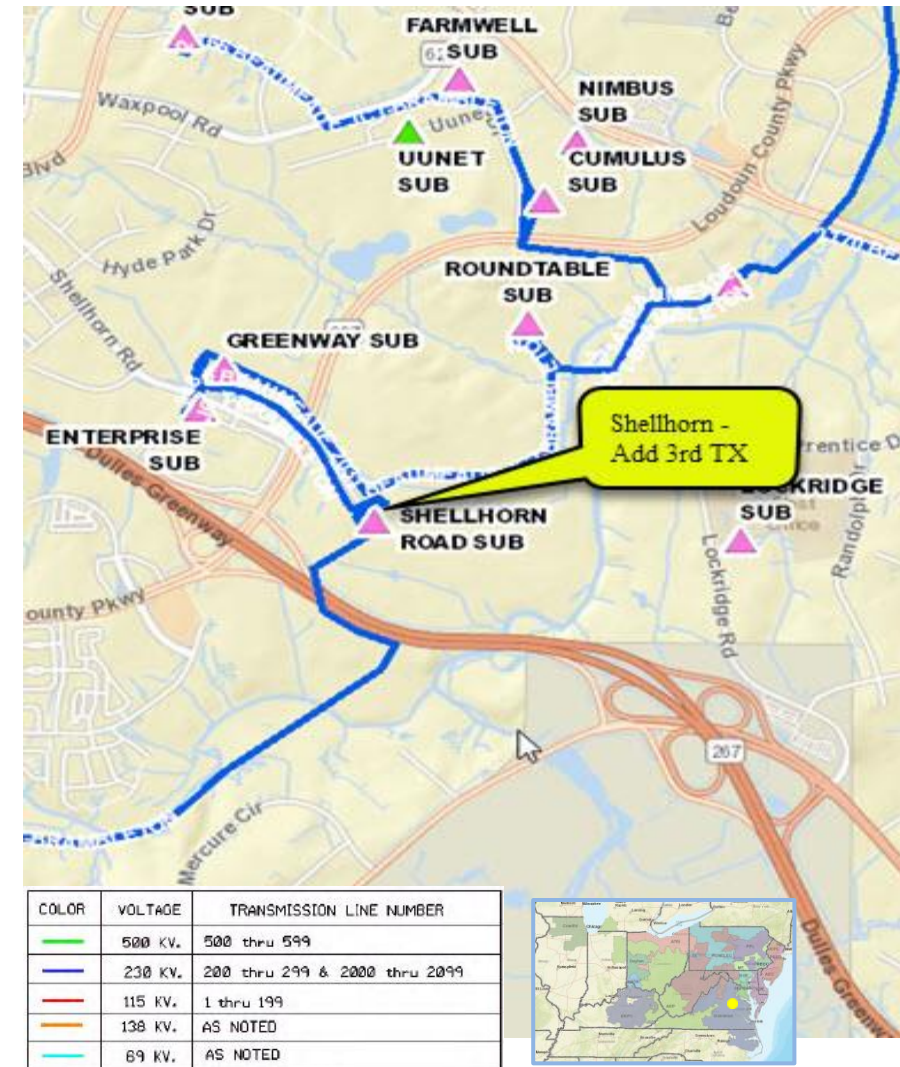
**Specific Assumption References:**

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 3<sup>rd</sup> transformer at Shellhorn Substation in Loudoun County. The new transformer is required to accommodate continued load growth in the area and support contingency loading for loss of one of the existing transformers. Requested in-service date is 04/15/2022.

Initial In-Service Load	Projected 2026 Load
Summer: 133.0 MW	Summer: 201.5 MW



# Dominion Transmission Zone: Supplemental Operational Flexibility and Efficiency

**Need Number:** DOM-2021-0004

**Process Stage:** Need Meeting 1/6/2021

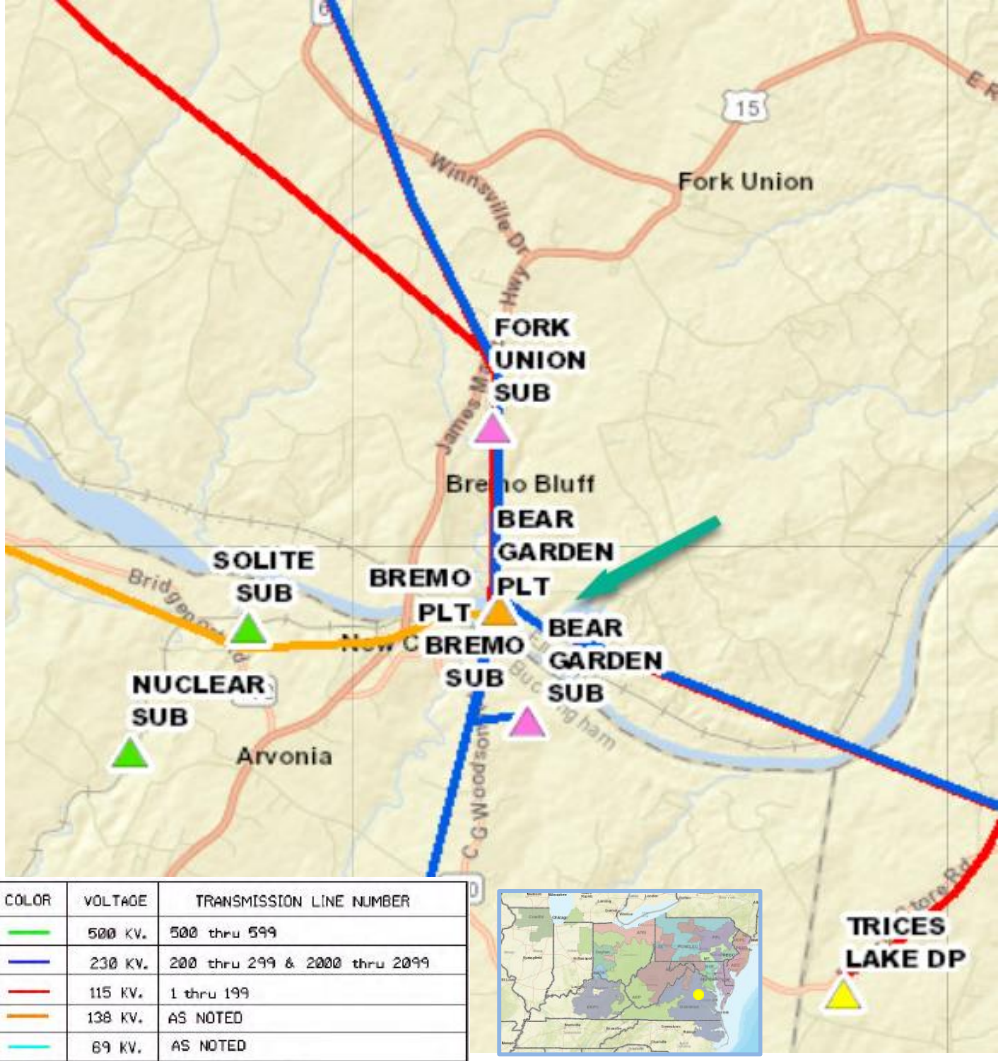
**Project Driver:** Operational Flexibility and Efficiency

**Specific Assumption Reference:**  
See details on Operational Flexibility and Efficiency in Dominion’s Planning Assumptions presented in December 2020.

**Problem Statement:**  
With the removal of temporary 230-115kV Bremo TX#7, Dominion Energy Operations Engineering has identified a potential overload on 230-115kV Bremo TX#9 for the loss of Line #2193 (Brema-Fork Union). The identified overload occurs under the following conditions:

- System load at 11,000MW
- Bath County operating in pumping mode
- Bear Garden running at full output

The overload is likely to occur every evening when Bath County is operated in pumping mode, forcing Bear Garden output to be curtailed.



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

**Need Number:** DOM-2021-0005

**Process Stage:** Need Meeting 01/06/2021

**Project Driver:** Equipment Material Condition, Performance and Risk

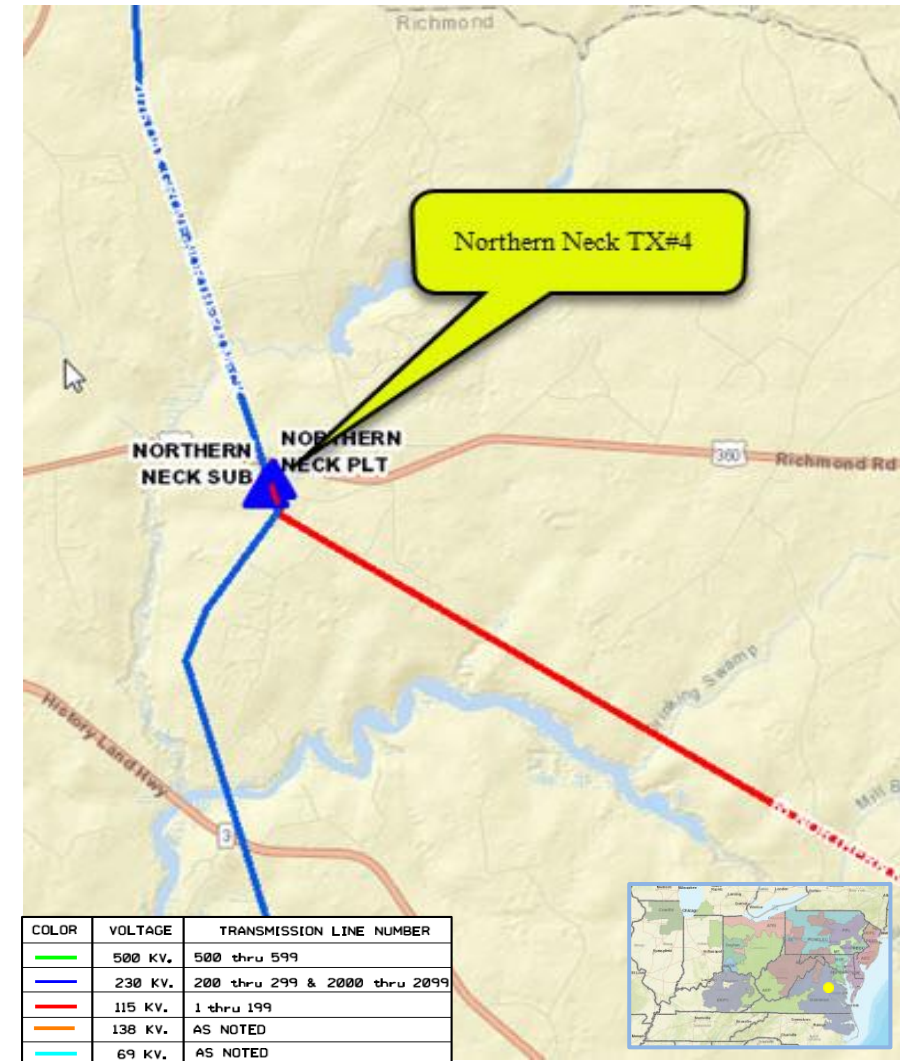
**Specific Assumption References:**

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

**Problem Statement:**

Northern Neck Tx#4 is a 168 MVA, 230/115kV transformer bank consisting of three single-phase units that were manufactured in 1987. This transformer bank has been identified for replacement based on the results of Dominion’s transformer health assessment (THA) process. Detailed drivers include:

- Age (>30 years old).
- Reduced BIL ratings (3 levels below standard).
- Oil DGA indicates high CO and CO2 levels in all three units; potential breakdown of dielectric paper insulation on main current carrying conductors inside the transformer.
- LTC design (in-tank) does not allow oil samples to be taken to determine condition of LTC; Sister unit LTC failed in 2014; All three LTC’s replaced but have periodic sync issues.
- THA score less than 80.



# 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

12/23/2020 – V1 – Original version posted to pjm.com.