

Dominion Supplemental Projects

Transmission Expansion Advisory
Committee
September 5, 2023

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-2023-0050

Process Stage: Need Meeting 09/05/2023

Project Driver: Customer Service

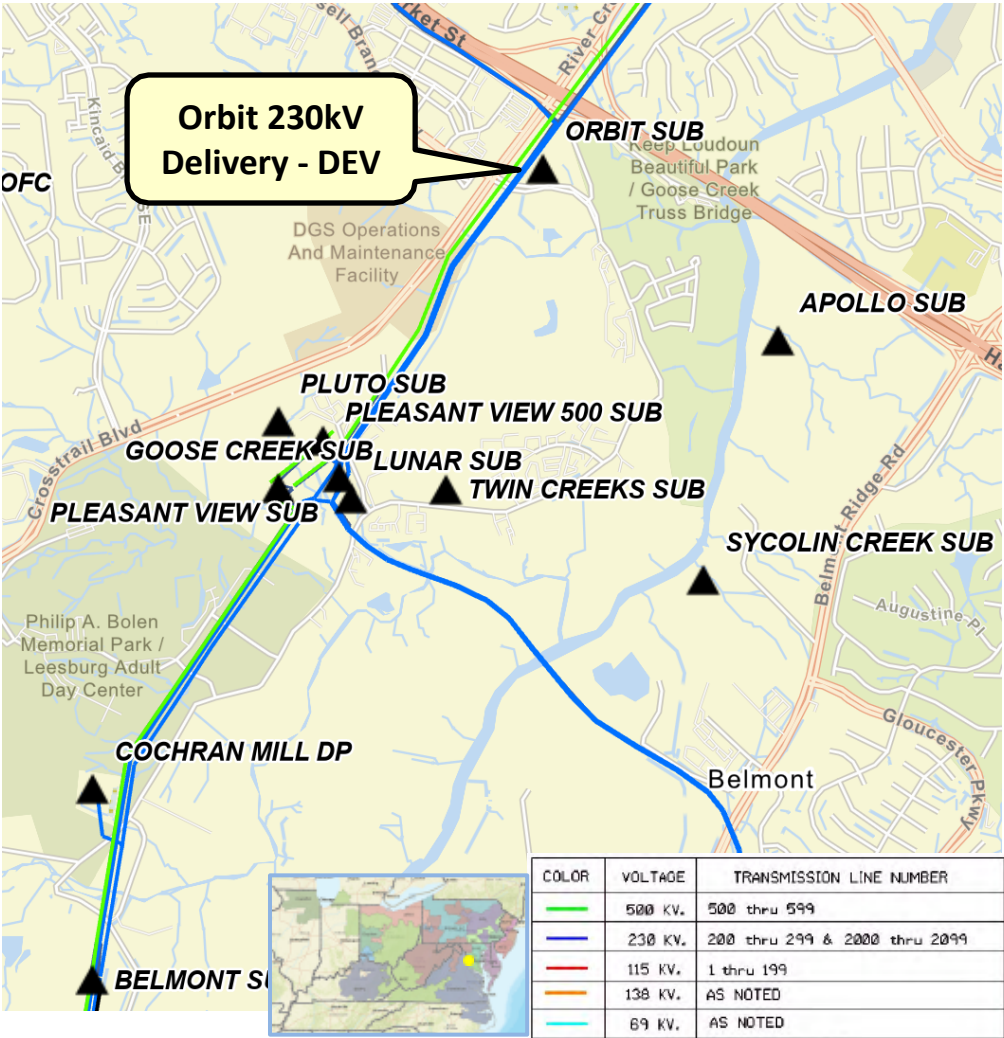
Specific Assumption References:

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 (Orbit) in Loudoun County with a total load in excess of 100MW. Requested in-service date is 4/1/2027.

Initial In-Service Load	Projected 2028 Load
Summer: 33.0 MW Winter: 0.0 MW	Summer: 84.0 MW Winter: 43.0 MW



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-2023-0039

Process Stage: Solutions Meeting 09/05/2023

Previously Presented: Need Meeting 07/11/2023

Project Driver: Customer Service

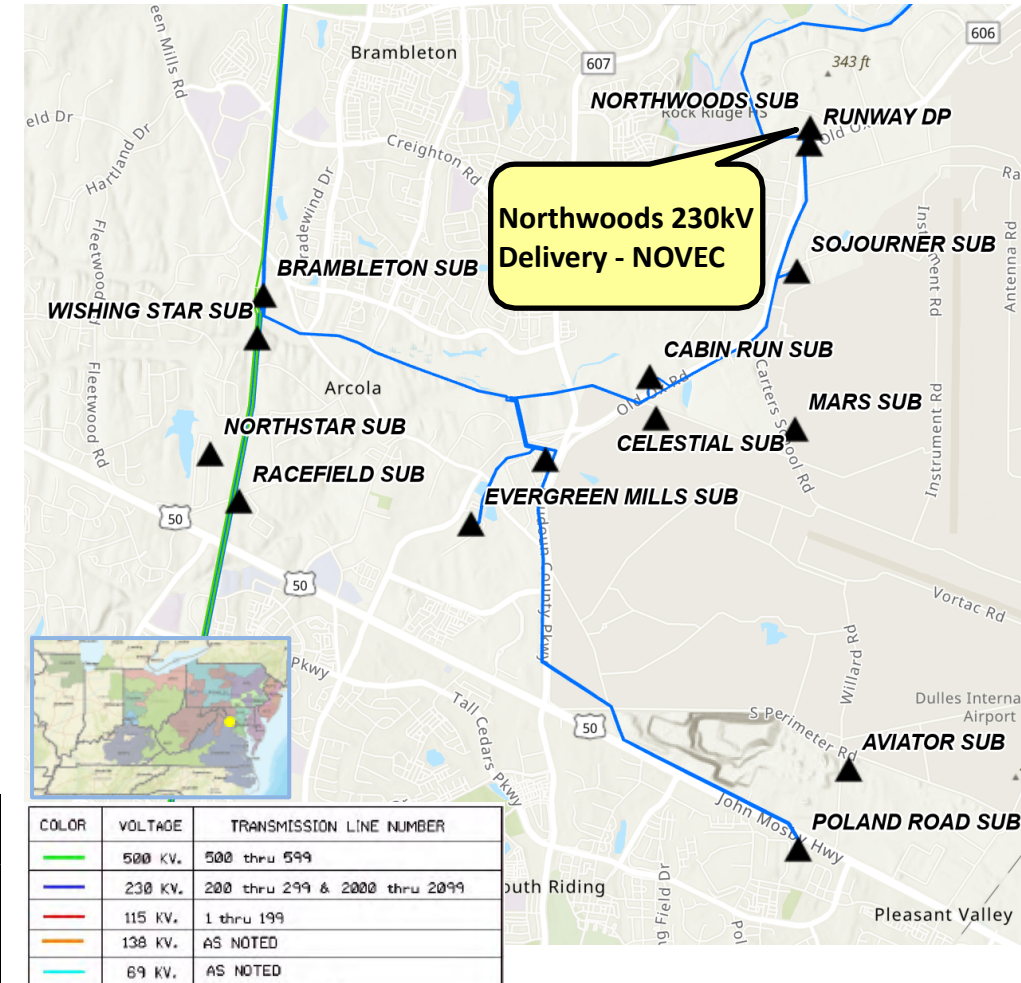
Specific Assumption References:

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

Problem Statement:

NOVEC has submitted a DP Request for a new substation (Northwoods) in Loudoun County with a total load in excess of 100MW. Requested in-service date is 04/01/2026.

Initial In-Service Load	Projected 2028 Load
Summer: 40.0 MW Winter: 104.0 MW	Summer: 185.0 MW Winter: 200.0 MW



Dominion Transmission Zone: Supplemental Northwoods 230kV Delivery - NOVEC

Need Number: DOM-2023-0039

Process Stage: Solutions Meeting 09/05/2023

Proposed Solution:

Interconnect the new substation by cutting and extending Line #2218 (Sojourner – Shellhorn) to the proposed Northwoods Substation. Lines to terminate in a 230kV four-breaker ring arrangement with an ultimate arrangement of a six-breaker ring.

Estimated Project Cost: \$20.0 M

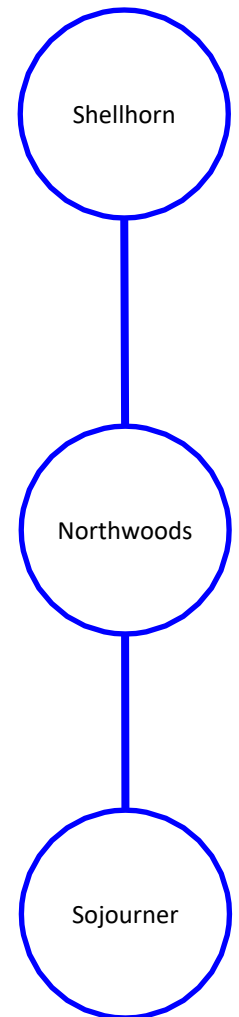
Alternatives Considered:

None. Tapping adjacent 230kV line.

Projected In-service Date: 04/01/2026

Project Status: Engineering

Model: 2027 RTEP



Dominion Transmission Zone: Supplemental Customer Load Request

Need Number: DOM-2023-0045

Process Stage: Solutions Meeting 09/05/2023

Previously Presented: Need Meeting 08/08/2023

Project Driver: Customer Service

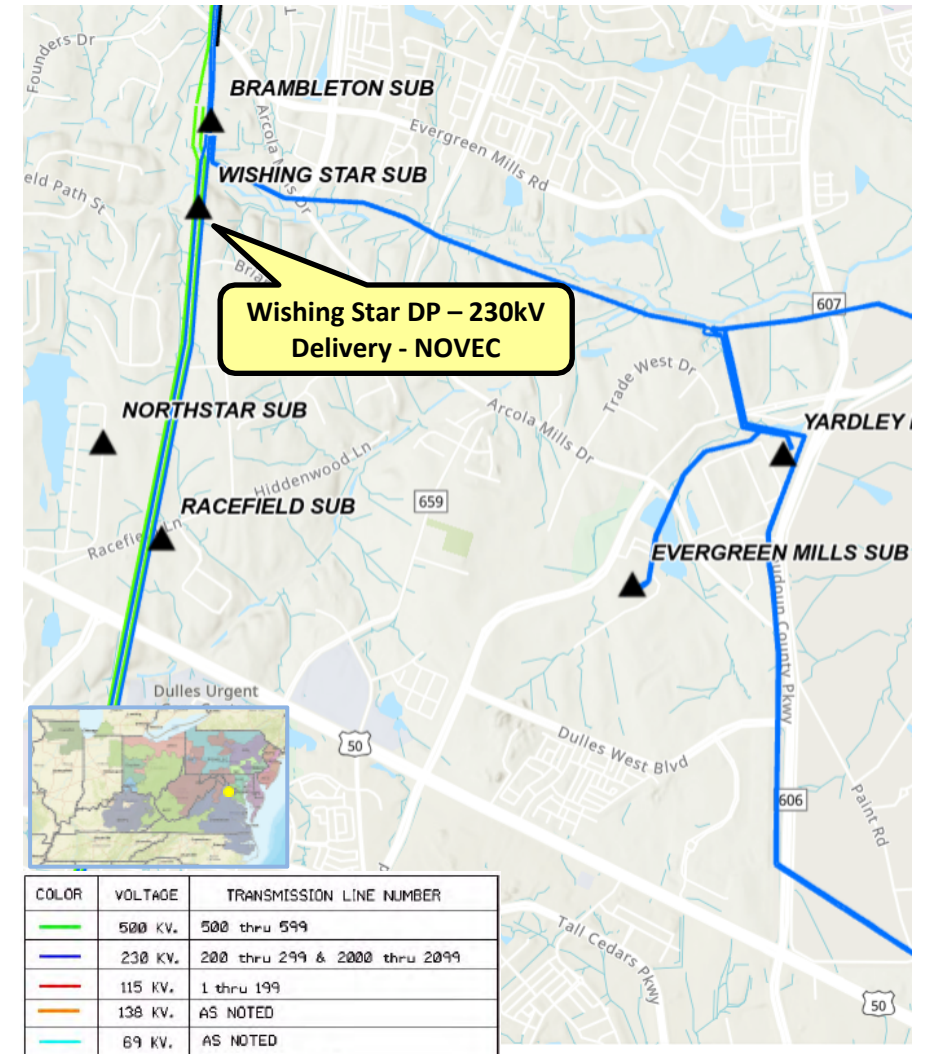
Specific Assumption References:

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

Problem Statement:

NOVEC has submitted a DP Request for a Delivery Point (Wishing Star DP) in Loudoun County with a total load in excess of 100MW. Requested in-service date is 12/1/2026.

Initial In-Service Load	Projected 2028 Load
Summer: 16.0 MW Winter: 1.0 MW	Summer: 57.0 MW Winter: 30.0 MW



Dominion Transmission Zone: Supplemental Wishing Star DP 230kV Delivery- NOVEC

Need Number: DOM-2023-0045

Process Stage: Solutions Meeting 09/05/2023

Proposed Solution:

Provide two 230kV feeds from Dominion's proposed Wishing Star 500/230kV Sub to NOVEC's Wishing Star DP.

Estimated Project Cost: \$1.50 M

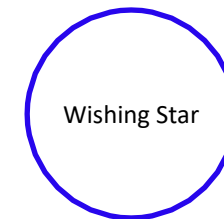
Alternatives Considered:

None. New DP adjacent to future Wishing Star Substation.

Projected In-service Date: 12/01/2026

Project Status: Engineering

Model: 2027 RTEP



Dominion Transmission Zone: Supplemental Customer Load Request

Need Number: DOM-2023-0042

Process Stage: Solution Meeting 09/05/2023

Previously Presented: Need Meeting 08/08/2023

Project Driver: Customer Service

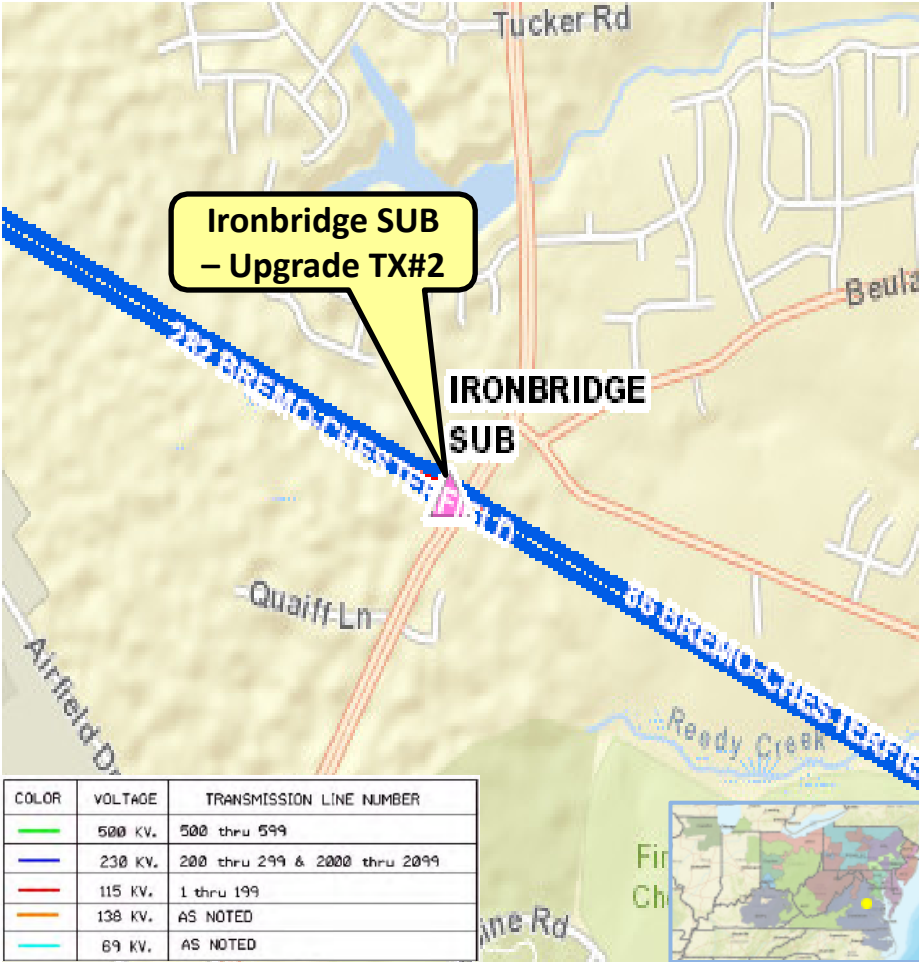
Specific Assumption References:

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 upgrade TX #2 at Ironbridge Substation. The driver for the upgrade is the forecasted load growth in the area. The total station load will exceed 100 MVA.

Initial In-Service Load	Projected 2033 Load
Summer: 126.4 MW Winter: 145.0 MW	Summer: 143.6 MW Winter: 164.0 MW



Dominion Transmission Zone: Supplemental Ironbridge Sub – Upgrade TX#2 and Install Ring Bus

Need Number: DOM-2023-0042

Process Stage: Solutions Meeting 09/05/2023

Proposed Solution:

Construct a 230kV four-breaker ring bus and split Line #282 from Midlothian to Spruance NUG

Estimated Project Cost: \$10.3 M

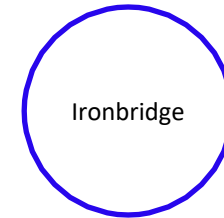
Alternatives Considered:

- 1) Construct a 230 kV four-breaker ring bus and split Line #208 from Chesterfield to Southwest. Line #208 was excluded due to constructability issues.
- 2) Construct a 230kV six-breaker ring bus and tie both Line #208 and Line #282. This is constrained by space and may require a GIS.

Projected In-service Date: 09/01/2025

Project Status: Engineering

Model: 2027 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

08/25/2023 – V1 – Original version posted to pjm.com