

# Dominion Supplemental Projects

Transmission Expansion Advisory  
Committee  
July 11, 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-2023-0040

**Process Stage:** Need Meeting 07/11/2023

**Project Driver:** Customer Service

**Specific Assumption References:**

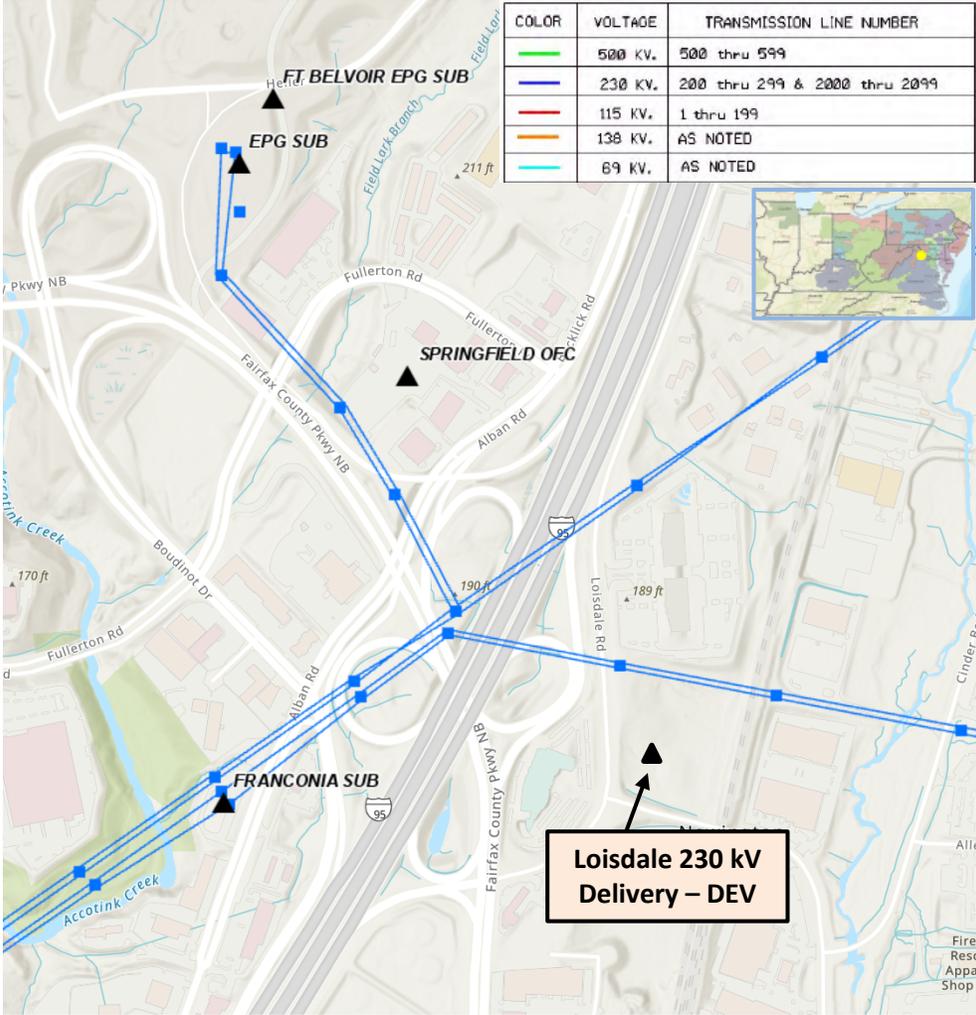
Customer load request will be evaluated per Dominion’s Facility Interconnection Requirements Document and Dominion’s Transmission Planning Criteria.

**Problem Statement:**

DEV Distribution has submitted a DP request for a new substation (Loisdale) to serve a data center complex in Fairfax County with a total load of 65MW.

Requested in-service date is 06/01/2027.

Initial In-Service Load	Projected 2028 Load
Summer: 64.8 MW Winter: 64.8 MW	Summer: 64.8 MW Winter: 64.8 MW



# Dominion Transmission Zone: Supplemental Customer Load Request

**Need Number:** DOM-2023-0039

**Process Stage:** Need Meeting 07/11/2023

**Project Driver:** Customer Service

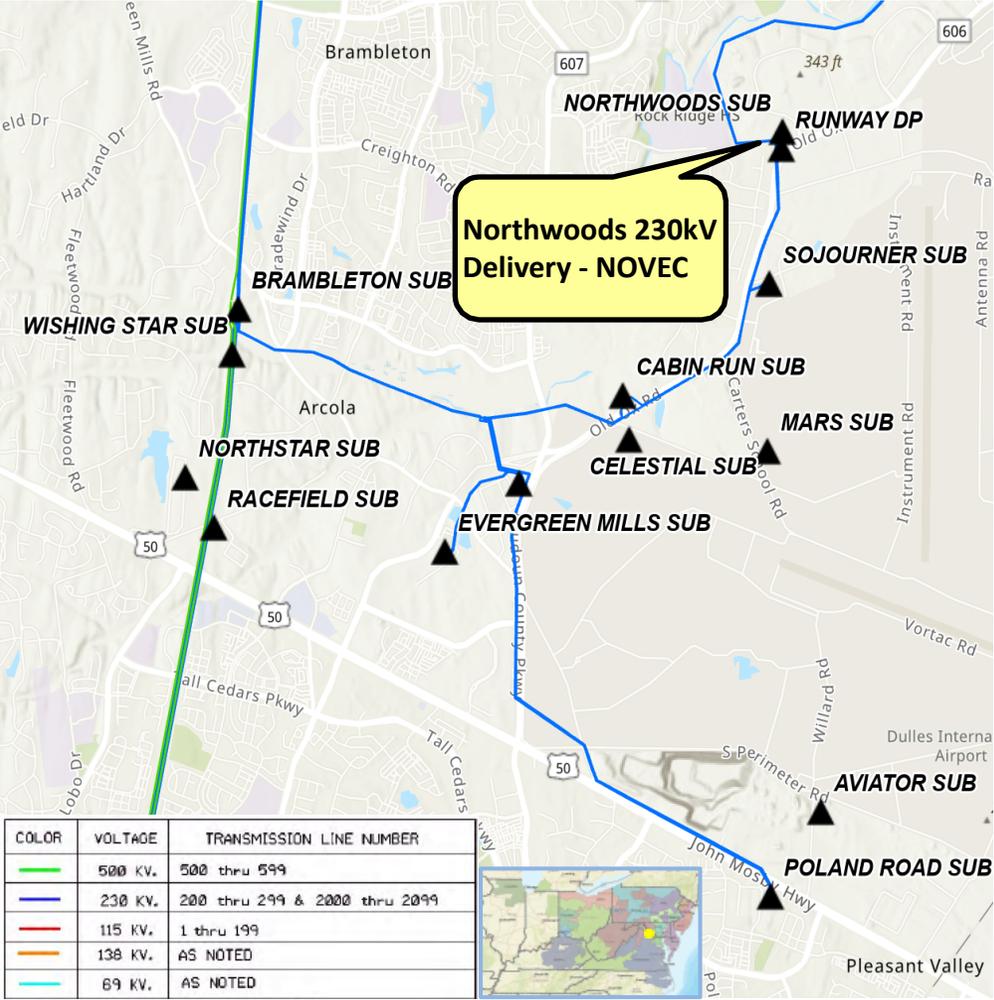
**Specific Assumption References:**

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



# 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-2022-0054

**Process Stage:** Solutions Meeting 07/11/2023

**Previously Presented:** Need Meeting 10/04/2022

**Project Driver:** Customer Service

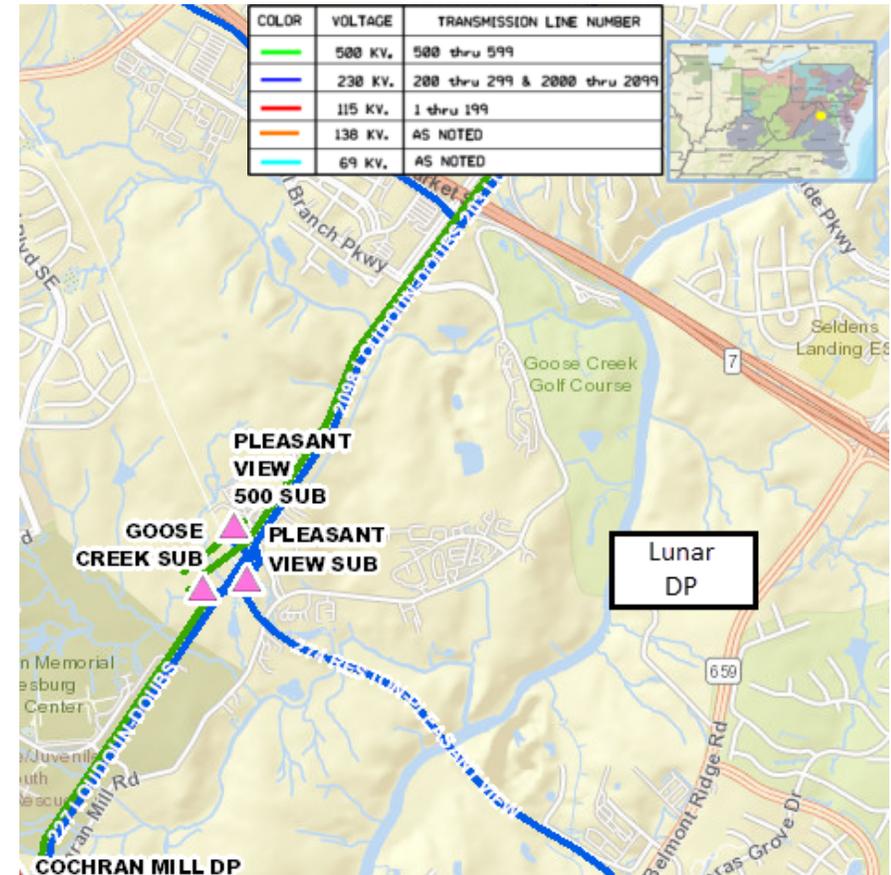
**Specific Assumption References:**

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

**Problem Statement:**

DEV has submitted a DP Request for a new substation (Lunar) in Loudoun County with a total load in excess of 100MW. Requested in-service date is **08/01/2026**.

Initial In-Service Load	Projected 2028 Load
Summer: 12.0 MW Winter: 0.0 MW	Summer: <b>188.0 MW</b> Winter: 140.0 MW



# Dominion Transmission Zone: Supplemental Lunar 230kV Delivery - DEV

**Need Number:** DOM-2022-0054

**Process Stage:** Solutions Meeting 07/11/2023

**Proposed Solution:**

Interconnect the new substation by constructing two 230kV lines from Sycolin Creek Substation to proposed Lunar Substation. Lines to terminate in a 230kV six-breaker ring arrangement.

**Estimated Project Cost:** \$28.0 M

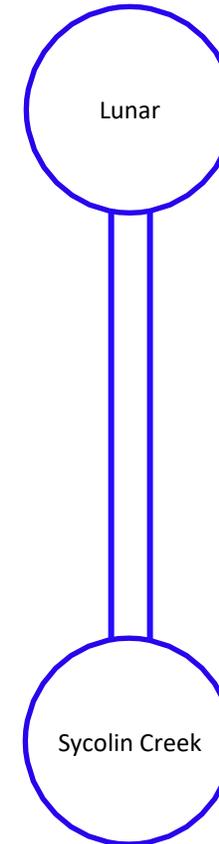
**Alternatives Considered:**

No feasible alternatives

**Projected In-service Date:** 08/01/2026

**Project Status:** Engineering

**Model:** 2027 RTEP



# Dominion Transmission Zone: Supplemental Customer Load Request

**Need Number:** DOM-2023-0001

**Process Stage:** Solutions Meeting 07/11/2023

**Previously Presented:** Need Meeting 01/10/2023

**Project Driver:** Customer Service

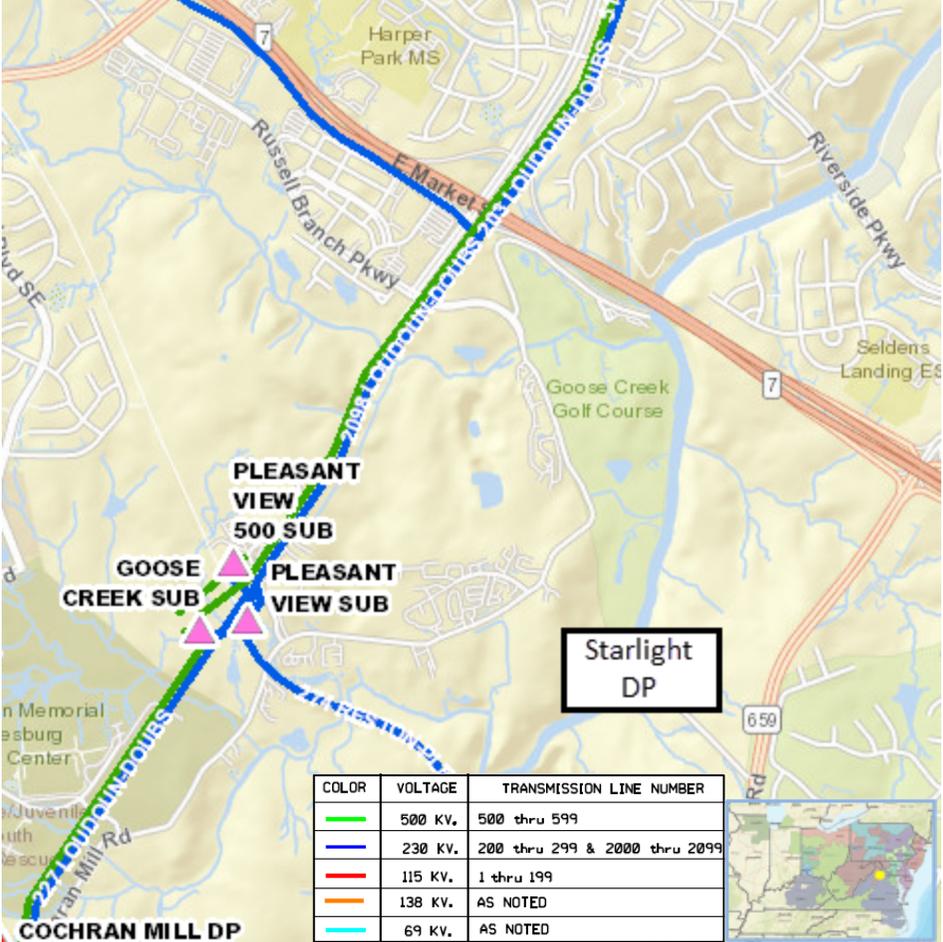
**Specific Assumption References:**

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

**Problem Statement:**

DEV has submitted a DP Request for a new substation (Starlight) in Loudoun County with a total load in excess of 100MW. Requested in-service date is 06/01/2028.

Initial In-Service Load	Projected 2038 Load
Summer: 10.0 MW Winter: 0.0 MW	Summer: 158.0 MW Winter: 158.0 MW



# Dominion Transmission Zone: Supplemental Starlight 230kV Delivery - DEV

**Need Number:** DOM-2023-0001

**Process Stage:** Solutions Meeting 07/11/2023

**Proposed Solution:**

Interconnect the new substation by cutting two 230kV lines from Sycolin Creek Substation to Lunar Substation into proposed Starlight Substation. Lines to terminate in a 230kV six-breaker ring arrangement.

**Estimated Project Cost:** \$28.0 M

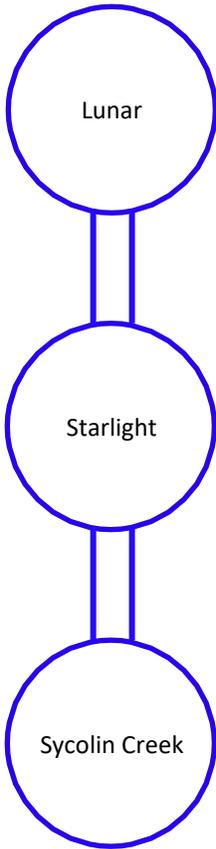
**Alternatives Considered:**

No feasible alternatives

**Projected In-service Date:** 06/01/2028

**Project Status:** Engineering

**Model:** 2027 RTEP



# Dominion Transmission Zone: Supplemental Customer Load Request

**Need Number:** DOM-2022-0055

**Process Stage:** Solutions Meeting 07/11/2023

**Previously Presented:** Need Meeting 11/01/2022

**Project Driver:** Customer Service

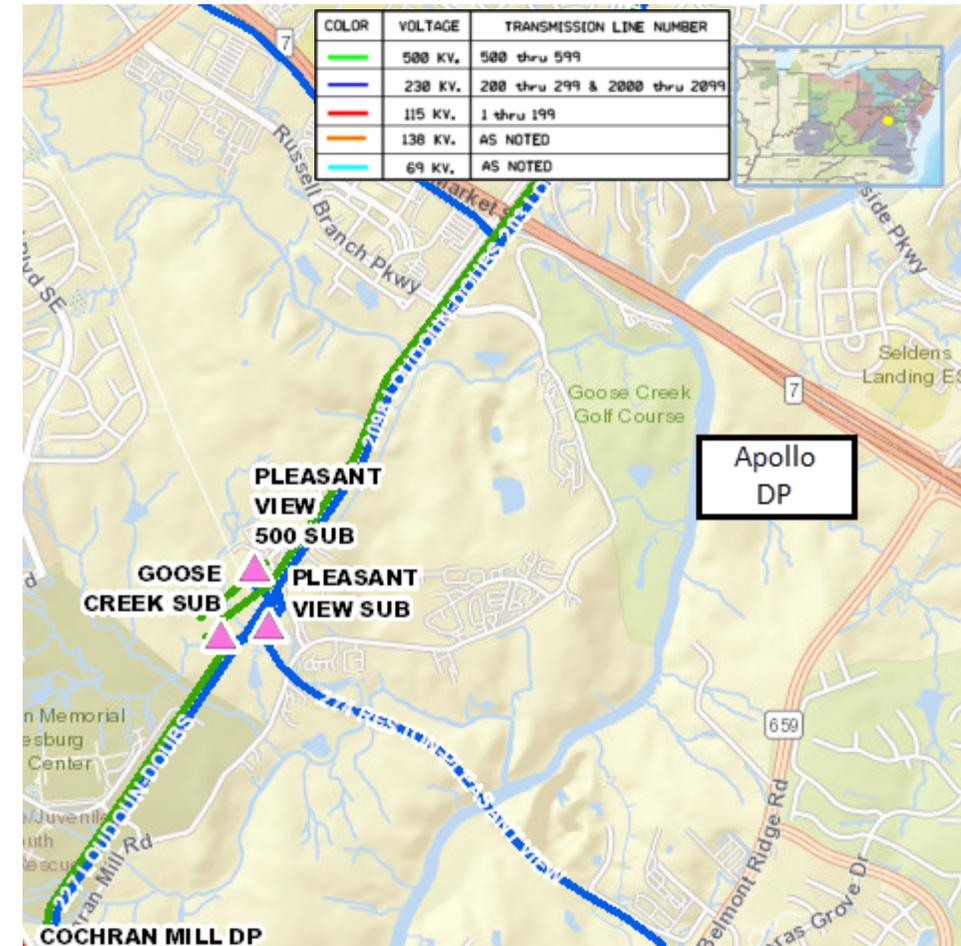
**Specific Assumption References:**

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

**Problem Statement:**

DEV has submitted a DP Request for a new substation (Apollo) in Loudoun County with a total load in excess of 100MW. Requested in-service date is **1/1/2027**.

Initial In-Service Load	Projected 2028 Load
Summer: 27.0 MW Winter: 0.0 MW	Summer: 111.0 MW Winter: 69.0 MW



# Dominion Transmission Zone: Supplemental Apollo 230kV Delivery - DEV

**Need Number:** DOM-2022-0055

**Process Stage:** Solutions Meeting 07/11/2023

**Proposed Solution:**

Interconnect the new substation by constructing two 230kV lines from Lunar Substation to proposed Apollo Substation. Lines to terminate in a 230kV six-breaker ring arrangement.

**Estimated Project Cost:** \$28.0 M

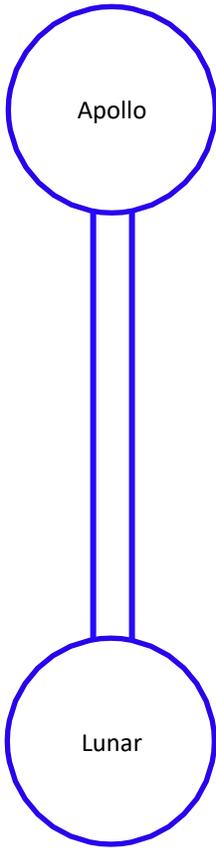
**Alternatives Considered:**

No feasible alternatives – Extending from closest source

**Projected In-service Date:** 01/01/2027

**Project Status:** Engineering

**Model:** 2027 RTEP



# Dominion Transmission Zone: Supplemental Customer Load Request

**Need Number:** DOM-2023-0005

**Process Stage:** Solutions Meeting 07/11/2023

**Previously Presented:** Need Meeting 02/07/2023

**Project Driver:** Customer Service

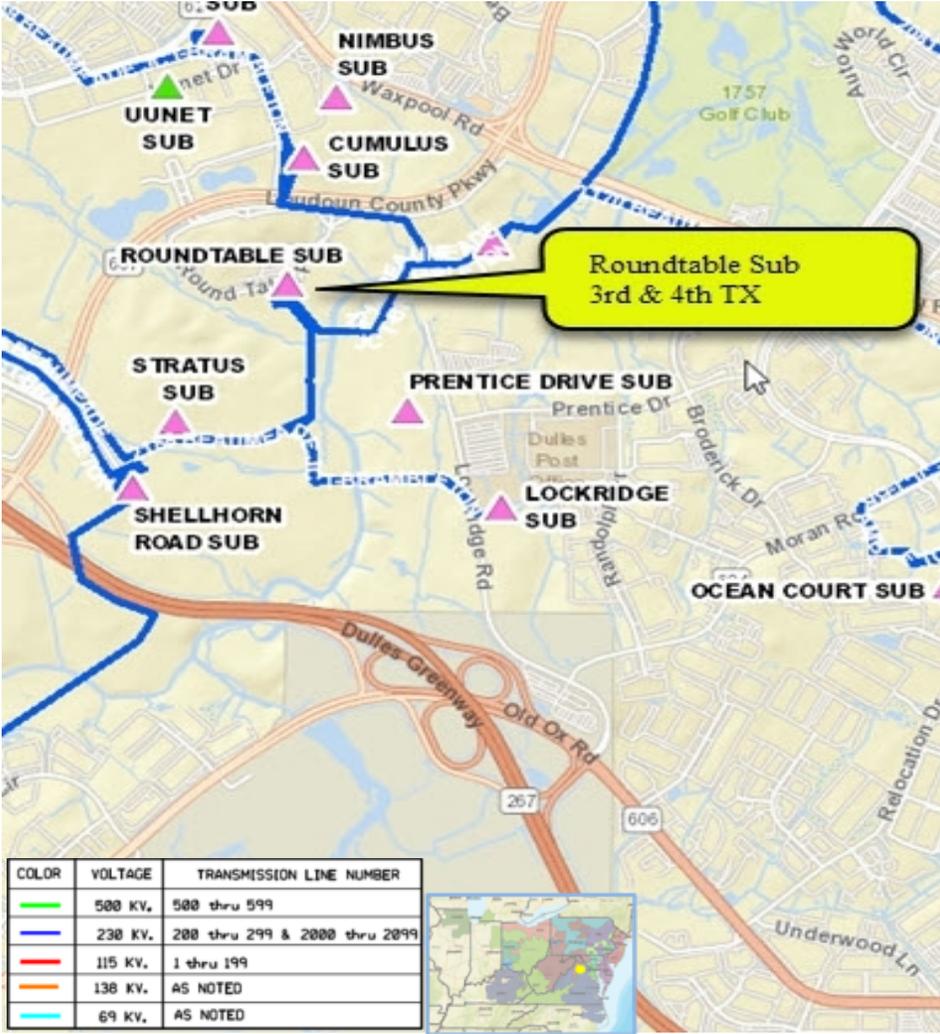
**Specific Assumption References:**

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 add the 3<sup>rd</sup> and 4<sup>th</sup> distribution transformers at Roundtable Substation in Loudoun County. The new transformers are being driven by continued load growth in the area and contingency loading for loss of one of the existing transformers. Requested in-service date is 12/15/2024.

Initial In-Service Load	Projected 2028 Load
Summer: 124.5 MW Winter: 118.5 MW	Summer: 141.0 MW Winter: 138.0 MW



# Dominion Transmission Zone: Supplemental Roundtable - Add 3<sup>rd</sup> and 4<sup>th</sup> TX - DEV

**Need Number:** DOM-2023-0005

**Process Stage:** Solutions Meeting 07/11/2023

**Proposed Solution:**

Install (2) 1200 Amp, 50kAIC circuit switchers and associated equipment (bus, relaying, etc.) to feed the new transformers at Roundtable.

**Estimated Project Cost:** \$1.0 M

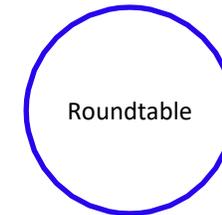
**Alternatives Considered:**

No feasible alternatives – Existing substation

**Projected In-service Date:** 12/15/2024

**Project Status:** Engineering

**Model:** 2027 RTEP



# Dominion Transmission Zone: Supplemental Customer Load Request

**Need Number:** DOM-2023-0019

**Process Stage:** Solutions Meeting 07/11/2023

**Previously Presented:** Need Meeting 03/07/2023

**Project Driver:** Customer Service

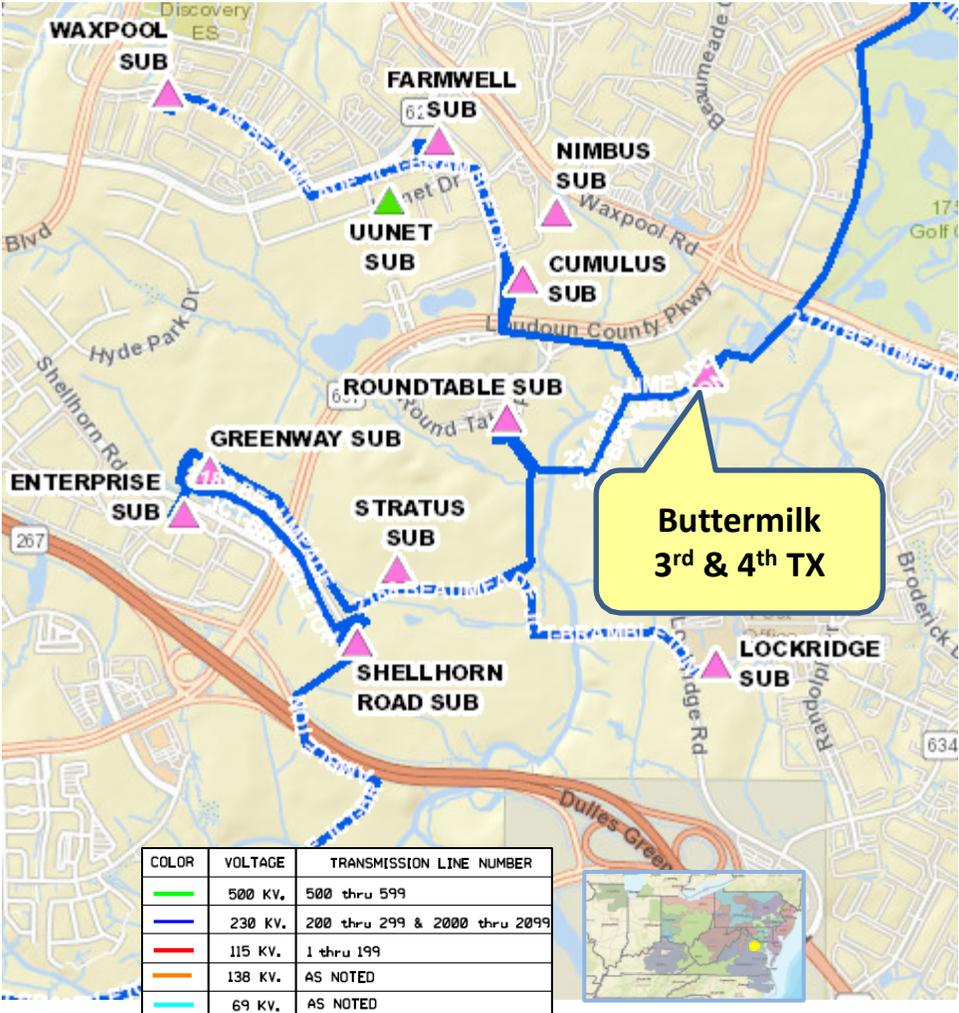
**Specific Assumption References:**

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 add the 3<sup>rd</sup> and 4<sup>th</sup> distribution transformers at Buttermilk Substation in Loudoun County. The new transformers are being driven by continued load growth in the area. Requested in-service date is 12/15/2024.

Initial In-Service Load	Projected 2028 Load
Summer: 128.0 MW Winter: 120.0 MW	Summer: 147.0 MW Winter: 146.0 MW



# Dominion Transmission Zone: Supplemental Buttermilk - Add 3<sup>rd</sup> and 4<sup>th</sup> TX - DEV

**Need Number:** DOM-2023-0019

**Process Stage:** Solutions Meeting 07/11/2023

**Proposed Solution:**

Install (2) 1200 Amp, 50kAIC circuit switchers and associated equipment (bus, relaying, etc.) to feed the new transformers at Buttermilk.

**Estimated Project Cost:** \$1.0 M

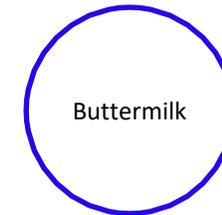
**Alternatives Considered:**

No feasible alternatives – Existing substation

**Projected In-service Date:** 12/15/2024

**Project Status:** Engineering

**Model:** 2027 RTEP



# Dominion Transmission Zone: Supplemental Customer Load Request

**Need Number:** DOM-2023-0032

**Process Stage:** Solution Meeting 07/11/2023

**Previously Presented:** Need Meeting 06/06/2023

**Project Driver:** Customer Service

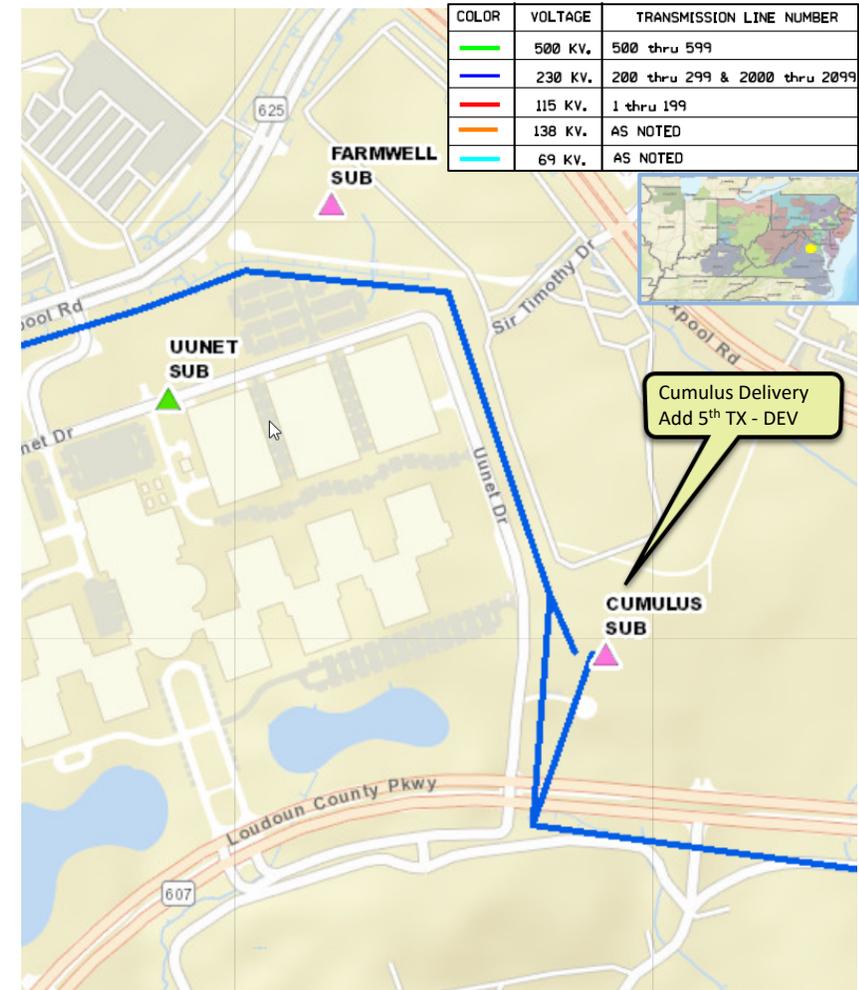
**Specific Assumption References:**

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 add a 5th distribution transformer at Cumulus Substation in Loudoun County. The new 84 MVA transformer is being driven by continued load growth in the area and contingency loading for loss of one of the existing transformers. Requested in-service date is 06/01/2025.

Initial In-Service Load	Projected 2028 Load
Summer: 130.4 MW Winter: 90.4 MW	Summer: 268.2 MW Winter: 260.3 MW



# Dominion Transmission Zone: Supplemental Cumulus 230kV Delivery- Add 5<sup>th</sup> TX - DEV

**Need Number:** DOM-2023-0032

**Process Stage:** Solutions Meeting 07/11/2023

**Proposed Solution:**

Install a 1200 Amp, 50kAIC circuit switcher and associated equipment (bus, switches, relaying, etc.) to feed the new transformer at Cumulus.

**Estimated Project Cost:** \$0.50 M

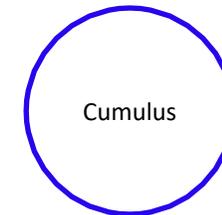
**Alternatives Considered:**

No feasible alternatives – Existing substation

**Projected In-service Date:** 06/01/2025

**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

06/30/2023 – V1 – Original version posted to pjm.com