

Dominion Supplemental Projects

Transmission Expansion Advisory
Committee
September 8, 2026

Needs

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

Need Number: DOM-2026-0036

Process Stage: Need Meeting 09/08/2026

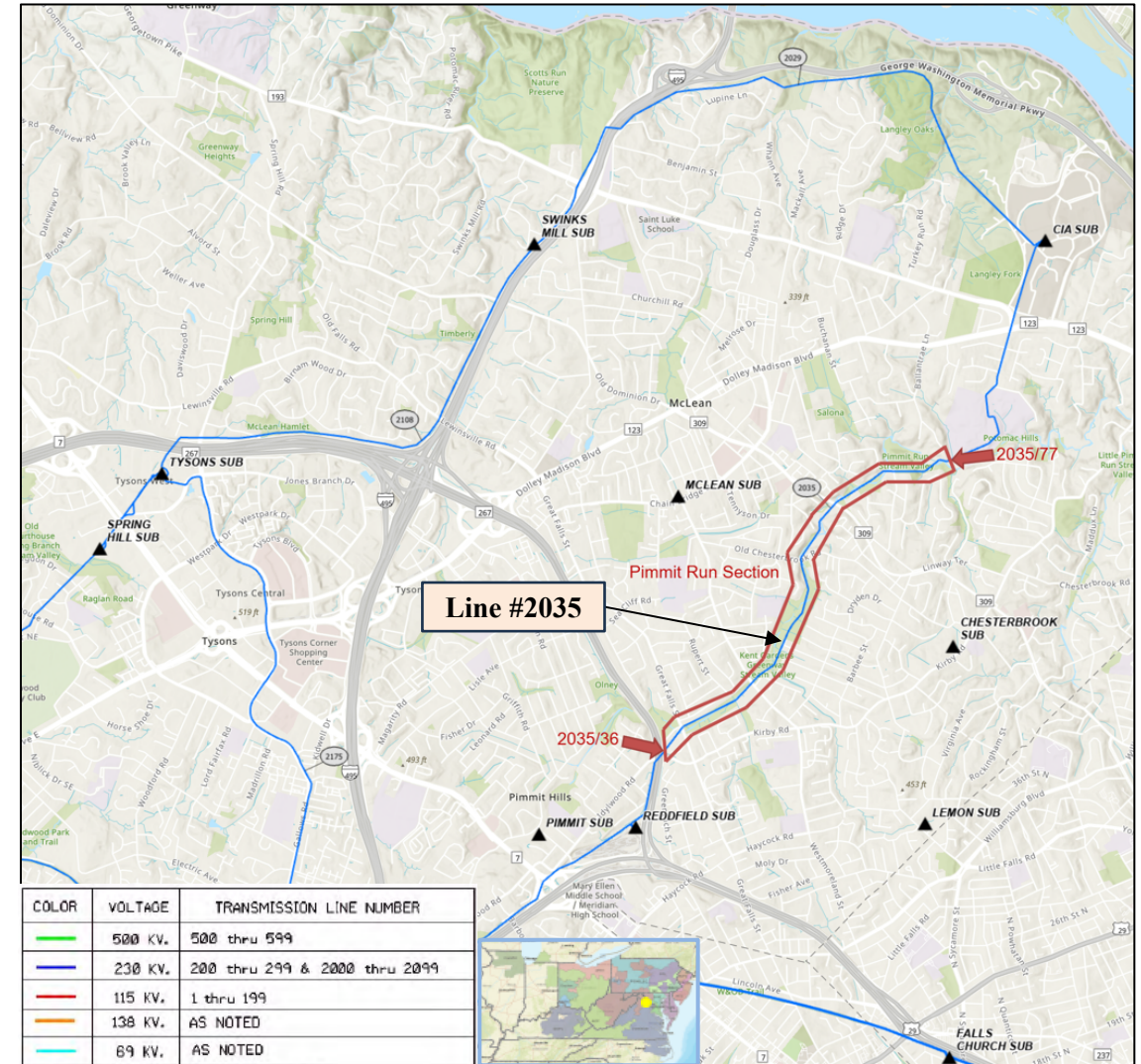
Project Driver: Equipment Material Condition, Performance and Risk

Specific Assumption References:

See details on Equipment Material Condition, Performance and Risk in Dominion's Planning Assumptions presented in December 2025.

Problem Statement: Dominion Energy (DEV) has identified the need to rebuild a 2.5-mile segment of the 230kV single circuit Line #2035, which runs between CIA and Idylwood substations. This rebuild effort, covering structures 2035/36 to 2035/77, is being pursued in accordance with the Company's End-of-Life (EOL) criteria.

- The affected segment primarily consists of concrete towers that were originally constructed in 1978. These structures are now exhibiting signs of significant foundation deterioration, largely due to the presence of a creek that runs through the line corridor and contributes to ongoing erosion.
- While four structures in that corridor have been replaced with steel poles, the remaining original towers are at or nearing end of service life.
- The segment of Line #2035 supports the CIA and Reddfield Substations, serving a combined load of approximately 60MW.
- The existing conductor on this line, ACSS 45/7 (140°C rating), along with associated structures, connectors, and porcelain insulators, were also installed in 1978 and are now approaching or exceeding the typical service-life range of 40 to 60 years for transmission line assets.
- Given that most of the infrastructure in this segment is nearing or has surpassed these thresholds, the need for replacement is well justified. This project will enhance system reliability, improve operational performance, and support future load growth in the region.



Dominion Transmission Zone: Supplemental Operational Flexibility and Efficiency

Need Number: DOM-2026-0037

Process Stage: Need Meeting 09/08/2026

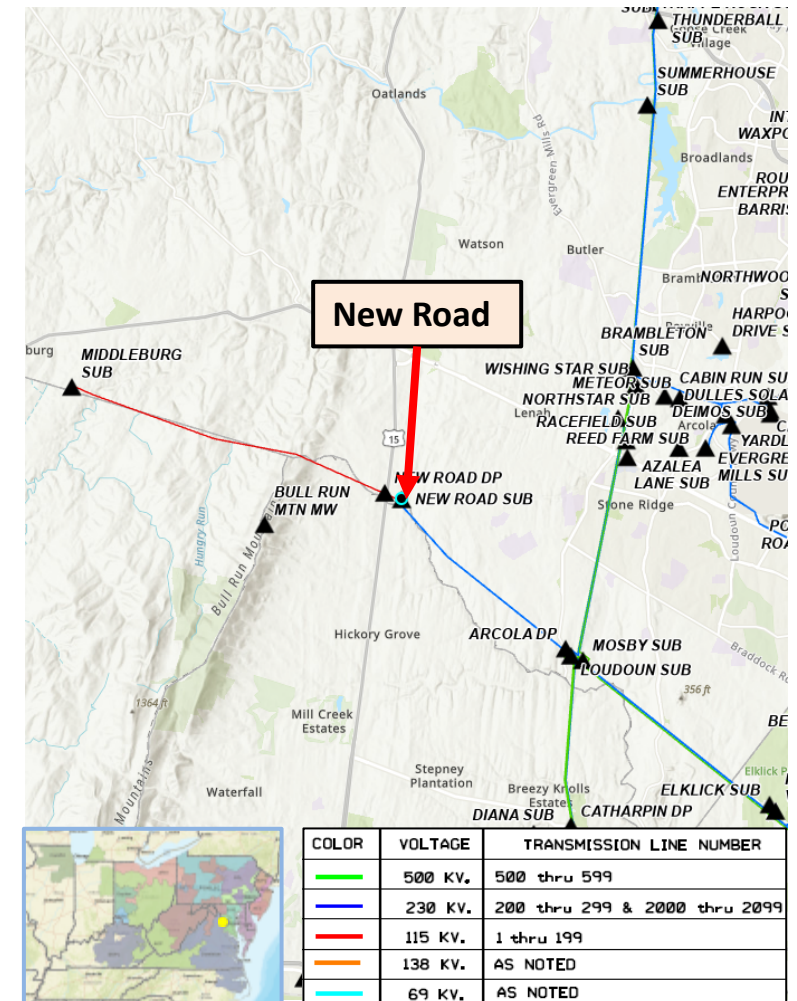
Project Driver: Operational Flexibility and Efficiency

Specific Assumption References:

See details on Operational Flexibility and Efficiency in Dominion's Planning Assumptions presented in December 2025.

Problem Statement:

Line #2117 (Loudoun- New Road) terminates at New Road Substation in a breaker-and-a-half position with only one breaker. This arrangement causes the end bus at New Road to be de-energized for a line fault, which also has the undesirable effect of de-energizing one of the 230-115 kV transformers.



Solutions

Dominion Transmission Zone: Supplemental Equipment Material Condition, Performance Risk

Need Number: DOM-2026-0016

Process Stage: Solution Meeting 9/8/2026

Previously Presented: Need Meeting 4/7/2026

Project Driver: Equipment Material Condition, Performance Risk

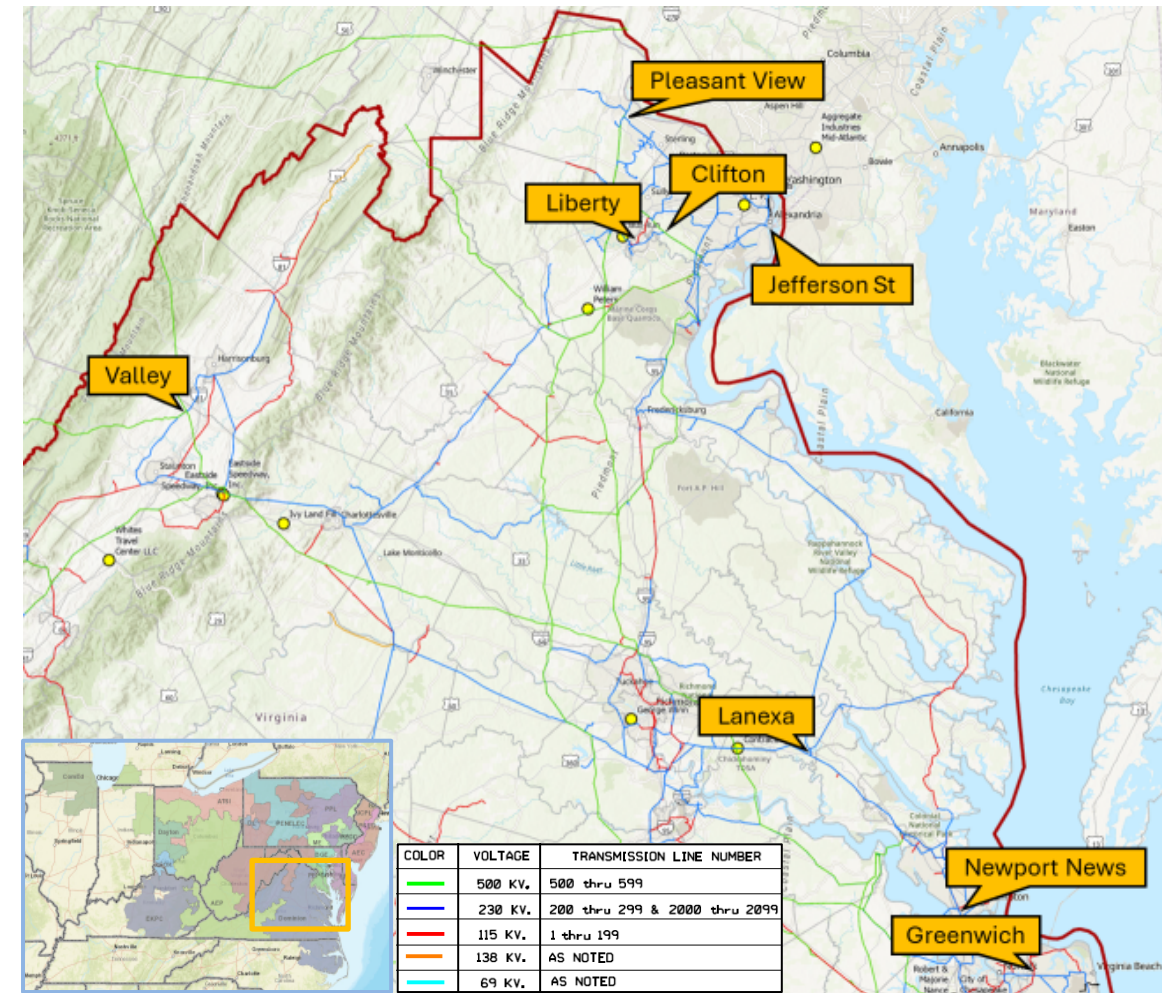
Specific Assumption References: See details on Equipment Material Condition, Performance and Risk in Dominion's Planning Assumptions presented in December 2025.

Problem Statement:

Multiple cap banks have been identified needing replacement within Dominion's transmission system. Field assessments indicate these cap banks are approaching the end of useful service life. These will need to be replaced to avoid future equipment failures which would lead to voltage violations and potential cascading outage scenarios.

Useful lifespan for shunt capacitor banks is generally considered to be 20-25 years in a typical application; however, this is greatly affected by the local network and in-service conditions. The integrity of the dielectric media in high voltage capacitor banks can be degraded over time by factors such as increased duty (time in service and number of on/off cycles), overvoltage transients (110%+ of rated), increasing magnitude of inrush currents, harmonics, etc., all of which we are experiencing. Over time, the accumulated effect of these phenomenon leads to increased stress and accelerated aging of the insulating material inside of a capacitor can, leading to dielectric breakdown and ultimately protection lockouts. Due to the increasing load in Dominion Energy territory, the need for reliable capacitive compensation is more necessary than ever. For this reason, we find it prudent to replace the proposed banks based on a combination of age, expected duty, and effect of an outage on grid reliability.

The 230 kV cap banks needing replacement between 2027 and 2028 are located at Pleasant View, Greenwich, **Liberty**, Clifton, Lanexa, Jefferson Street, Valley and Newport News substations.



Dominion Transmission Zone: Supplemental EOL 230kV Cap Bank Replacements – Various Locations

Need Number: DOM-2026-0016

Process Stage: Solution Meeting 09/08/2026

Project Driver: Equipment Material Condition, Performance Risk

Proposed Solution: Replace the 230 kV cap banks at Liberty, Clifton, Greenwich, Lanexa, Pleasant View, Jefferson Street, Valley and Newport News with like-for-like replacements. Table provides replacement cap bank sizes.

Estimated Project Cost:

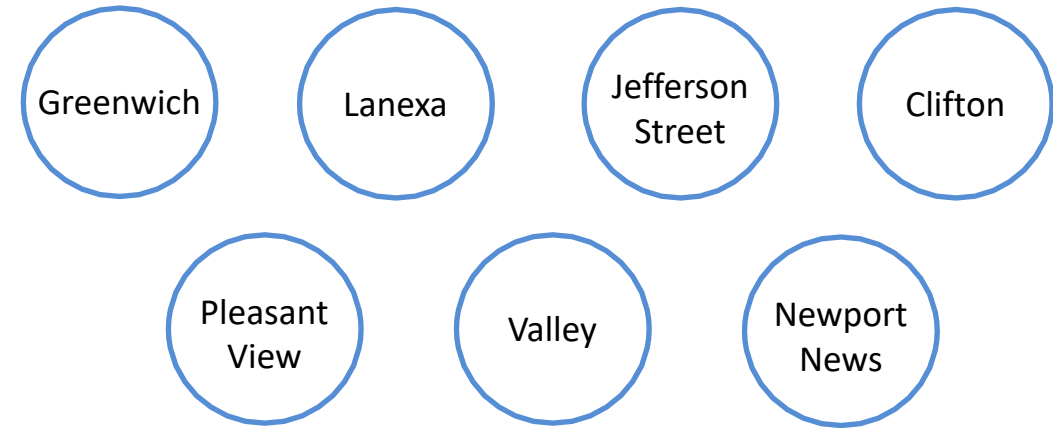
- Clifton: \$1.9M
- Greenwich: \$1.8M
- Lanexa: \$2M
- Pleasant View: \$2M
- Jefferson Street: \$2M
- Valley: \$2M
- Newport News: \$2M

Alternatives Considered: No feasible alternatives. Existing Equipment.

Projected In-Service Date: Provided in table.

Project Status: Planning

Model: 2029 RTEP



Substation Location	Cap Bank Size (MVAR)	In-Service Date
Clifton	151.5	10/13/27
Greenwich	33.67	10/13/27
Lanexa	101	2/1/29
Pleasant View	151.5	2/1/28
Jefferson Street	101	2/1/29
Valley	151.5	2/1/29
Newport News	101	2/1/29

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

Need Number: DOM-2026-0019

Process Stage: Solution Meeting 09/08/2026

Previously Presented: Need Meeting 05/08/2026

Project Driver: Equipment Material Condition, Performance Risk

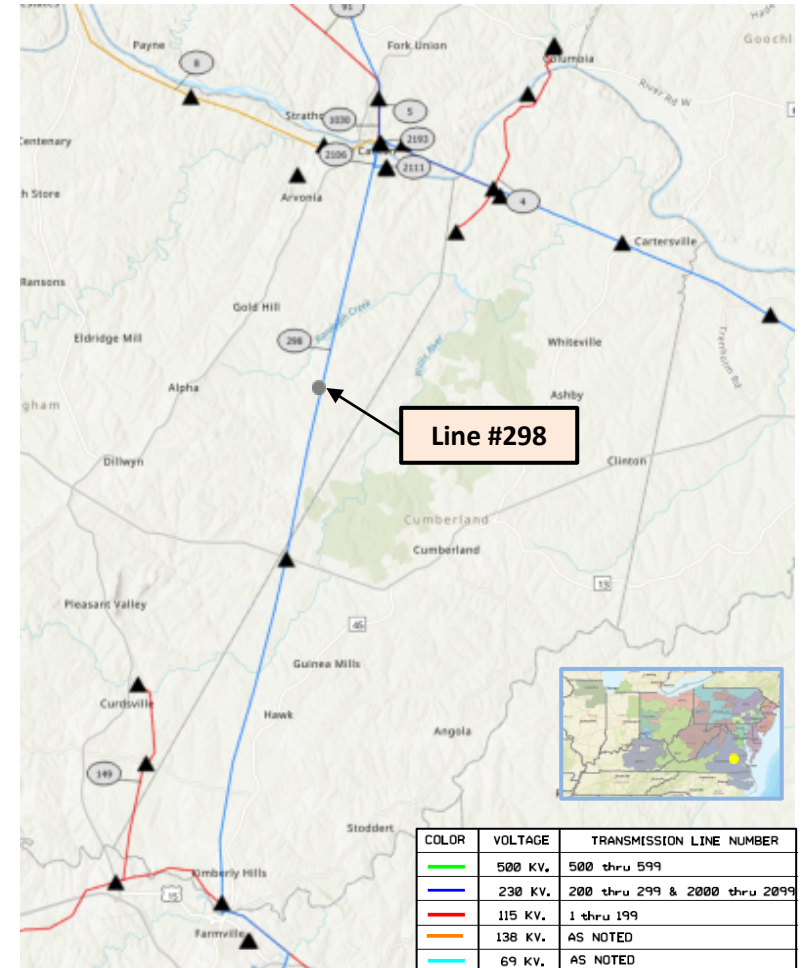
Specific Assumption References:

See details on Equipment Material Condition, Performance and Risk in Dominion's Planning Assumptions presented in December 2025.

Problem Statement:

Dominion Energy has identified a need to replace 230 concrete and wood H-frame structures on Line #298 (Bremo Sub - Farmville Sub) as part of the Company's End of Life criteria.

- The 28.2 miles transmission line, originally constructed in 1978 shows significant deterioration, including cracking and internal corrosion of the reinforcing steel in the concrete poles.
- Industry guidelines indicate equipment life for wood structures is 35 - 55 years, conductor and connectors 40 - 60 years, and porcelain insulators 50 years. This line needs to be rebuilt to current standards based on Dominion's End of Life Criteria.



Dominion Transmission Zone: Supplemental Line #298 EOL Rebuild – Farmville to Fork Union

Need Number: DOM-2026-0019

Process Stage: Solution Meeting 09/08/2026

Previously Presented: Need Meeting 05/08/2026

Project Driver: Equipment Material Condition, Performance and Risk

Proposed Solution:

Wreck and rebuild the existing #298 transmission line from Farmville to Brema Substation using 230 kV double-circuit structures over approximately 28.2 miles. The new 230 kV line will terminate at the Fork Union Substation, located approximately 1.6 miles from Brema Substation and will share structures with the Line #2193.

Estimated Project Cost: \$96M (Total)

GI Project Network Upgrades are occurring in this area as a single circuit 230kV line from Farmville to Brema substation – \$84M

Double circuit 230kV line construction cost – \$170M

Transmission Cost – \$86M (Difference); Substation Cost – \$10M

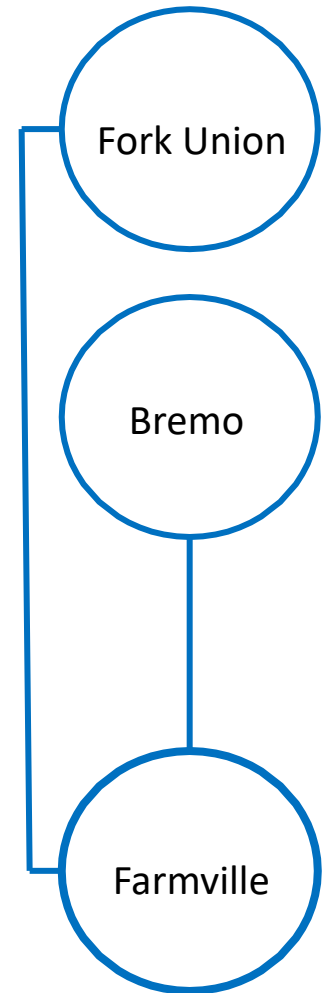
Alternatives Considered:

No feasible alternatives were identified, as Brema Substation cannot be expanded. This project uses the existing right of way.

Projected In-service Date: 07/30/2030

Project Status: Planning

Model: 2029 RTEP



Cancellations

Dominion Transmission Zone: Supplemental Customer Load Request

Need Number: DOM-2024-0058 (Canceled)

Process Stage: Cancellation Meeting 09/08/2026

Previously Presented: Solution Meeting 10/08/2025

Project Driver: Customer Service

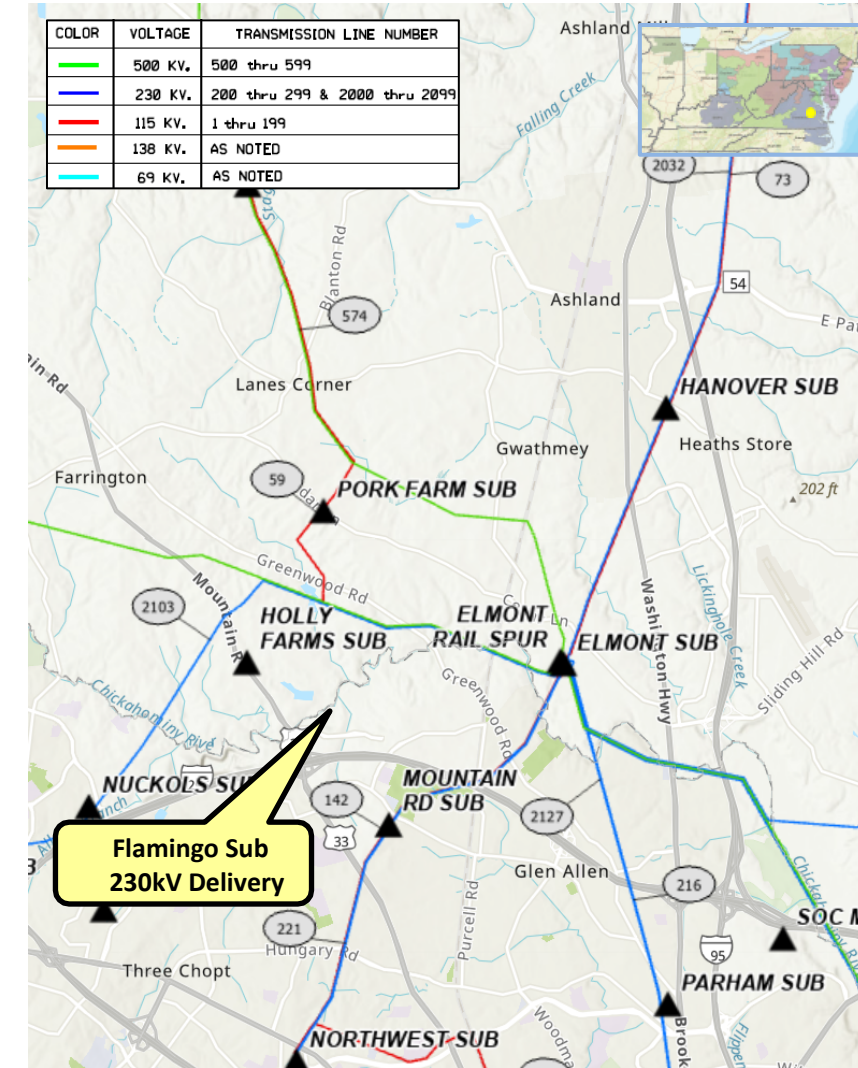
Specific Assumption References:

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

Problem Statement:

DEV Distribution has previously submitted a DP Request for a new substation (Flamingo) to serve a data center in Hanover County. ~~The requested in-service date is 01/01/2029.~~ The DP request was withdrawn.

Initial In-Service Load	Projected 2029 Load
Summer: 47.0 MW Winter: 42.5 MW	Summer: 47.0 MW Winter: 42.5 MW



Dominion Transmission Zone: Supplemental Flamingo 230kV Delivery - DEV

Need Number: DOM-2024-0058 (Canceled)

Process Stage: Cancellation Meeting 09/08/2026

Project Driver: Customer Service

Proposed Solution:

~~Cut existing 230kV Line 2103 (Elmont to Short Pump) in and out of proposed Flamingo substation. Lines to terminate initially in a 230kV four-breaker ring arrangement, with an ultimate six-breaker configuration.~~

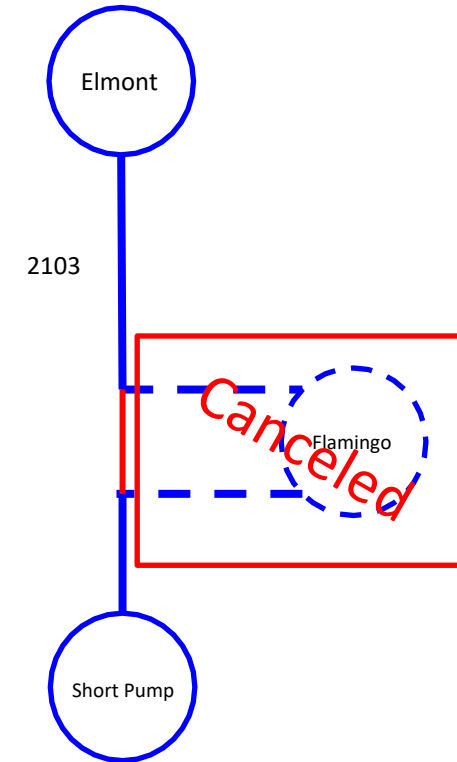
Estimated Project Cost: \$20.0M Substation, \$10M Transmission Lines

Alternatives Considered: ~~None, new station is on customer owned land and adjacent to existing transmission lines~~

Projected In-service Date: 12/31/2029

Project Status: Canceled

Model: 2029 RTEP



Dominion Transmission Zone: Supplemental Customer Load Request

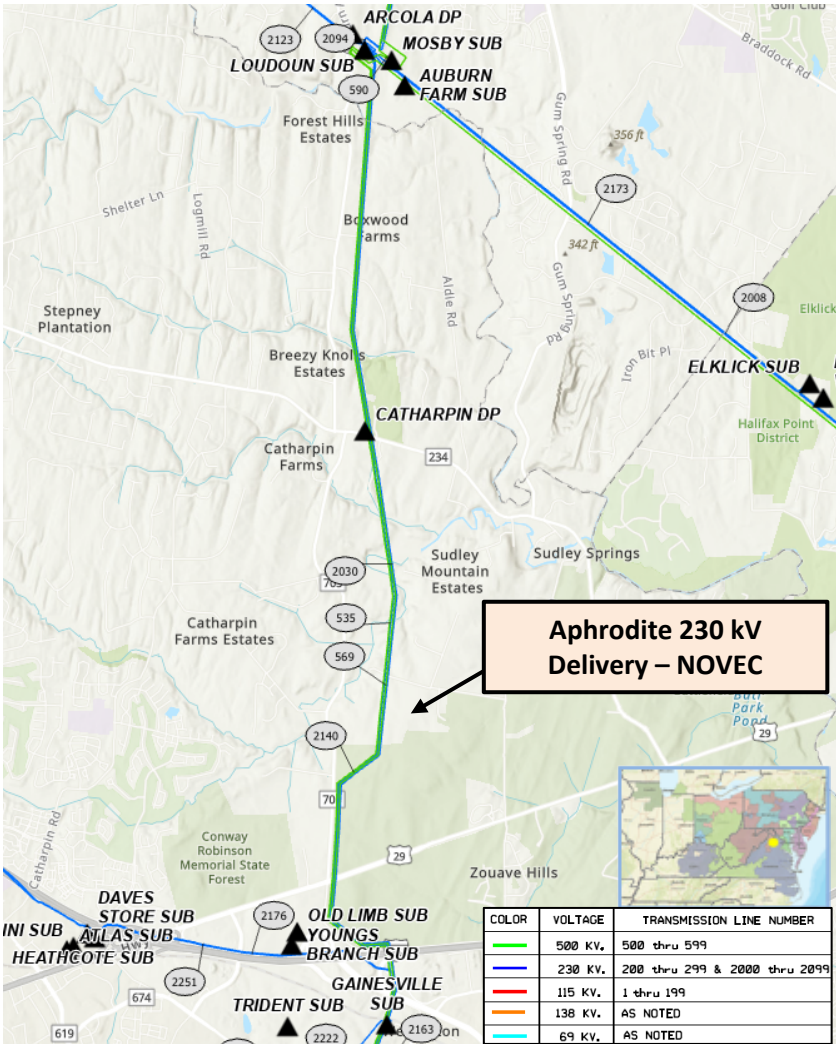
Need Number: DOM-2024-0061(Canceled)
Process Stage: Cancellation Meeting 09/08/2026
Previously Presented: Solution Meeting 10/08/2025
Project Driver: Customer Service

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 previously submitted a DP Request for a new substation (Aphrodite) to serve a data center complex in Prince William County with a total load in excess of 100 MW. The DP request was withdrawn.

~~Requested in-service date is 09/30/2027.~~

Initial In-Service Load	Projected 2029 Load
Summer: 10.8 MW	Summer: 92.1 MW
Winter: 10.8 MW	Winter: 92.1 MW



Dominion Transmission Zone: Supplemental Aphrodite 230kV Delivery - NOVEC

Need Number: DOM-2024-0061(Canceled)

Process Stage: Cancellation Meeting 09/08/2026

Project Driver: Customer Service

Proposed Solution:

- ~~• Cut Line #2030 (Loudoun — Gainesville) to interconnect the proposed Aphrodite Substation.~~
- ~~• Lines to terminate into a 230 kV four-breaker ring arrangement.~~

Estimated Project Cost: \$14M (Total)

~~Transmission Line Cost: \$0.5M~~

~~Substation Cost: \$13.5M~~

Alternatives Considered:

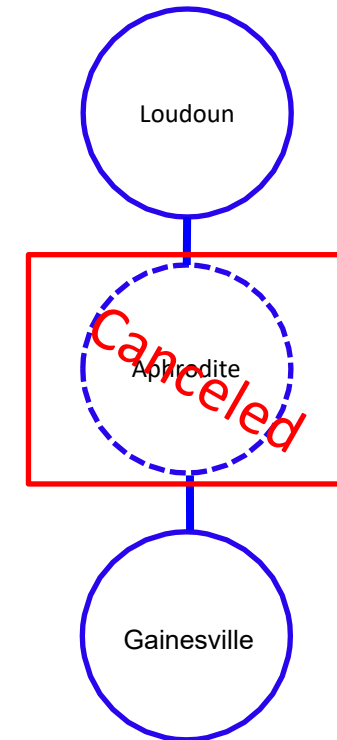
~~No feasible alternatives.~~

~~— Aphrodite is proposing to connect to the closest 230 kV transmission corridor.~~

Projected In-service Date: ~~09/30/2027~~

Project Status: Canceled

Model: 2029 RTEP



Dominion Transmission Zone: Supplemental Customer Load Request

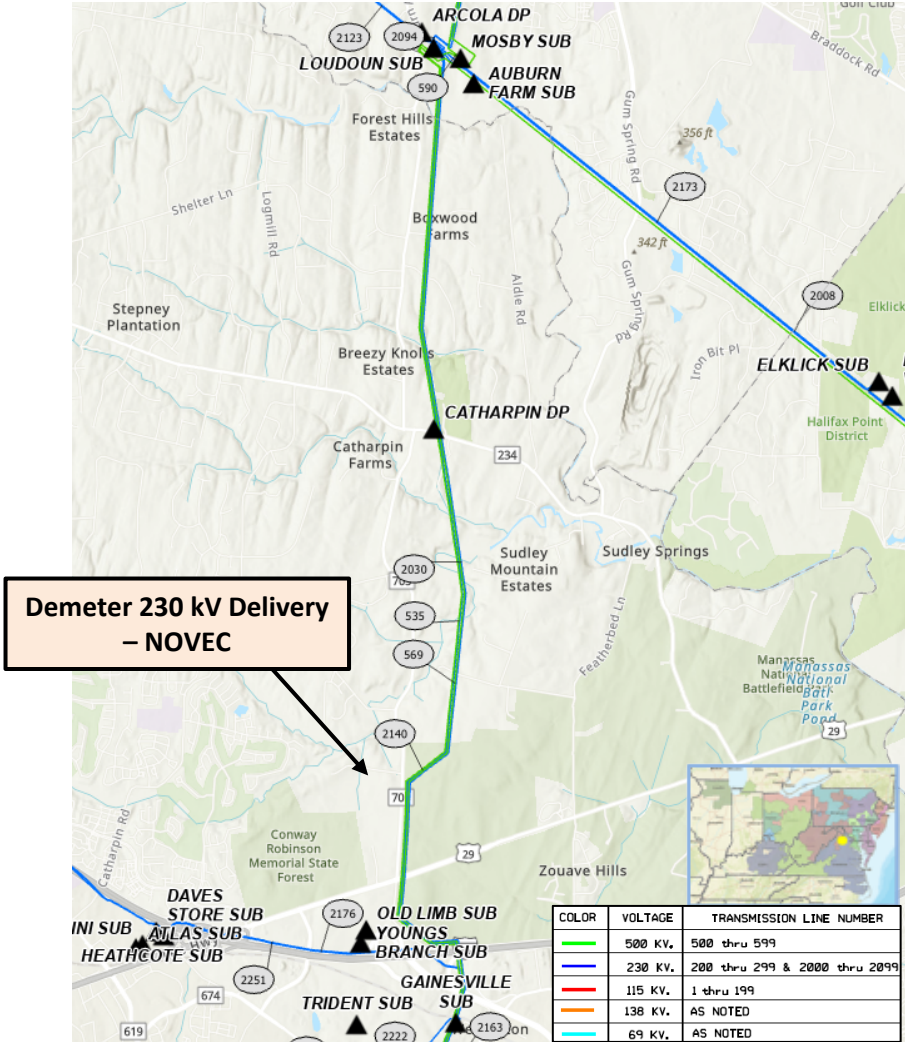
Need Number: DOM-2024-0062(Canceled)
Process Stage: Cancellation Meeting 09/08/2026
Previously Presented: Solution Meeting 10/08/2025
Project Driver: Customer Service

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 previously submitted a DP Request for a new substation (Demeter) to serve a data center complex in Prince William County with a total load in excess of 100 MW. The DP request was withdrawn.

~~Requested in-service date is 05/01/2028.~~

Initial In-Service Load	Projected 2029 Load
Summer: 0.8 MW	Summer: 17.8 MW
Winter: 0.8 MW	Winter: 17.8 MW



Dominion Transmission Zone: Supplemental Demeter 230kV Delivery - NOVEC

Need Number: DOM-2024-0062(Canceled)

Process Stage: Cancellation Meeting 09/08/2026

Project Driver: Customer Service

Proposed Solution:

- ~~• Cut and extend Line #2140 (Loudoun — Old Limb) approx. 0.3 miles to interconnect the proposed Demeter Substation.~~
- ~~• Lines to terminate into a 230 kV four breaker ring arrangement able to accommodate an ultimate arrangement of six.~~

Estimated Project Cost: \$15.5M (Total)

Transmission Line: \$1.5M

Substation Cost: \$14.0M

Alternatives Considered:

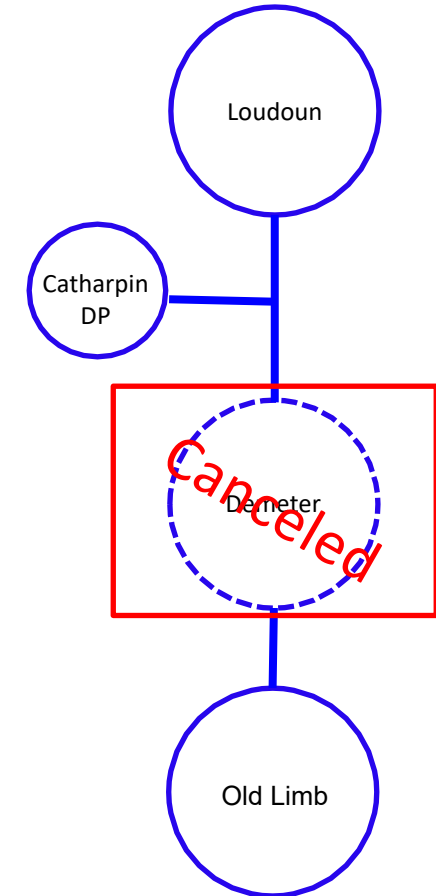
~~No feasible alternatives.~~

~~— Demeter is proposing to connect to the closest 230 kV transmission corridor.~~

Projected In-service Date: 05/01/2028

Project Status: Canceled

Model: 2029 RTEP



Dominion Transmission Zone: Supplemental Customer Load Request

Need Number: DOM-2024-0067 (Canceled)

Process Stage: Cancellation Meeting 09/08/2026

Previously Presented: Need Meeting 9/13/2024

Project Driver: Customer Service

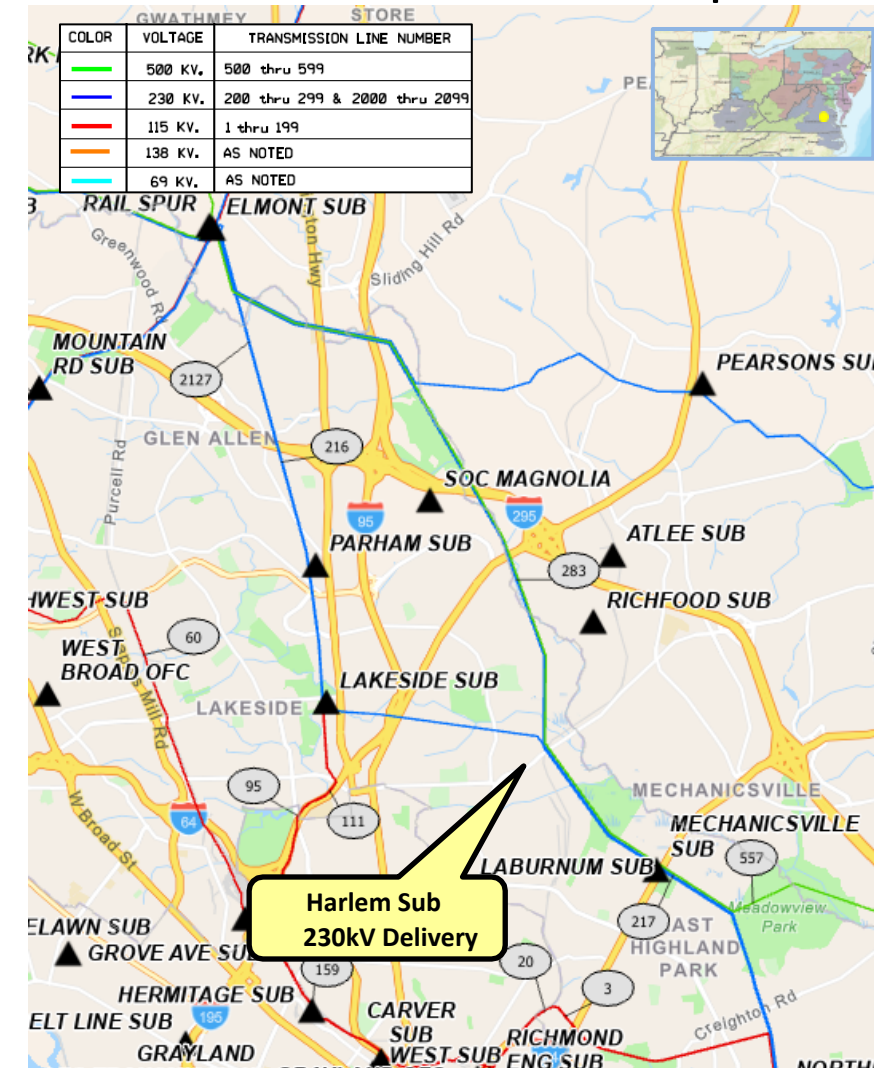
Specific Assumption References:

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

Problem Statement:

DEV Distribution has previously submitted a DP Request for a new substation (Harlem) to serve a data center in Hanover County with a total load in excess of 100MW. The requested in-service date is 01/01/2029. Load is expected to exceed 100MW in 2032. The DP request was withdrawn.

Initial In-Service Load	Projected 2029 Load
Summer: 4.5 MW Winter: 3.7 MW	Summer: 4.5 MW Winter: 3.7 MW



Dominion Transmission Zone: Supplemental Customer Load Request

Need Number: DOM-2025-0050(Canceled)

Process Stage: Cancellation Meeting 09/08/2026

Previously Presented: Solution Meeting 10/08/2025

Project Driver: Customer Service

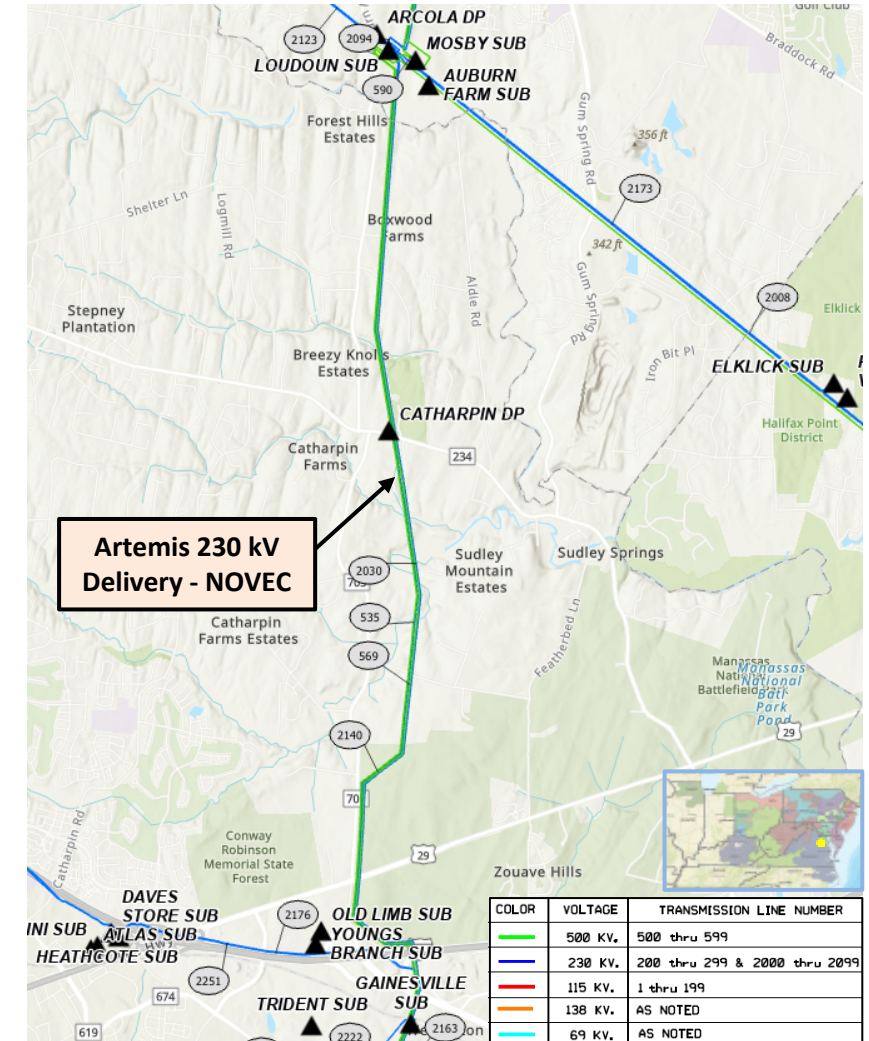
Specific Assumption References:

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

Problem Statement:

NOVEC has previously submitted a DP Request for a new substation (Artemis) to serve a data center campus in Prince William County, VA with a total expected capacity of 300 MW. The DP request was withdrawn.

~~Expected in-service date is 12/30/2031.~~



Dominion Transmission Zone: Supplemental Customer Load Request

Need Number: DOM-2025-0055 (Canceled)

Process Stage: Cancellation Meeting 09/08/2026

Previously Presented: Need Meeting 10/08/2025

Project Driver: Customer Service

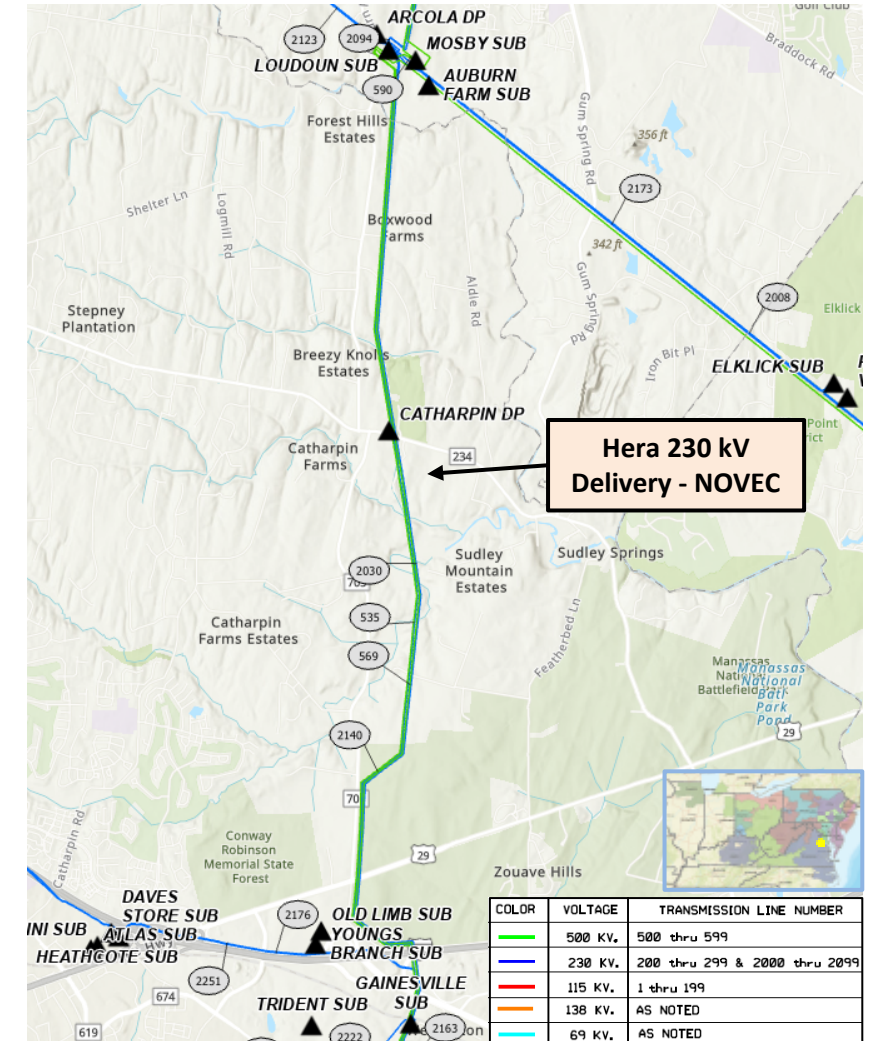
Specific Assumption References:

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

Problem Statement:

NOVEC has previously submitted a DP Request for a new substation (Hera) to serve a data center campus in Prince William County, VA with a total expected capacity of 300 MW. The DP request was withdrawn.

~~Expected in-service date is 12/30/2031.~~



Dominion Transmission Zone: Supplemental Customer Load Request

Need Number: DOM-2025-0057(Canceled)

Process Stage: Cancellation Meeting 09/08/2026

Previously Presented: Need Meeting 10/08/2025

Project Driver: Customer Service

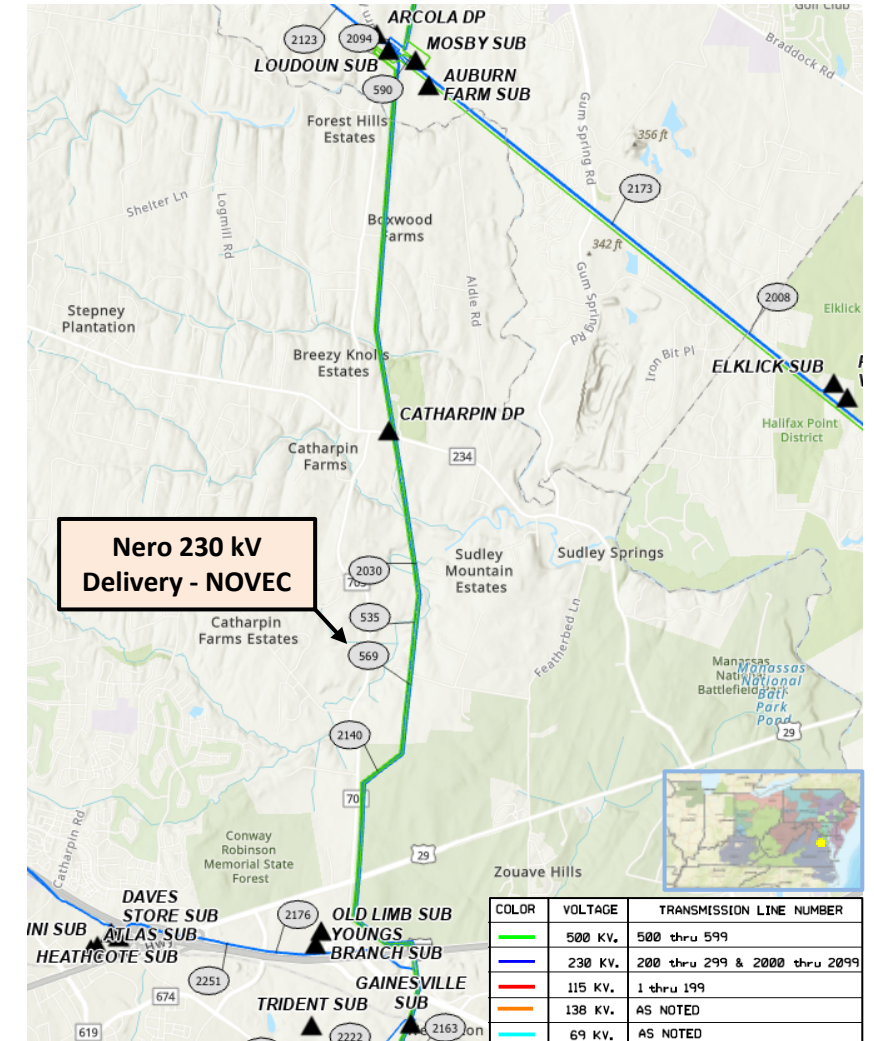
Specific Assumption References:

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

Problem Statement:

NOVEC has previously submitted a DP Request for a new substation (Nero) to serve a data center campus in Prince William County, VA with a total expected capacity of 300 MW. The DP request was withdrawn.

~~Expected in-service date is 12/30/2030.~~



Dominion Transmission Zone: Supplemental Customer Load Request

Need Number: DOM-2025-0068 (Canceled)

Process Stage: Cancellation Meeting 09/08/2026

Previously Presented: Need Meeting 10/08/2025

Project Driver: Customer Service

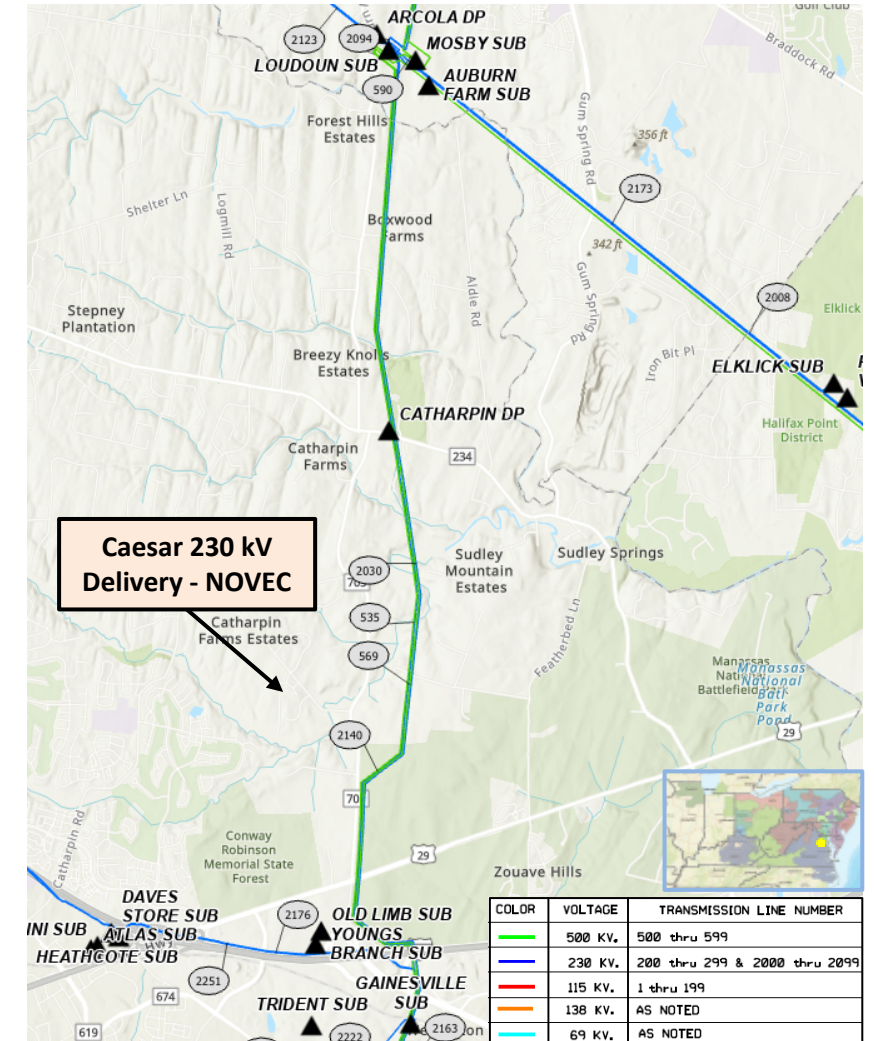
Specific Assumption References:

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

Problem Statement:

NOVEC has previously submitted a DP Request for a new substation (Caesar) to serve a data center campus in Prince William County, VA with a total expected capacity of 300 MW. The DP request was withdrawn.

~~Expected in-service date is 12/30/2030.~~



Dominion Transmission Zone: Supplemental Operational Flexibility and Efficiency

Need Number: DOM-2025-0100(Canceled)

Process Stage: Cancellation Meeting 09/08/2026

Previously Presented: Need Meeting 4/7/2026

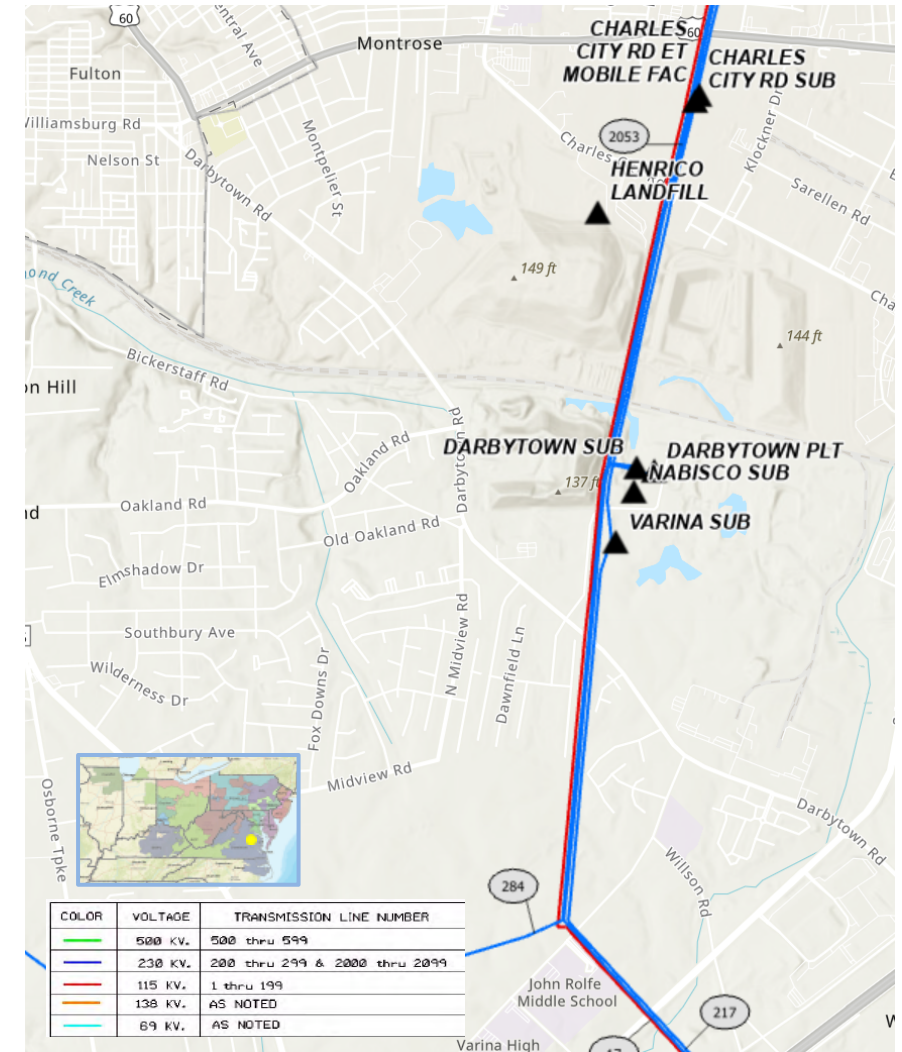
Project Driver: Operational Flexibility and Efficiency

Specific Assumption References:

See details on Operational Flexibility and Efficiency in Dominion's Planning Assumptions presented in December 2025.

Problem Statement:

Darbytown Substation has two 230 kV buses with two generators connected to each bus. These buses are connected into a 230kV four breaker ring also connecting Lines 286 (Darbytown –Techpark Place) and 2053 (Darbytown-Northeast). There are no interruption devices between the GSUs and the buses. A trip of one GSU on a bus will cause the trip of the other GSU on the bus. ~~A transmission solution is needed to correct this issue and improve grid reliability.~~ This issue does not require a transmission solution.



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

08/28/2026 – V1 – Original version posted to pjm.com.