

Dominion Supplemental Projects

Transmission Expansion Advisory
Committee
July 08, 2025

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 Equipment Material Condition, Performance and Risk

Need Number: DOM-2025-0026

Process Stage: Solution Meeting 07/08/2025

Previously Presented: Need Meeting 06/05/2025

Project Driver: Equipment Material Condition, Performance Risk

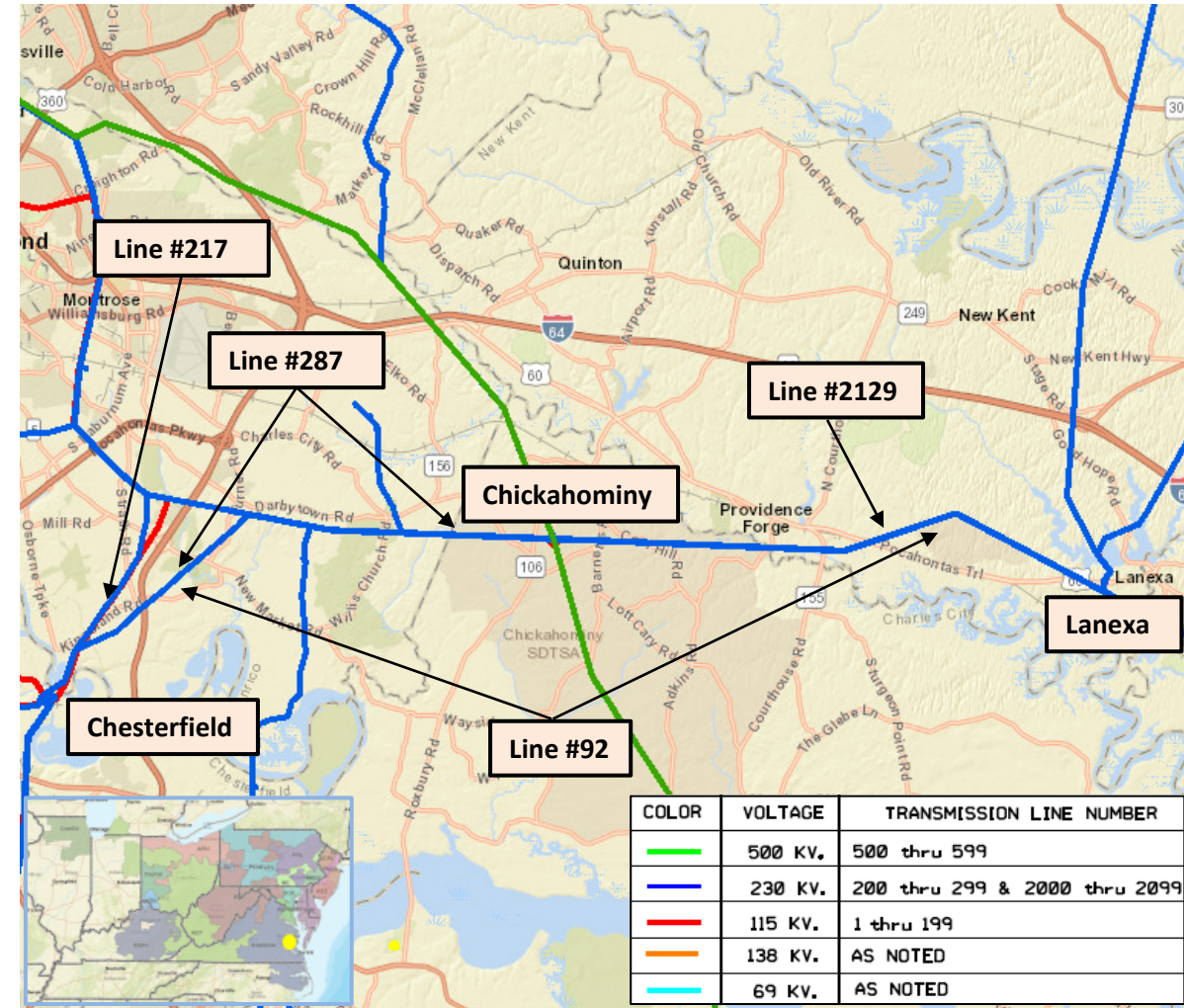
Specific Assumption References:

See details on Equipment Material Condition, Performance and Risk in Dominion's Planning Assumptions presented in December 2024.

Problem Statement:

Dominion Energy has identified a need to replace the lines between its Chesterfield and Lanexa Substations, based on the Company's End of Life criteria. These include 115 kV Line #92 from Chesterfield to Lanexa (30 miles); 230 kV Line #287 from Chesterfield to Chickahominy (14.6 miles); and Line #2129 from Chickahominy to Lanexa (14.2 miles).

- Lines #92 and #287 lines were constructed on double circuit, 3-pole wood H-frame structures in 1952 and 1966, respectively. Both lines have ACSR conductor and 3/8" steel static.
- Industry guidelines indicate equipment life for steel structures is 40-60 years, wood structures is 35-55 years, conductor and connectors are 40-60 years, and porcelain insulators are 50 years.
- Removal of line pair #92 and #287 and of line pair #92 and #2129 causes a Generator Deliverability violation on line #539 (Ladysmith to Possum Point) and the loss of generation at Providence Forge Substation. Line #92 has direct connected loads at the 115kV tap at Turner substation and at the Providence Forge substation. Additionally, lines #92 and #287 provide outlets for the generation at Chesterfield.



Dominion Transmission Zone: Supplemental Lines #92, #287, and #2129 EOL Rebuild

Need Number: DOM-2025-0026

Process Stage: Solution Meeting 07/08/2025

Project Driver: Equipment Material Condition, Performance Risk

Proposed Solution:

Rebuild approximately 30 miles of Line 92 from Chesterfield to Lanexa to current 230kV standards but will operate at 115 kV. Rebuild approximately 14.6 miles Line 287 from Chesterfield to Chickahominy and 14.2 miles Line 2129 from Chickahominy to Lanexa to current 230kV standards. The minimum normal summer rating of this line will be 1573 MVA.

Reconductor approximately 1.5 miles of Line 217 from Chesterfield with minimum summer normal rating of 1573 MVA.

Rebuild approximately 0.66 miles Idle Line I-92 to 230kV standard.

Upgrade all terminal equipment to 4000 Amps for 230kV and 2000Amps for 115kV.

Estimated Project Cost: \$54M

Transmission Line: \$51.3M, Substation: \$2.7M

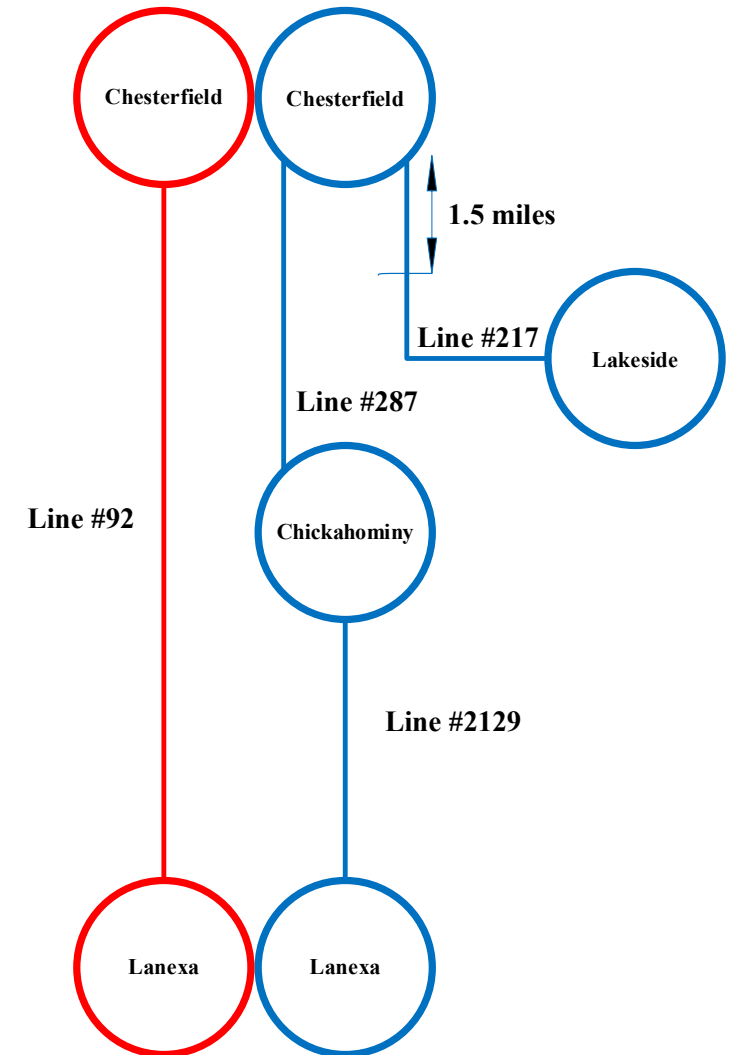
Alternatives Considered:

No feasible alternatives, End-of-Life

Project In-service Date: 12/31/2028

Project Status: Engineering

Model: 2029 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

06/26/2025 – V1 – Original version posted to pjm.com