

Dominion Transmission Zone M-3 Process EOL Rebuild 230kV Line #2056 – Hornertown to Hathaway

Need Number: DOM-2021-0046

Process Stage:

Submission of Supplemental Project for Inclusion in the Local Plan – 1/19/2023

Previously Presented:

Need – 06/08/2021

Solution – 07/12/2022

Project Driver:

Equipment Material Condition, Performance, and Risk

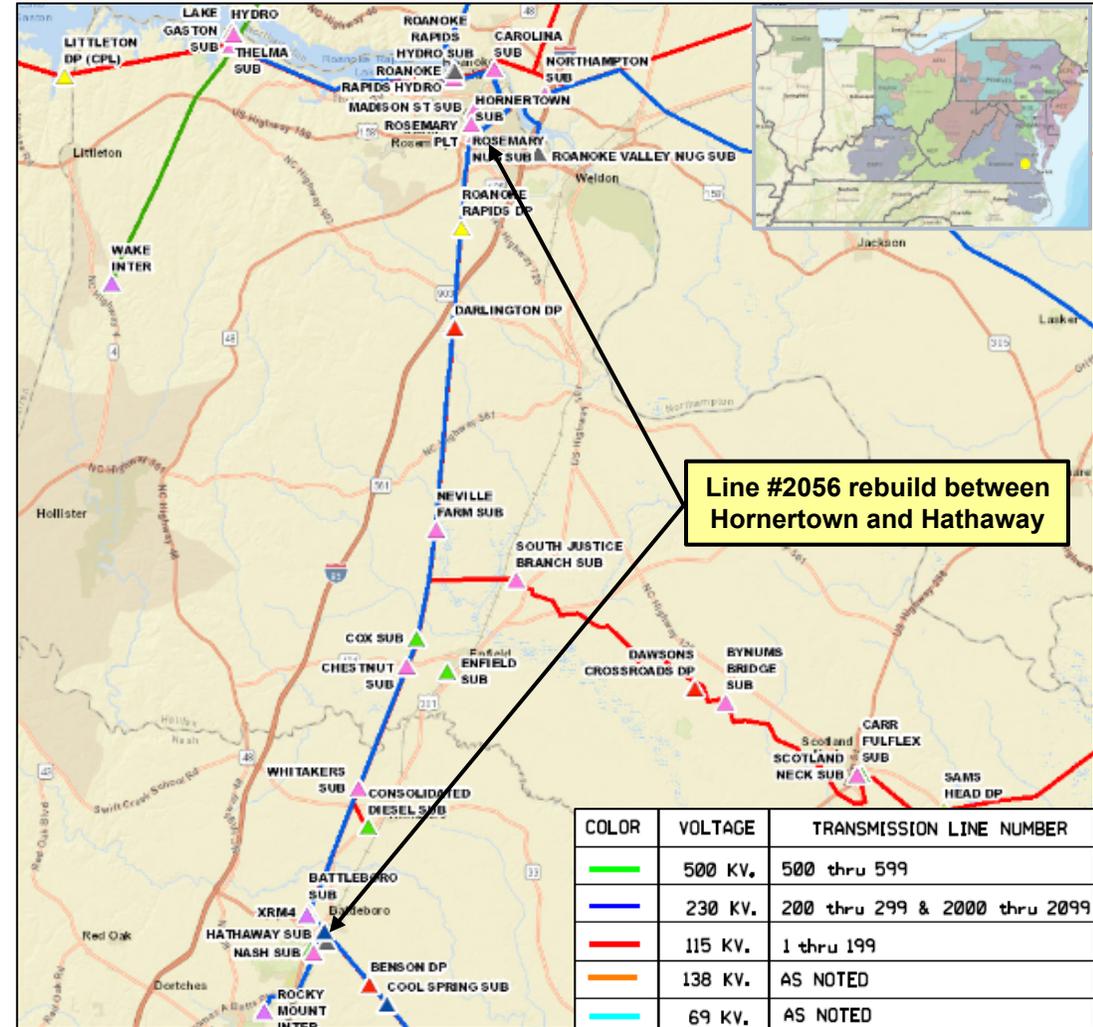
Specific Assumption Reference:

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

Problem Statement:

Dominion Energy has identified a need to replace approximately 28.9 miles of 230kV Line #2056 (Hornertown to Hathaway) based on the Company’s End of Life criteria.

- Line #2056 was constructed on steel and wood pole structures in 1967. Conductor is ACSR.
- A field-condition assessment indicated woodpecker damage to several poles and broken insulators in numerous locations.
- 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.



Dominion Transmission Zone M-3 Process EOL Rebuild 230kV Line #2056 – Hornertown to Hathaway

Need Number: DOM-2021-0046

Process Stage:

Submission of Supplemental Project for Inclusion in the Local Plan – 1/19/2023

Selected Solution:

Rebuild approximately 28.9 miles of Line #2056 Hornertown to Hathaway with current 230kV standard construction practices. The new conductor will have a minimum normal summer rating of 1573 MVA. Terminal equipment will be upgraded as needed.

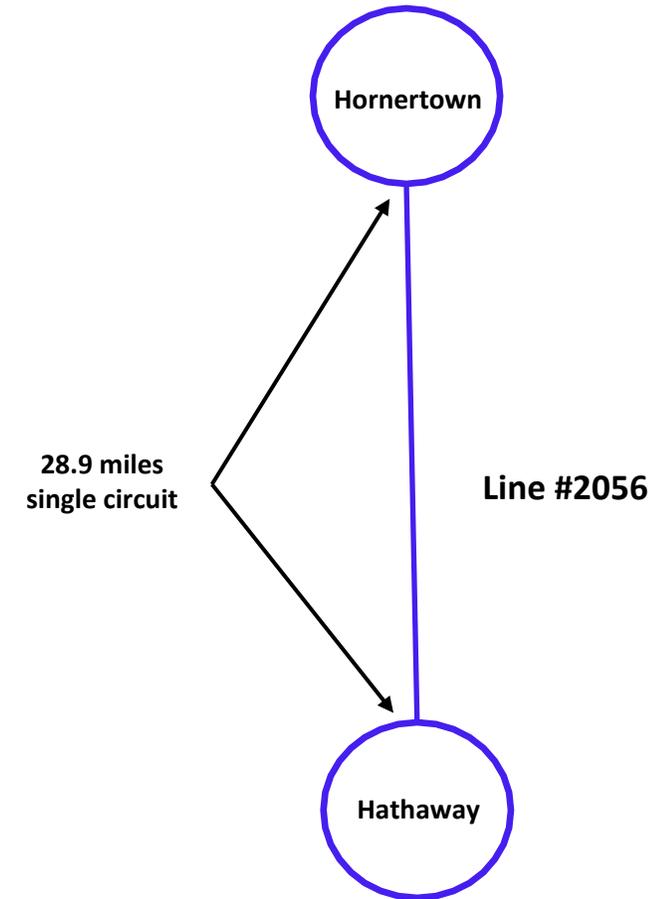
Estimated Cost: \$49.1M

Projected In-Service: 12/31/2026

Supplemental Project ID: s2824

Project Status: Conceptual

Model: 2025 RTEP



Dominion Transmission Zone M-3 Process Line #229 and Line #55 Partial Rebuild

Need Number: DOM-2021-0047

Process Stage:

Submission of Supplemental Project for Inclusion in the Local Plan – 1/19/2023

Previously Presented:

Need – 06/08/2021

Solution – 08/09/2022

Project Driver:

Equipment Material Condition, Performance, and Risk

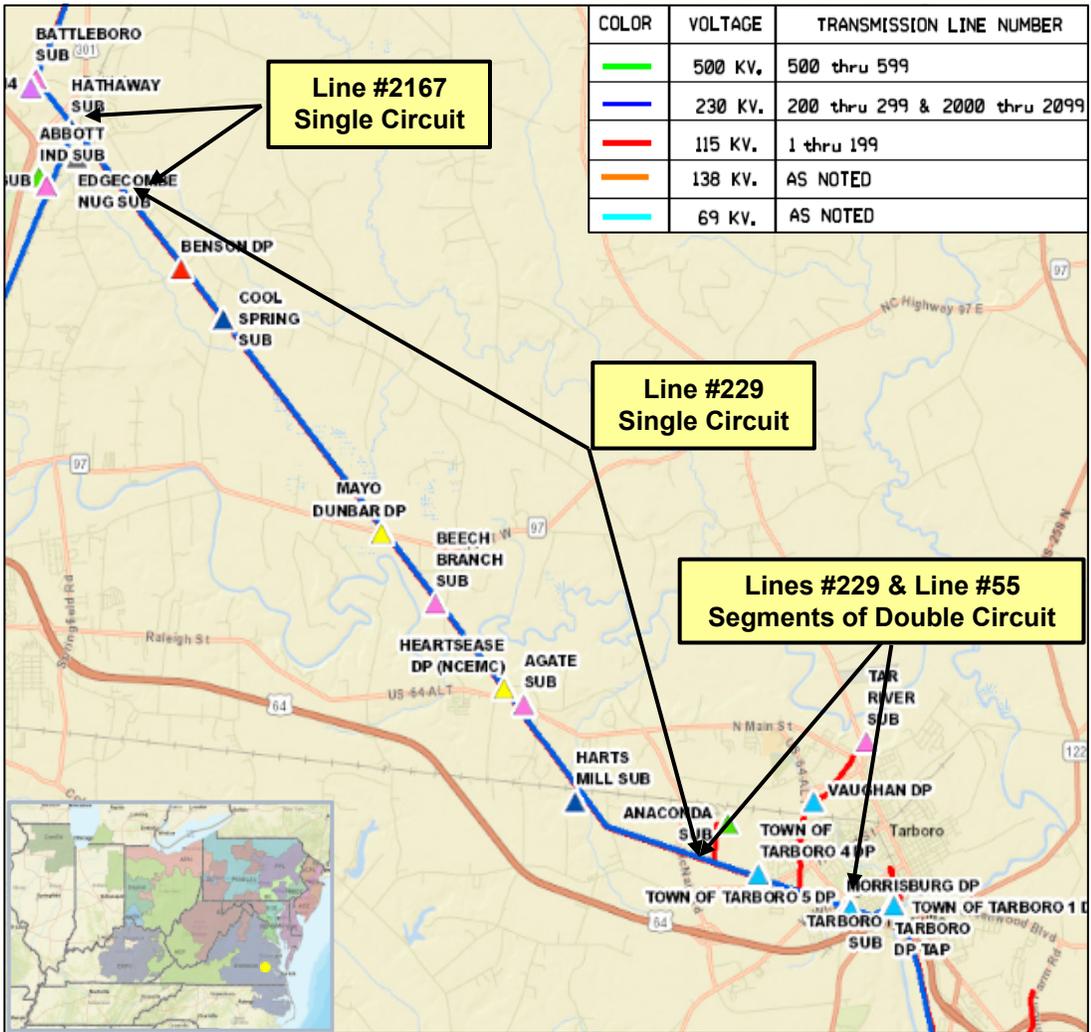
Specific Assumption Reference:

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

Problem Statement:

Dominion Energy has identified a need to replace approximately 0.73 miles of 230kV Line #2167 (Hathaway to Edgecombe NUG), and 16.9 miles of 230kV Line #229 (Tarboro to Edgecombe NUG) which includes 2.1-mile segments of double circuit with Line #55 (Tarboro to Anaconda) and 0.95 miles single circuit segments of Line #55 based on the Company’s End of Life criteria.

- Double-circuit is on steel towers and single-circuit is on 2-pole wood H-frame structures all dating back to 1967. Conductor is ACSR.
- A field-condition assessment indicated woodpecker damage and broken insulators.
- Industry guidelines indicate equipment life for steel structures is 40-60 years, wood structures 35-55 years, conductor and connectors are 40-60 years, and porcelain insulators are 50 years.



Dominion Transmission Zone M-3 Process Line #229 and Line #55 Partial Rebuild

Need Number: DOM-2021-0047

Process Stage:

Submission of Supplemental Project for Inclusion in the Local Plan – 1/19/2023

Selected Solution:

Rebuild entire Line #2167 Edgecombe NUG – Hathaway (approximately 0.73 miles) to current 230kV standards with appropriate structures. The minimum normal summer conductor rating of this line will be 1573 MVA. Rebuild entire Line #229 Edgecombe NUG – Tarboro (approximately 16.9 miles) to current 230kV standards with appropriate structures. The minimum normal summer conductor rating of the line will be 1573 MVA. **(s2825.1)**

Rebuild approximately 3 miles from Tarboro to Str 55/133 of Line #55 Tarboro – Harts Mill to current 115kV standards with appropriate structures. The minimum normal summer conductor rating of the line will be 393 MVA. Terminal equipment will be upgraded as necessary. **(s2825.2)**

Estimated Total Cost: \$43 M

s2825.1: \$ 39.5 M

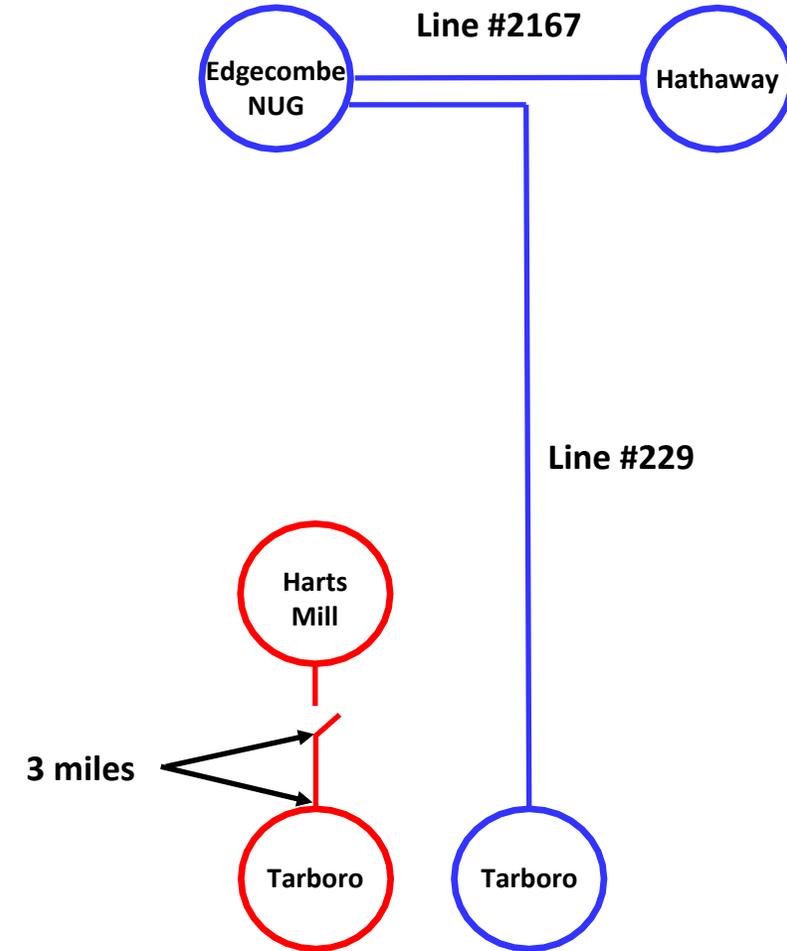
s2825.2: \$ 3.5 M

Projected In-Service: 12/31/2023

Supplemental Project ID: See above

Project Status: Conceptual

Model: 2025 RTEP



Revision History

01/19/2023 – V1 – Local Plan posted to pjm.com for s2824 & s2825.