# 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

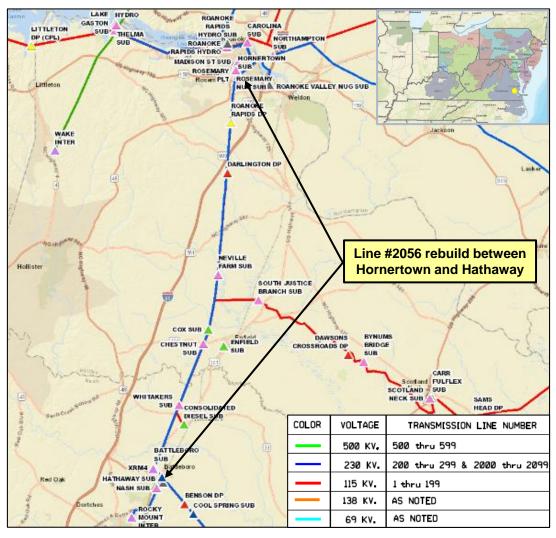
**Specific Assumption Reference:** 

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.

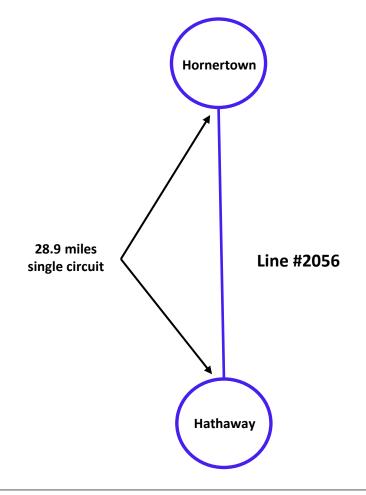
Estimated Cost: \$49.1M

**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

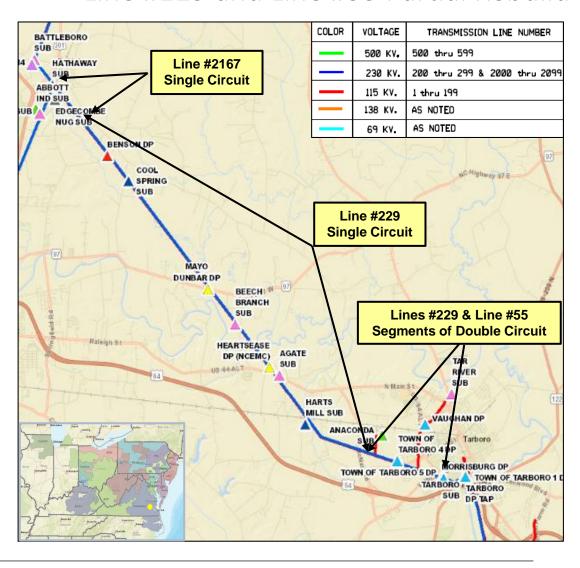
#### **Specific Assumption Reference:**

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

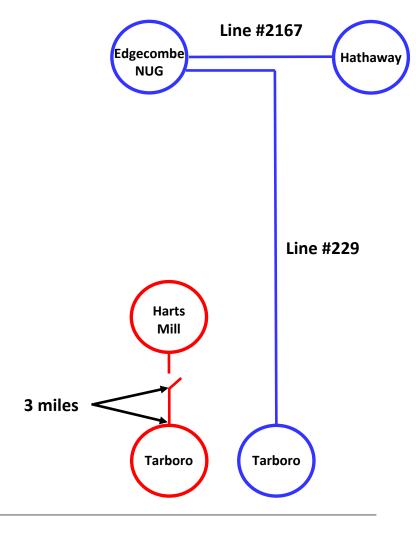
**s2825.1**: \$ 39.5 M **s2825.2**: \$ 3.5 M

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.

