

# PJM TEAC Committee

## Dominion Supplemental Projects

August 8, 2019

# 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 M-3 Process Lockridge 230 kV Delivery - DEV

**Need Number:** DOM-2019-0005

**Process Stage:** Solutions Meeting 08/08/2019

## **Proposed Solution :**

Cut an existing 230kV line between Roundtable and Buttermilk substations. Construct a 1.8 mile 230kV loop to Lockridge substation.

At Lockridge, install four 230kV breakers (station arranged as six breaker ring) to terminate the two lines. Install two 230kV circuit switchers and any necessary high side switches and bus work for two initial transformers (five ultimate).

## **Alternatives Considered :**

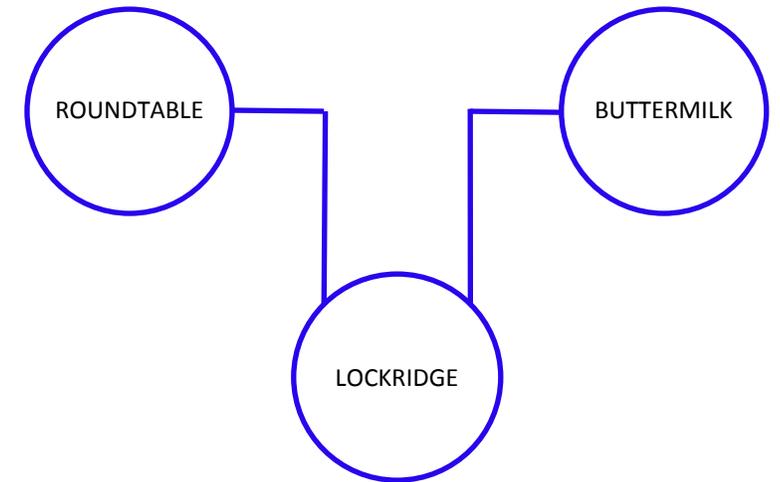
No feasible alternatives

**Estimated cost:** \$35 M

**Projected In-service Date:** 07/31/2022

**Project Status:** Engineering

**Model:** 2023 RTEP



# Dominion Transmission Zone M-3 Process

## Add 5TH TX – Beaumeade 230 kV Delivery - DEV

**Need Number:** DOM-2018-0012

**Process Stage:** Solutions Meeting 08/08/2019

**Previously Presented:**

Needs Meeting – 09/13/2018

Solutions Meeting – 11/08/2018

**Project Driver:**

Customer Service

**Specific Assumption Reference:**

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

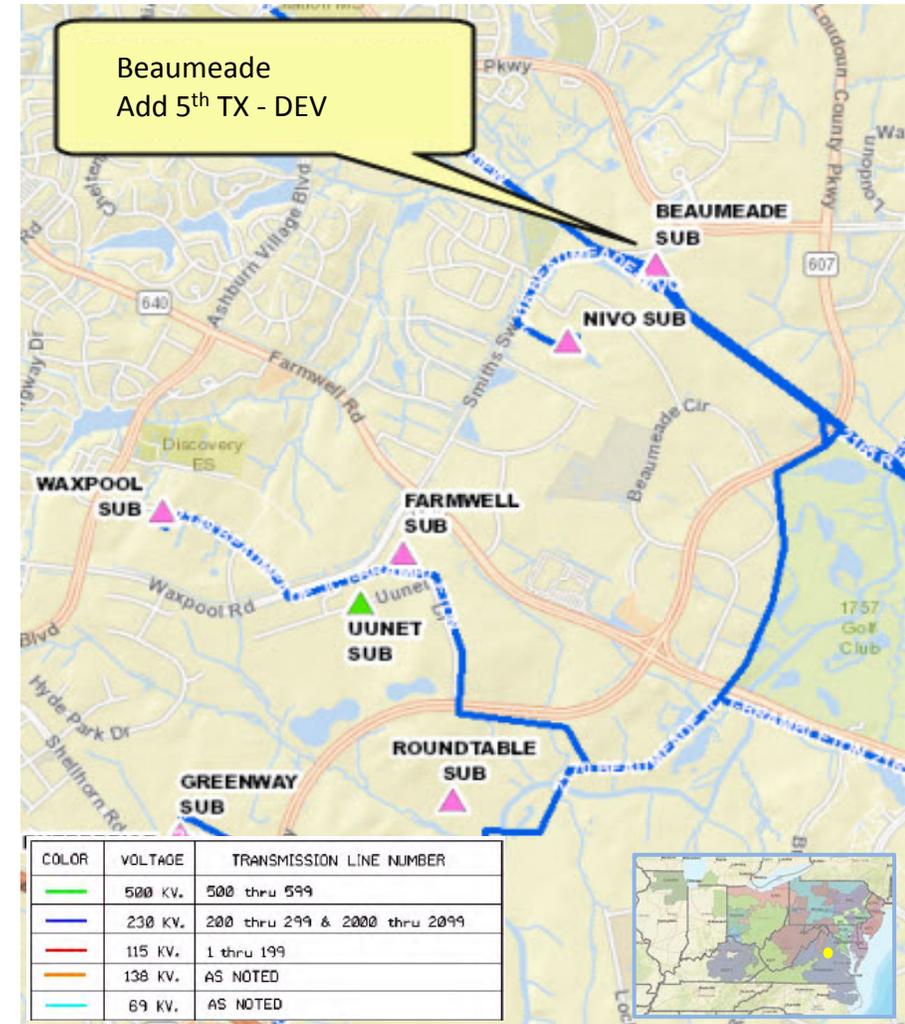
**Problem Statement:**

DEV Distribution has submitted a DP Request to add a 5th distribution transformer at Beaumeade Substation in Loudoun County. The new transformer is being driven by projections that normal load at Beaumeade will be near 255 MW in 2020. Requested in-service date is 03/31/2020.

**Projected 2023 Load**

Summer: 271.1 MW

Winter: 262.1 MW



# Dominion Transmission Zone M-3 Process Add 5TH TX – Beaumeade 230 kV Delivery - DEV

**Need Number:** DOM-2018-0012

**Process Stage:** Solutions Meeting 08/08/2019

**Proposed Solution:**

Install 1200 Amp, 50kAIC circuit switcher and associated equipment (bus, switches, relaying, etc.) to feed the new transformer from existing 230 kV bus #5 at Beaumeade.

**Alternatives Considered :**

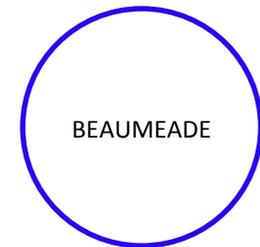
No feasible alternatives

**Estimated Cost:** \$0.75 M

**Projected In-Service:** 3/31/2020

**Project Status:** Conceptual

**Model:** 2023 RTEP



# Dominion Transmission Zone M-3 Process Do No Harm (DNH) Analysis

**Need Number:** DOM-2018-0012

**Process Stage:** Solutions Meeting 08/08/2019

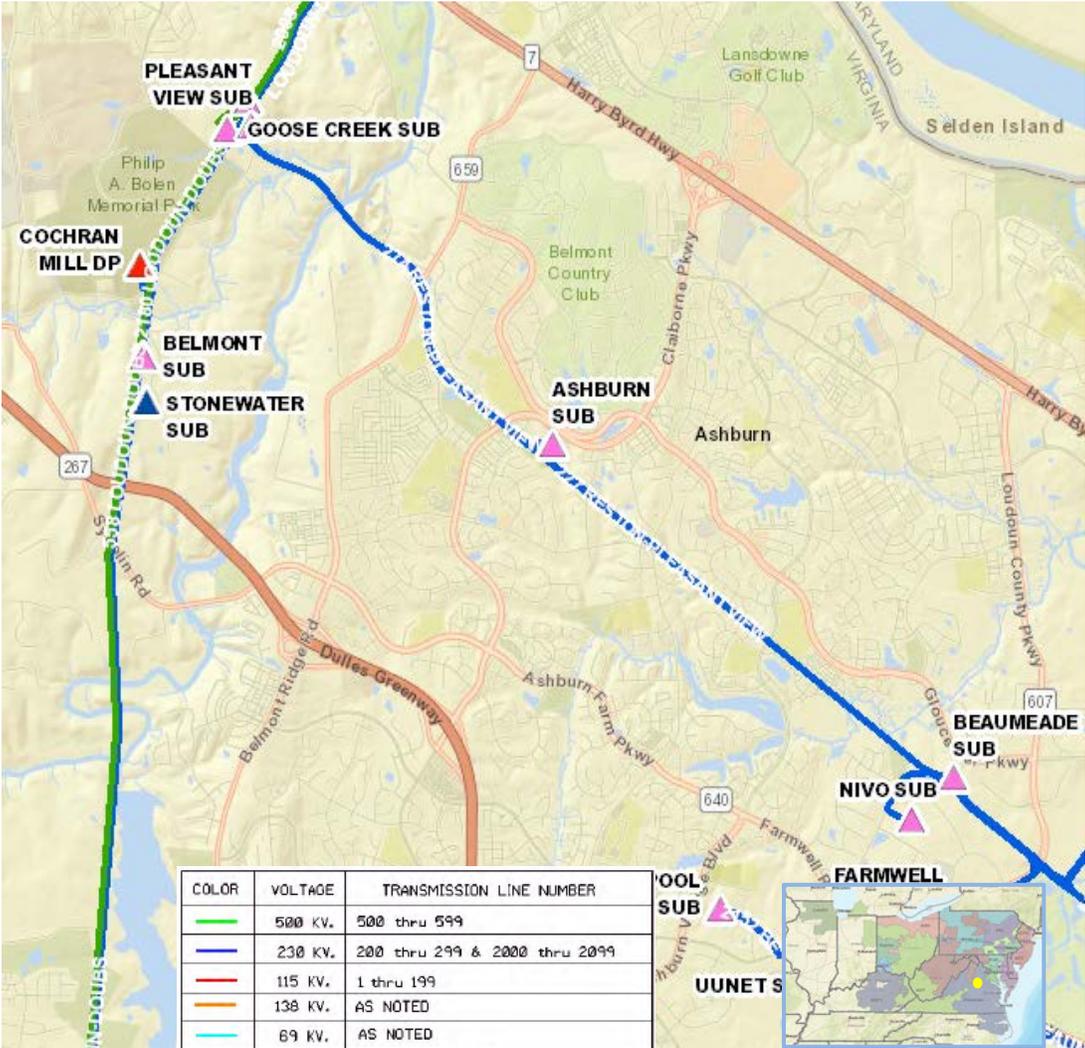
**Project Driver:** Customer Service (Do No Harm Analysis)

**Problem Statement:**

PJM has identified a generator deliverability violation with an overload of 100.18% on the Cochran Mill – Ashburn 230kV line segment for the loss of Line 274. This overload is caused by the previously submitted Supplemental Projects in Dominion Zone and is being assigned to DOM-2018-0012.

**Alternatives:**

Two additional alternative solutions were considered and rejected as they did not resolve the violation.



# Dominion Transmission Zone M-3 Process Do No Harm (DNH) Analysis

**Need Number:** DOM-2018-0012

**Process Stage:** Solutions Meeting 08/08/2019

**Proposed Solution:**

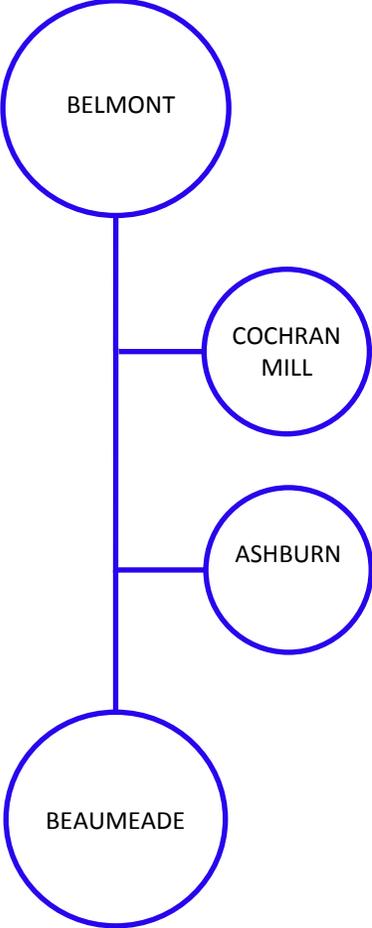
Re-conductor Cochran Mill – Ashburn 230kV and Ashburn – Beaumeade 230kV line segments using a higher capacity conductor as well as upgrade the terminal equipment to achieve a rating of 1572 MVA.

**Estimated cost:** \$ 15.0M

**Projected In-service Date:** 06/01/2023

**Project Status:** Conceptual

**Model:** 2023 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

07/29/2019 – V1 – Original version posted to pjm.com

08/15/2019 – V2 – Updated slide 7 to include alternatives considered.