Sub Regional RTEP Committee
PJM South

August 20, 2018

Second Review

Baseline Reliability and Supplemental Projects

Dominion: Supplemental Project
Ridge Road Substation – New 115kV Breaker Row

Previously Presented: 07/27/2018 SRRTEP

Problem Statement:

- A new block load is being added at Ridge Road substation in Mecklenburg County, VA. The minimum demand for this load addition is 38 MW in 2022.

Selected Solution:

- Add a three breaker row to the existing 115kV breaker and a half scheme
- Add a high side circuit switcher for the fifth distribution transformer (s1719)

Alternatives: No feasible alternatives

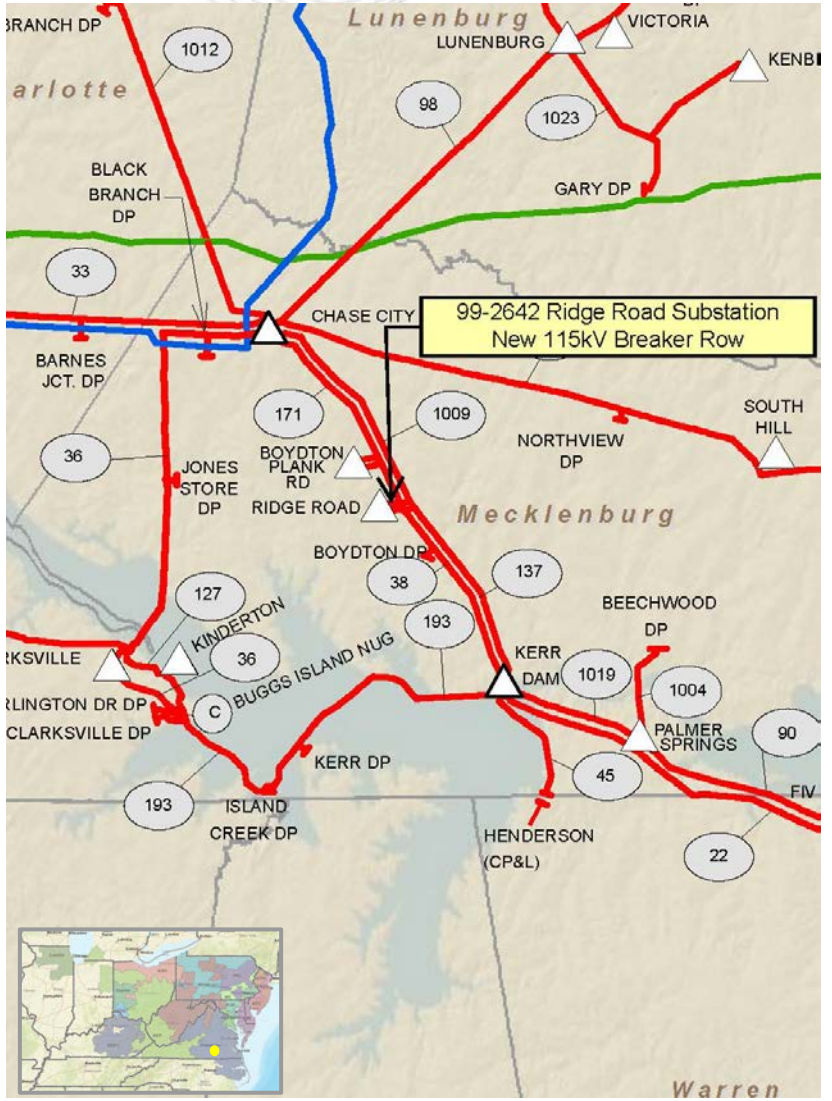
Estimated Project Cost: $2.7 M

Normal Service cost: $0.5 M

Excess Facilities cost: $2.2 M

Projected In-service Date: 8/1/2019

Project Status: Conceptual



COLOR	VOLTAGE	TRANSMISSION LINE NUMBER
	500 KV.	500 thru 599
	230 KV.	200 thru 299 & 2000 thru 2099
	115 KV.	1 thru 199
	138 KV.	AS NOTED
	69 KV.	AS NOTED

Dominion: Supplemental Project
Elmont 230-115kV Transformer #5 Replacement

Previously Presented: 07/27/2018 SRRTEP

Problem Statement:

- Elmont 230-115kV 168 MVA transformer #5 needs to be replaced as a result of Dominion's ongoing transformer health assessment (THA) process. This process considers design characteristics, past electrical test results, dissolved gas-in-oil test results, age, ongoing maintenance issues, and past failures of similar designed transformers.
- This transformer was manufactured in 1971 and was remanufactured in 2003 following failure in November 2001.
- Drivers for replacement are:
  - Reduced BIL Ratings
  - Previously remanufactured following failure
  - Transformers of this manufacture are considered suspect due to previous transformer failures

Selected Solution:

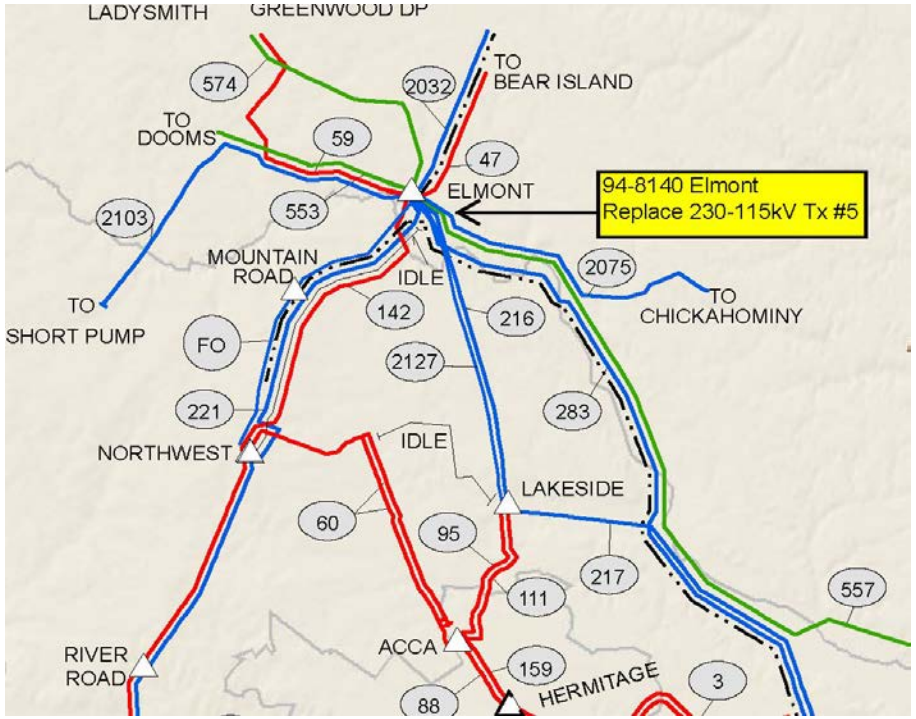
- Replace Elmont transformer #5 with a 168 MVA transformer (s1720)

Alternatives: No feasible alternatives

Estimated Project Cost: $1.5 M

Projected In-service Date: 9/12/2019

Project Status: Engineering



COLOR	VOLTAGE	TRANSMISSION LINE NUMBER
	500 KV.	500 thru 599
	230 KV.	200 thru 299 & 2000 thru 2099
	115 KV.	1 thru 199
	138 KV.	AS NOTED
	69 KV.	AS NOTED

Dominion: Supplemental Project
Greenwich – Line #120 New 115kV Breaker

Previously Presented: 07/27/2018 SRRTEP

Problem Statement:

- 115kV Line #120 runs 11 miles from Chesapeake Energy Center to Greenwich substation. This line has a summer emergency rating of 147 MVA. The line serves approximately 21,000 customers with about 100MWs through Dozier substation and Thompsons Corner substation. Currently line #120 is normally open at Greenwich. To serve these customers with better reliability the line needs to be networked.

Selected Solution:

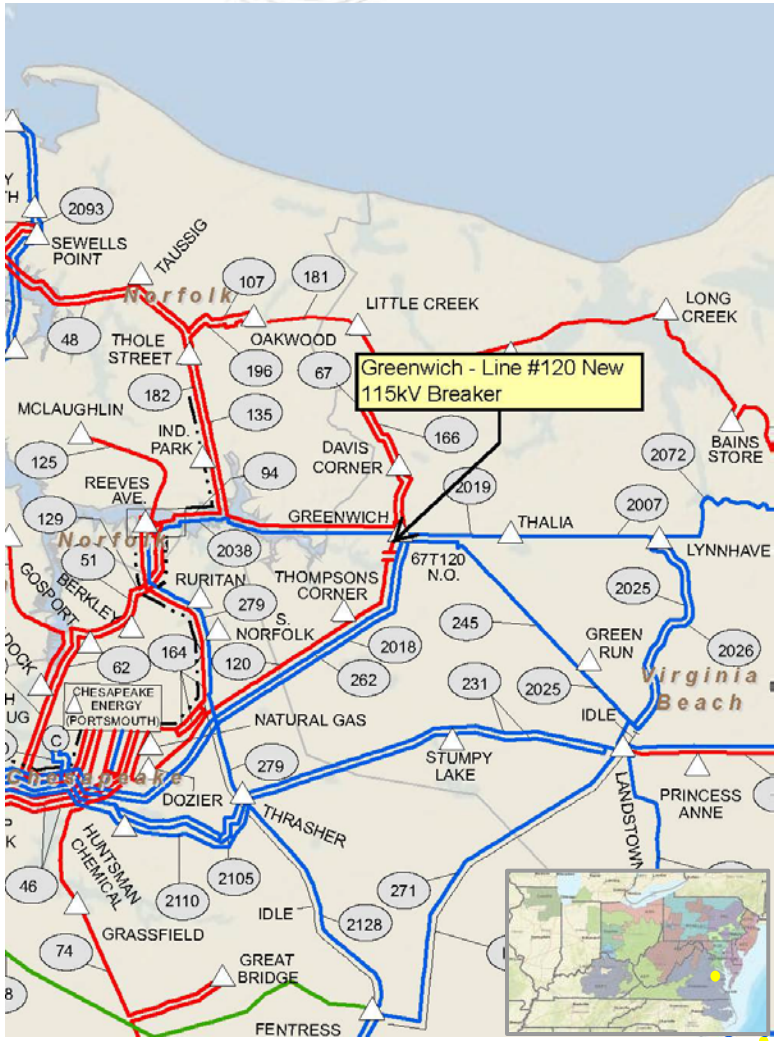
- Install a new 115kV breaker in line #120 at Greenwich and perform associated transmission work. Close the normally open point 67T120. There is no impact to the ratings of line #120 and #67. Update relay equipment for the new network line #120. (s1721)
- No harm analysis completed with no issues found.

Alternatives: No feasible alternatives

Estimated Project Cost: $1.5 M

Projected In-service Date: 05/31/2020

Project Status: Conceptual



COLOR	VOLTAGE	TRANSMISSION LINE NUMBER
	500 KV.	500 thru 599
	230 KV.	200 thru 299 & 2000 thru 2099
	115 KV.	1 thru 199
	138 KV.	AS NOTED
	69 KV.	AS NOTED

Next Steps

Upcoming SRRTEP-South Meetings

South	Start	End
9/28/2018	8:30	11:30
10/29/2018	8:30	12:00
11/29/2018	8:30	11:30
12/05/2018	8:30	12:00

RTEP@pjm.com to Be Retired

- PJM will retire the RTEP@pjm.com email address as of September 1, 2018. Stakeholders with questions about planning updates or planning windows should use the Planning Community.
- PJM is enhancing the way we communicate to follow industry standards and maintain its standing as an industry leader.
- The Planning Community is a vital avenue for PJM members and staff to collaborate on planning updates, including RTEP windows, and get their questions answered.

Revision History

08/15/2018 – V1 – Original version posted to PJM.com