Sub Regional RTEP Committee
PJM South

February 20, 2019

Proposal Window Exclusion Definitions

- The following definitions explain the basis for excluding flowgates and/or projects from the competitive planning process and designating projects to the incumbent Transmission Owner.
- Flowgates/projects excluded from competition will include the underlined language on the corresponding slide.
  - Immediate Need Exclusion: Due to the immediate need of the violation (3 years or less), the timing required for an RTEP proposal window is infeasible. As a result, the local Transmission Owner will be the Designated Entity. - Operating Agreement, Schedule 6 § 1.5.8(m)
  - Below 200kV Exclusion: Due to the lower voltage level of the identified violation(s), the driver(s) for this project are excluded from the competitive proposal window process. As a result, the local Transmission Owner will be the Designated Entity - Operating Agreement, Schedule 6 § 1.5.8(n)
  - FERC 715 (TO Criteria) Exclusion: Due to the violation need of this project resulting solely from FERC 715 TO Reliability Criteria, the driver(s) for this project are excluded from the competitive proposal window process. As a result, the local Transmission Owner will be the Designated Entity - Operating Agreement, Schedule 6 § 1.5.8(o)
  - Substation Equipment Exclusion: Due to identification of the limiting element(s) as substation equipment, the driver(s) for this project are excluded from the competitive proposal window process. As a result, the local Transmission Owner will be the Designated Entity - Operating Agreement, Schedule 6 § 1.5.8(p)

Immediate Need

Dominion Transmission Zone: Baseline 115kV Line #86 Partial Rebuild

Baseline Reliability: TO Criteria Violation (FERC 715 (TO Criteria) Exclusion)

Problem Statement: Dominion "End of Life Criteria"

Chesterfield to Centralia section of 115kV Line #86 was constructed on wood H-frame structures in 1951. This section has ACSR conductor and 3/8" steel static. Industry guidelines indicate equipment life for wood structures is 35-55 years, conductor and connectors are 40-60 years, and porcelain insulators are 50 years. This section of Line #86 has been identified for rebuild based on the company's End of Life criteria.

The Line #86 runs 24.4 miles between Northwest substation and Chesterfield substation. It provides service to River Road, Stratford Hills and Centralia substation with a total load of 50 MWs. Chesterfield to Centralia section of this line is approximately 4 miles long.

End-of-Life reliability assessment, with Chesterfield to Centralia section removed from service, creates a 20.7-mile radial line from Northwest to Centralia with 50 MWs. This is a violation of Dominion's 700 MW-Mile planning criteria.

Recommended Solution:

Rebuild 4 miles of Line #86 between Chesterfield and Centralia to current standards with a minimum summer emergency rating of 393 MVA. **(b3097)**

Alternative: No feasible alternatives.

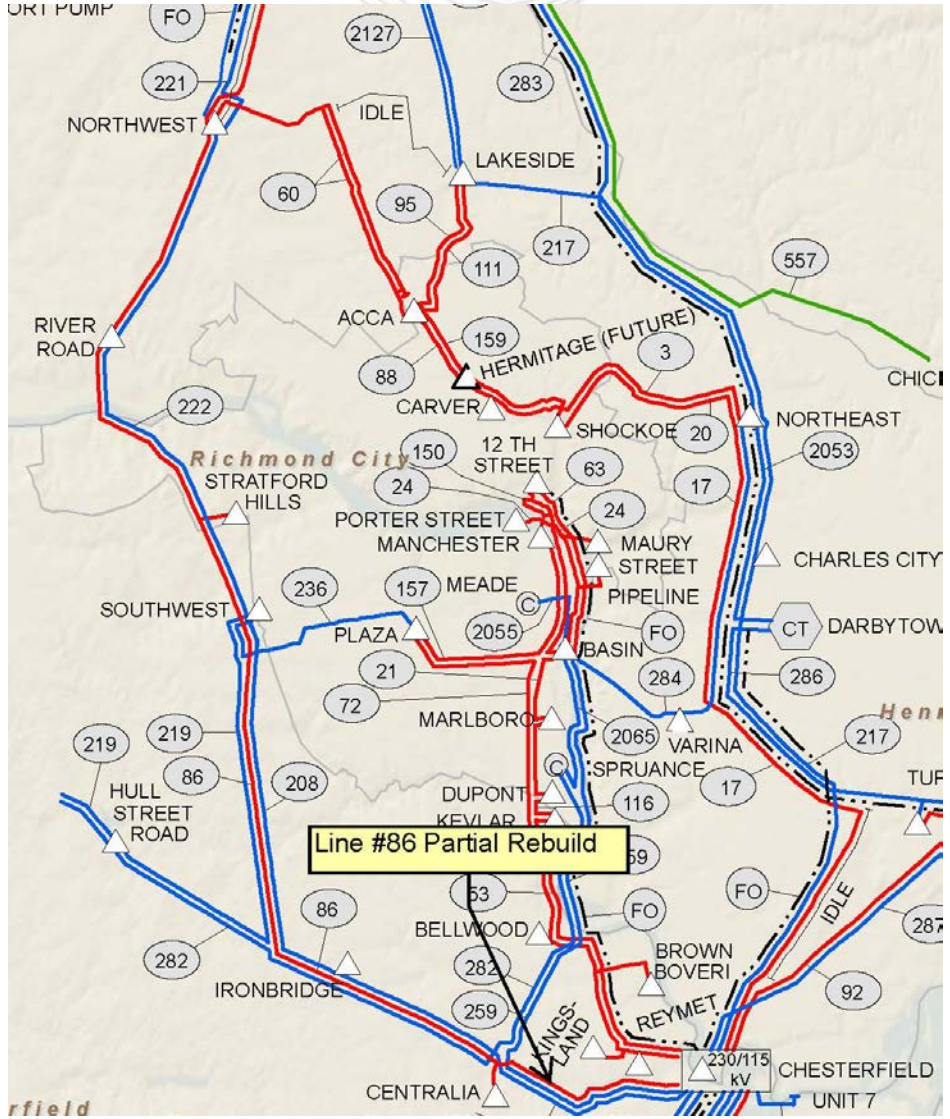
Estimated Project Cost: $7 M

Required In-service Date: Immediate Need

Projected In-service Date: 05/30/2020

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



Dominion Transmission Zone: Baseline 115kV Line #141& #28 Rebuild

Baseline Reliability: TO Criteria Violation (FERC 715 (TO Criteria) Exclusion)

Problem Statement: Dominion "End of Life Criteria"

115kV Line #141 extends 9.8 miles between Balcony Falls and Skimmer. For 3.8 miles this line heads south out of Balcony Falls and is constructed on a combination of double circuit Blaw Knox structures it shares with 115kV Line #28 and single circuit wood H-frame structures. Line #28 terminates at Cushaw substation where it connects to a hydroelectric generator. Line #141 continues south on a combination of wood H-frame and Blaw Knox towers for 5.4 of the remaining 6 miles to Skimmer.

The Blaw Knox structures between Balcony Falls and Skimmer were constructed in the 1920's, are showing deterioration, and are reaching the end of their useful service life. Wood H-frame structures for both lines are experiencing ground line deterioration, cracking, splitting, or woodpecker holes and have been identified for replacement.

Approximately 9.2 miles of Line #141 and 3.9 miles of Line #28 have 4/0 ACSR conductor that was installed in the 1920's. Industry guidelines indicate equipment life for wood structures is 35-55 years, conductor and connectors are 40-60 years, and porcelain insulators are 50 years.

- Removing Line #141 from service creates a 29 mile radial line from Skimmer and Altavista that violates Dominion's 700 MW-Mile planning criteria.
- Not rebuilding Line #28 will strand the generation at Cushaw.

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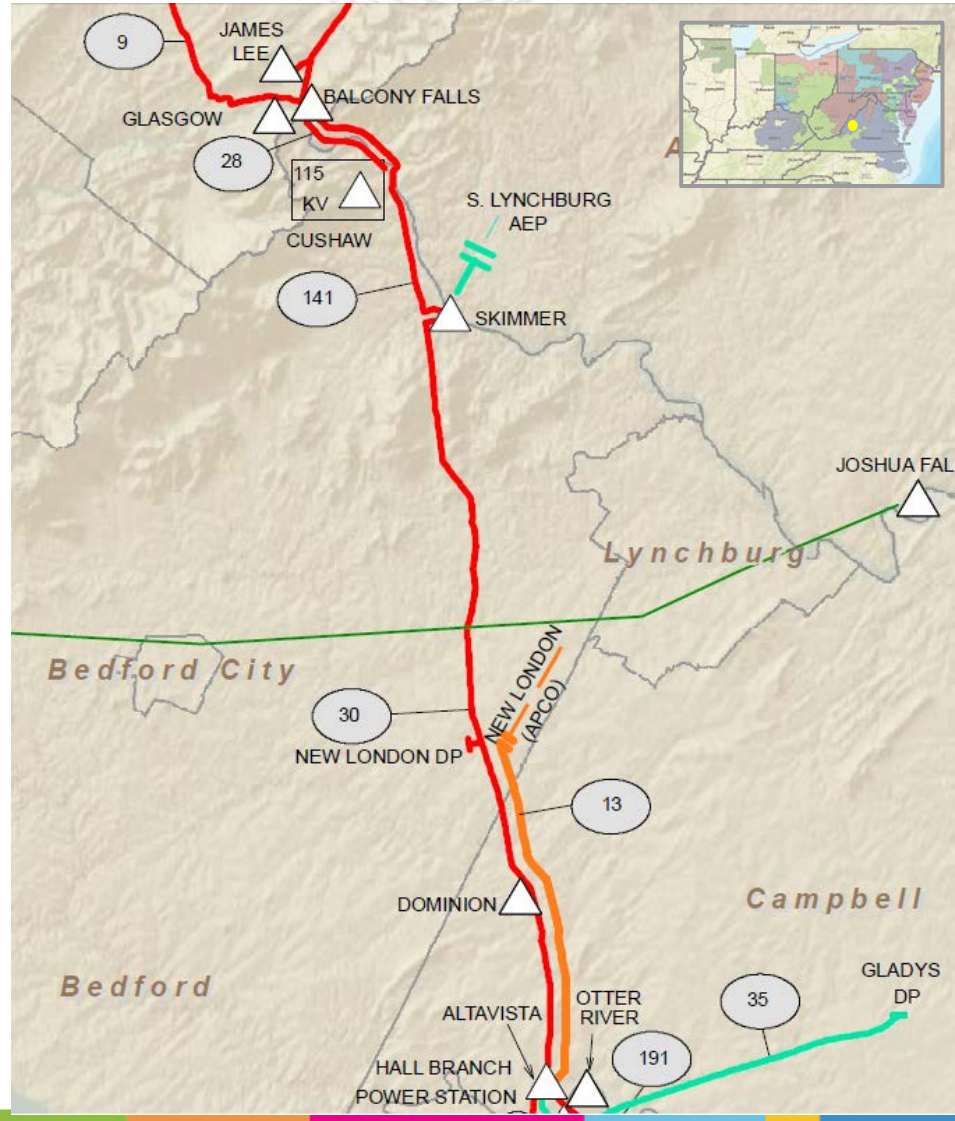
	230 KV.	200 thru 299 & 2000 thru 2099
	115 KV.	1 thru 199
	138 KV.	AS NOTED
	69 KV.	AS NOTED



Dominion Transmission Zone: Baseline 115kV Line #141& #28 Rebuild

Recommended Solution:
Rebuild 9.2 miles of Line #141 between Balcony Falls and Skimmer and 3.8 miles of Line #28 between Balcony Falls and Cushaw to current standards with a minimum rating of 261 MVA. **(b3098)**

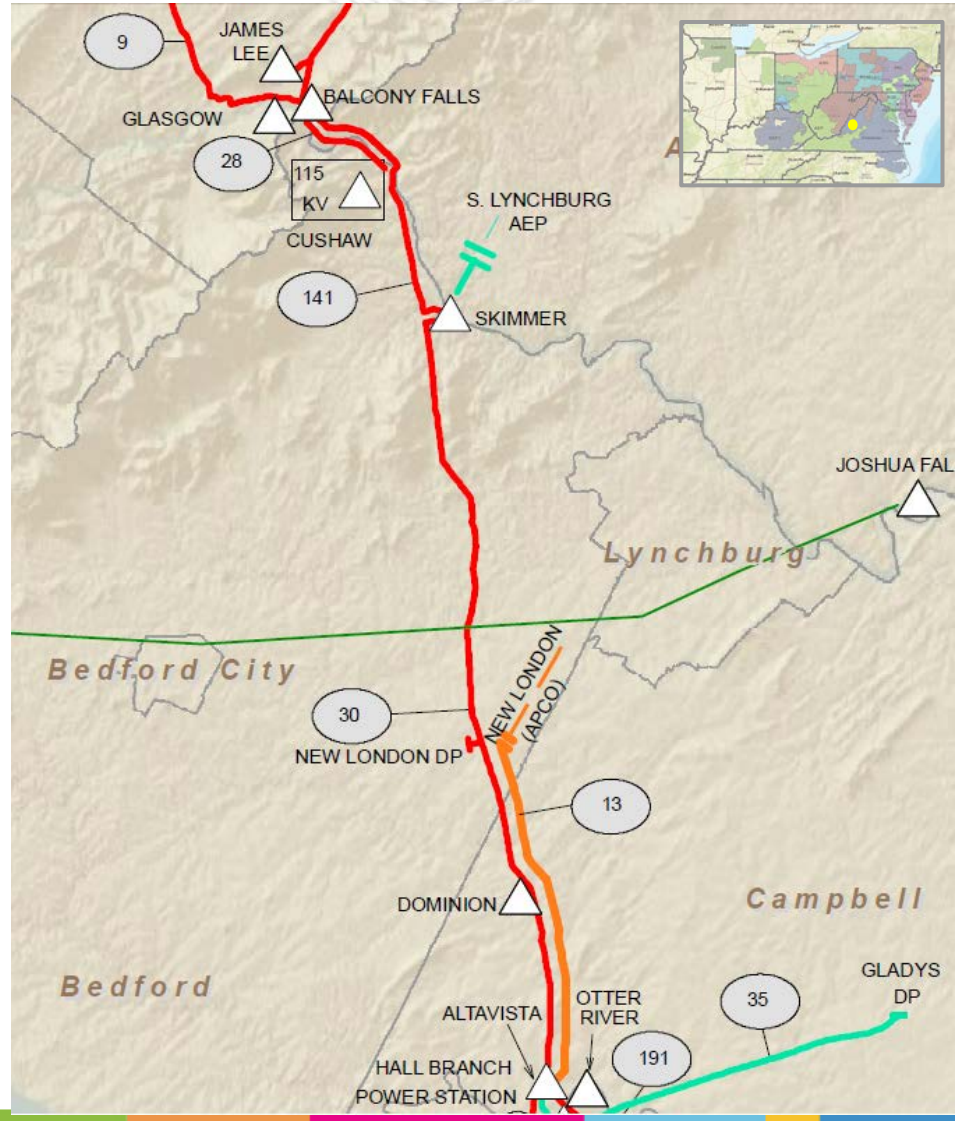
Alternative:
No feasible alternatives.

Estimated Project Cost: $20 M

Required In-service Date: Immediate Need

Projected In-service Date: 12/31/2023

Project Status: Conceptual



COLOR	VOLTAGE	TRANSMISSION LINE NUMBER
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Next Steps

Revision History

- V1 – 02/13/2019 – Original Slides Posted