



Sub Regional RTEP Committee PJM South

June 17, 2019

- 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)

Scope Change / Cost Increase



Dominion Transmission Zone: Baseline Line #34 and Line #61 (Partial) Skiffes to Yorktown Rebuild

Existing b2626 Scope and Cost Modification

Original: Baseline Project: Line #34 and Line #61 (Partial) Skiffes to Yorktown Rebuild

Revised: Line #34 and Line #61 (Partial) Skiffes to Yorktown Rebuild and Fort Eustis Tap Rebuild

Problem Statement:

- The 13 mile 115kV line #34 from Skiffes Creek – Yorktown was built on wood H-frames in the 1940's and 1950's. The first 4.5 miles out of Yorktown is on 3 pole double circuit wood H-frames with the line #61. The line #34 and the double circuit portion of the line #61 have been identified for rebuild based on the company's End of Life criteria.

Date Originally Presented: 03/09/2015 (SRRTEP)

Original Proposed Solution

- Rebuild the line #34 and the double circuit portion of the line #61 to current standards. **(Est. cost \$24M)**

Additional Driver:

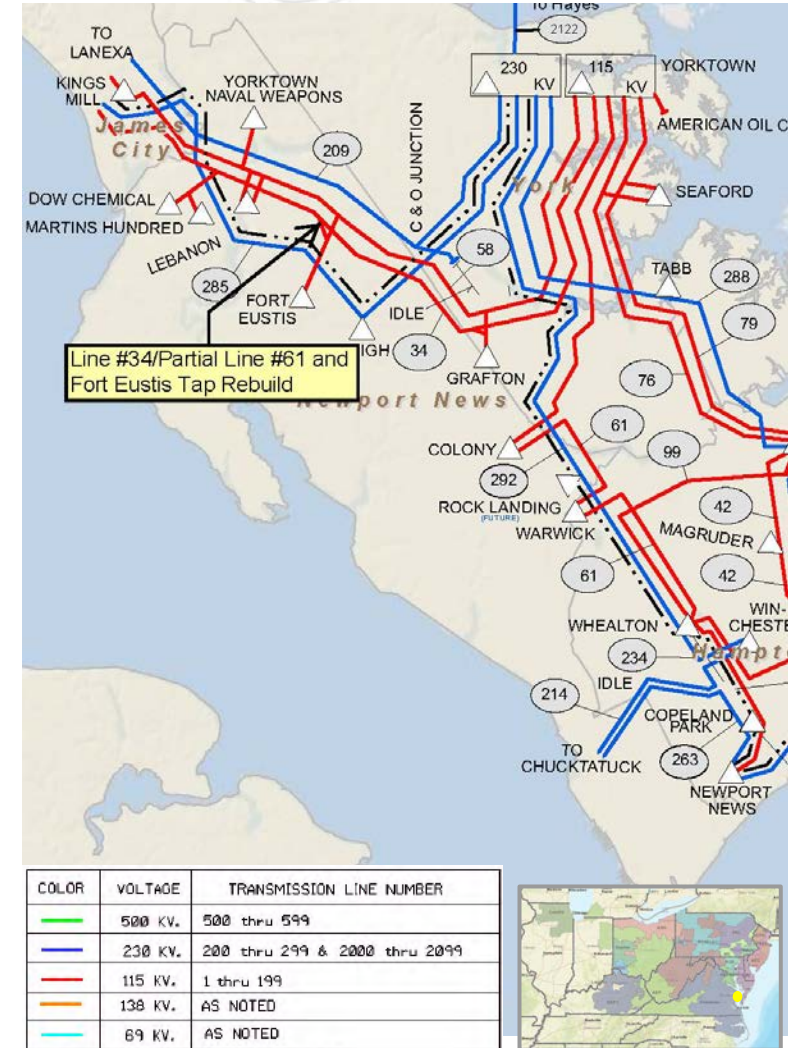
- Fort Eustis is served from a 2.5 mile radial line tapped off of line #34. The first 1.6 miles from the tap point is of similar vintage as parts of the main line #34. The remaining 0.9 miles of the tap line was built on wood poles in late 1960s. This tap line is at or approaching it's end of life and has been identified for rebuild.

Revised Proposed Solution

- (Same as original solution)** Rebuild the main line #34 and the double circuit portion of the line #61 to current standards. **(Est. cost \$24M)**
- Based on the company's FIR requirement for a tap line longer than 1 mile, rebuild the 2.5 mile tap line to Fort Eustis as Double Circuit line to loop line #34 in and out of Fort Eustis station to current standard with a summer emergency rating of 393 MVA at 115kV. Install a 115kV breaker in line #34 at Fort Eustis station.

(Est. cost \$11.7M)

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Dominion Transmission Zone: Baseline Line #34 and Line #61 (Partial) Skiffes to Yorktown Rebuild

Existing b2626 Scope and Cost Modification

Original: Baseline Project: Line #34 and Line #61 (Partial) Skiffes to Yorktown Rebuild

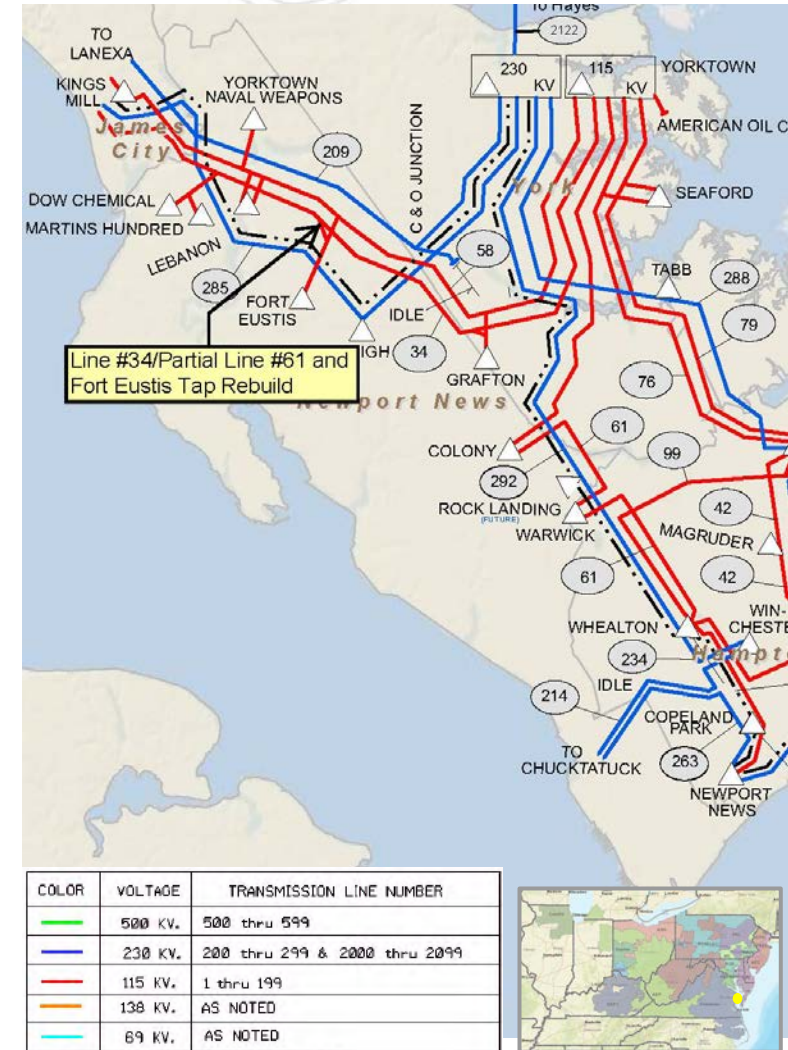
Revised: Line #34 and Line #61 (Partial) Skiffes to Yorktown Rebuild and Fort Eustis Tap Rebuild

Alternatives

- **(Same as original solution)** Rebuild the main line #34 and the double circuit portion of the line #61 to current standards. **(Est. cost \$24M)**
- Based on the company's FIR requirement for a tap line longer than 1 mile, build a 3-breaker ring bus station in line #34 at Fort Eustis tap point. Rebuild the 2.5 mile tap line to Fort Eustis as Single Circuit line to current standards with a summer emergency rating of 393 MVA at 115kV. **(Est. cost \$16.4M)**

Projected IS Date: 12/31/2023

Project Status: Conceptual





Dominion Transmission Zone: Baseline 115kV Line #29 Fredericksburg to Aquia Harbor End of Life

Existing b2981 Cost Increase

Date Project Last Presented: 12/18/2017 SRRTEP

Original Problem Statement: DOM “End of Life Criteria”

- Total line length of 115kV Line #29 is 24.4 miles and runs between Fredericksburg Substation and Possum Point Power Station. The proposed rebuild segment of the 115kV Line #29 between Fredericksburg and Aquia Harbor is approximately 12 miles long and was constructed on wood H-frame structures in 1957. Existing conductor in the proposed rebuild segment is a combination of 1109 ACAR, 2-721 ACAR and 795 ACSR with a summer rating of 239 MVA. The remaining 12 miles of Line #29 is on a common 230kV lattice structure with Line #252 (with the exception of the tap to Quantico) with a summer conductor rating of 361 MVA at 115kV.
- This line provides service to Quantico Substation with a total of 440 customers including the Quantico USMC Base. Quantico Substation is connected to Line #29 with a 1.7 mile 115kV tap off the main line.
- Rebuilding this 12 mile segment of Line #29 to current 230kV standards (with continued operation at 115kV) would be consistent with the Company’s practice of containing or converting 115kV load in the Northern Virginia area and would support the future conversion of the entire Line #29 to 230kV with the remaining 12 miles already installed on 230kV structures.



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



Dominion Transmission Zone: Baseline 115kV Line #29 Fredericksburg to Aquia Harbor End of Life

Recommended Solution: (no change)

Rebuild Line #29 segment between Fredericksburg and Aquia Harbor to current 230kV standards (operating at 115kV) with a normal continuous summer rating of 524 MVA at 115kV (1047 MVA at 230kV). (b2981)

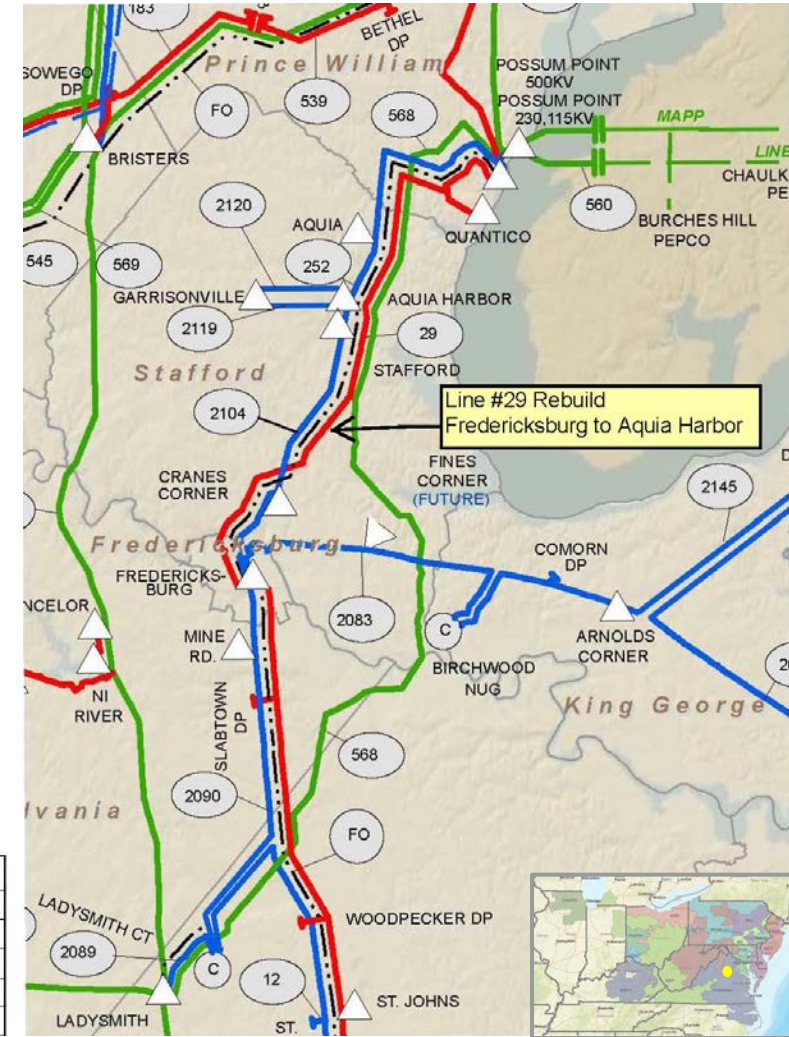
Conceptual Project Cost: \$12.5M

Revised Detailed Project Cost: \$20.0M

Reason for Cost Increase: Detailed versus conceptual cost estimate.

Projected In-service Date: 12/31/2022

Project Status: Engineering



COLOR	VOLTAGE	TRANSMISSION LINE NUMBER
Green	500 KV.	500 thru 599
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Red	115 KV.	1 thru 199
Orange	138 KV.	AS NOTED
Cyan	69 KV.	AS NOTED

Next Steps

- V1 – 06/10/2019 – Original Slides Posted