



Reliability Analysis Update

Transmission Expansion Advisory
Committee

January 10, 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: 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): 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: 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)



2018 RTEP Analysis Update



Dominion/PEPCO B2443 – Glebe to Station C Project Update



Dominion Transmission Zone: Baseline Glebe – Station C Project

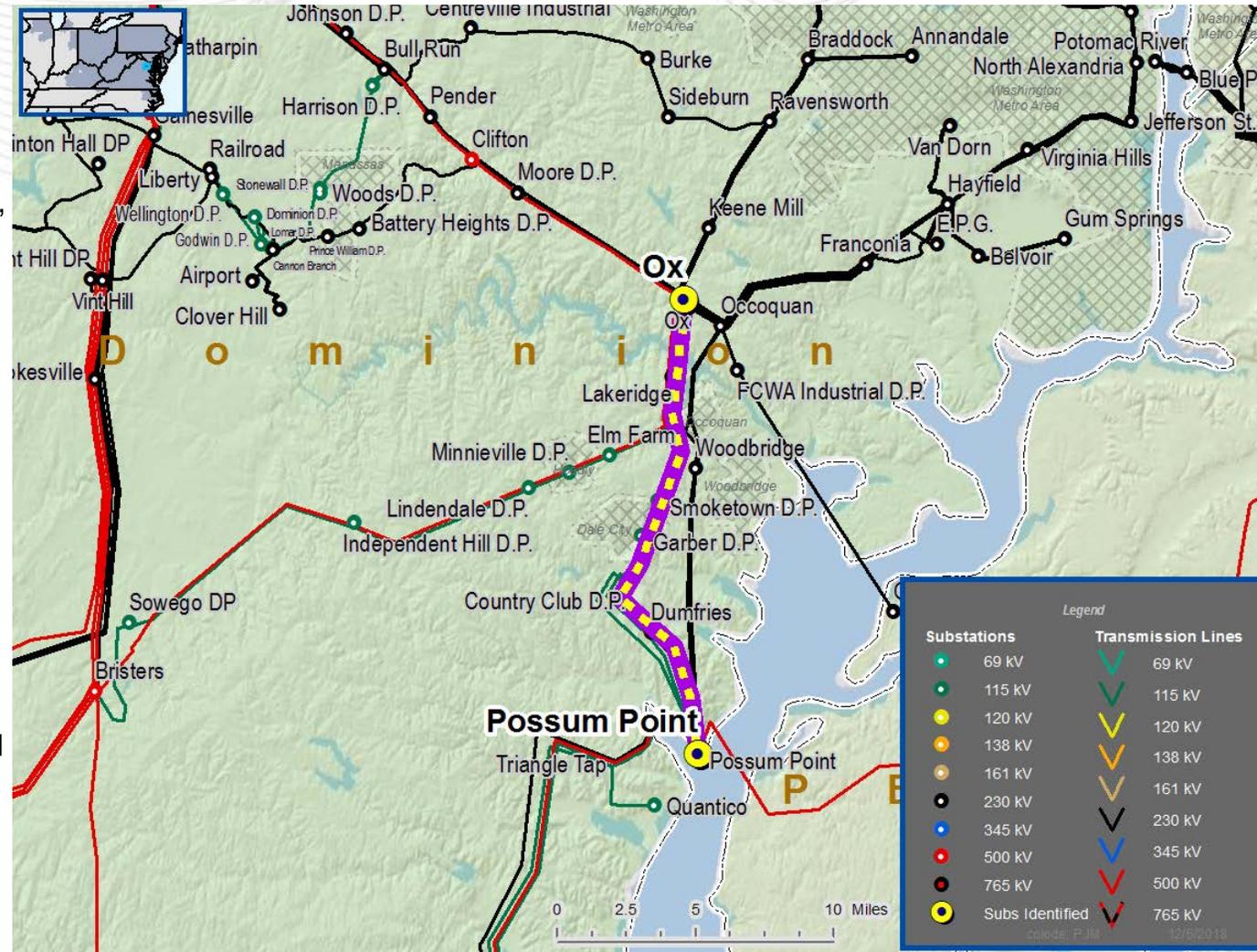
Existing Baseline b2443

Date Project Last Presented: 12/11/2013, 01/09/2014, 11/11/2014 & 06/08/2017

Problem Statement: Updated NERC Reliability Drivers

- Original criteria violations included overloads of Ox 500/230 kV Tx #1 & #2, 230 kV Line #248 (UG section between Carlyle South – North Potomac Yard) and the Franconia – Van Dorn Section of 230 kV Line #243.
- Updated criteria violation – Based on recent generation retirements (Possum Point Units #3 & #4) and the PJM 2018 Load Forecast updates indicates that for a NERC Category P1 – single contingency that Possum Point 500/230 kV Tx #1 overloads for a loss of the Possum Point – Ox 500 kV Line #571 under Dominion’s critical stress case criteria.
- Other previously identified deficiencies in Dominion and PEPCO are no longer present.
- The Glebe – Station C Project (b2443) will be cancelled and replaced with a new baseline to resolve the NERC reliability deficiencies.
 - The previously approved cost for the Glebe – Station C Project: **\$299 M**
 - The new baseline will be discussed on the next slide.

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Dominion Transmission Zone: Baseline Possum Point 500/230 kV Transformer No. 2

Continued from previous Glebe – Station C Project slide...

Recommended Solution:

- Install a second 500/230 kV transformer at Possum Point substation and replace bus work and associated equipment as needed. **(b2443.6)**
- Replace 19 - 63 kA 230 kV breakers with 19 – 80 kA 230 kV breakers **(b2443.7)**
 - 230kV Possum Point breakers: H892, H8T2078, H992, H9T237, 23792, G6BTGT, GT92, 202292, 252T2022, 21592, G5T215, 25292, G492, G592, G6A92, G6B92, G4T2001, 200192, 207892

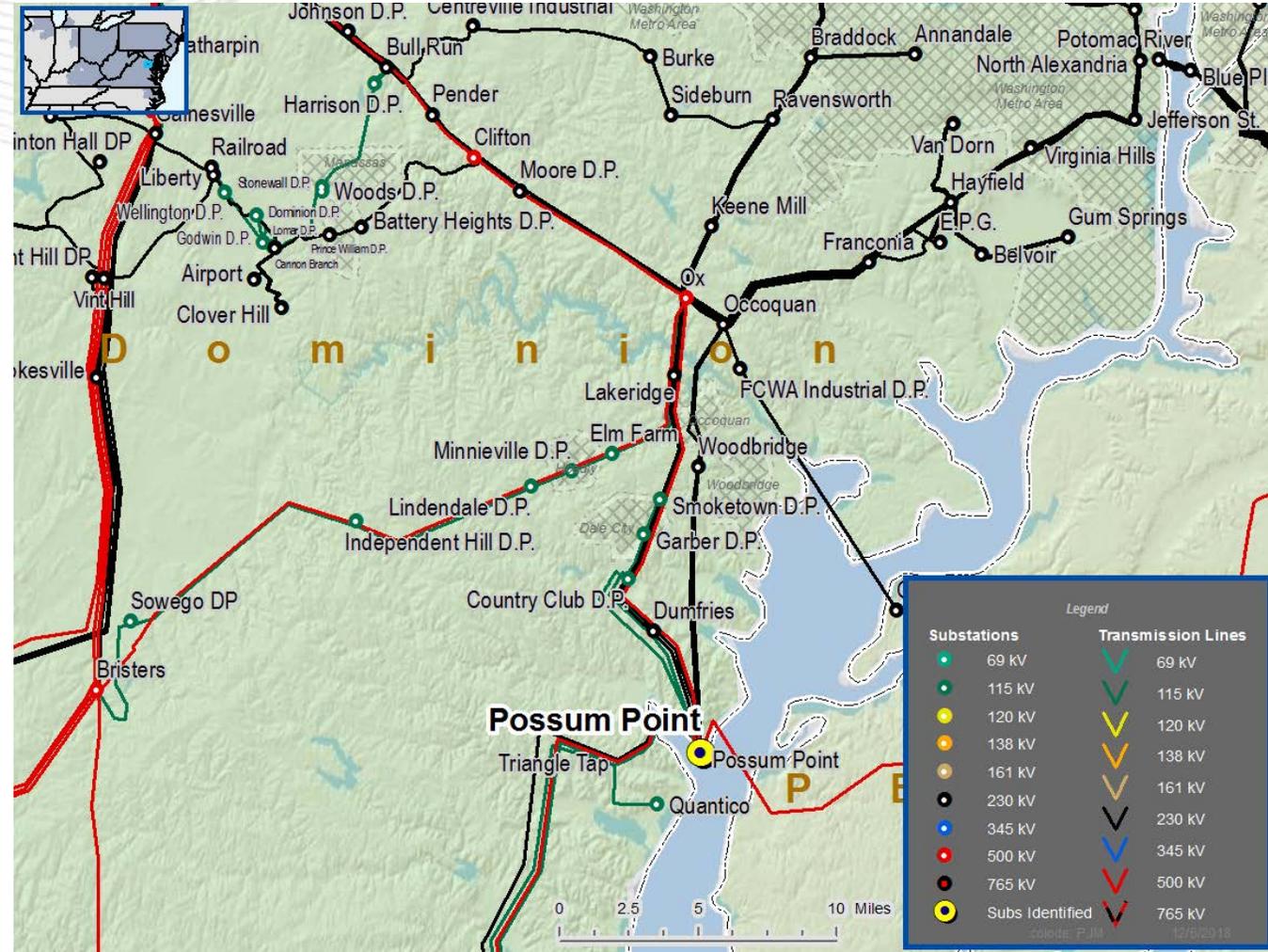
Estimated Project Cost:

500/230 kV transformer bank,		
bus work & associated equipment :	\$21 M	(b2443.6)
19 – 230 kV 80 kA breakers:	\$19 M	(b2443.7)
Total:	\$40 M	

Required IS Date: 06/01/2023
Projected IS Date: 06/01/2023

Project Status: Conceptual

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Glebe – Station C Project			
<u>Components</u>	<u>Baseline ID</u>	<u>Estimate</u>	<u>Status</u>
DVP			
Construct new underground 230 kV line from Glebe to Station C	b2443	\$136.5 M	Cancel
Replace the Idylwood 230 kV breaker '203512' with 50kA breaker	b2443.1	\$0.255 M	In-Service
Replace the Ox 230 kV breaker '206342' with 63kA breaker	b2443.2	\$0.27 M	In-Service
Rebuild Glebe Substation	b2443.4	\$65.0 M	Cancel
PEPCO			
New 230kV Potomac River Substation Project (includes PAR)	b2443.3	\$94.8 M	Cancel
Blue Plains Substation Breaker Replacements Project	b2443.5	\$2 M	Cancel
Total Cost		\$299 M	

- Completed NPIR, N-1-1, and baseline assessments
 - No issues identified
 - Results have been communicated to applicable entities

- Finalize remaining TO identified upgrades (SRRTEP)
- Begin resilience analysis on 2023 case

- Continue case build
- Exercise case - target beginning of February to begin work

Questions?



2019

- TEAC meetings are the following Thursdays in 2019
- **1/10, 2/7, 3/7, 4/11, 5/16, 6/13, 7/11, 8/8, 9/12, 10/17, 11/14, 12/12.**

- V1 – 01/4/2019 – Original Slides Posted