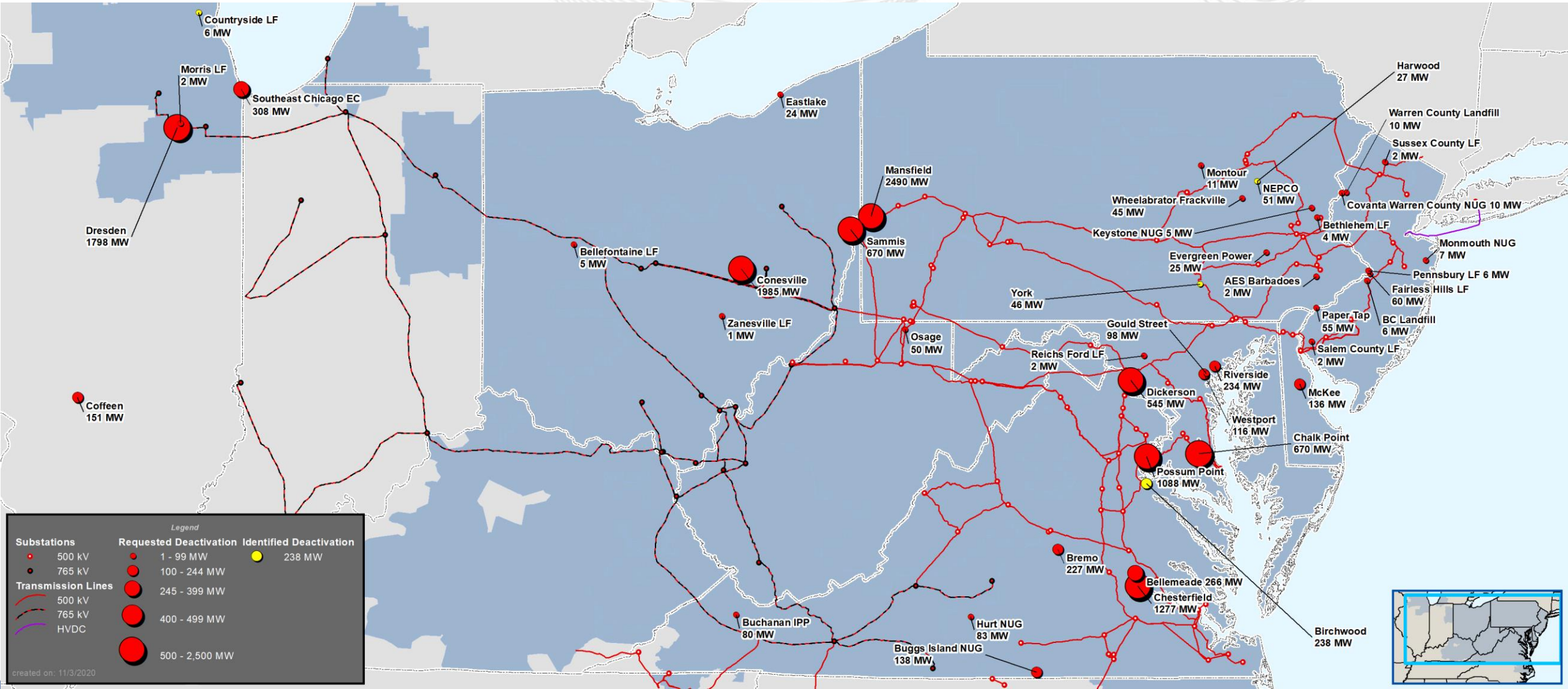




Generation Deactivation Notification Update

Transmission Expansion Advisory
Committee

November 4, 2020



Unit(s)	Transmission Zone	Requested Deactivation Date	PJM Reliability Status
Birchwood (238 MW)	Dominion	3/01/2021	Reliability analysis complete. Existing baselines resolve identified impacts. Units can retire as scheduled.
Harwood 1&2 (27.2 MW)	PPL	05/31/2021	Reliability analysis Underway.
York (46.2 MW)	METED	05/31/2022	Reliability analysis Underway.
Countryside (5.8 MW)	ComEd	01/27/2021	Reliability analysis Underway.

Dominion Transmission Zone -Northern Neck Area

Problem Statement: N-1-1 Thermal & Voltage

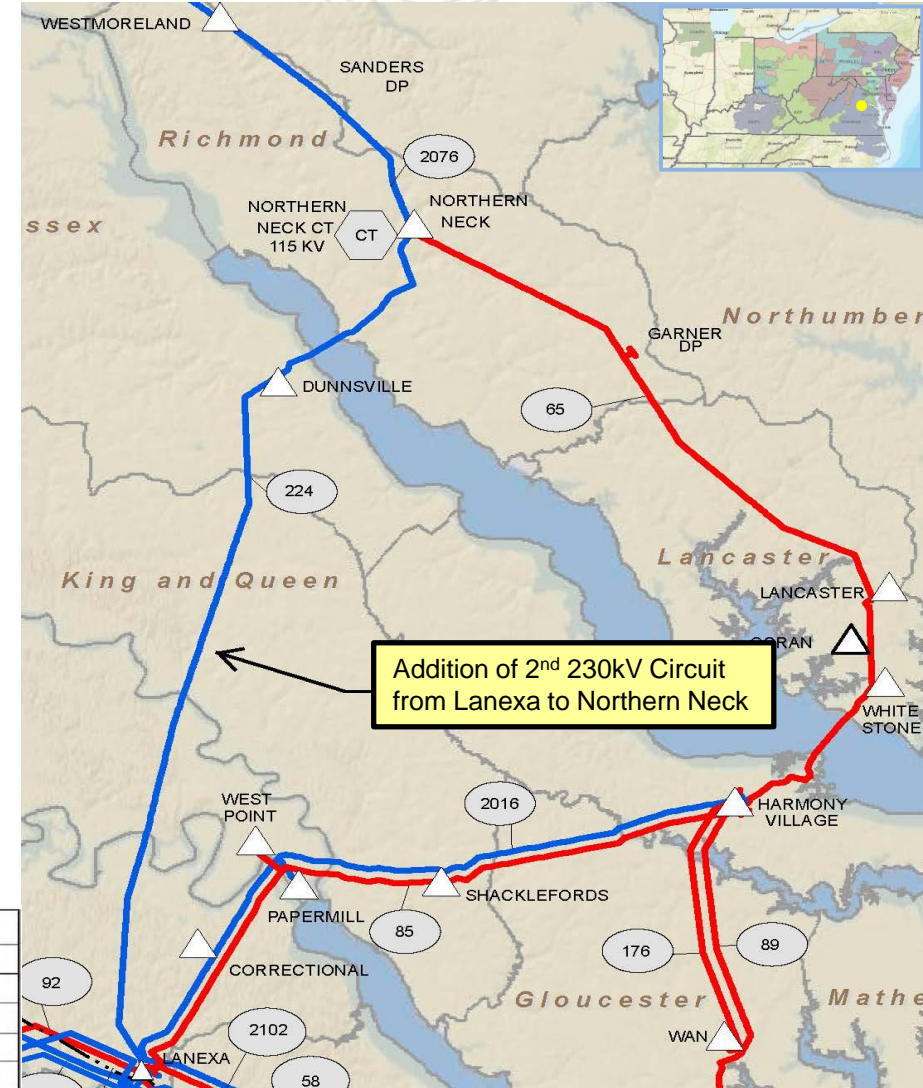
- Various voltage magnitude and drop violations in the Northern Neck area.
- Overload of 115kV Lines Rappahannock – Whitestone and Harmony Village – Greys Point.
- Loss of 230kv Line #224 Lanexa – Northern Neck followed by loss of 230kV Line #2080 Birchwood – Fredericksburg.

Recommended Solution:

- Install a 2nd 230kV circuit with a minimum summer emergency rating of 1047 MVA between Lanexa and Northern Neck Substations (B3223)
- Estimated Project Cost: \$ 23M
- Required IS Date: 03/01/2021
- Projected IS Date: 06/01/2023
- * Operating measures identified to mitigate reliability impacts in interim

- Original TEAC Date: 09/01/2020

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



Second Read



Buchanan 1 and 2 deactivation: AEP Transmission Zone

Additional Problem Statement: N-1-1 voltage violations - FERC 715 AEP criteria violation

Original TEAC Date: 10/17/2019

Deactivation units: Buchanan 1 and 2 (80MW)

Requested Deactivation Date: 06/01/2023

Richland, Whitewood, Shack Mills, Grassy Creek, Buchanan, Keen Mountain 138 kV buses became radial line connection for the following N-1-1 contingencies:

- Broadford - Claypool Hill and Claypool Hill – Richland 138 kV.
- Hales Branch - Garden Creek and Hales Branch – Shack Mills 138 kV along with loss of Hales Branch 69 kV bus.

As a result, these radial connected 138 kV buses, and 69 kV buses through Richland 138 kV bus have voltage magnitude and drop violations.

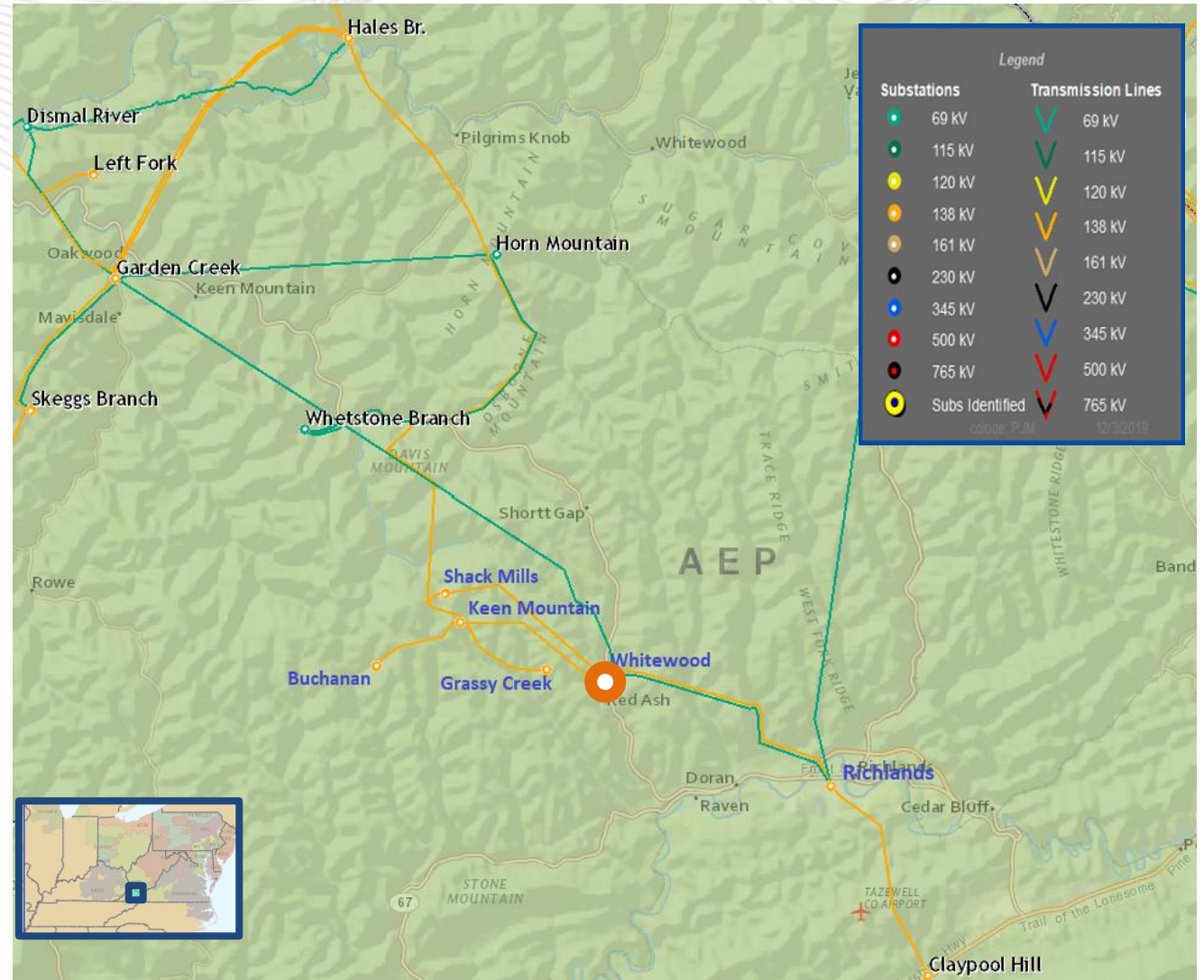
Recommended Solution (B3220):

- Install 14.4 MVAR Capacitor Bank at Whitewood 138 KV

Estimated Project Cost: \$1.2M

Required IS Date: 06/01/2023

Projected IS Date: 12/31/2022



Facilitator:
Sue Glatz,
Suzanne.Glatz@pjm.com

Secretary:
Ilyana Dropkin,
Ilyana.Dropkin@pjm.com

SME/Presenter:
Phil Yum,
Phil.Yum@pjm.com

Generation Deactivation Notification



Member Hotline

(610) 666 – 8980

(866) 400 – 8980

custsvc@pjm.com

- V1 - 10/28/20 - Original slides posted
- V2 - 11/03/20 – Detailed updates are below.
 1. Added three more generation deactivation requests on Slide 2&3.
 2. Added Slides 5&6 for Second Read.
 3. Added the statement “Operating measures identified to mitigate reliability impacts in interim” on Slide 4.