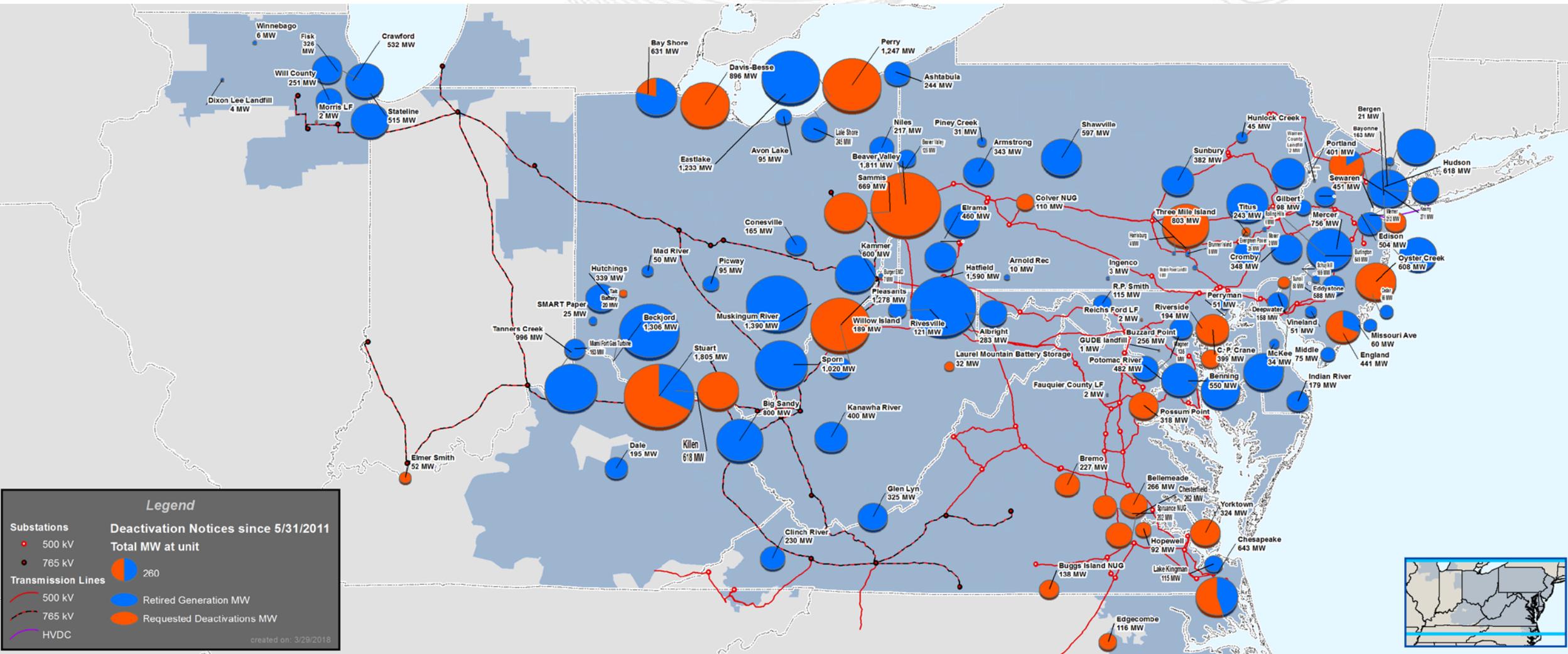




Generation Deactivation Notification Update

Transmission Expansion Advisory
Committee
April 5, 2018





Deactivation Status

Unit(s)	Transmission Zone	Requested Deactivation Date	PJM Reliability Status
Buggs Island 1&2 (138 MW)	Dominion	4/16/2018	Reliability analysis complete. No impacts identified.
Bremo 3&4 (227 MW)	Dominion	4/16/2018	Reliability analysis complete. New baseline upgrade was issued to resolve the identified issue.
Bellemeade CC 1 (265.7 MW)	Dominion	4/16/2018	Reliability analysis complete. New baseline upgrade was issued to resolve the identified issue.
Possum Point 3&4 (317.7 MW)	Dominion	12/1/2018	Reliability analysis complete. No impacts identified.
Chesterfield 3&4 (262.1 MW)	Dominion	12/1/2018	Reliability analysis complete. New baseline upgrade was issued to resolve the identified issue.



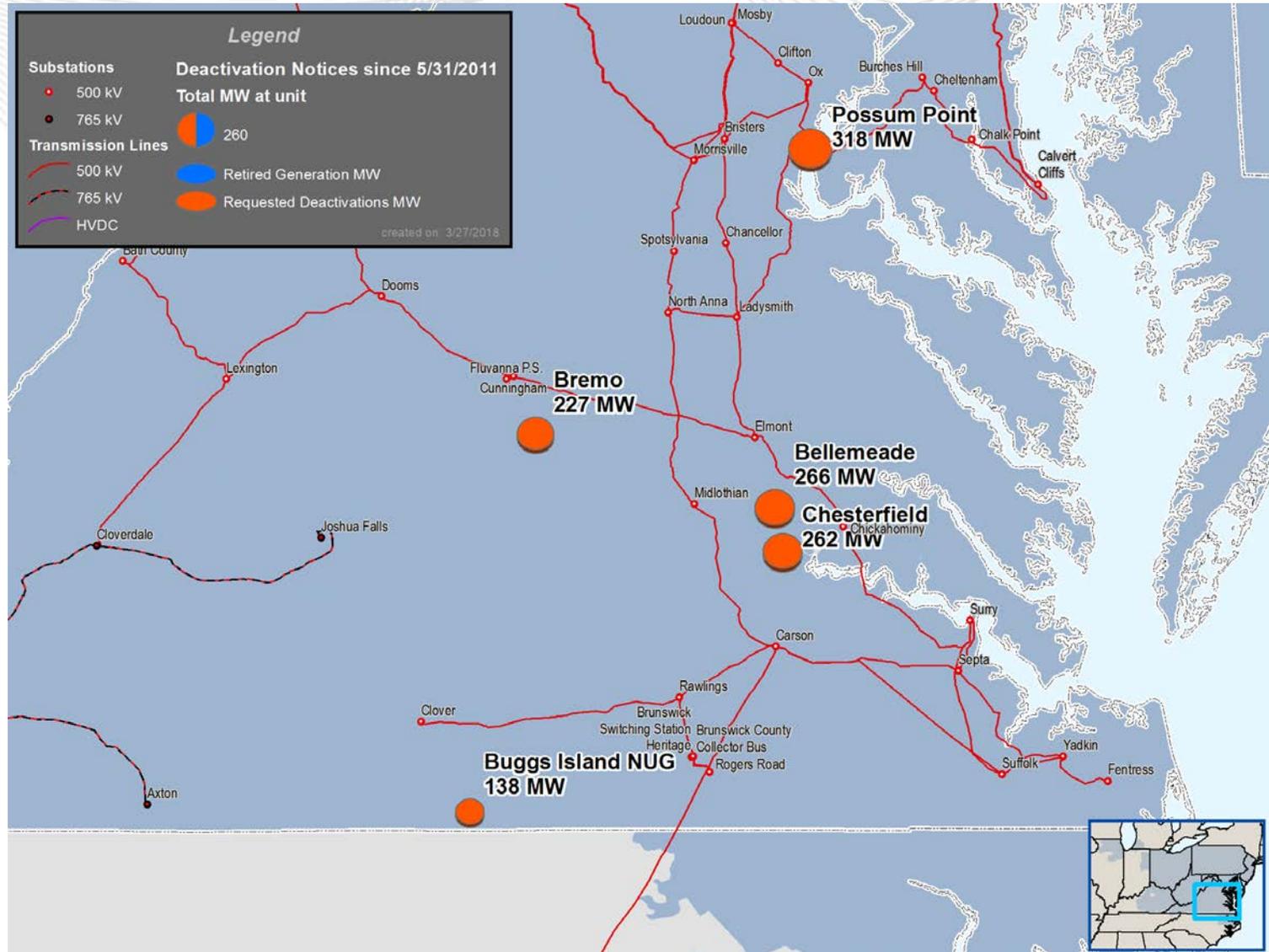
Deactivation Status

Unit(s)	Transmission Zone	Requested Deactivation Date	PJM Reliability Status
Pleasants Power Station U1 & U2 (1278 MW total)	APS	1/1/2019	Reliability analysis complete. No impacts identified.
Morris Landfill Generator (1.9 MW)	ComEd	5/31/2018	Reliability analysis complete. No impacts identified.
Reichs Ford Road Landfill Generator (1.7 MW)	APS	5/31/2018	Reliability analysis complete. No impacts identified.

Unit(s)	Transmission Zone	Requested Deactivation Date	PJM Reliability Status
Davis Besse Unit 1 (896 MW)	ATSI	5/31/2020	Reliability analysis underway
Perry Unit 1 (1247 MW)	ATSI	5/31/2021	Reliability analysis underway
Beaver Valley Unit 1 (909 MW)	DUQ	5/31/2021	Reliability analysis underway
Beaver Valley Unit 2 (902 MW)	DUQ	10/31/2021	Reliability analysis underway

Deactivation Update: Deactivation Notifications

- Dominion Transmission Zone
- Possum Point (12/1/2018)
 - Unit 3 96.7 MW
 - Unit 4 221 MW
- Bremono (4/16/2018)
 - Unit 3 71 MW
 - Unit 4 156 MW
- Bellemeade (4/16/2018)
 - Combined Cycle (265.7 MW total)
- Chesterfield (12/1/2018)
 - Unit 3 100 MW
 - Unit 4 162.1 MW
- Buggs Island (4/16/2018)
 - Unit 1 69 MW
 - Unit 2 69 MW





Dominion Transmission Zone

Problem Statement: N-2 Voltage Outage

- Voltage magnitude and drop violations were identified in the vicinity of Breomo 138 kV substation for the simultaneous loss of the Breomo #9 230/138 kV transformer and several single contingencies.

Recommended Solution:

- Install a second 230 -115 kV Transformer(224 MVA) approximately 1 mile north of Breomo and tie 230 kV Line #2028(Breomo – Charlottesville) and 115 kV Line #91 (Breomo-Sherwood) together. A three breaker 230 kV ring bus will split Line #2028 into two lines and Line #91 will also be split into two lines with a new three breaker 115 kV ring bus. Install a temporary 230-115 kV transformer at Breomo substation for the interim until the new substation is complete. **(b2989)**

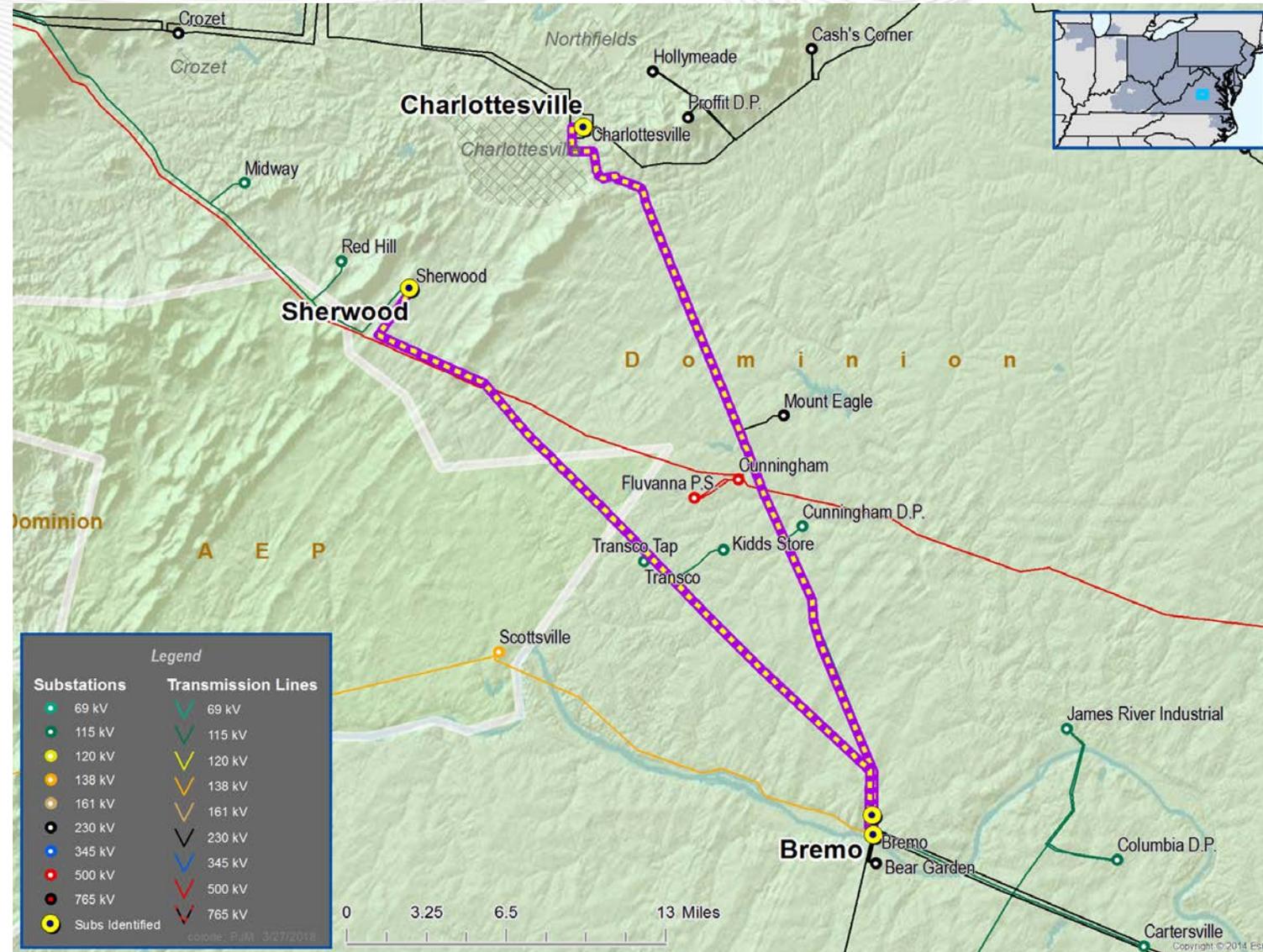
Estimated Project Cost: \$27M

Required IS Date: 06/01/2018

Projected IS Date: 06/01/2019

Project Status: Engineering

* Temporary transformer mitigates reliability impacts in the interim





Dominion Transmission Zone

Problem Statement: Generation Deliverability Outage

- Lakeside to Chesterfield 230 kV line is overloaded for the tower contingency tripping the Chesterfield to Southwest 230 kV line and the Basin to Chesterfield 230 kV line.

Recommended Solution:

- Existing baseline upgrade (**b2745**) previously approved by the PJM Board resolves the issue
 - Rebuild 21.32 miles of existing line between Chesterfield – Lakeside 230 kV

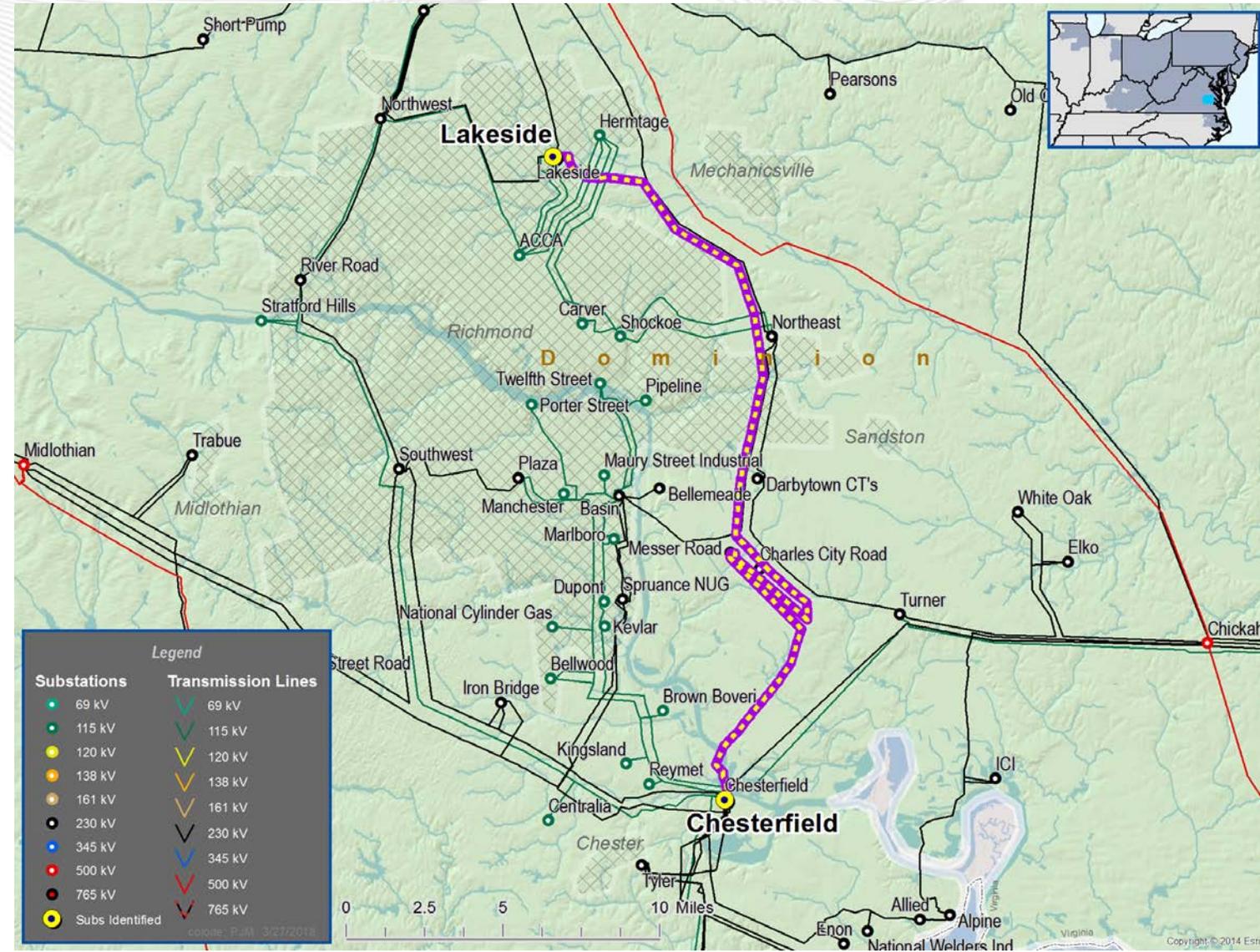
Estimated Project Cost: \$31.7M

Required IS Date: 06/01/2018

Projected IS Date: 06/01/2020

Project Status: Engineering

* Operating measures identified to mitigate reliability impacts in interim





Dominion Transmission Zone

Problem Statement: Generation Deliverability Outage

- Chaparral to Locks 230 kV line is overloaded for the breaker failure contingency tripping the Carson to Septa 500 kV line and the Carson to Midlothian 500 kV line.

Recommended Solution:

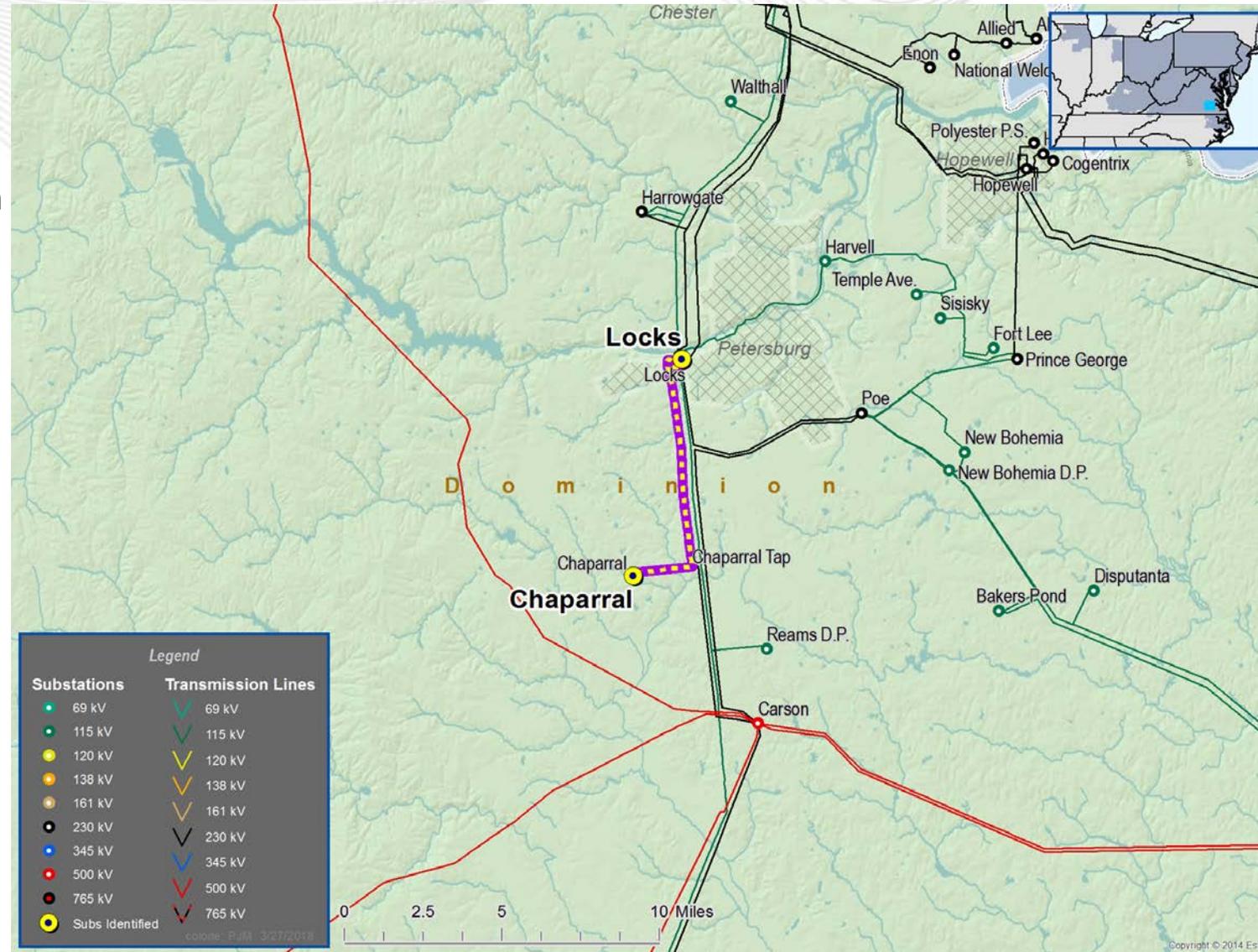
- Replace breaker lead (**b2991**)

Estimated Project Cost: \$0.1M

Required IS Date: 06/01/2018

Projected IS Date: 06/01/2018

Project Status: Engineering





Dominion Transmission Zone

Problem Statement: Generation Deliverability Outage

- Chesterfield to Basin 230 kV line is overloaded for the breaker failure contingency tripping the Carson to Septa 500 kV line and the Carson to Midlothian 500 kV line.

Recommended Solution:

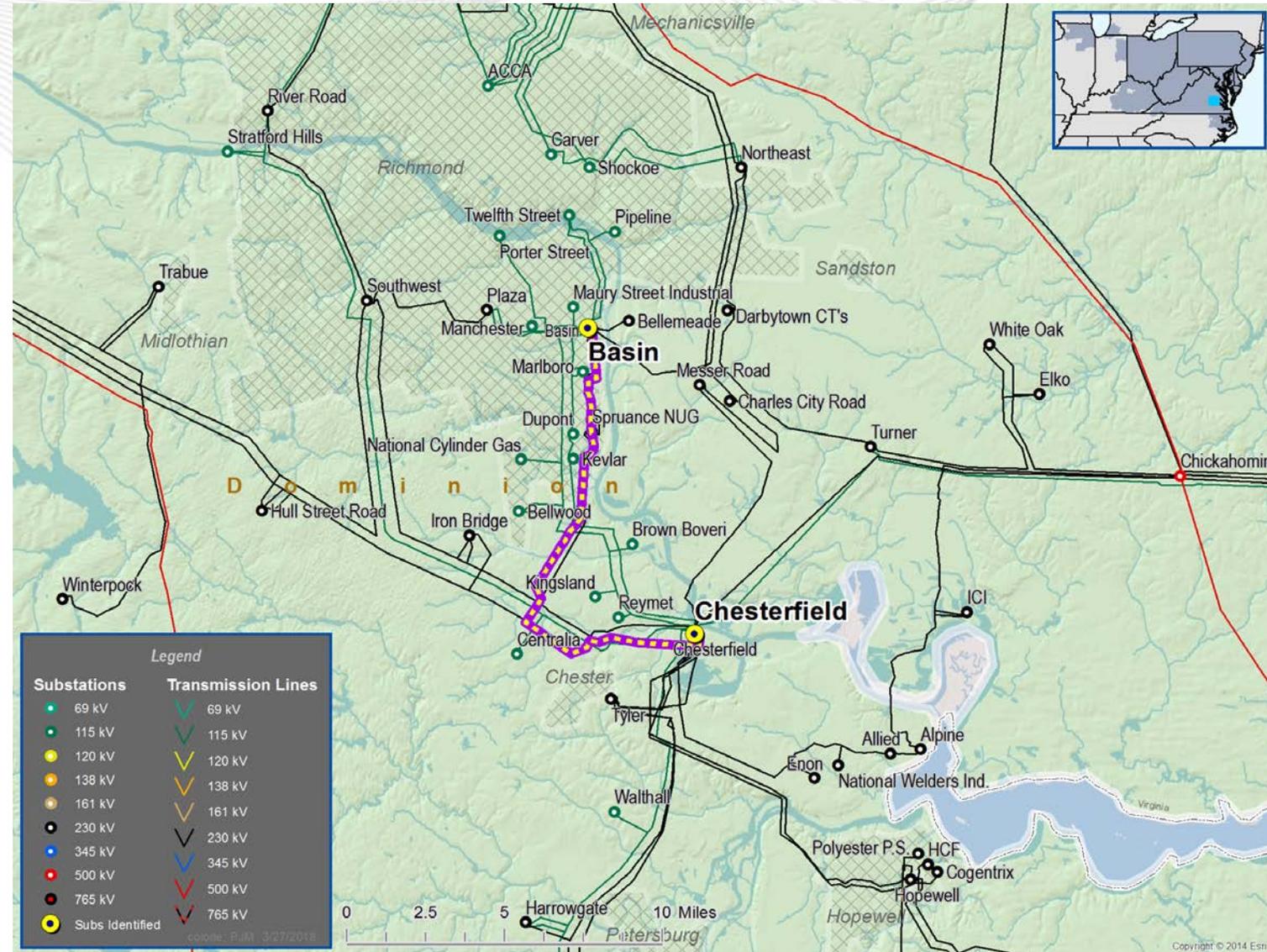
- Replace 0.14 miles of 1109 ACAR with a conductor which will increase the current line rating to approximately 706 MVA. **(b2990)**

Estimated Project Cost: \$0.35M

Required IS Date: 06/01/2018

Projected IS Date: 06/01/2018

Project Status: Engineering



- V1 – 3/29/2018 – Original Slides Posted
- V2 – 3/30/2018 – editorial changes