Sub Regional RTEP Committee
Mid-Atlantic

September 24, 2014

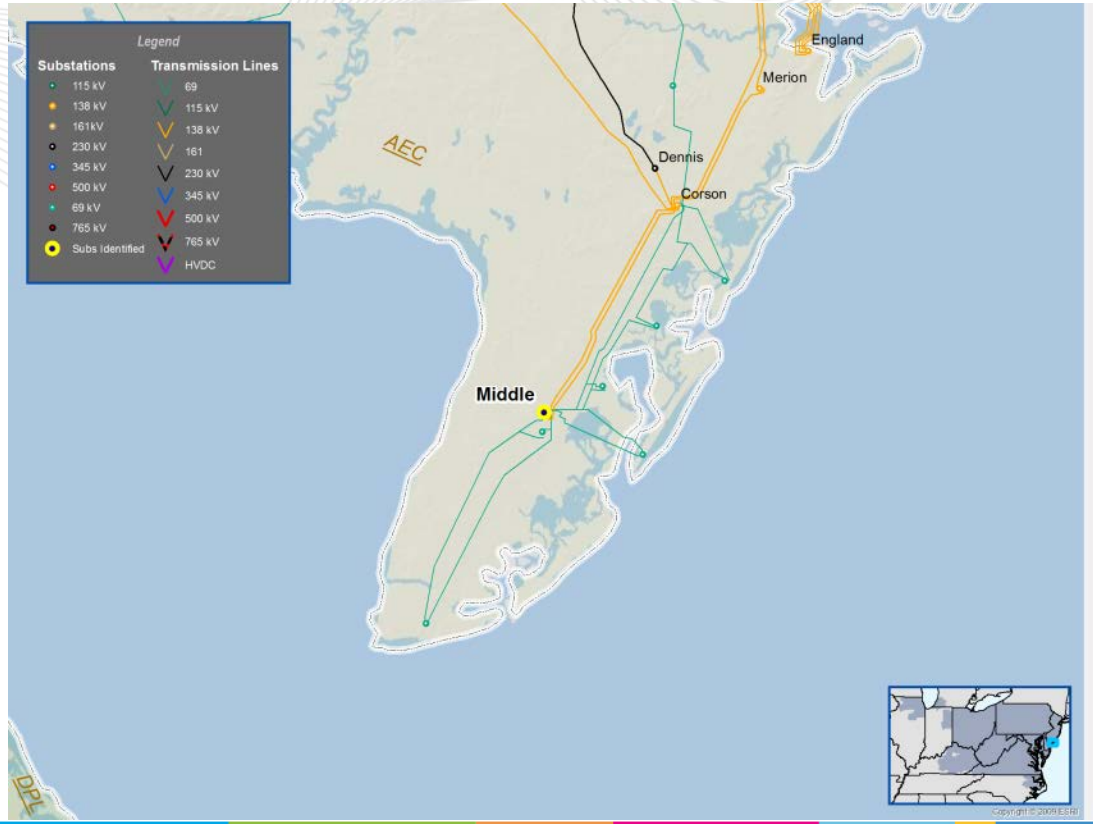
Reliability Analysis Update

AE Transmission Zone

- Generation Deliverability Violation:
- The Middle 230/69 kV is overloaded for line fault stuck breaker contingency loss of the BL England – Middle - Carson and Carson - Dennis 138 kV circuits.
- Recommended Solution:
  - Replace Middle T3 138/69 kV transformer with 225 MVA nameplate. (B2553)
  - Project ID: P2014_1-12J-U from 2014 RTEP Proposal Window #1
- Estimated Project Cost:

  $ 7.5 M
- Required IS Date:

  6/1/2019

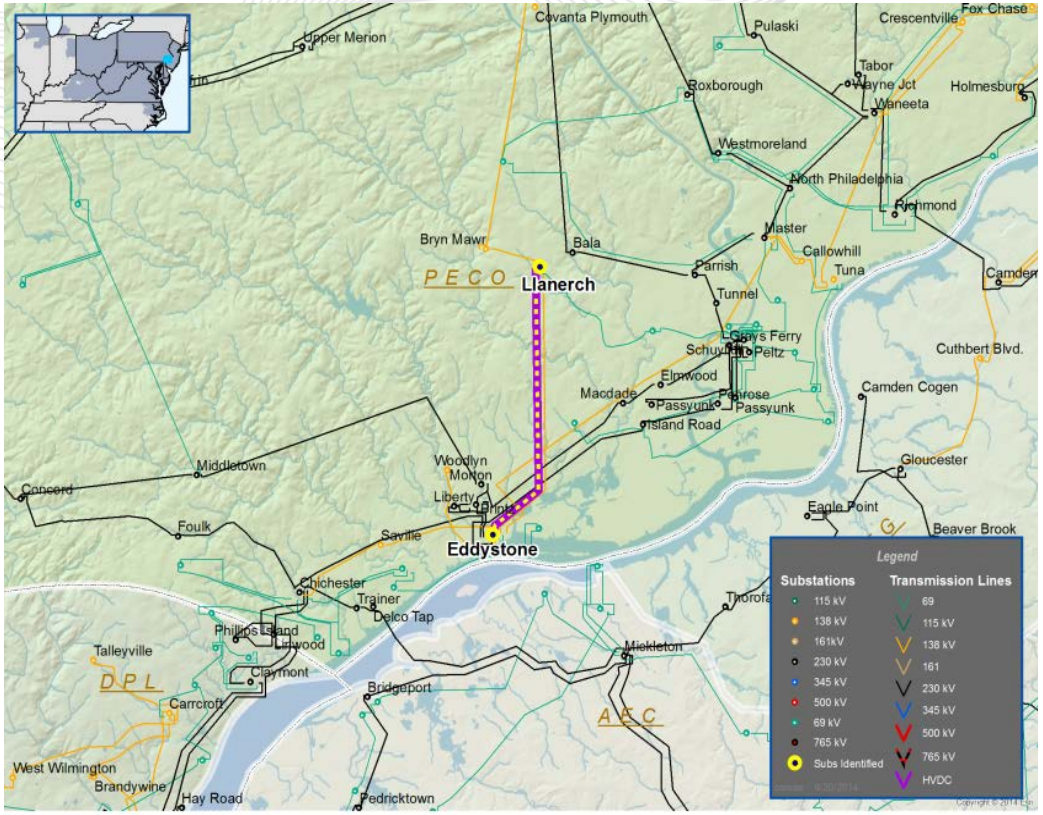


PECO Transmission Zone

- N-1-1 Violation.
- The Eddystone to Llanerch 138 kV circuit '130-45' is overloaded for N-1-1 contingency loss of Plymouth – Brynmawr 230 kV and Eddystone to Llanerch 138 kV '130-42' circuits.
- Recommended Solution:
  - Replace terminal equipment inside Llanerch substation on the 130-45 (Eddystone to Llanerch) 138 kV line (B2551).
- Project ID: P2014_1-5E-U from 2014 RTEP Proposal Window #1
- Estimated Project Cost:

  $ 0.1 M
- Required IS Date:

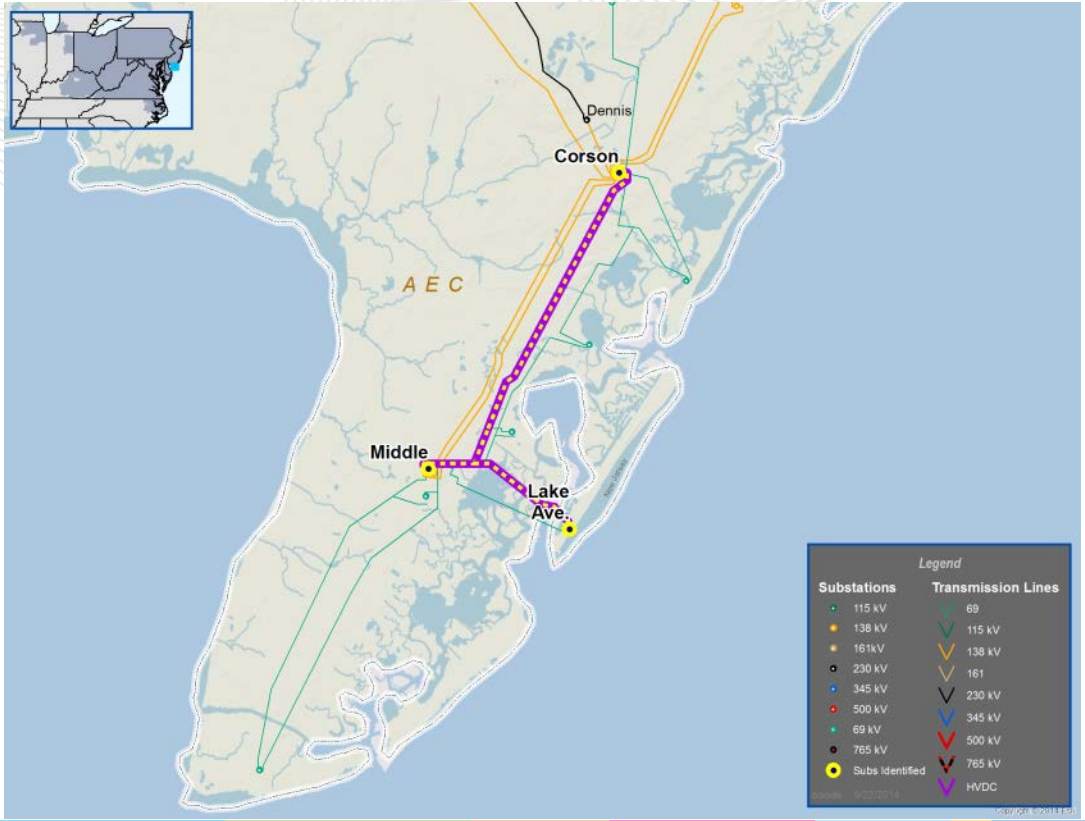
  6/1/2019



Supplemental

AE Transmission Zone

- Supplemental Project :
- Improves reliability due to age and condition of the circuit.
- Proposed Solution:
  - Rebuild 1.86 miles of the Corson-Middle-Lake 69 kV circuit '0720', sections P-Z Lake Tap, including Sections S through V. (S0789)
- Estimated Project Cost:
  $ 7.83 M
- Projected IS Date:
  5/31/2015

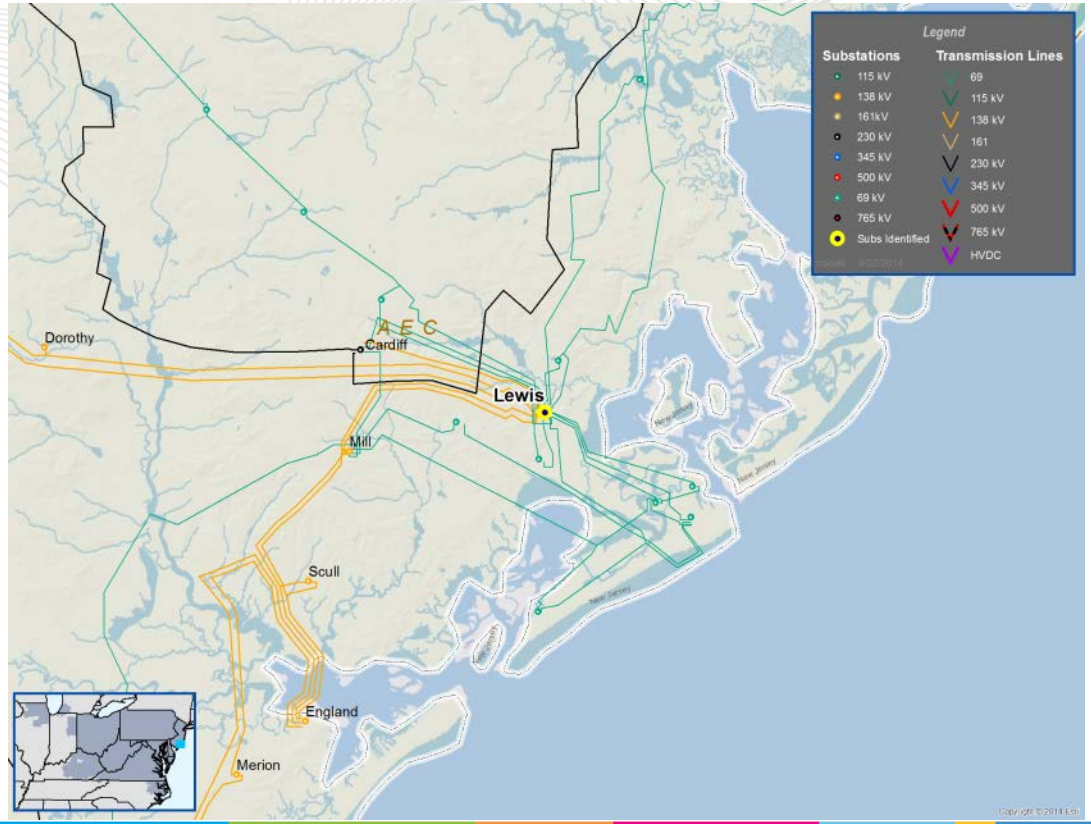


AE Transmission Zone

- Supplemental Project :
- Improves reliability due to age and condition of the transformer.
- Proposed Solution:
  - Replace (9) Single phase 138/69 KV Auto Transformer Units with (3) Three Phase 138/69 KV Auto Transformer at Lewis substation. (S0790)
- Estimated Project Cost:

  $ 15.01 M
- Projected IS Date:

  5/31/2015

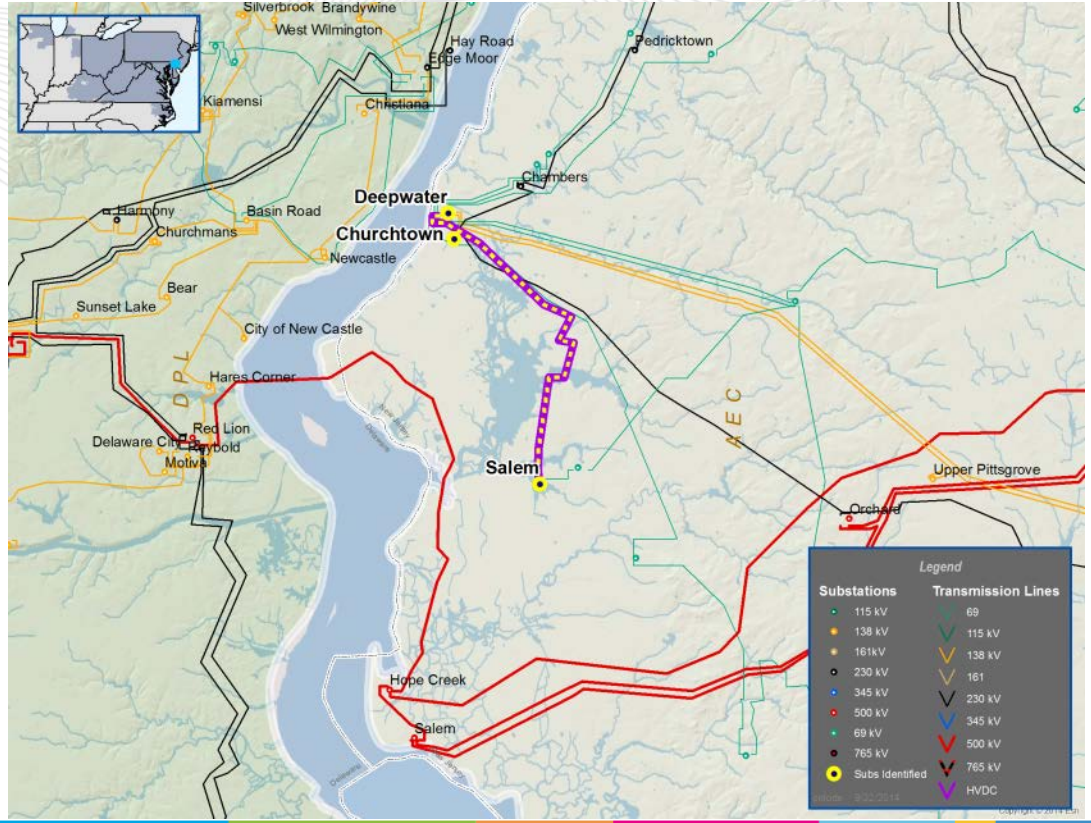


AE Transmission Zone

- Supplemental Project :
- Improves reliability due to age and condition of the circuit.
- Proposed Solution:
  - Rebuild 10.96 miles the Deepwater to Salem 69 kV circuit '0724'. (S0791)
- Estimated Project Cost:

  $ 5.32 M
- Projected IS Date:

  12/31/2015

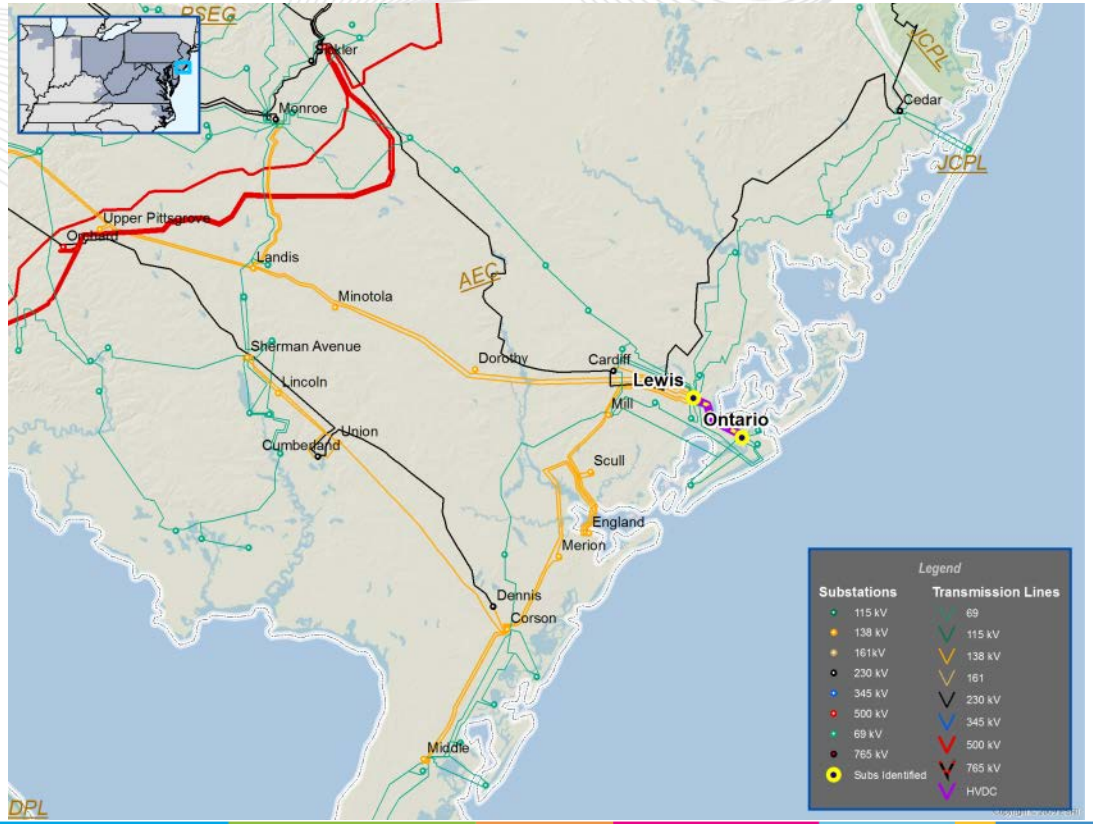


AE Transmission Zone

- Supplemental Project :
- Improves reliability due to age and condition of the circuit.
- Proposed Solution:
  - Rebuild the Lewis-Ontario #2 69 kV circuit ‘0742’. (S0792)
- Estimated Project Cost:

  $ 13.78 M
- Projected IS Date:

  6/1/2016

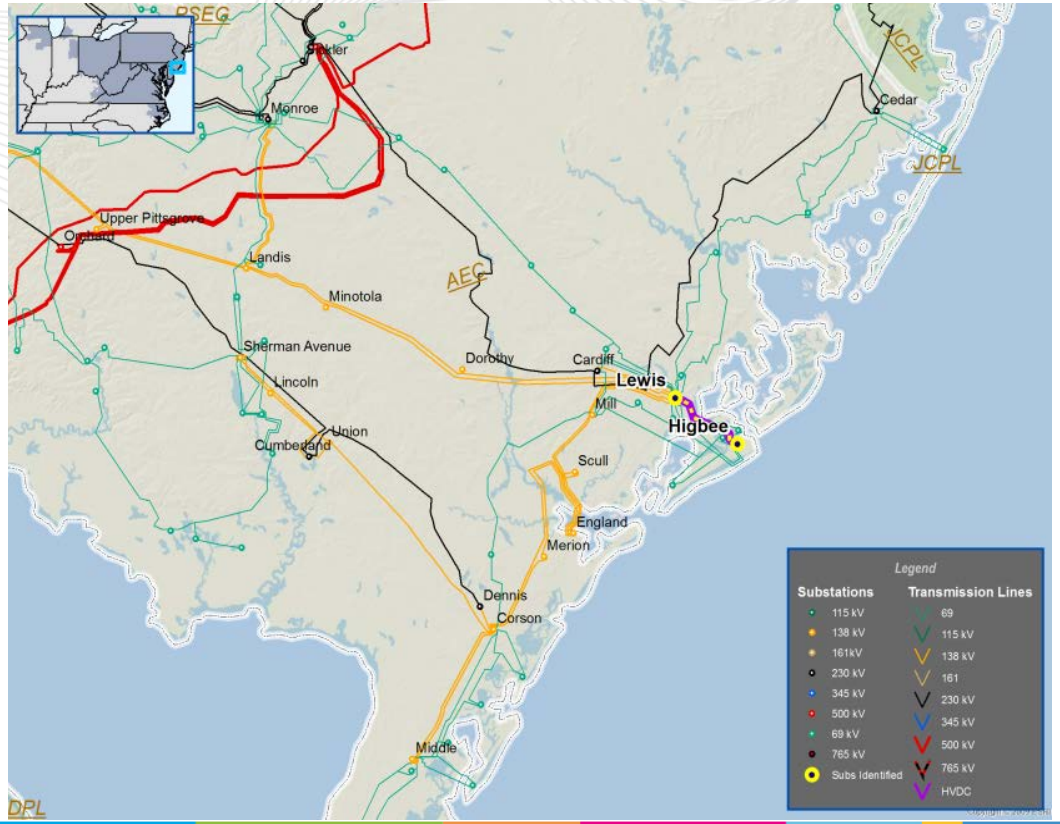


AE Transmission Zone

- Supplemental Project :
- Improves reliability due to age and condition of the circuit.
- Proposed Solution:
  - Rebuild approximately 6.4 miles of the Lewis - Higbee 69 kV #1 circuit. (S0793)
- Estimated Project Cost:

  $ 12.20 M
- Projected IS Date:

  6/1/2016

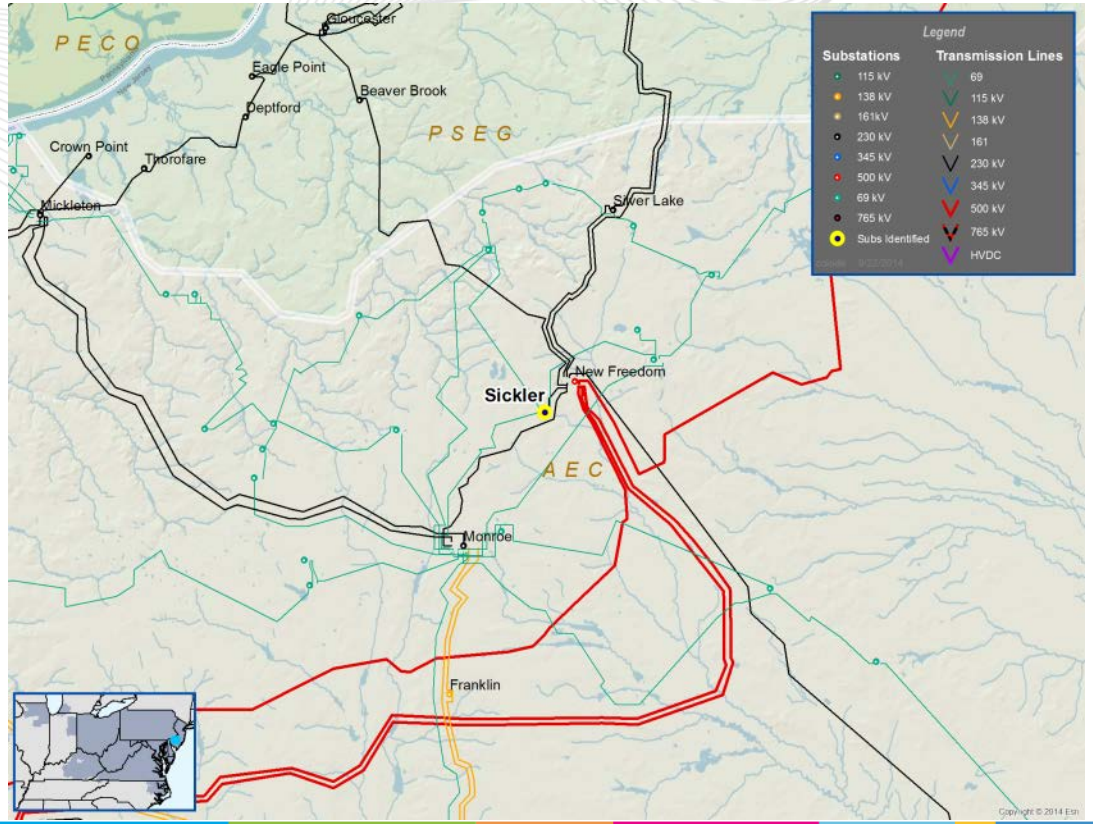


AE Transmission Zone

- Supplemental Project :
- Improves reliability due to age and condition of the transformer.
- Proposed Solution:
  - Replace the existing Sickler T1 - 230/69kV, autotransformer with a 230/69kV, 335 MVA Transformer. (S0794)
- Estimated Project Cost:

  $ 7.5 M
- Projected IS Date:

  5/1/2017

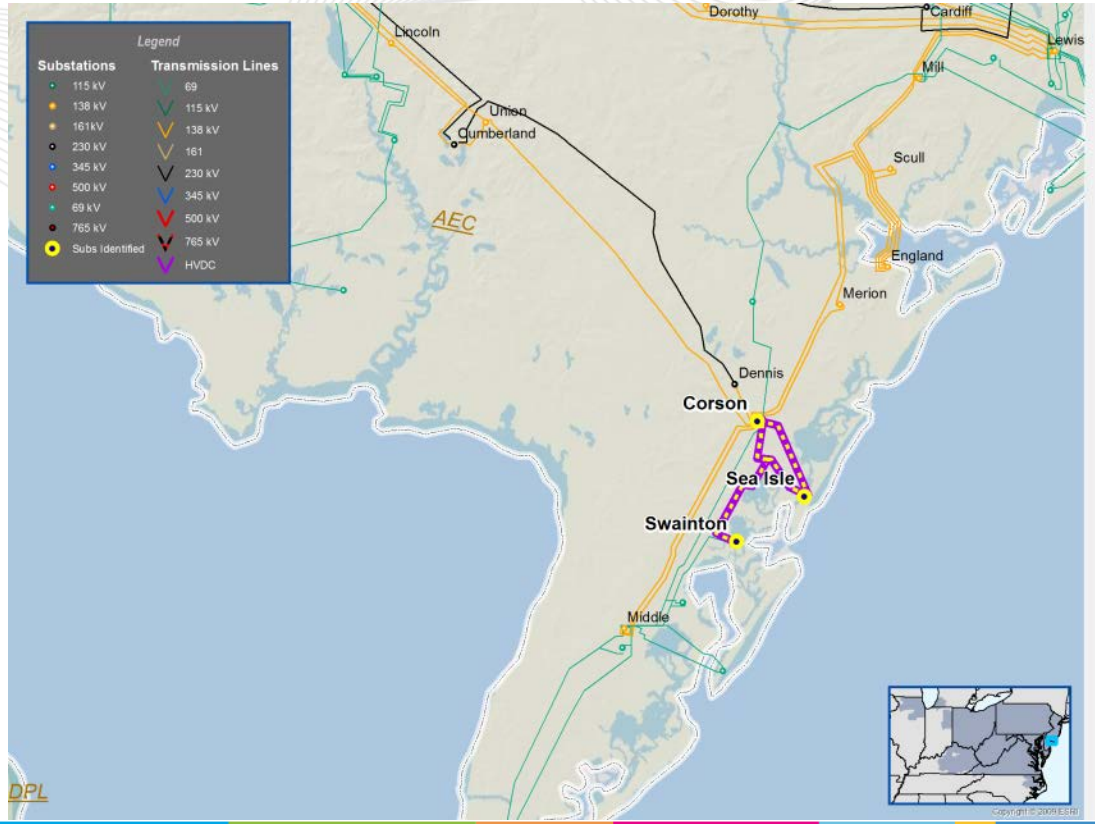


AE Transmission Zone

- Supplemental Project :
- Improves reliability due to age and condition of the circuit.
- Proposed Solution:
  - Rebuild 4.14 miles of the Corson-Sea Isle-Swainton 69 kV circuit '0717', sections B & C. (S0795)
- Estimated Project Cost:

  $ 5.5 M
- Projected IS Date:

  6/1/2017

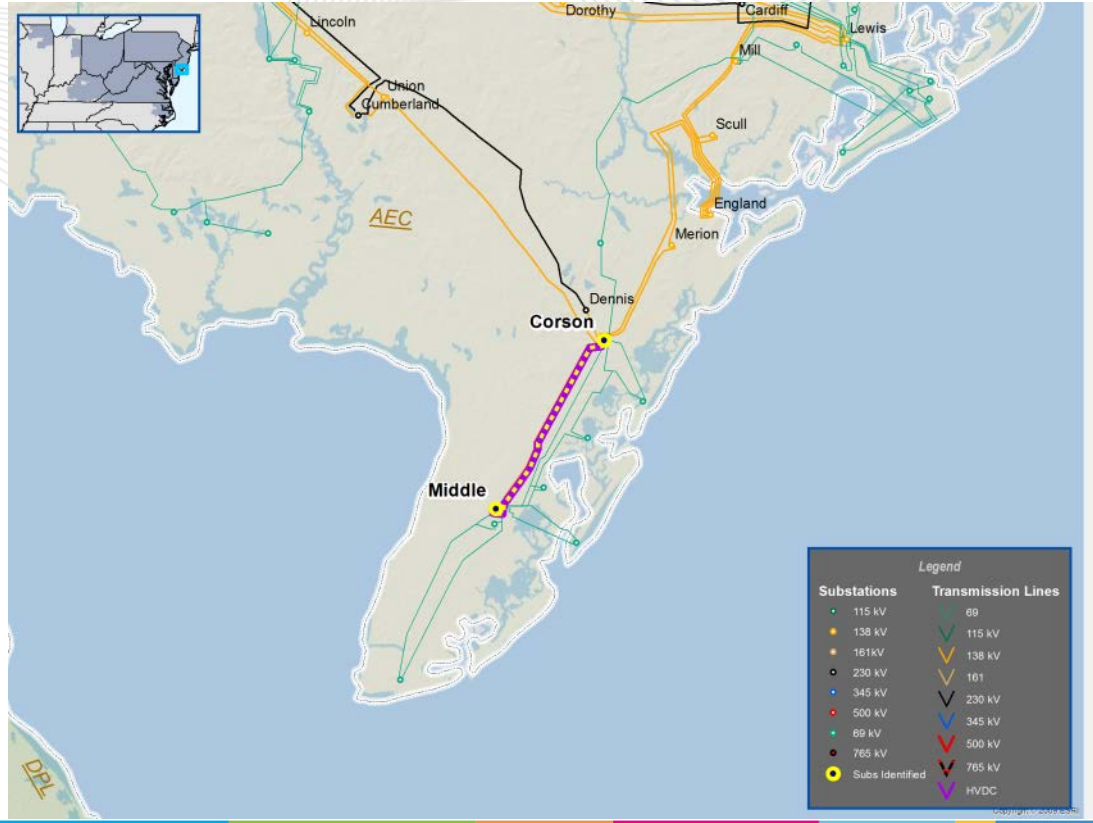


AE Transmission Zone

- Supplemental Project :
- Improves reliability due to age and condition of the circuit.
- Proposed Solution:
  - Rebuild the Corson-Middle #1 138 kV circuit '1412'. (S0796)
- Estimated Project Cost:

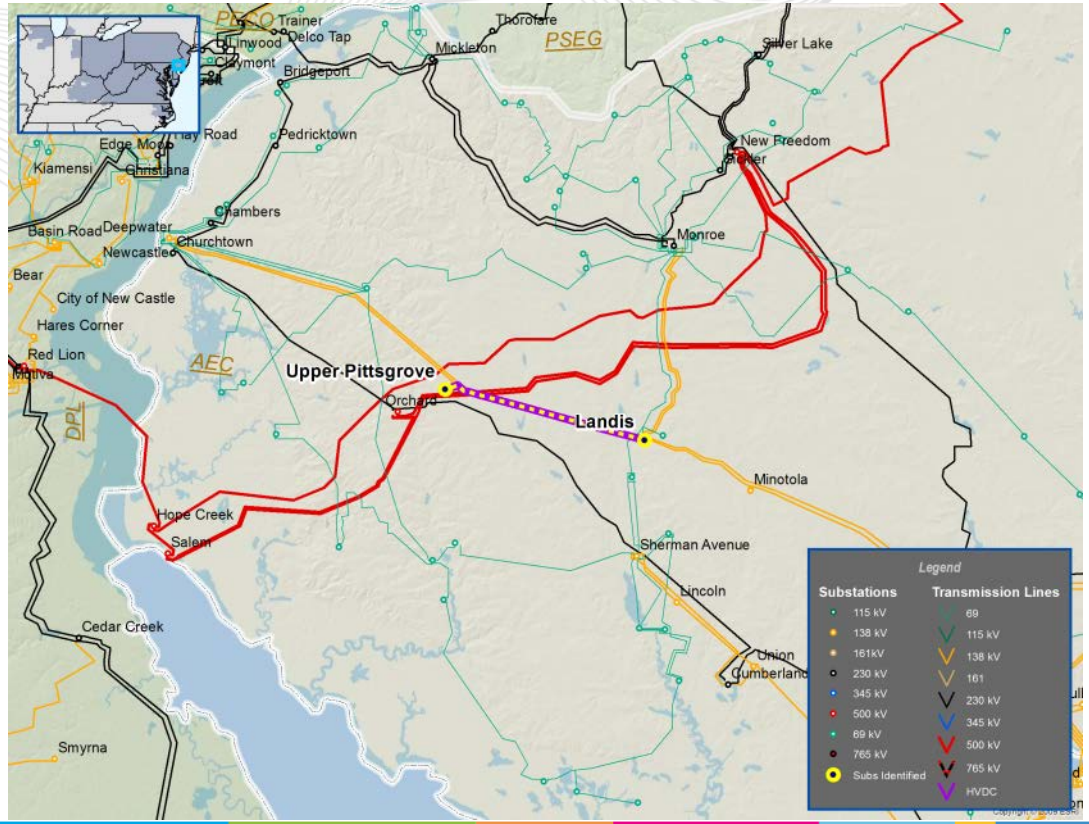
  $ 13.5 M
- Projected IS Date:

  12/31/2017



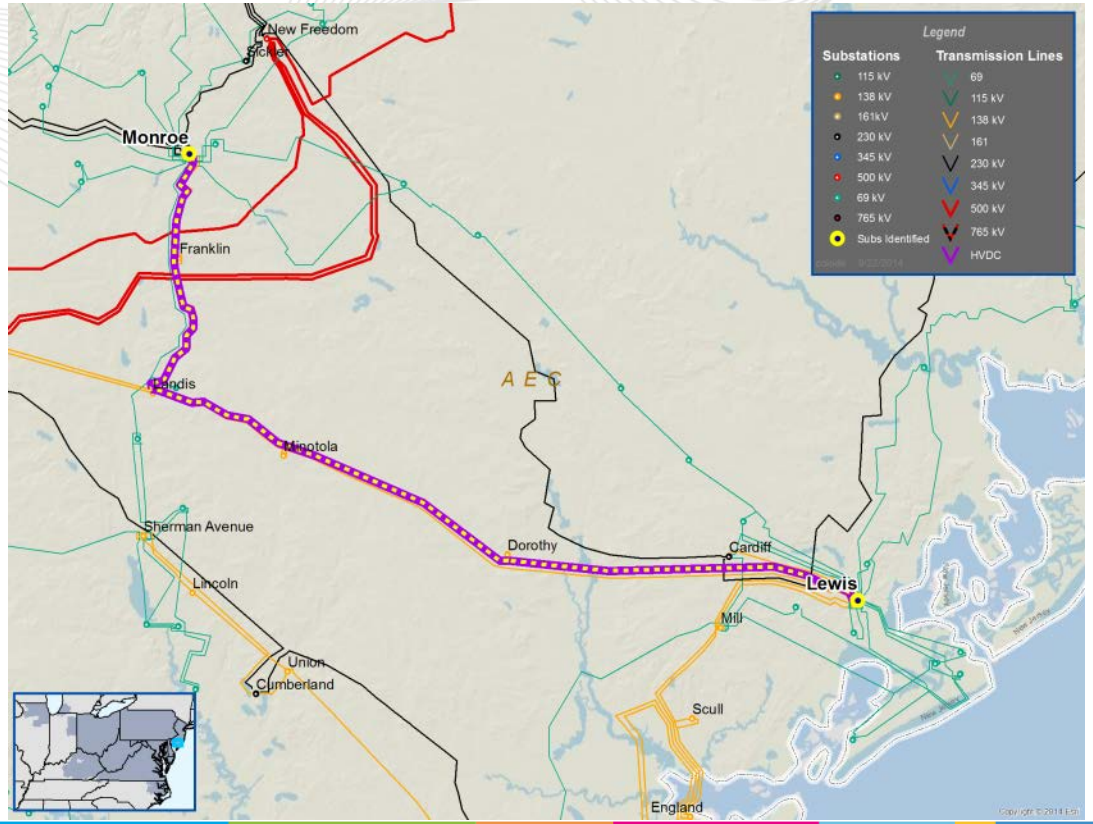
AE Transmission Zone

- Supplemental Project :
- Improves reliability due to age and condition of the circuit.
- Proposed Solution:
  - Rebuild the Upper Pittsgrove - Landis 138 kV '1406' 138kv circuit. The rebuild will include parts of the 1404 and 1405 circuits. (S0797)
- Estimated Project Cost:
  $ 10.71 M
- Projected IS Date:
  12/31/2019



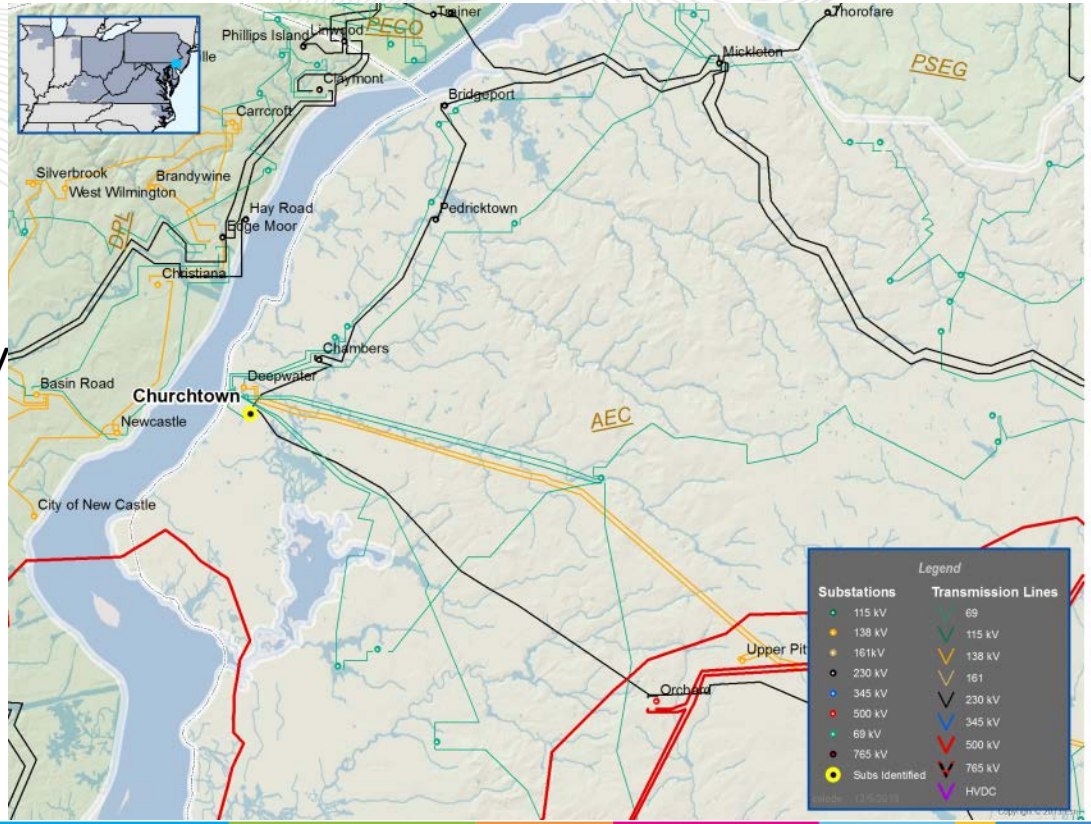
AE Transmission Zone

- Supplemental Project :
- Improves reliability due to age and condition of the circuit.
- Proposed Solution:
  - Rebuild the Monroe-Lewis 138 kV '1404' Sections B-E. (S0798)
- Estimated Project Cost:
  $ 88.58 M
- Projected IS Date:
  3/31/2020



AE Transmission Zone

- Supplemental Project :
- To improves reliability due to the retirement of the of the Deepwater substation.
- Proposed Solution:
  - Install 336 MVA 230/138 kV transformer at Churchtown to be connected to the Pittsgrove. (S0799)
- Estimated Project Cost:
  $ 8.58 M
- Projected IS Date:
  5/31/2016

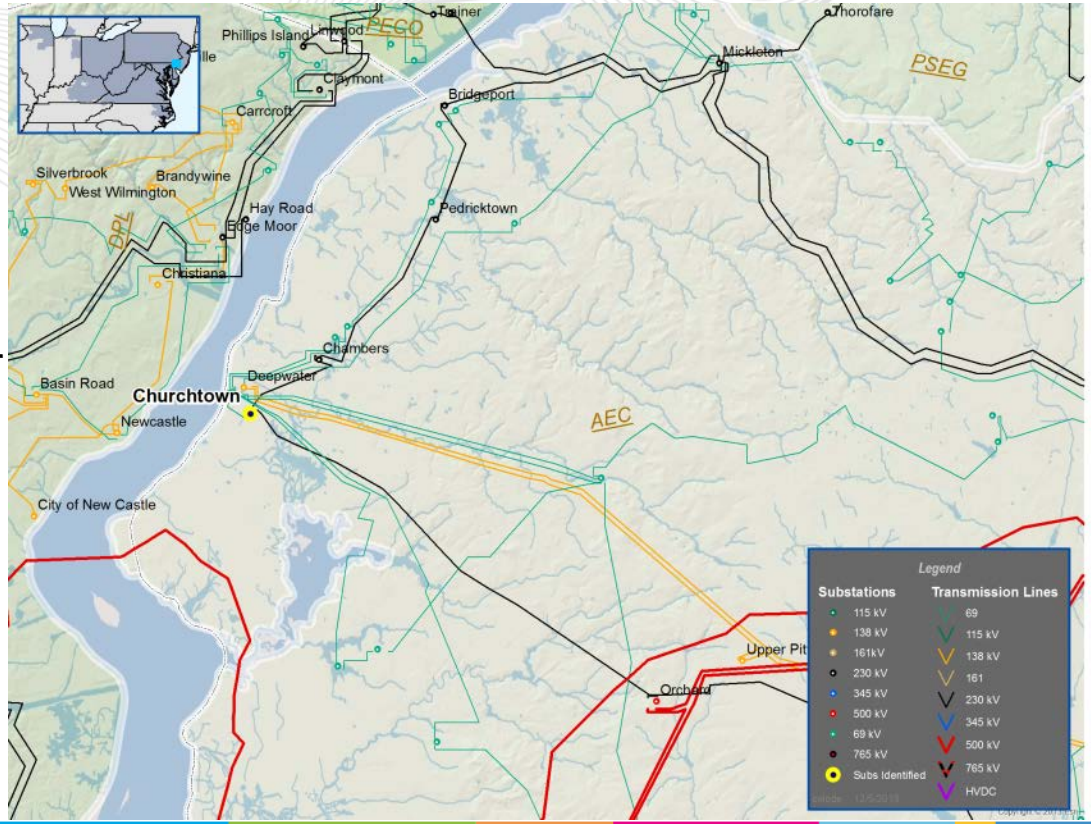


AE Transmission Zone

- Supplemental Project :
- To improves reliability due to the retirement of the of the Deepwater substation.
- Proposed Solution:
  - Install 69/34 kV transformer at Churchtown to feed Valley substation. (S0800)
- Estimated Project Cost:

  $ 2.7 M
- Projected IS Date:

  5/31/2016

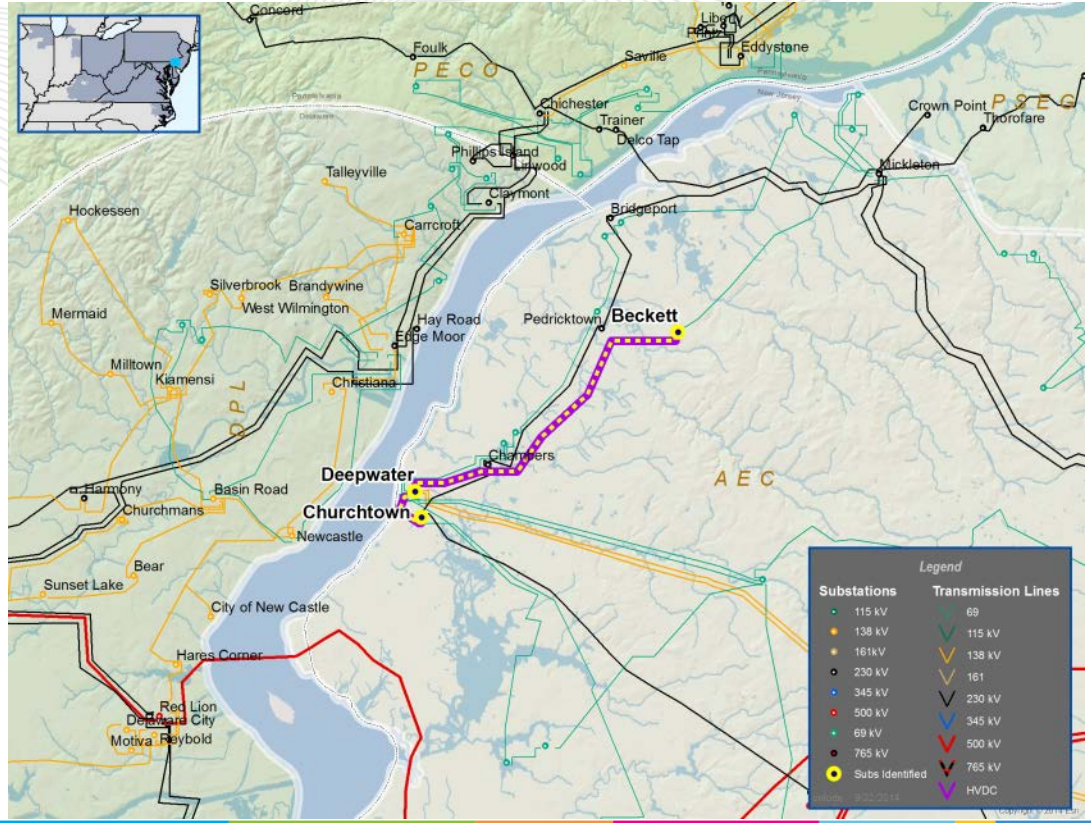


AE Transmission Zone

- Supplemental Project :
- To improves reliability due to the retirement of the of the Deepwater substation.
- Proposed Solution:
  - Re-terminate Deepwater-Beckett 69 kV line at Churchtown Sub as a result of Deepwater retirement. (S0801)
- Estimated Project Cost:

  $ 2.57 M
- Projected IS Date:

  12/31/2016

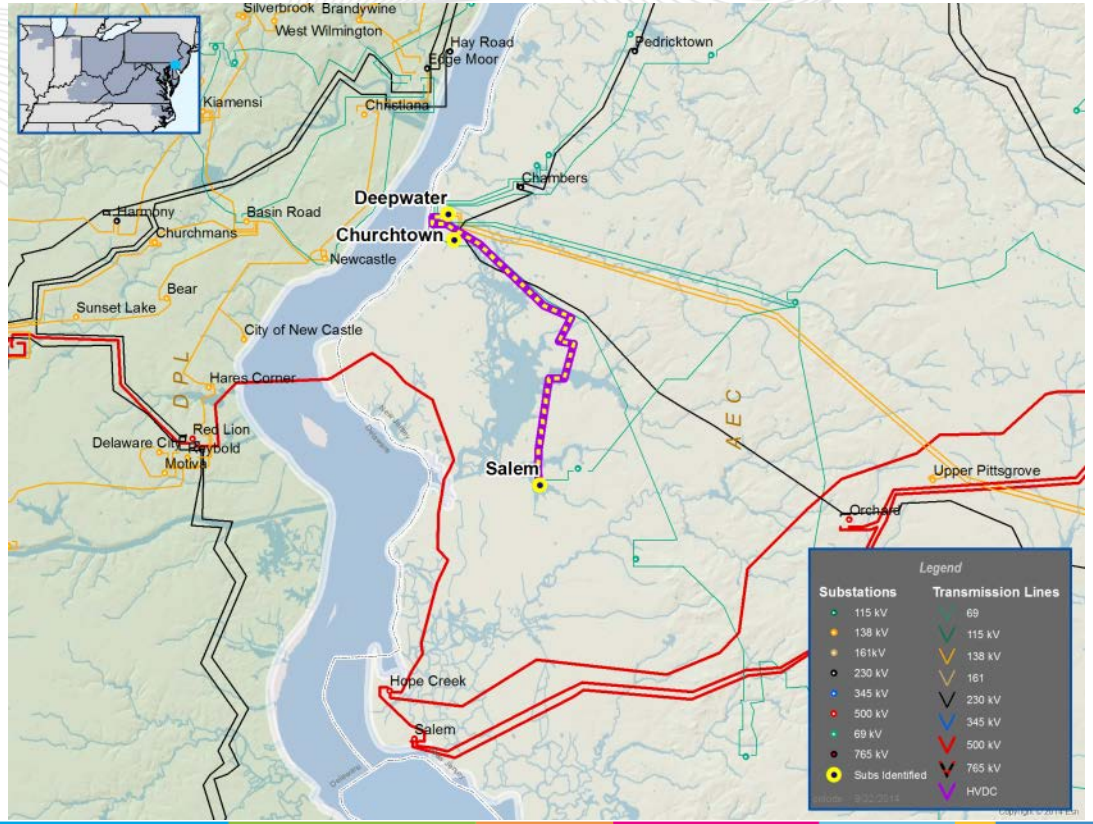


AE Transmission Zone

- Supplemental Project :
- To improves reliability due to the retirement of the of the Deepwater substation.
- Proposed Solution:
  - Re-terminate Deepwater-Salem 69 kV line at Churchtown Sub as a result of Deepwater retirement. (S0802)
- Estimated Project Cost:

  $ 2.57 M
- Projected IS Date:

  12/31/2016

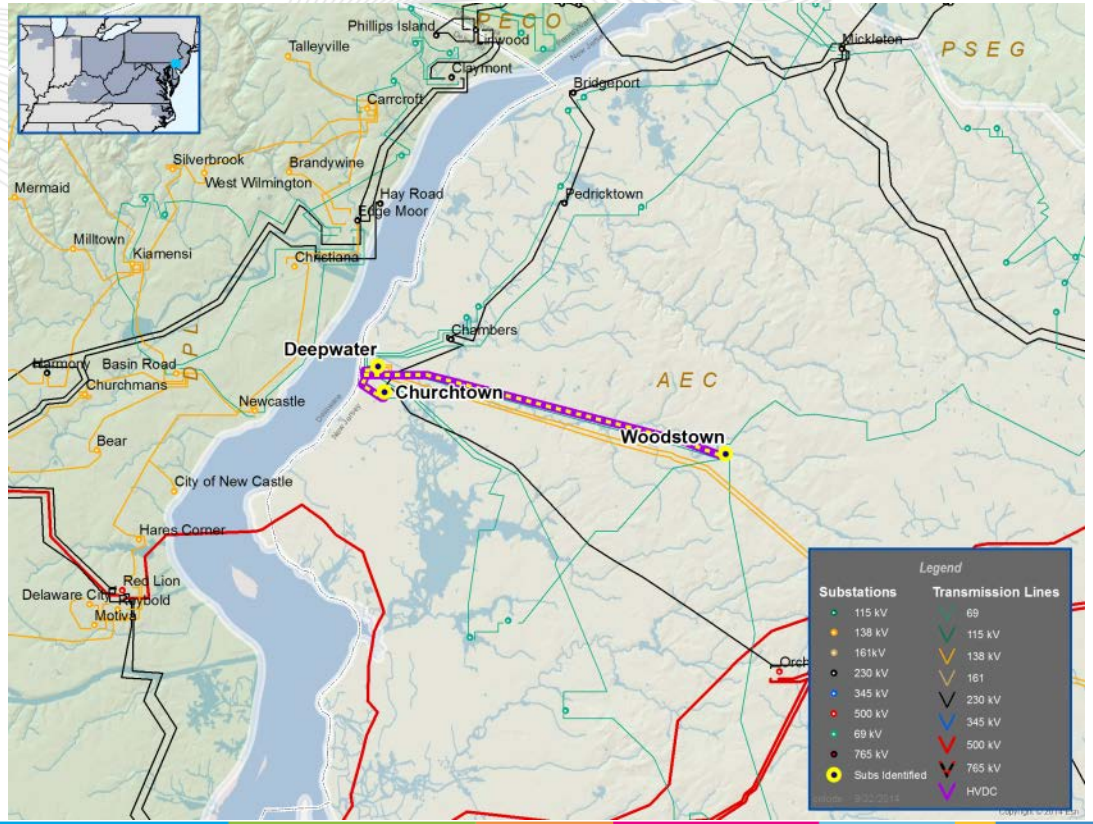


AE Transmission Zone

- Supplemental Project :
- To improves reliability due to the retirement of the of the Deepwater substation.
- Proposed Solution:
  - Re-terminate the Deepwater-Woodstown #1 69 kV line at Churchtown Substation as a result of Deepwater retirement. (S0803)
- Estimated Project Cost:

  $ 1.8 M
- Projected IS Date:

  5/31/2017

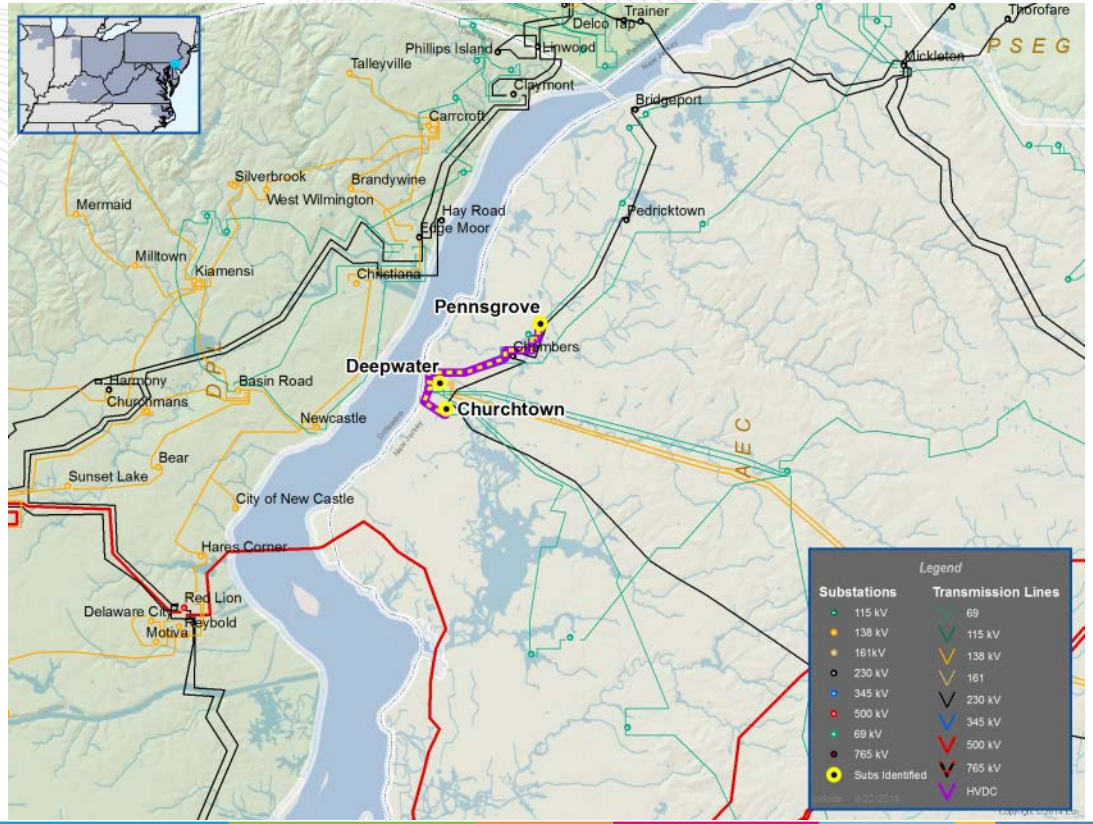


AE Transmission Zone

- Supplemental Project :
- To improves reliability due to the retirement of the of the Deepwater substation.
- Proposed Solution:
  - Build, and/or rebuild 3.2 miles of 69 kV line to connect the Churchtown - Pennsgrove 69 kV line to Carneys Point. (S0804)
- Estimated Project Cost:

  $ 2.4 M
- Projected IS Date:

  5/31/2017

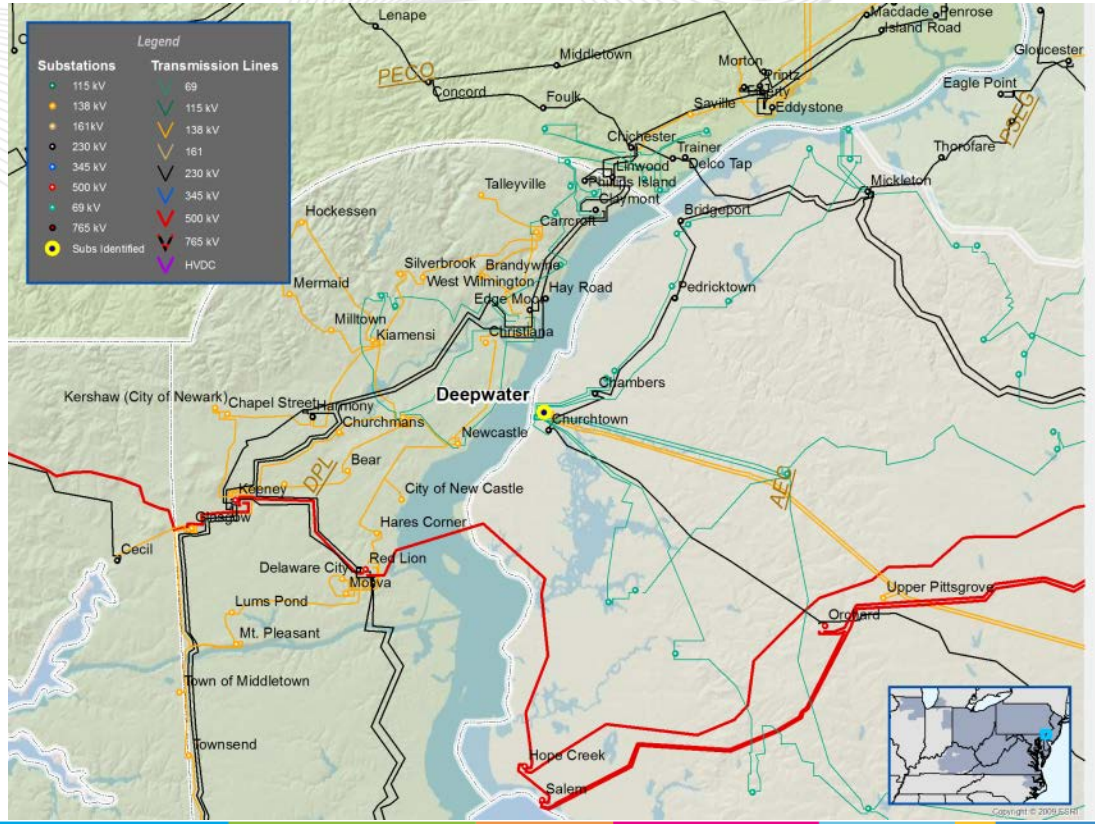


AE Transmission Zone

- Supplemental Project :
- To improves reliability due to the retirement of the of the Deepwater substation.
- Proposed Solution:
  - Install 69 kV double ring bus with normally closed bus tie, with 12 (ultimate) terminal positions. (S0805)
- Estimated Project Cost:

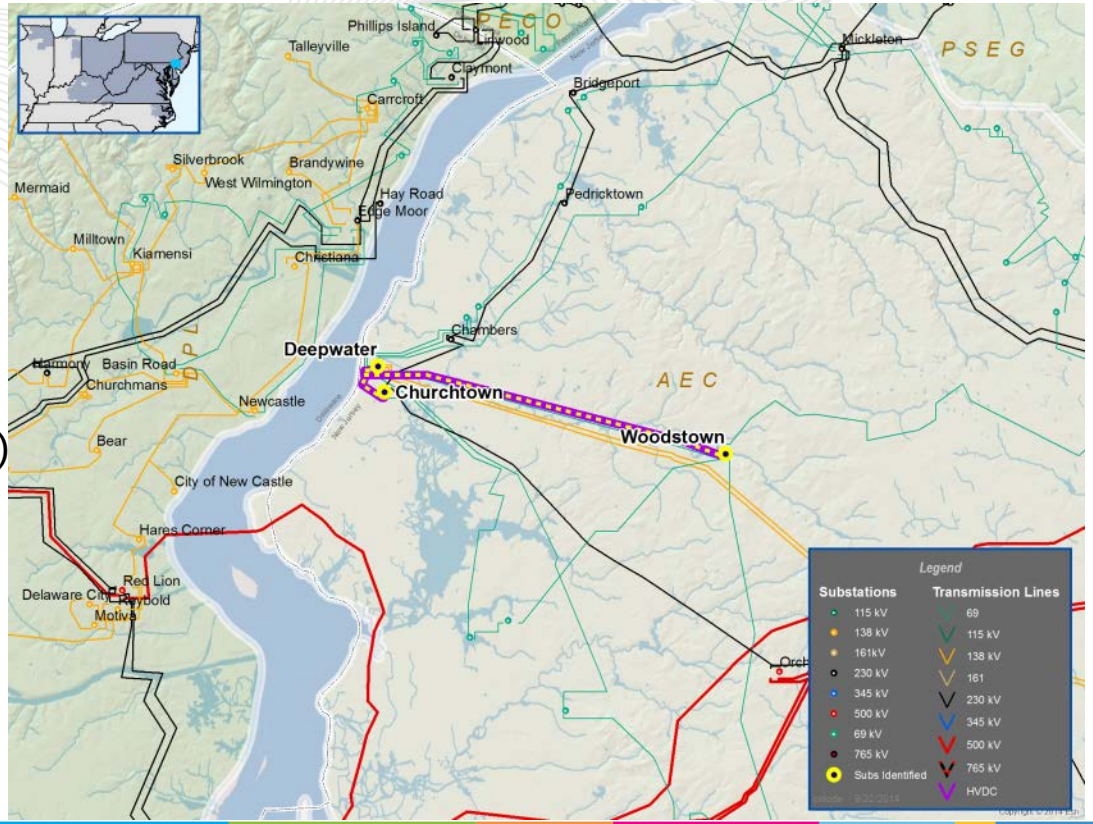
  $ 10.6 M
- Projected IS Date:

  5/31/2017



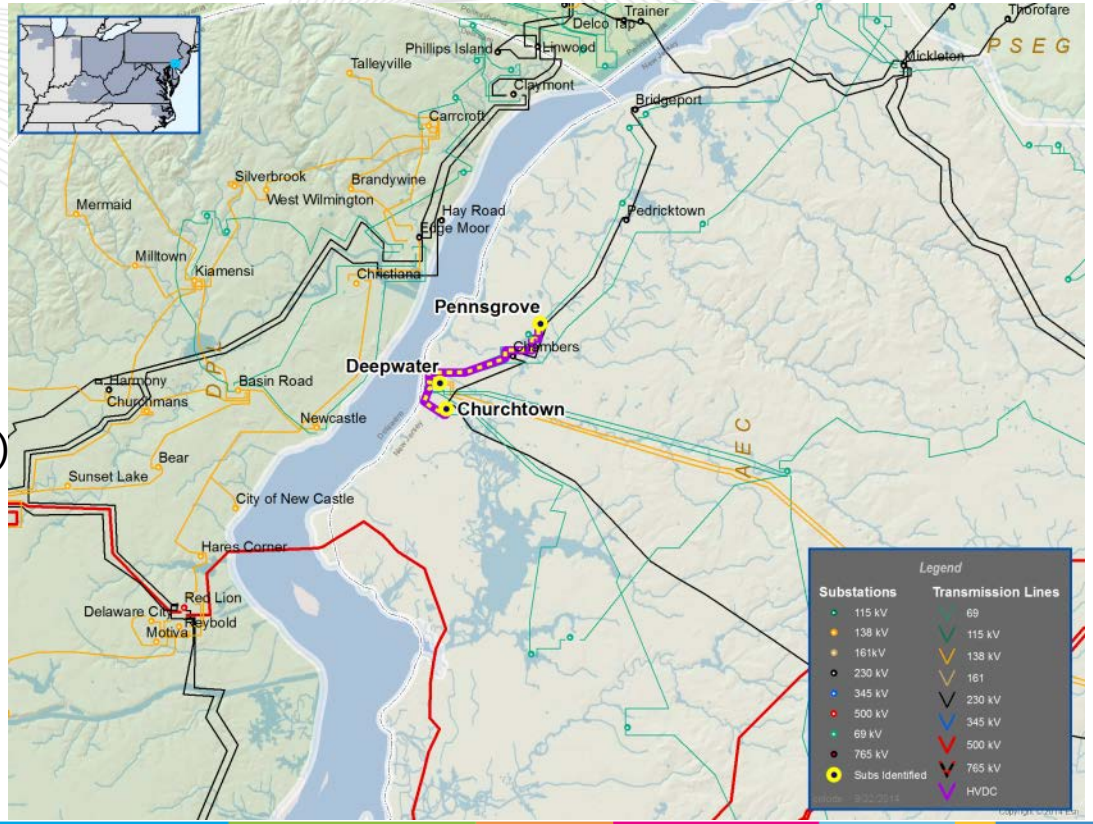
AE Transmission Zone

- Supplemental Project :
- To improves reliability due to the retirement of the of the Deepwater substation.
- Proposed Solution:
  - Re-terminate #2 Deepwater-Woodstown 69 kV line at Churchtown Sub as a result of Deepwater retirement. (S0806)
- Estimated Project Cost:
  $ 2.57 M
- Projected IS Date:
  5/31/2017



AE Transmission Zone

- Supplemental Project :
- To improves reliability due to the retirement of the of the Deepwater substation.
- Proposed Solution:
  - Re-terminate Deepwater-Pennsgrove 69 kV line at Churchtown Sub as a result of Deepwater retirement. (S0807)
- Estimated Project Cost:
  $ 2.57 M
- Projected IS Date:
  5/31/2017

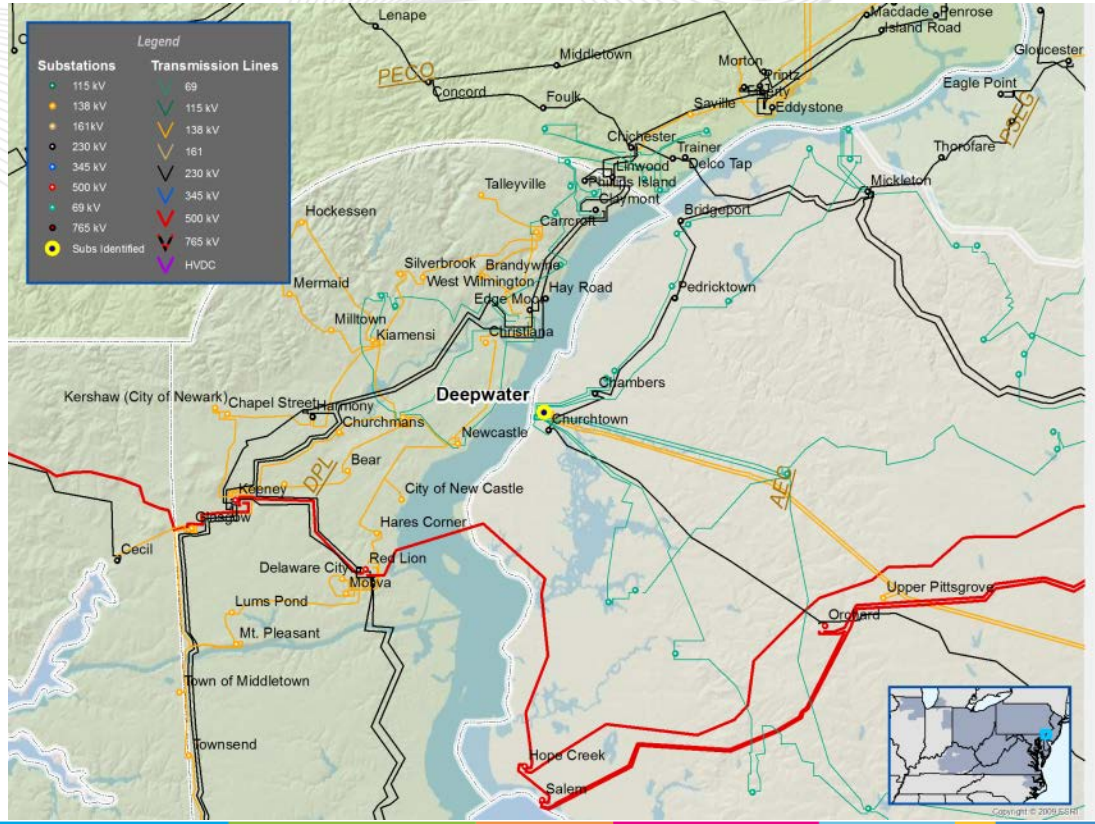


AE Transmission Zone

- Supplemental Project :
- To improves reliability due to the retirement of the of the Deepwater substation.
- Proposed Solution:
  - Retire the Deepwater 138 kV and 69 kV substation. (S0808)
- Estimated Project Cost:

  $ 1.7 M
- Projected IS Date:

  12/31/2018

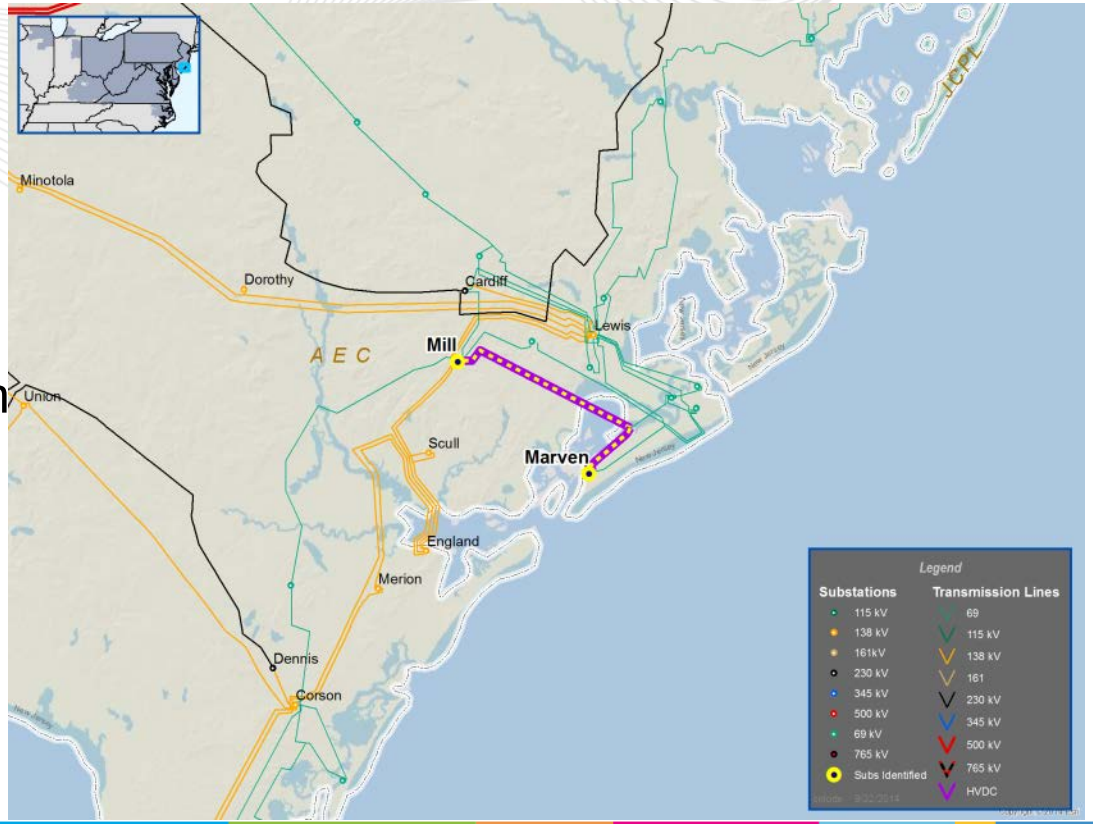


AE Transmission Zone

- Supplemental Project :
- Improves reliability due to age and condition of the circuit.
- Proposed Solution:
  - Rebuild the Mill - Marven 69 kV circuit '0749'. (S0809)
- Estimated Project Cost:

  $ 14.72 M
- Projected IS Date:

  12/31/2018

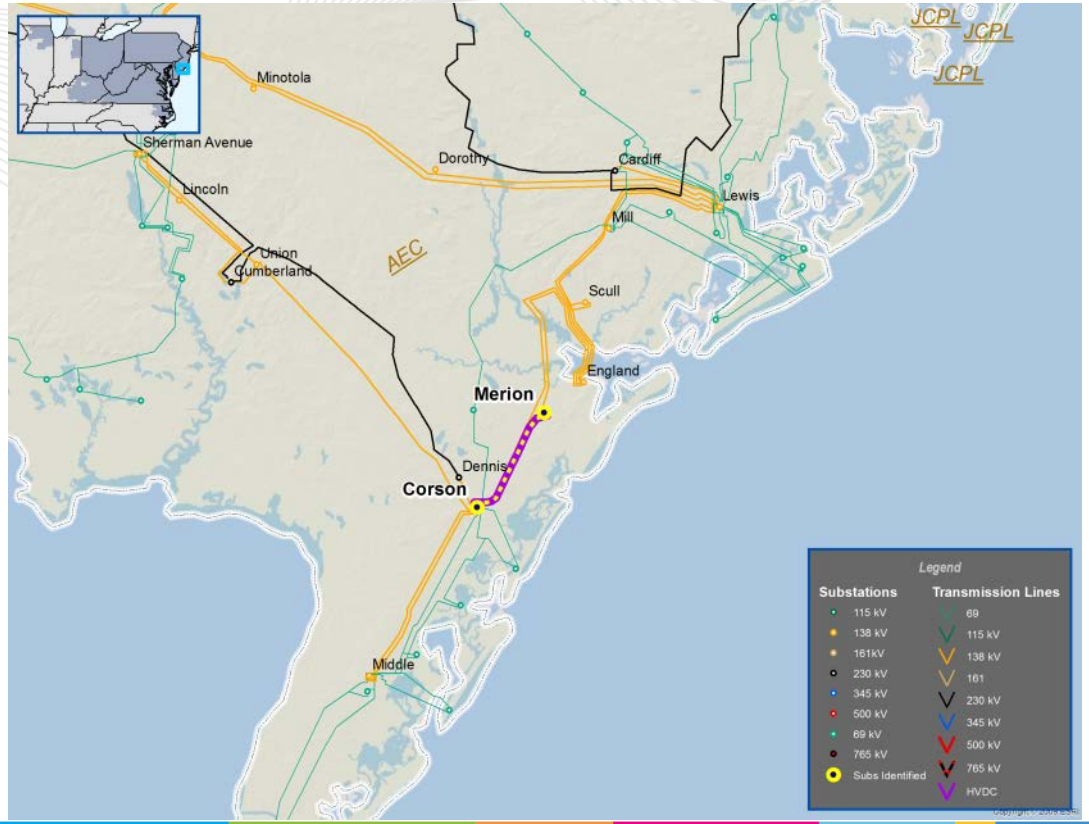


AE Transmission Zone

- Supplemental Project :
- Improves reliability due to age and condition of the circuit.
- Proposed Solution:
  - Rebuild the Corson - Merion 138 kV circuit '1411'. (S0810)
- Estimated Project Cost:

  $ 10.04 M
- Projected IS Date:

  12/31/2018

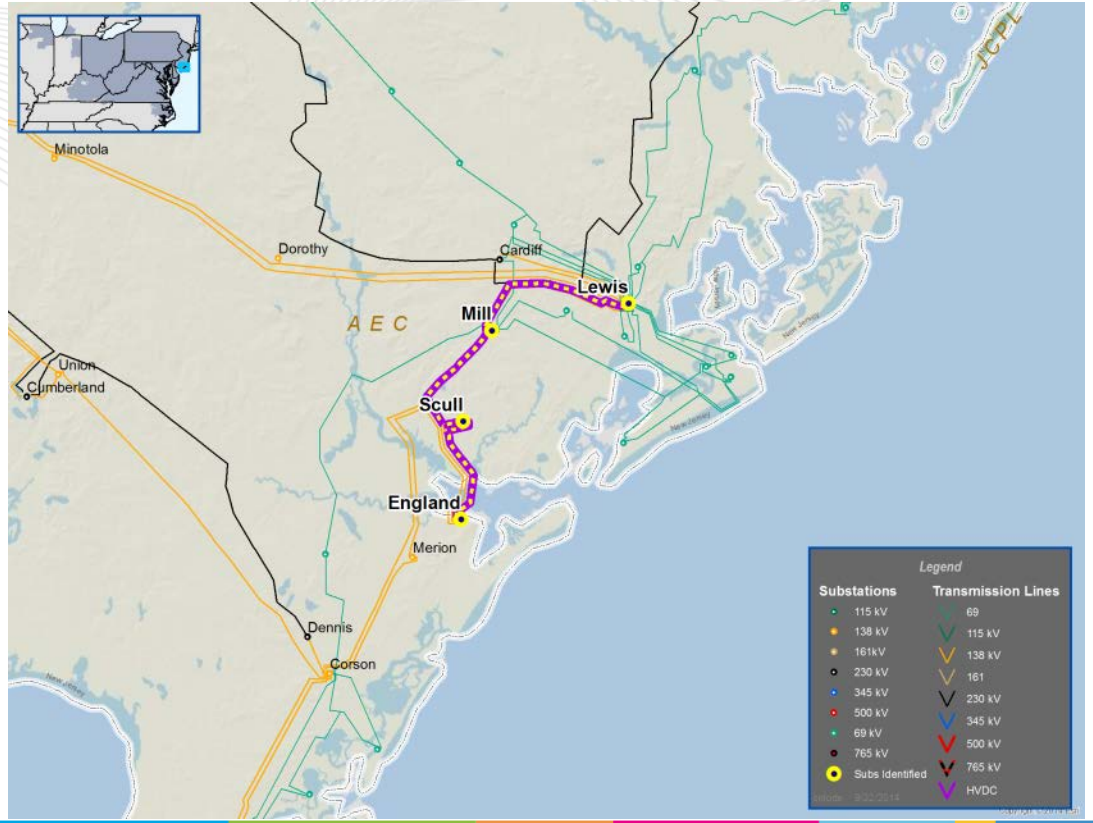


AE Transmission Zone

- Supplemental Project :
- Improves reliability due to age and condition of the circuit.
- Proposed Solution:
  - Rebuild the BL England - Scull - Mill - Lewis 138 kV #1 circuit '1407'. (S0811)
- Estimated Project Cost:

  $ 11.46 M
- Projected IS Date:

  12/31/2020

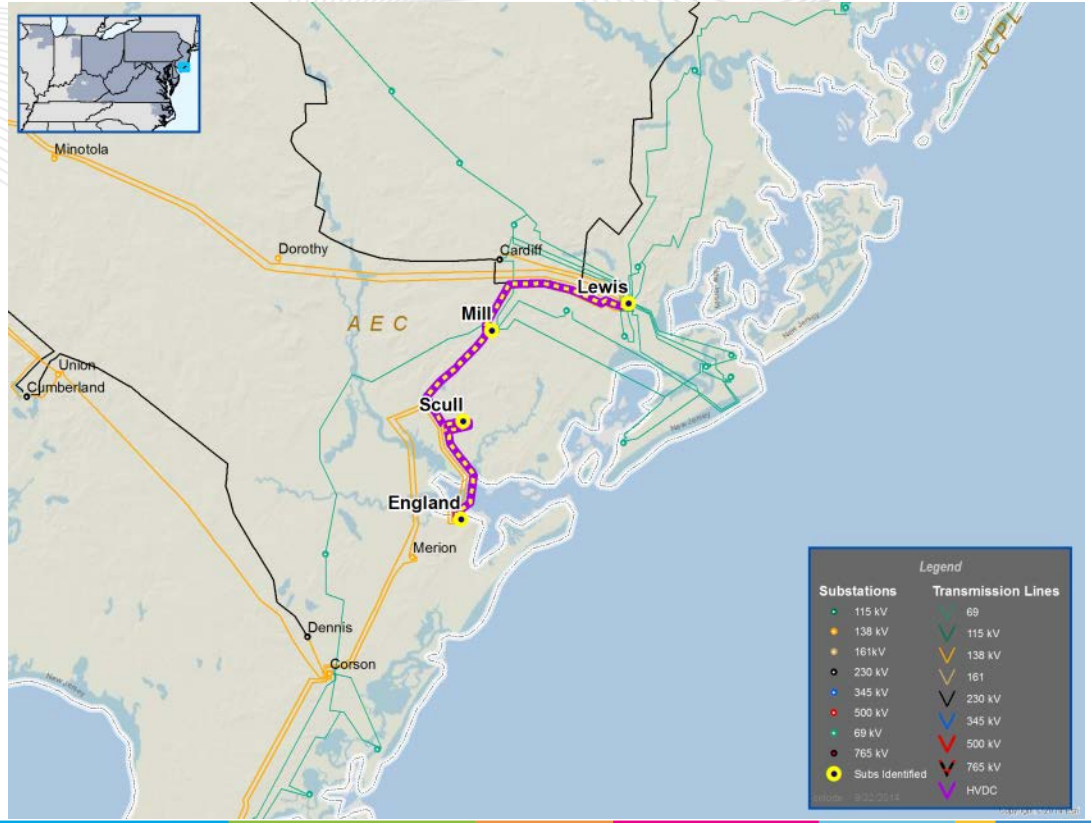


AE Transmission Zone

- Supplemental Project :
- Improves reliability due to age and condition of the circuit.
- Proposed Solution:
  - Rebuild the BL England - Scull - Mill - Lewis 138 kV #2 circuit '1408'. (S0812)
- Estimated Project Cost:

  $ 9.55 M
- Projected IS Date:

  12/31/2020

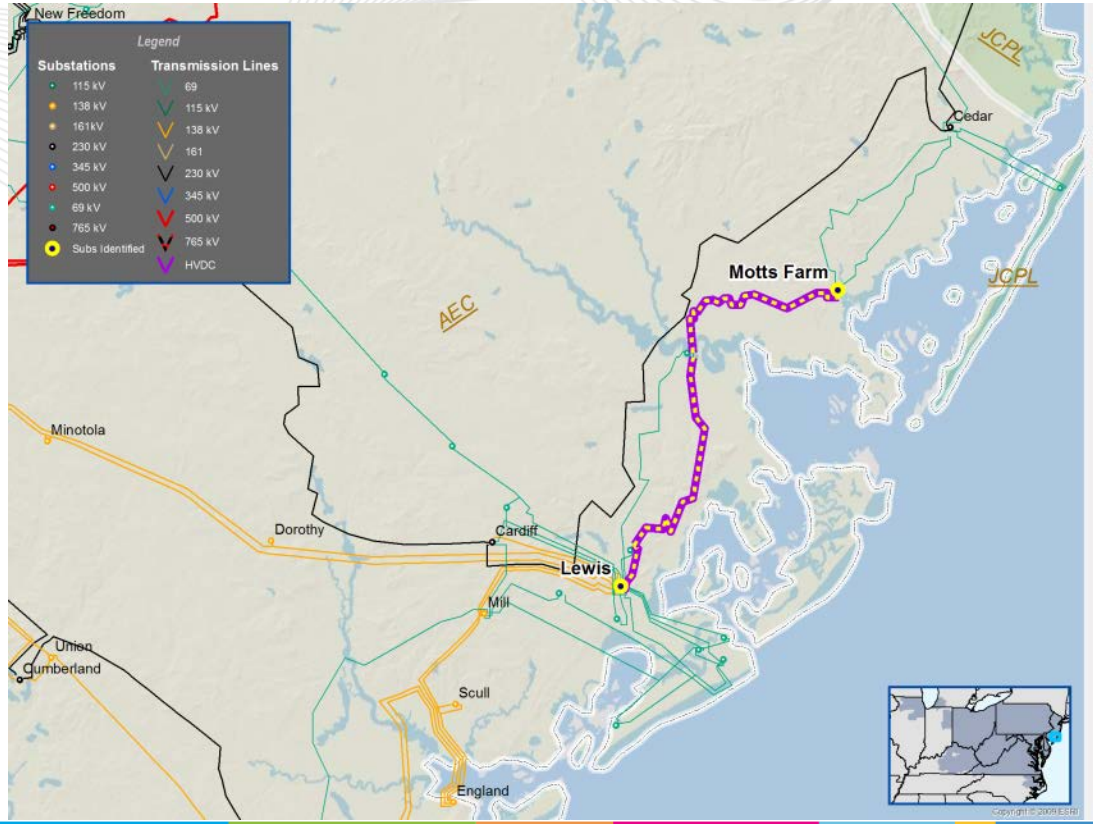


AE Transmission Zone

- Supplemental Project :
- Improves reliability due to age and condition of the circuit.
- Proposed Solution:
  - Rebuild 20.96 miles of Circuit the Lewis - Motts Farm 69 kV circuit '0702'. (S0813)
- Estimated Project Cost:

  $ 24.6 M
- Projected IS Date:

  5/31/2015

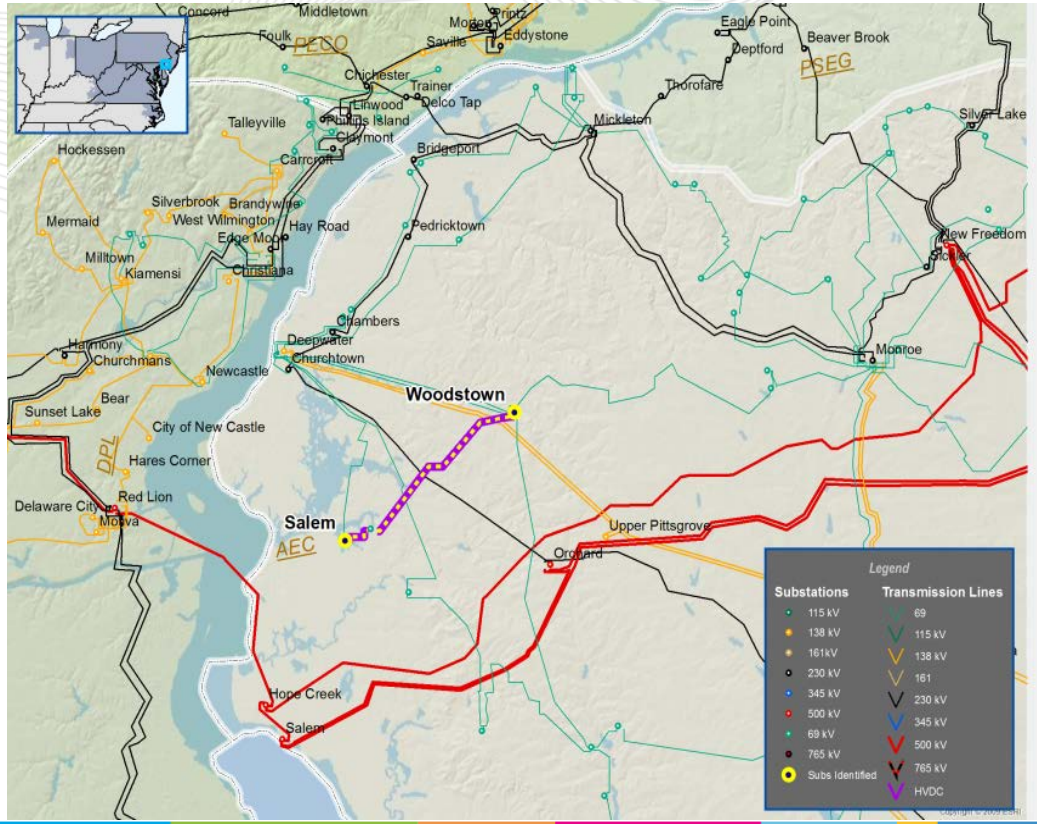


AE Transmission Zone

- Supplemental Project :
- Improves reliability due to age and condition of the circuit.
- Proposed Solution:
  - Rebuild 10.8 miles of the Salem to Woodstown 69 kV circuit '0745'. (S0814)
- Estimated Project Cost:

  $ 24.6 M
- Projected IS Date:

  12/31/2015

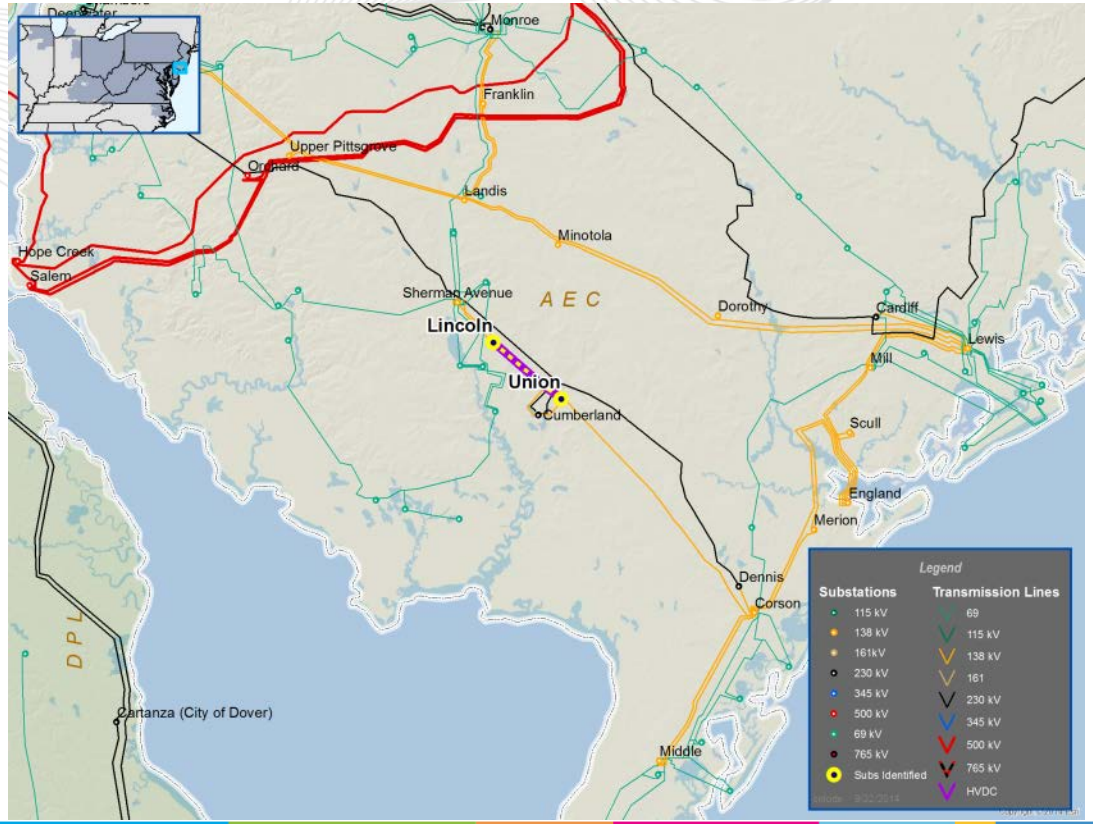


AE Transmission Zone

- Supplemental Project :
- Improves reliability due to age and condition of the circuit.
- Proposed Solution:
  - Rebuild 5.15 miles of the Lincoln - Union 138kV circuit '1419' to 2000A with 1590 ACSR. (S0815)
- Estimated Project Cost:

  $ 7 M
- Projected IS Date:

  12/31/2016

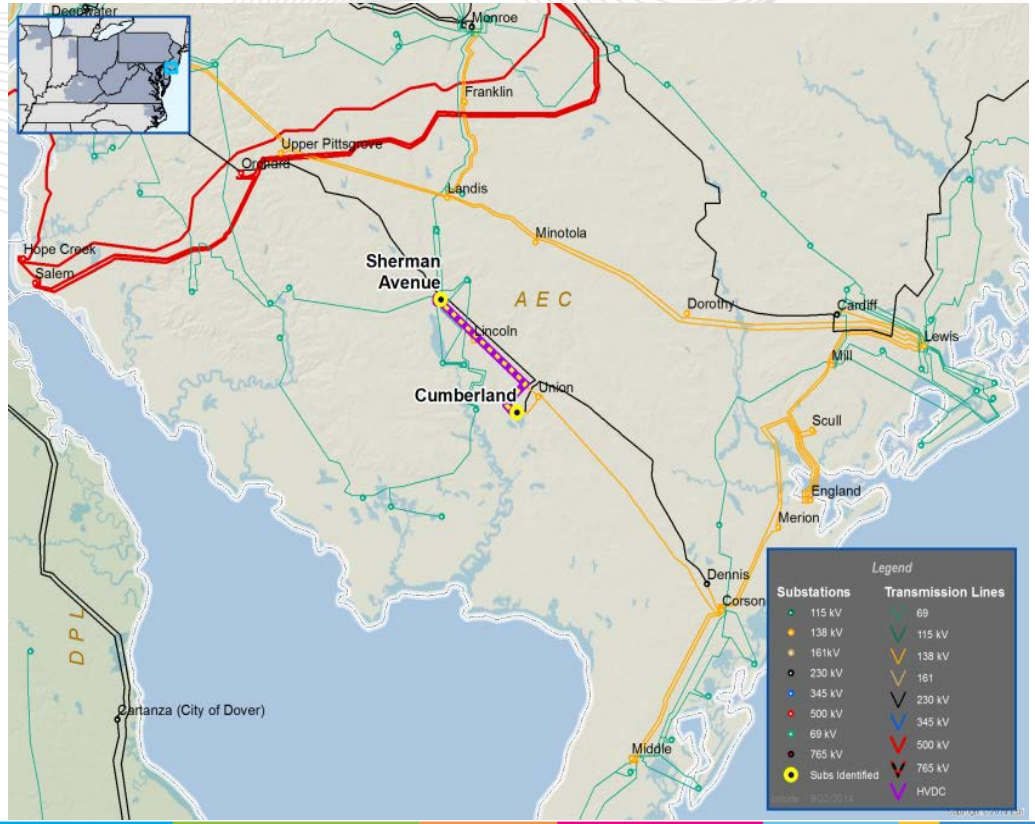


AE Transmission Zone

- Supplemental Project :
- Improves reliability due to age and condition of the circuit.
- Proposed Solution:
  - Rebuild 0.23 mile section of the Cumberland - Sherman 138kV circuit to 2000A with 1590 ACSR. (S0816)
- Estimated Project Cost:

  $ 0.34 M
- Projected IS Date:

  12/31/2015

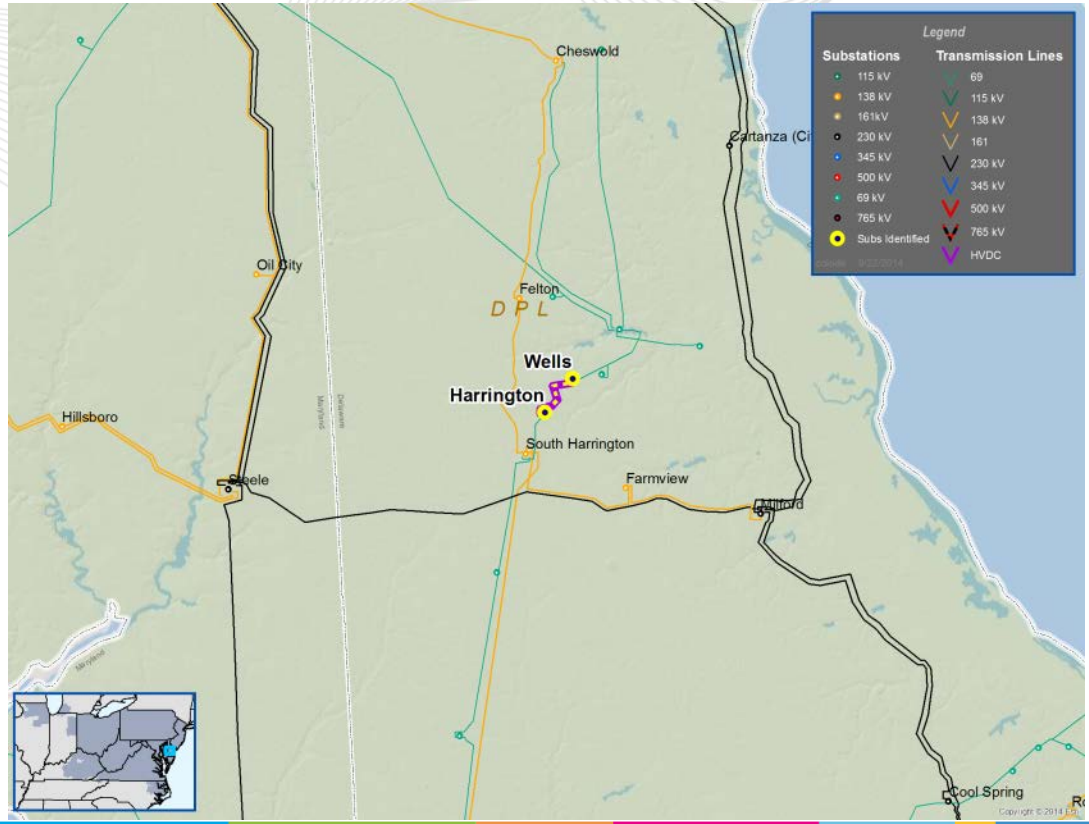


DPL Transmission Zone

- Supplemental Project :
- Improves reliability due to age and condition of the circuit.
- Proposed Solution:
  - Rebuild the Wells-Harrington 69 kV circuit '6784'. (S0817)
- Estimated Project Cost:

  $ 8.79 M
- Projected IS Date:

  12/31/2015

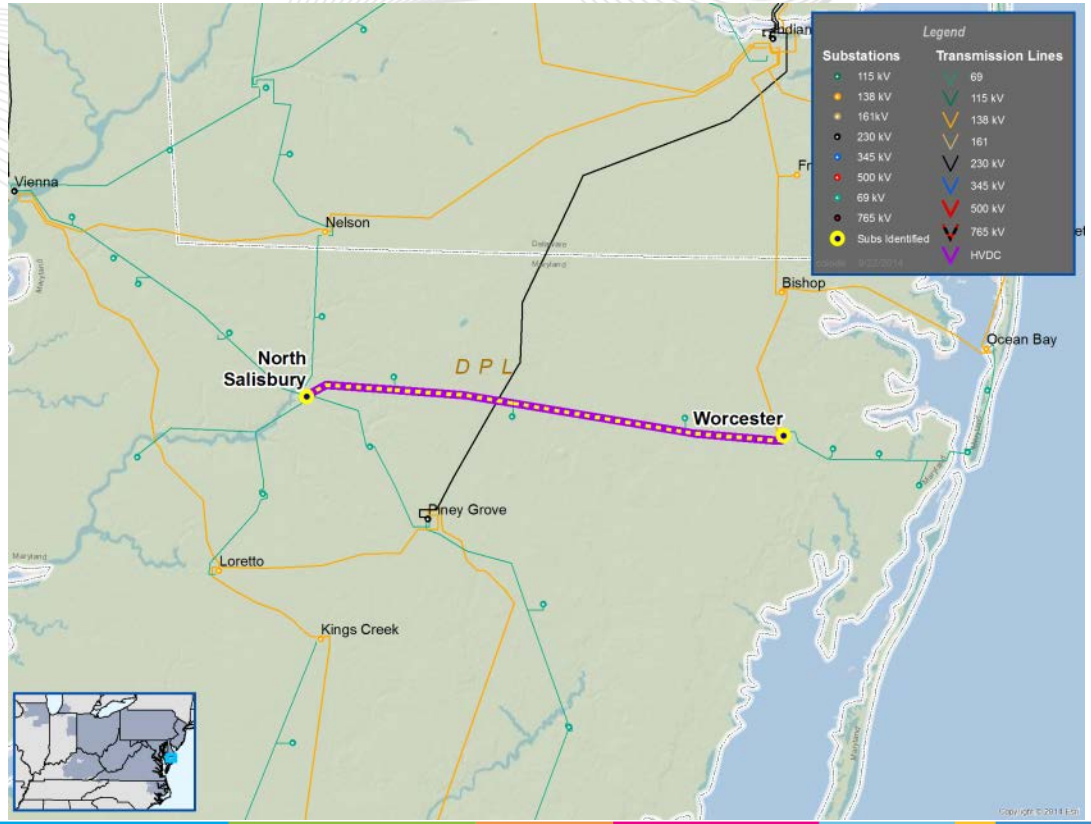


DPL Transmission Zone

- Supplemental Project :
- Improves reliability due to age and condition of the circuit.
- Proposed Solution:
  - Rebuild the Salisbury - Worcester 69 kV circuit '6741 '. (S0818)
- Estimated Project Cost:

  $ 20.34 M
- Projected IS Date:

  5/31/2016

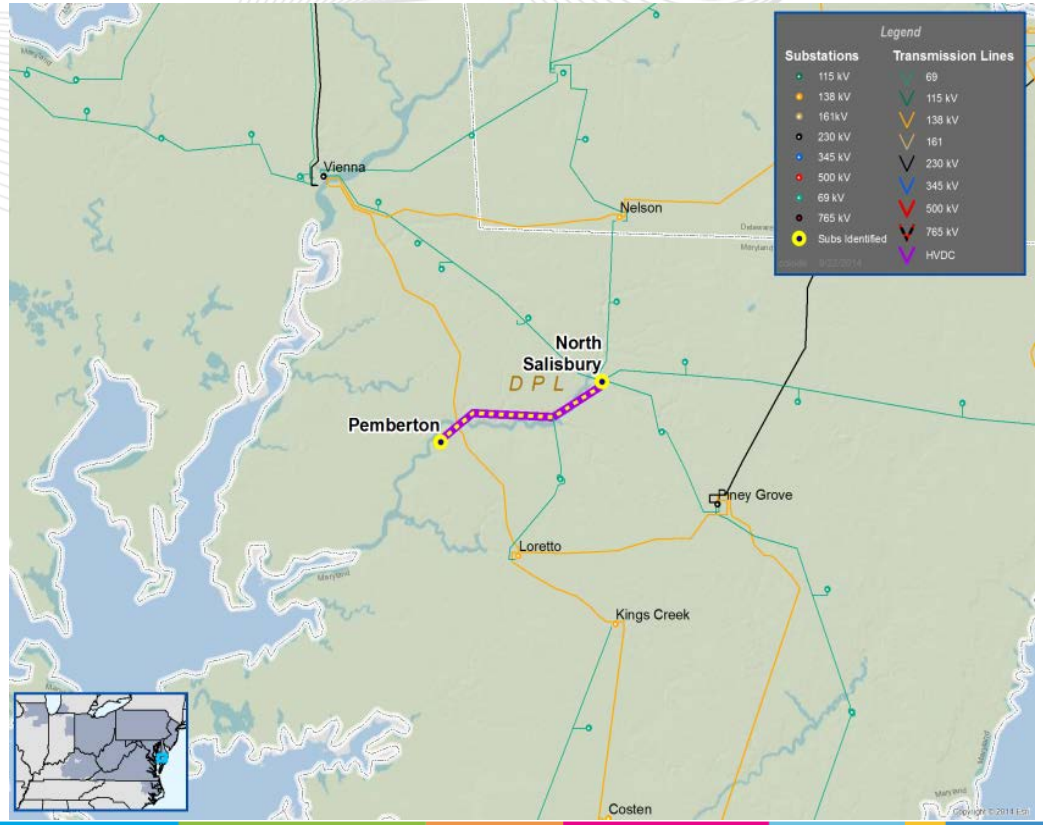


DPL Transmission Zone

- Supplemental Project :
- Improves reliability due to age and condition of the circuit.
- Proposed Solution:
  - Rebuild the North Salisbury - Pemberton 69 kV circuit ' 6701'. (S0820)
- Estimated Project Cost:

  $ 1.36 M
- Projected IS Date:

  12/31/2016

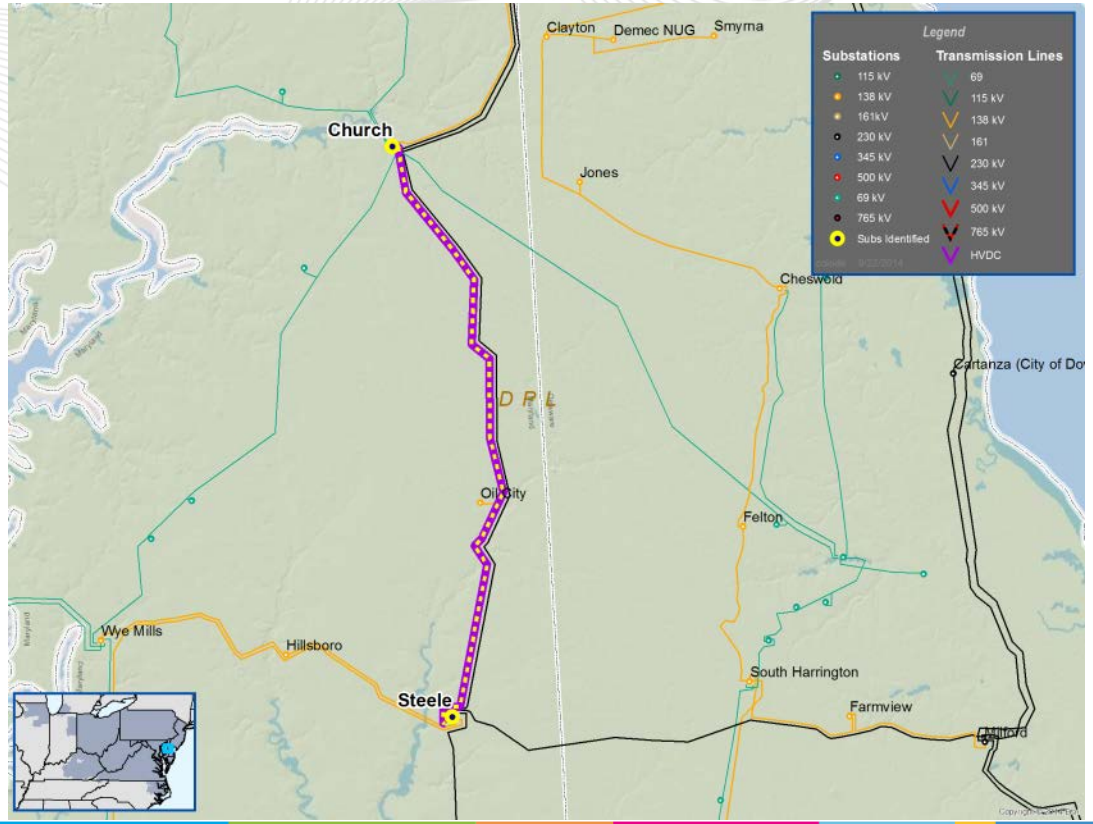


DPL Transmission Zone

- Supplemental Project :
- Improves reliability due to age and condition of the circuit.
- Proposed Solution:
  - Rebuild the Church - Steele 138 kV circuit ' 13701' . (S0821)
- Estimated Project Cost:

  $ 29.5 M
- Projected IS Date:

  5/31/2017

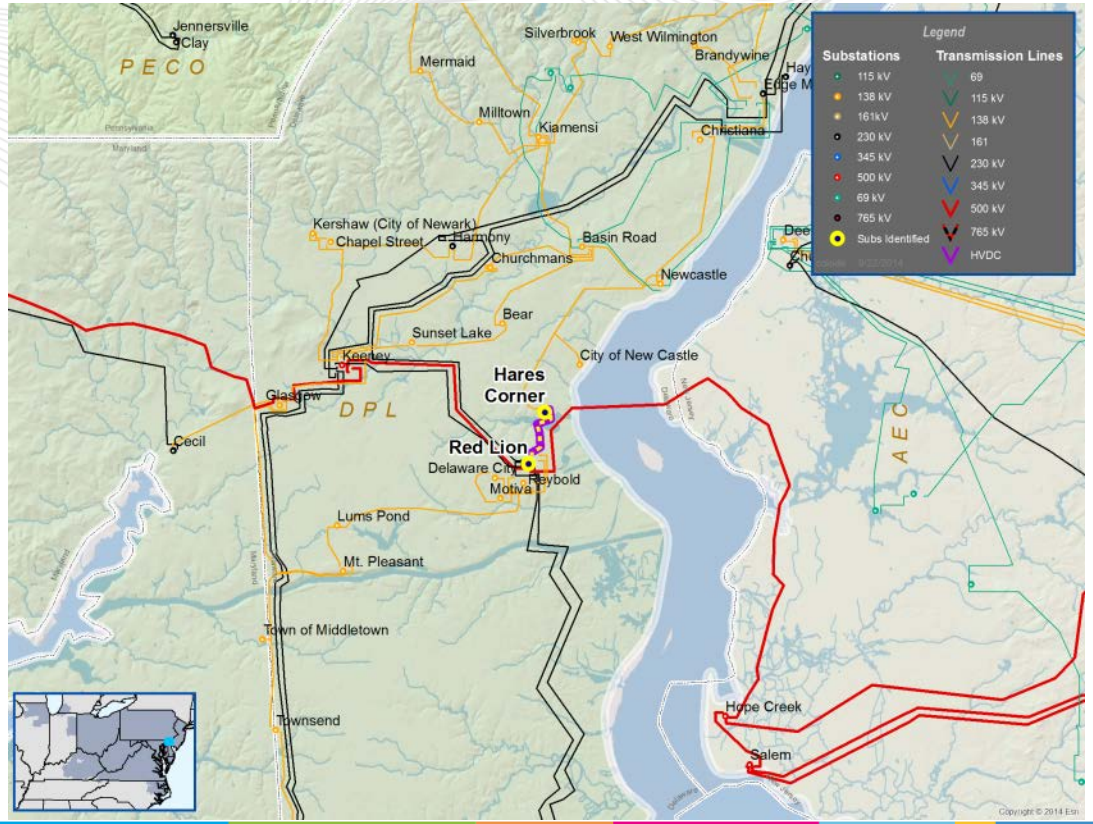


DPL Transmission Zone

- Supplemental Project :
- Improves reliability due to age and condition of the circuit.
- Proposed Solution:
  - Rebuild the Hares Corner - Red Lion 138 kV circuit ' 13812 '. (S0822)
- Estimated Project Cost:

  $ 4.22 M
- Projected IS Date:

  12/31/2017

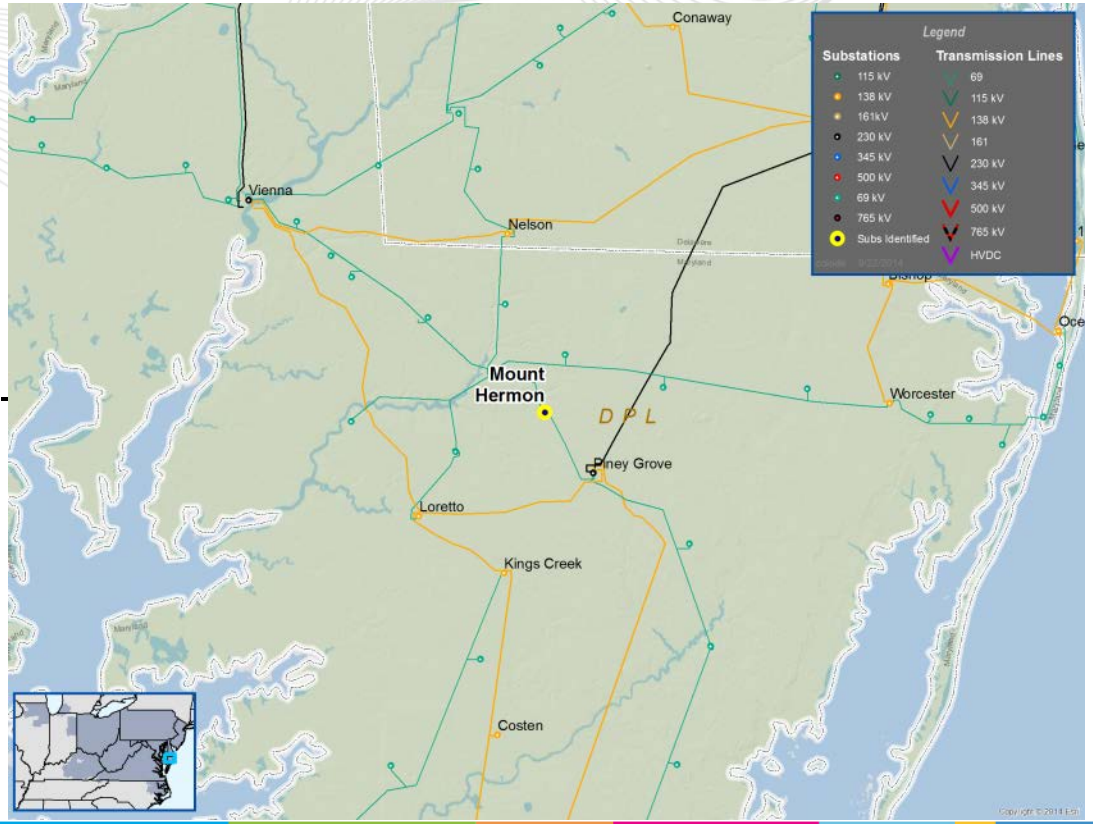


DPL Transmission Zone

- Supplemental Project :
- Improves reliability due to age and condition of the circuit.
- Proposed Solution:
  - Rebuild the Mt. Hermon - Chesapeake 69 kV circuit '6726'. (S0824)
- Estimated Project Cost:

  $ 1.36 M
- Projected IS Date:

  12/31/2017



DPL Transmission Zone

- Supplemental Project :
- Improves reliability due to age and condition of the circuit.
- Proposed Solution:
  - Rebuild 4.58 miles of the Basin Rd - Bear 138 kV circuit '13816'. (S0825)
- Estimated Project Cost:

  $ 8.48 M
- Projected IS Date:

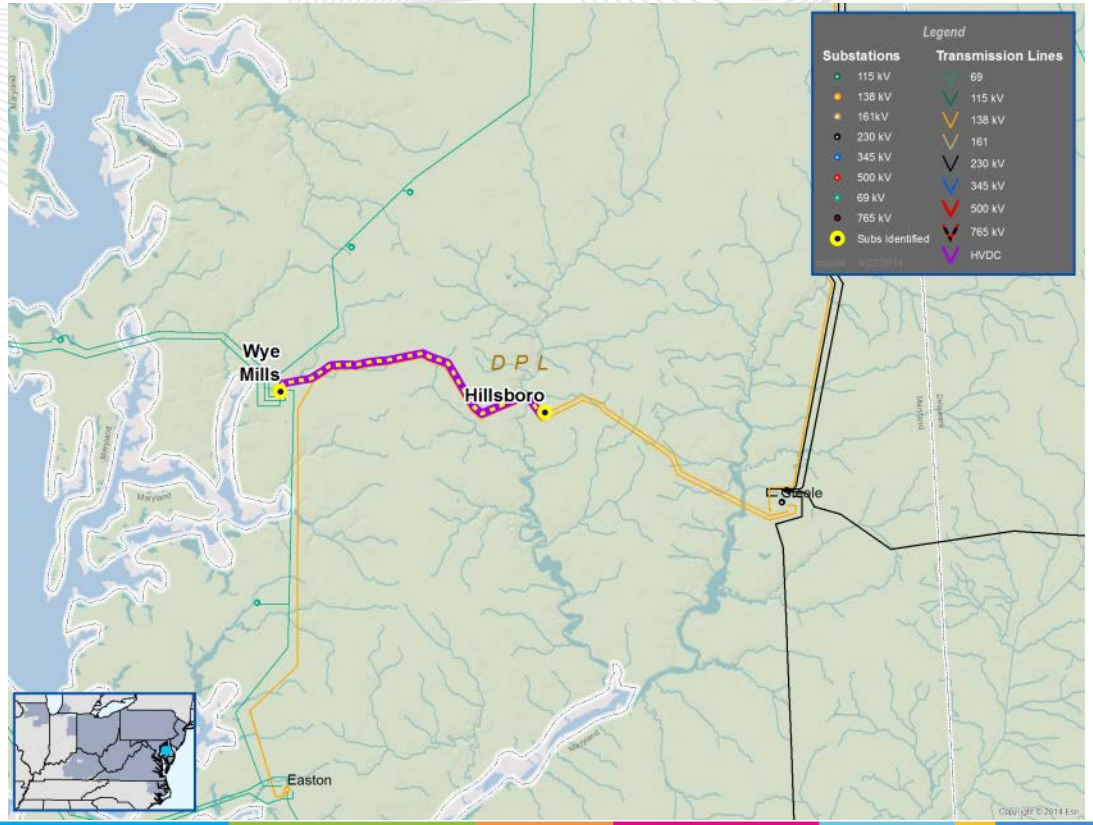
  12/31/2018

DPL Transmission Zone

- Supplemental Project :
- Improves reliability due to age and condition of the circuit.
- Proposed Solution:
  - Rebuild the Hillsboro - Wye Mills 138 kV circuit '13788'. (S0826)
- Estimated Project Cost:

  $ 9.15 M
- Projected IS Date:

  12/31/2018

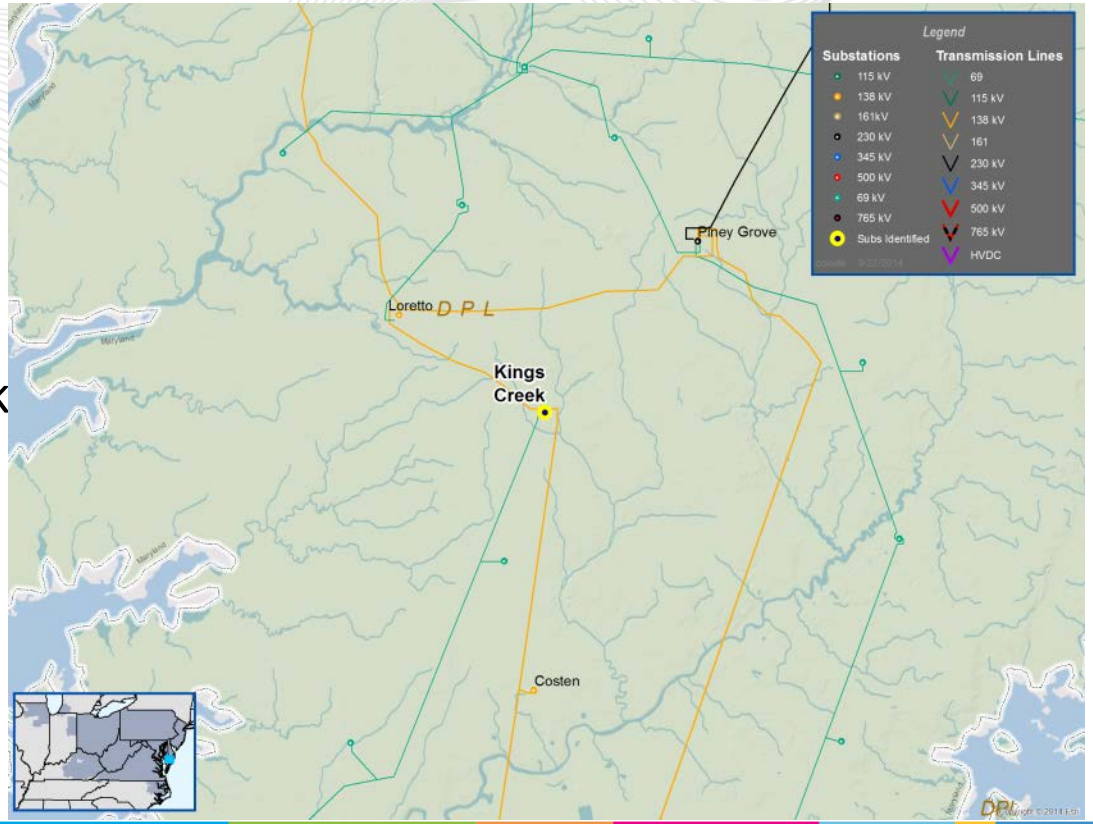


DPL Transmission Zone

- Supplemental Project :
- Improves reliability due to age and condition of the circuit.
- Proposed Solution:
  - Replace the Kings Creek AT1 138/69 kV auto-transformer. (S0827)
- Estimated Project Cost:

  $ 1.75 M
- Projected IS Date:

  12/31/2018

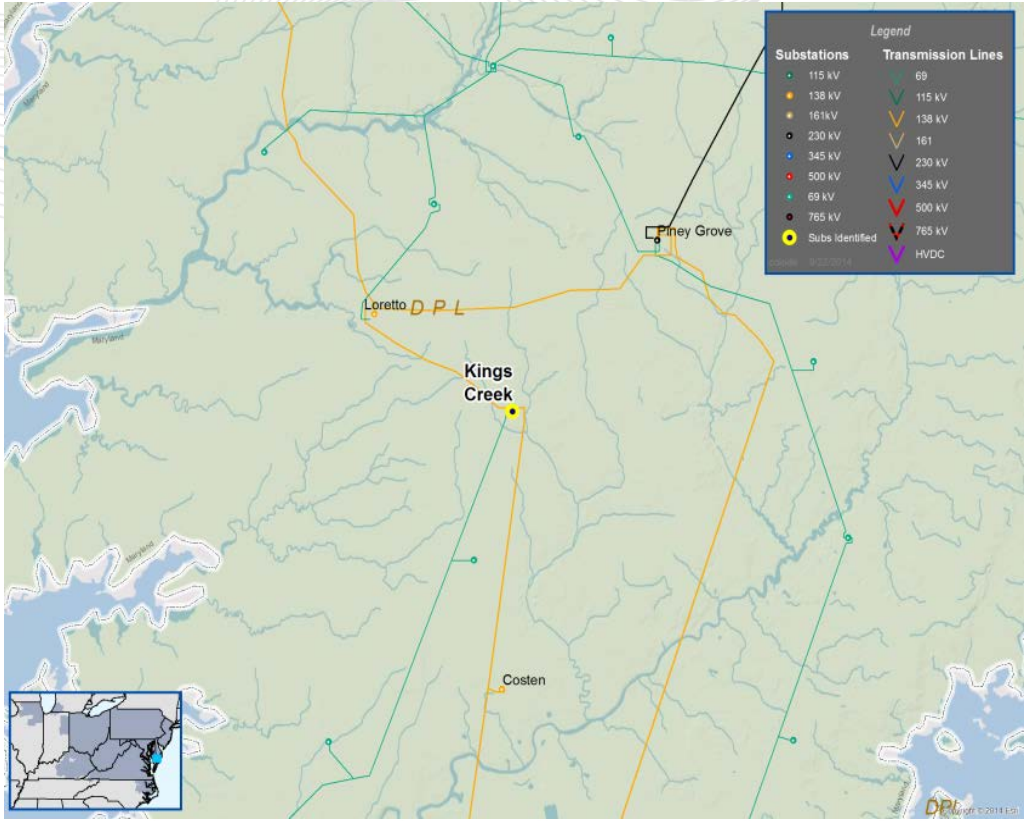


DPL Transmission Zone

- Supplemental Project :
- During peak loading the Crisfield generation cannot support the load along 6725 when Kings Creek AT1 is taken out of service. All planned outages are limited to a short window during the fall or spring. Emergency outages during peak and moderate load conditions could result in the loss of load for potentially significant durations.
- Proposed Solution:
  - Relocate Line 13713 going into Kings Creek substation during the construction of the new Kings Creek 69kV bus. (S0828)
- Estimated Project Cost:

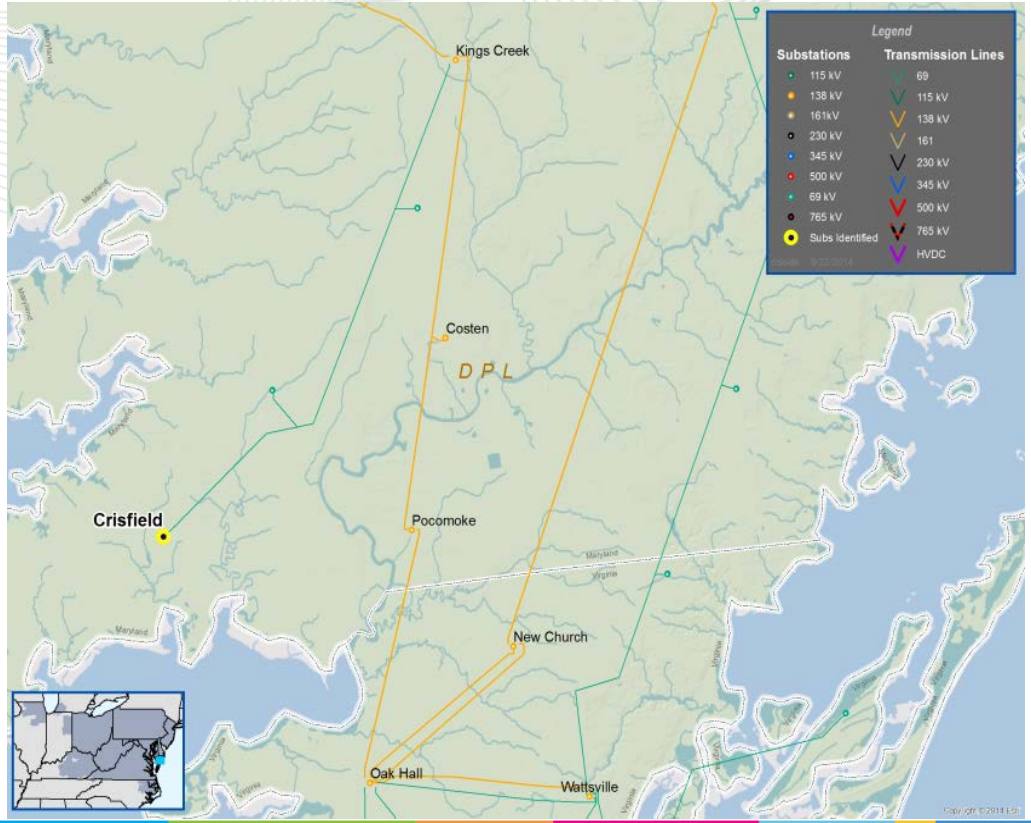
  $ 0.25 M
- Projected IS Date:

  12/31/2015



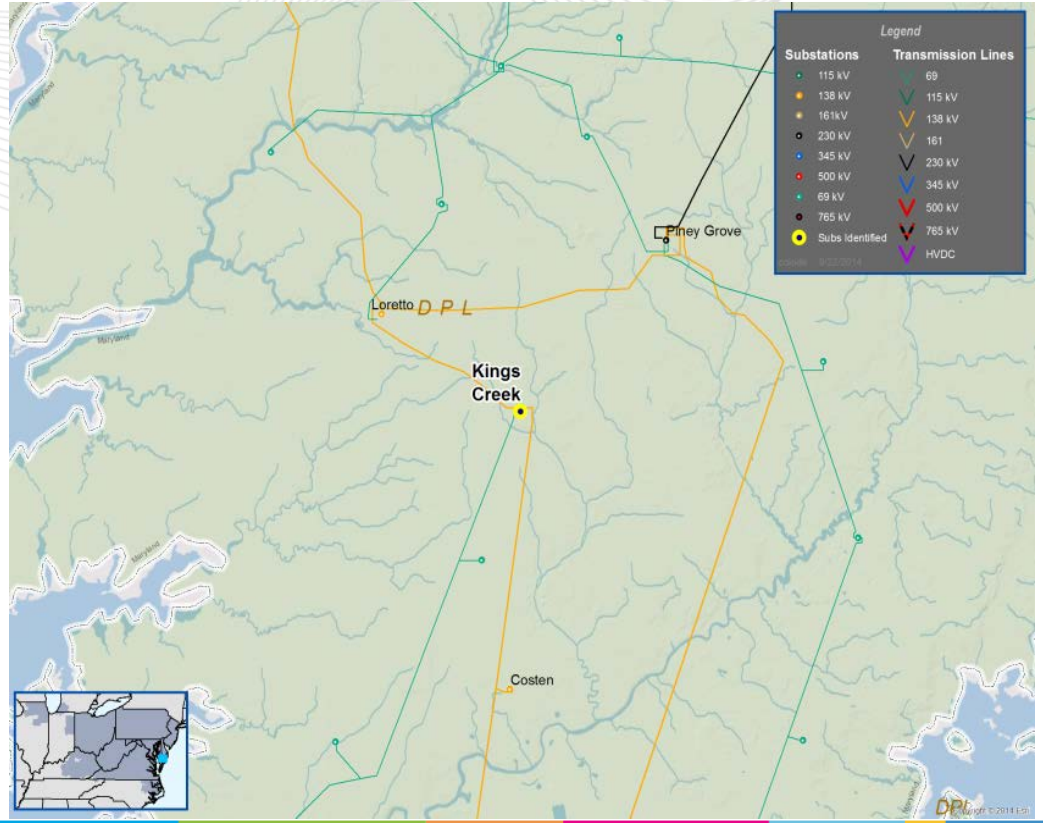
DPL Transmission Zone

- Supplemental Project :
- During peak loading the Crisfield generation cannot support the load along 6725 when Kings Creek AT1 is taken out of service. All planned outages are limited to a short window during the fall or spring. Emergency outages during peak and moderate load conditions could result in the loss of load for potentially significant durations.
- Proposed Solution:
  - A new terminal at Crisfield 69 kV substation for the new Kings Creek - Crisfield 69kV circuit. (S0829)
- Estimated Project Cost:
  $ 4.14 M
- Projected IS Date:
  12/31/2016



DPL Transmission Zone

- Supplemental Project :
- During peak loading the Crisfield generation cannot support the load along 6725 when Kings Creek AT1 is taken out of service. All planned outages are limited to a short window during the fall or spring. Emergency outages during peak and moderate load conditions could result in the loss of load for potentially significant durations.
- Proposed Solution:
  - A new terminal at Kings Creek 69 kV substation for the new Kings Creek - Crisfield 69kV circuit. (S0830)
- Estimated Project Cost:
  $ 4.69 M
- Projected IS Date:
  12/31/2016

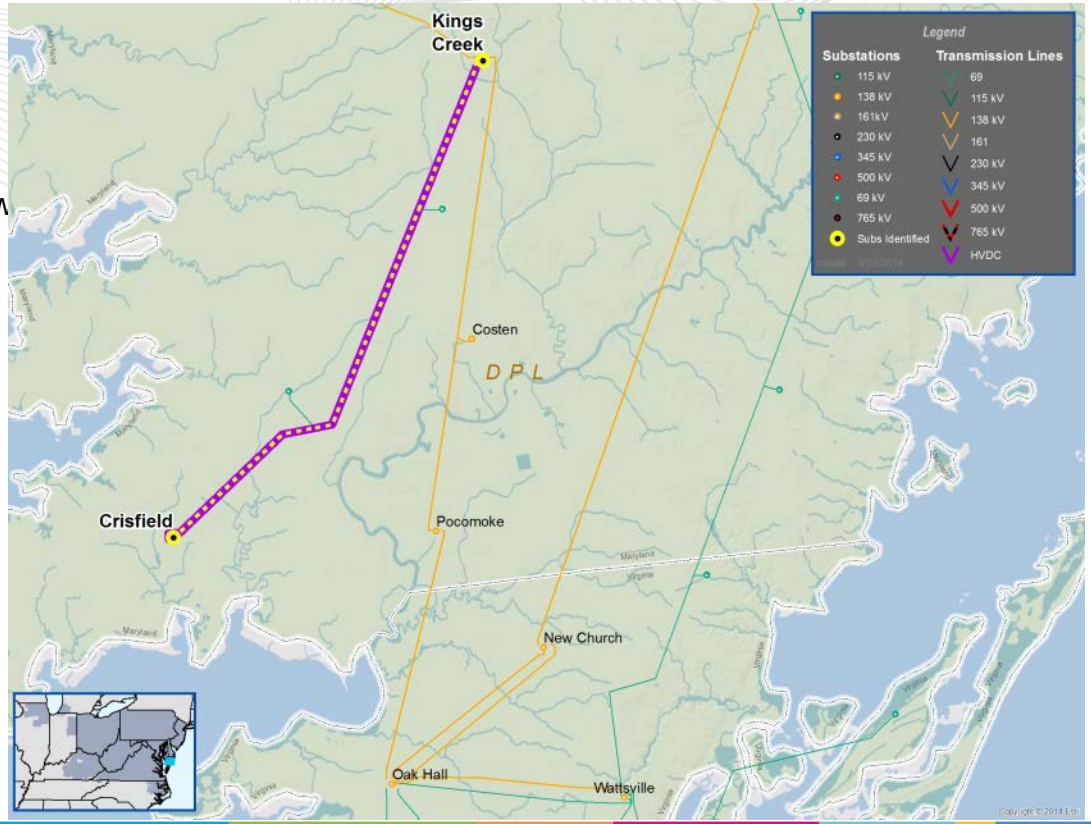


DPL Transmission Zone

- Supplemental Project :
- During peak loading the Crisfield generation cannot support the load along 6725 when Kings Creek AT1 is taken out of service. All planned outages are limited to a short window during the fall or spring. Emergency outages during peak and moderate load conditions could result in the loss of load for potentially significant durations.
- Proposed Solution:
  - Rebuild the existing Kings Creek - Crisfield 69kV circuit '6725' and construct a 2nd Kings Creek - Crisfield 69 kV circuit. (S0831)
- Estimated Project Cost:

  $ 25.58 M
- Projected IS Date:

  12/31/2017

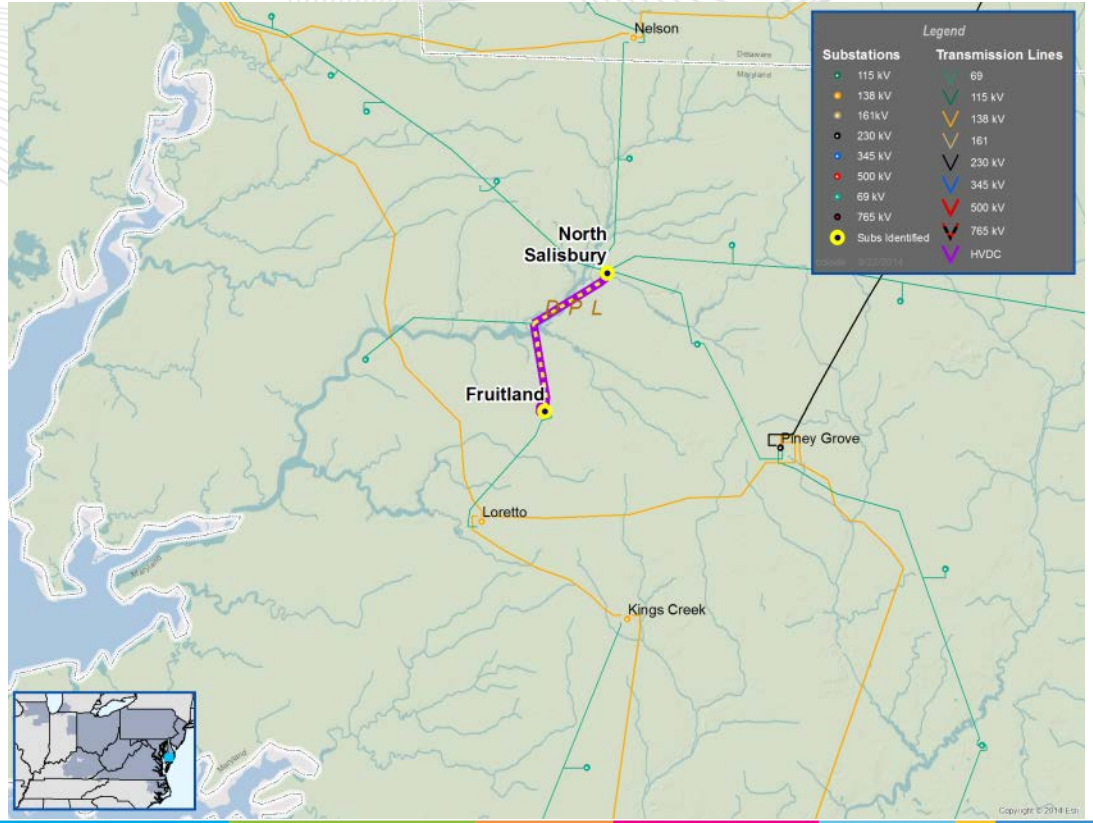


DPL Transmission Zone

- Supplemental Project :
- Improves reliability due to age and condition of the circuit.
- Proposed Solution:
  - Rebuild 7 miles of the Fruitland - N Salisbury 69 kV circuit '6701'. (S0832)
- Estimated Project Cost:

  $ 8.33 M
- Projected IS Date:

  12/31/2016

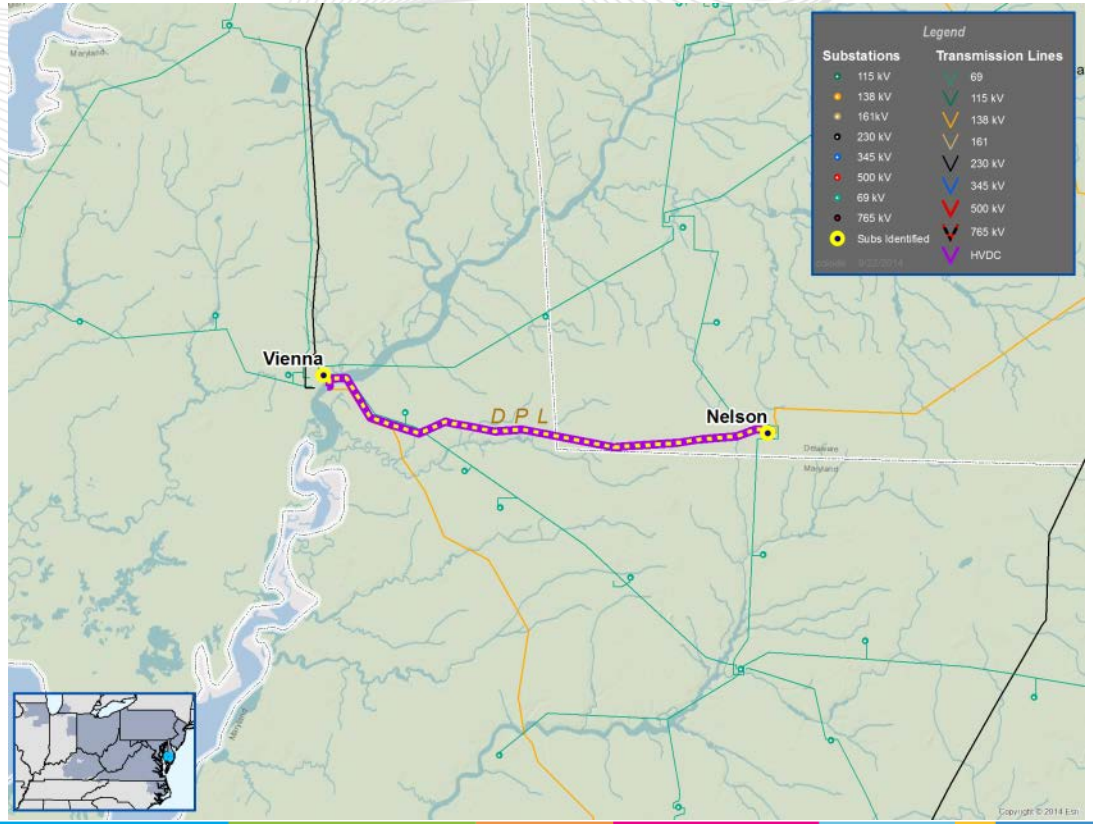


DPL Transmission Zone

- Supplemental Project :
- Improves reliability due to age and condition of the circuit.
- Proposed Solution:
  - Rebuild 6.16 miles of the Vienna - Nelson 138 kV circuit '13707' (Delaware). (S0833)
- Estimated Project Cost:

  $ 7.21 M
- Projected IS Date:

  12/31/2018

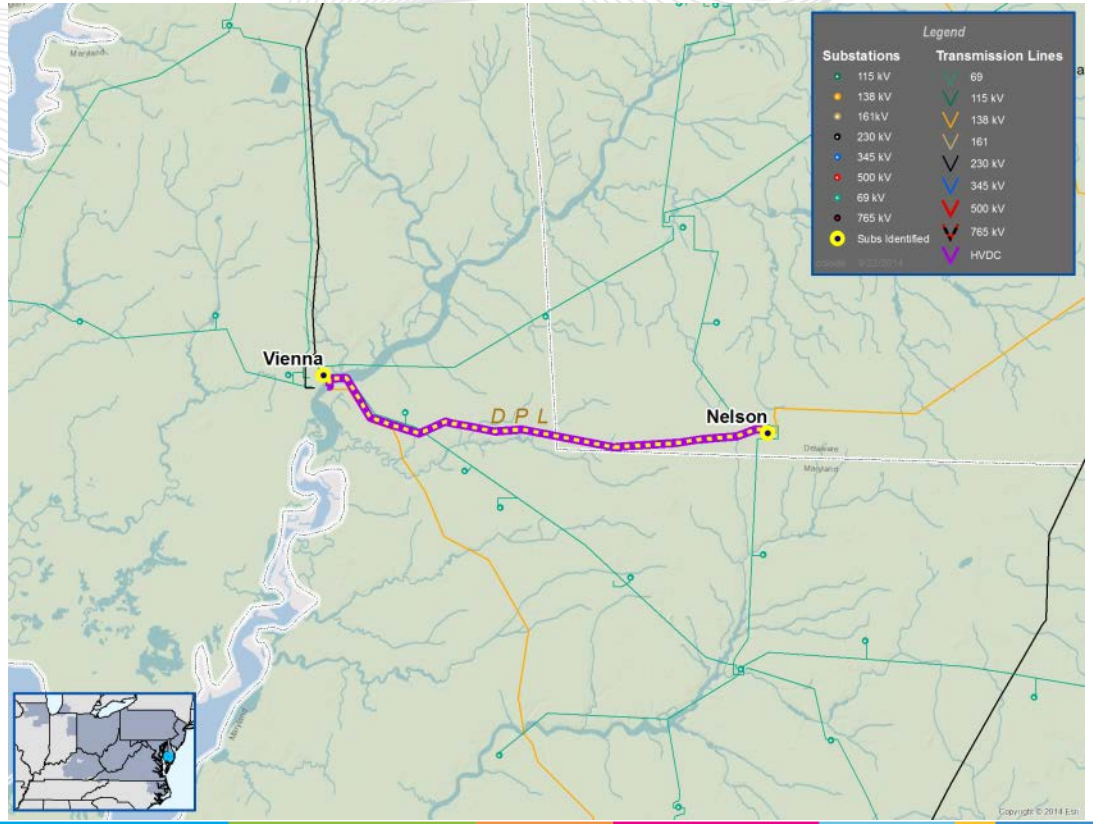


DPL Transmission Zone

- Supplemental Project :
- Improves reliability due to age and condition of the circuit.
- Proposed Solution:
  - Rebuild 7.57 miles of the Vienna - Nelson 138 kV circuit '13707' (Maryland). (S0834)
- Estimated Project Cost:

  $ 8.9 M
- Projected IS Date:

  12/31/2018

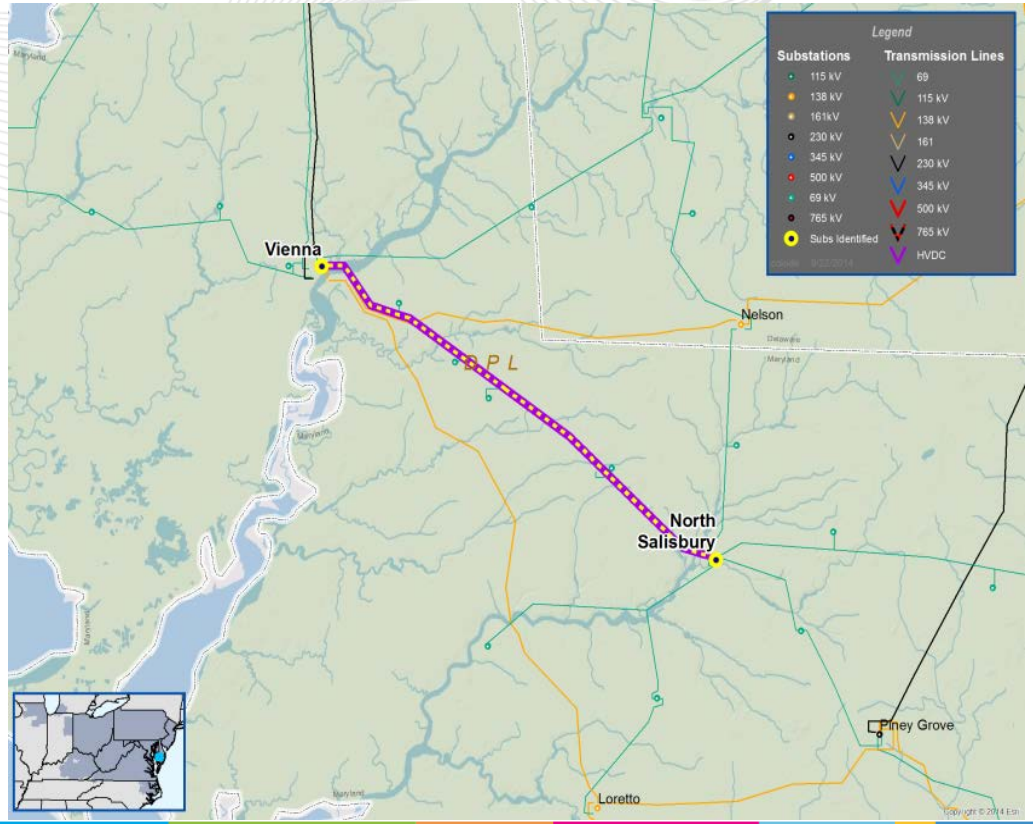


DPL Transmission Zone

- Supplemental Project :
- Improves reliability due to age and condition of the circuit.
- Proposed Solution:
  - Rebuild 14.7 miles of the Vienna - N. Salisbury 69 kV circuit '6708'. (S0835)
- Estimated Project Cost:

  $ 13.8 M
- Projected IS Date:

  12/31/2018

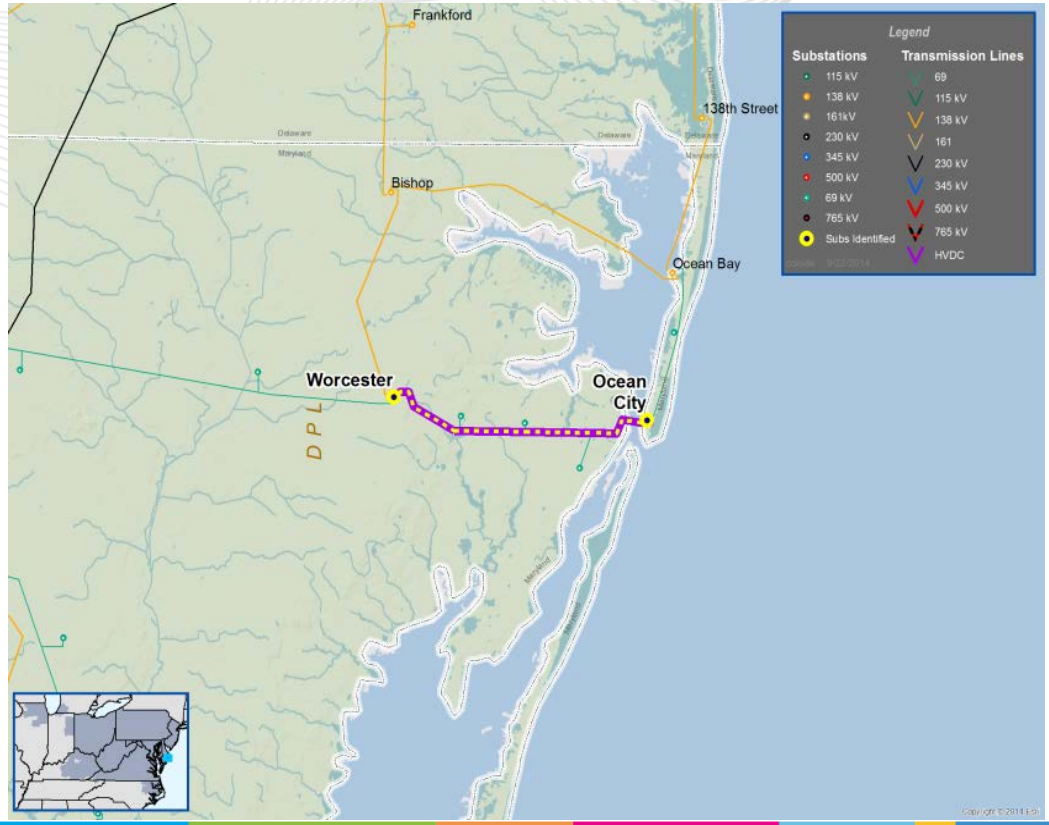


DPL Transmission Zone

- Supplemental Project :
- Improves reliability due to age and condition of the circuit. Resolves N-1-1 condition on non BES facility.
- Proposed Solution:
  - Rebuild the Worcester - Ocean City 69kV circuit '6724'. (S0836)
- Estimated Project Cost:

  $ 12.19 M
- Projected IS Date:

  5/31/2015

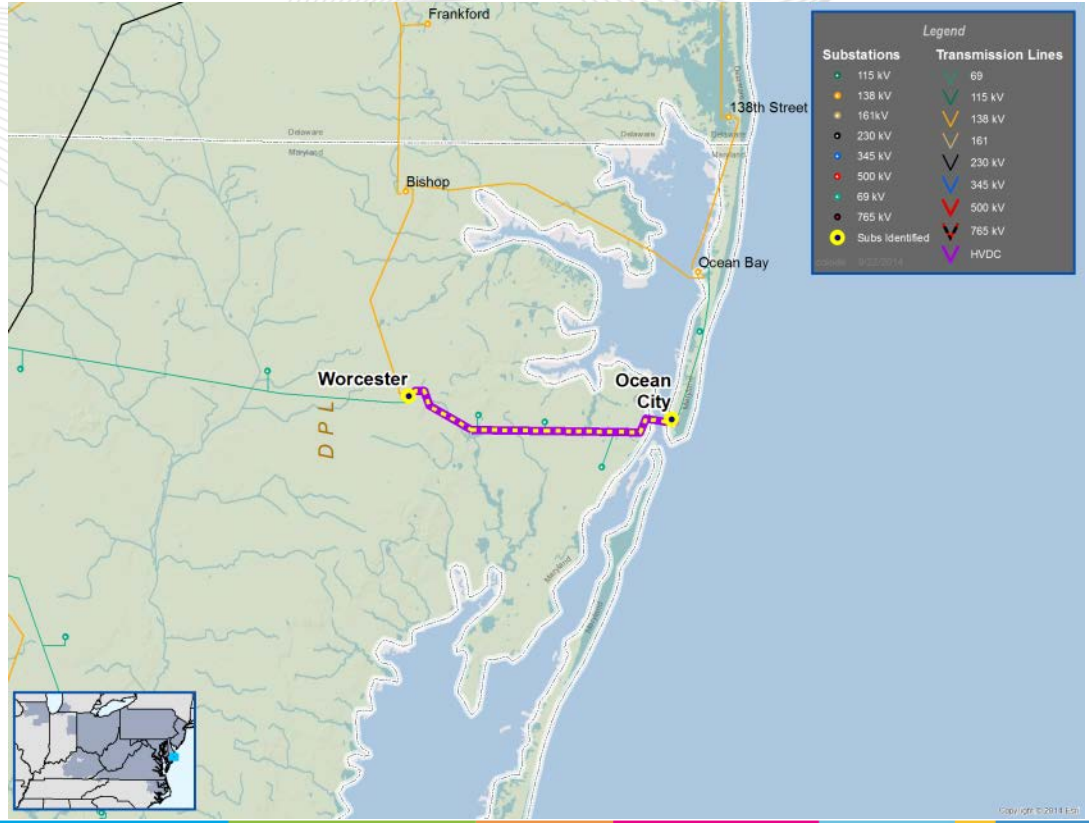


DPL Transmission Zone

- Supplemental Project :
- Improves reliability due to age and condition of the circuit. Resolves N-1-1 condition on non BES facility.
- Proposed Solution:
  - Upgrade terminal equipment at Worcester Substation on the Worcester - Ocean City 69 kV. (S0837)
- Estimated Project Cost:

  $ 0.37 M
- Projected IS Date:

  5/31/2015

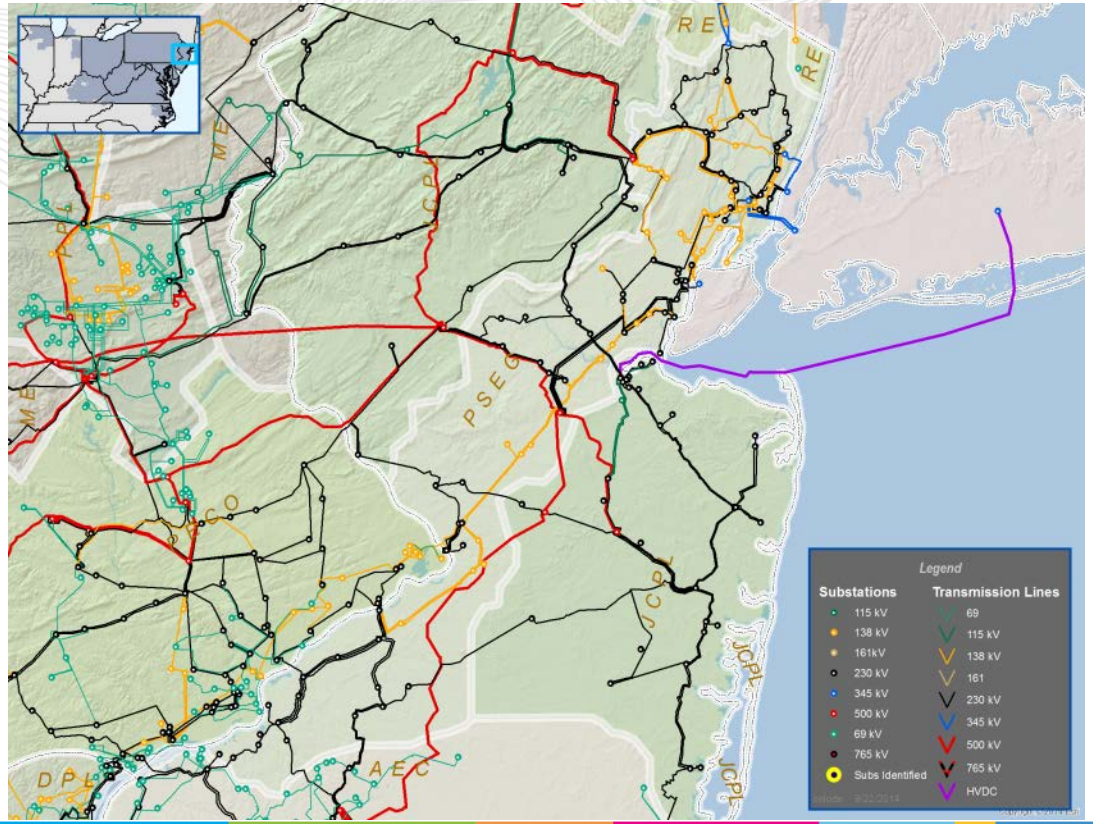


JCPL Transmission Zone

- Supplemental Project :
- Thermal overload on the underground egress into Hoper Ave substation.
- Proposed Solution:
  - Construct 34.5 kV bypass line at Hooper Ave. substation (S0787).
- Estimated Project Cost:

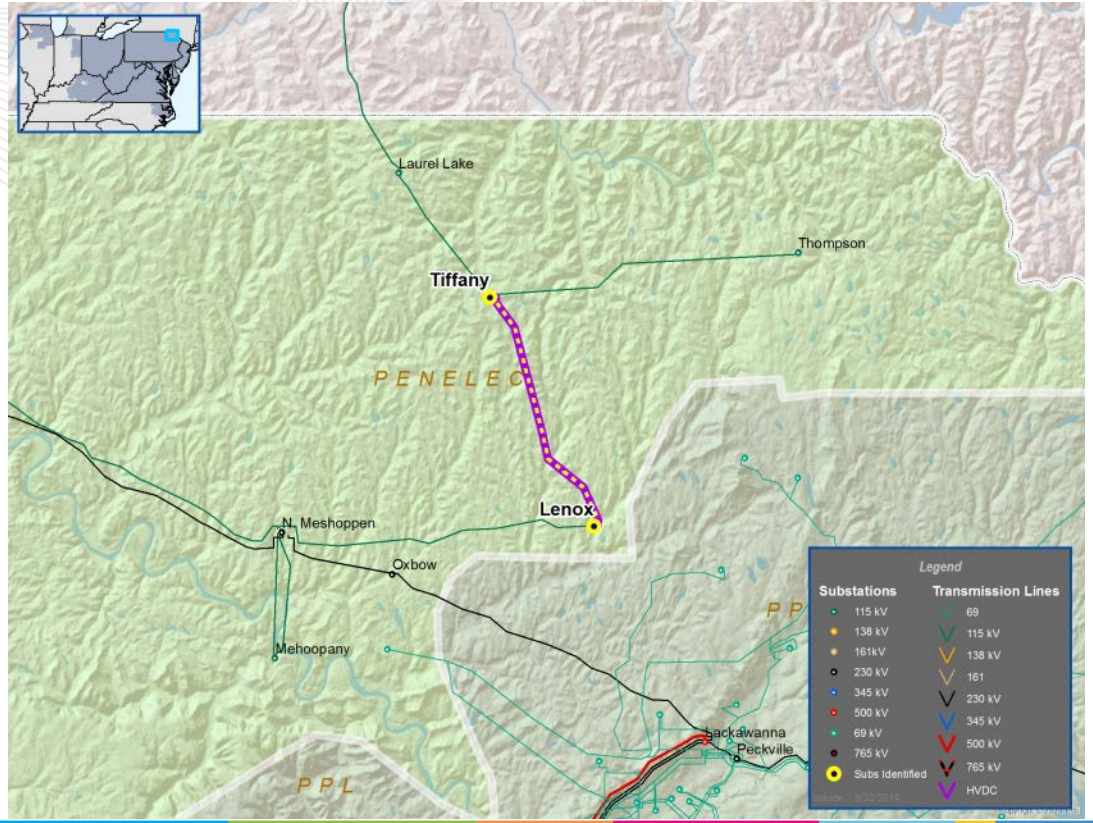
  $ 0.2 M
- Projected IS Date:

  6/1/2015



PenElec Transmission Zone

- Supplemental Project :
- Load connection.
- Proposed Solution:
  - Tap the Tiffany – Lennox 115 kV line and provide meter. (S0788)
- Estimated Project Cost: $ 0.7 M
- Projected IS Date: 9/19/2014

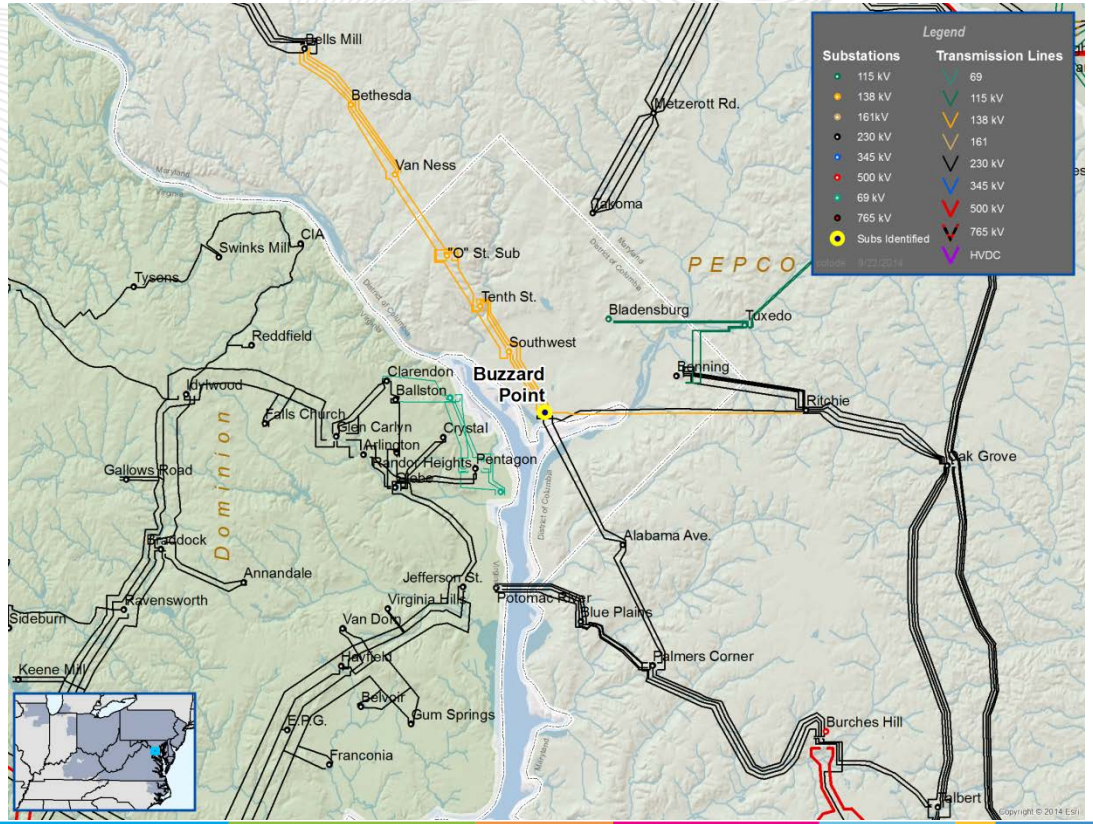


PEPCO Transmission Zone

- Supplemental Project :
- Improves reliability due to load growth.
- Proposed Solution:
  - Install a new Waterfront 138/13kV Sub. 223 and build four new 138kV circuits from Buzzard Point to supply the station. (S0838)
- Estimated Project Cost:

  $ 76 M
- Projected IS Date:

  12/31/2016

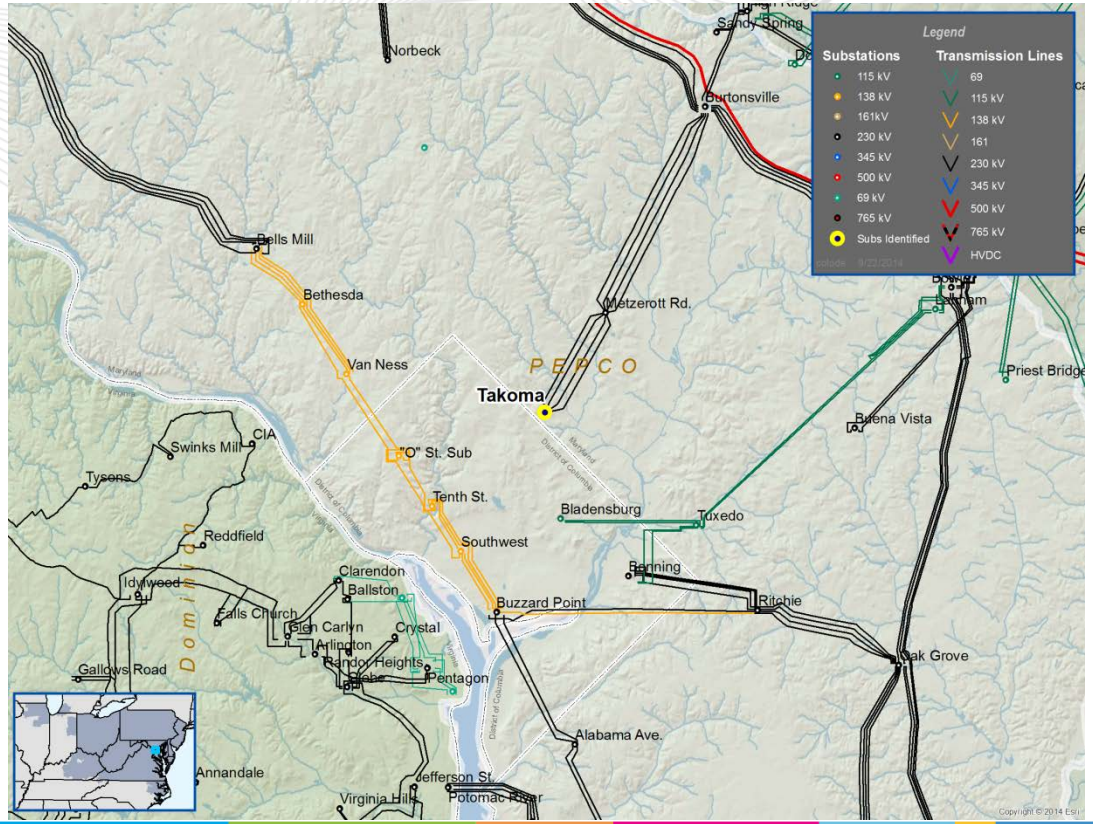


PEPCO Transmission Zone

- Supplemental Project :
- Improves reliability due to load growth.
- Proposed Solution:
  - Install Mt. Vernon 230/13kV Sub and 230kV High-Side-Bus at Takoma Sub. 27. Extend four new 230kV U.G. circuits from the new Takoma HSB to the Mt. Vernon substation on two separate rights-of-way. (S0839)
- Estimated Project Cost:

  $ 345 M
- Projected IS Date:

  12/31/2021

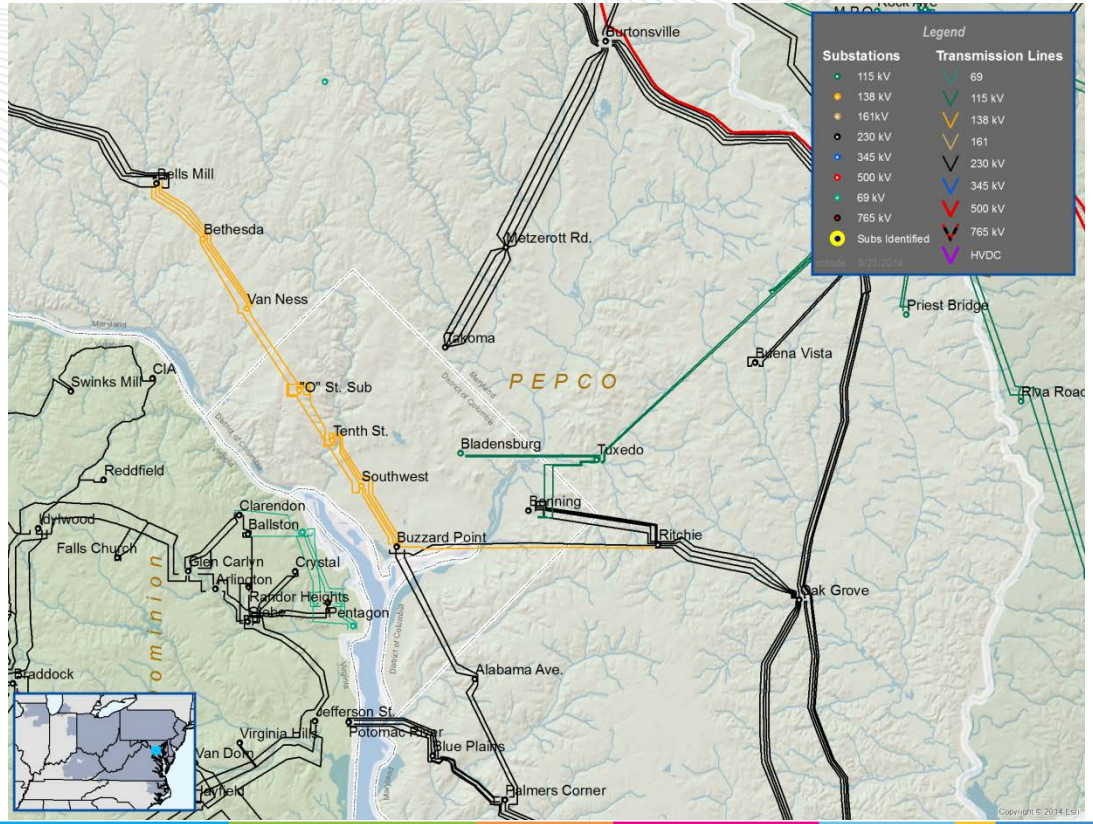


PEPCO Transmission Zone

- Supplemental Project :
- Improves reliability due to load growth.
- Proposed Solution:
  - Install New Harvard 230/13kV Sub and supply the station by tapping two of the extend circuits to serve Mt. Vernon. (S0840)
- Estimated Project Cost:

  $ 110 M
- Projected IS Date:

  12/31/2020

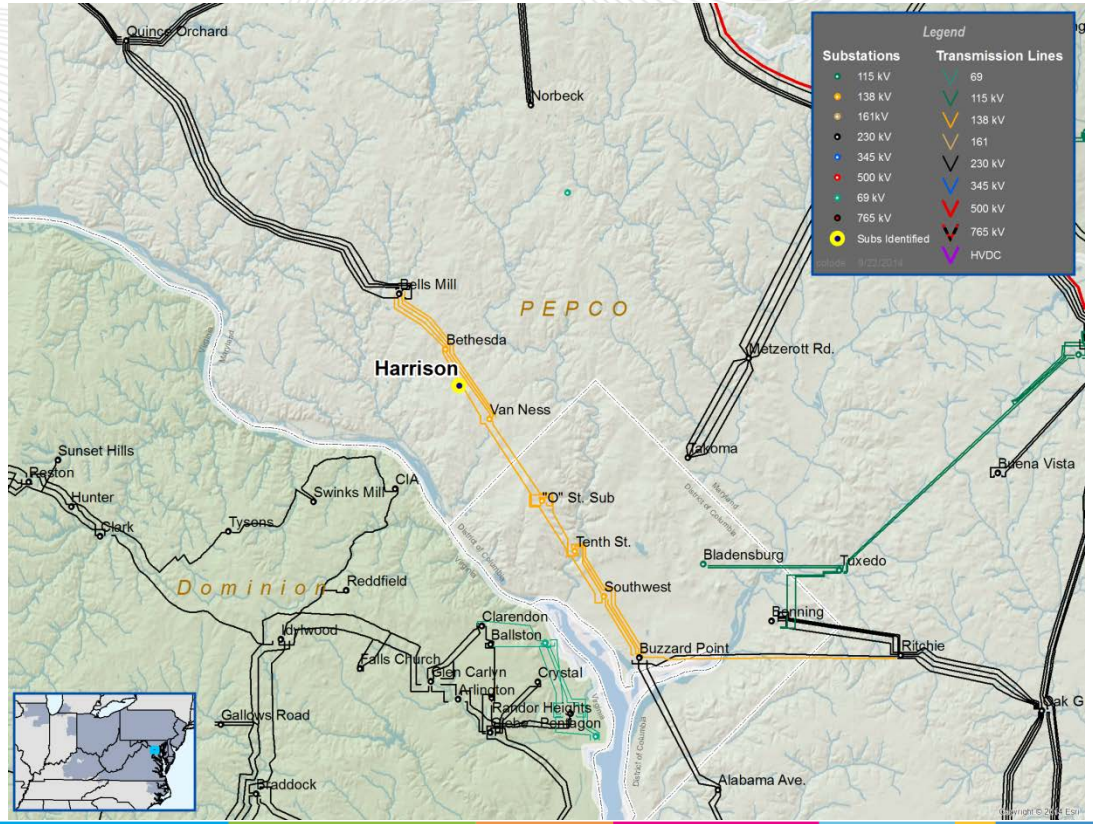


PEPCO Transmission Zone

- Supplemental Project :
- Improves reliability due to load growth.
- Proposed Solution:
  - Install New Harrison 138/13kV Sub, to replace the existing Harrison Sub. 38. Supply the station by cutting in and out of two 138kV circuits between Bethesda Sub. 6 and Van Ness Sub. 129. (S0841)
- Estimated Project Cost:

  $ 73.5 M
- Projected IS Date:

  12/31/2027

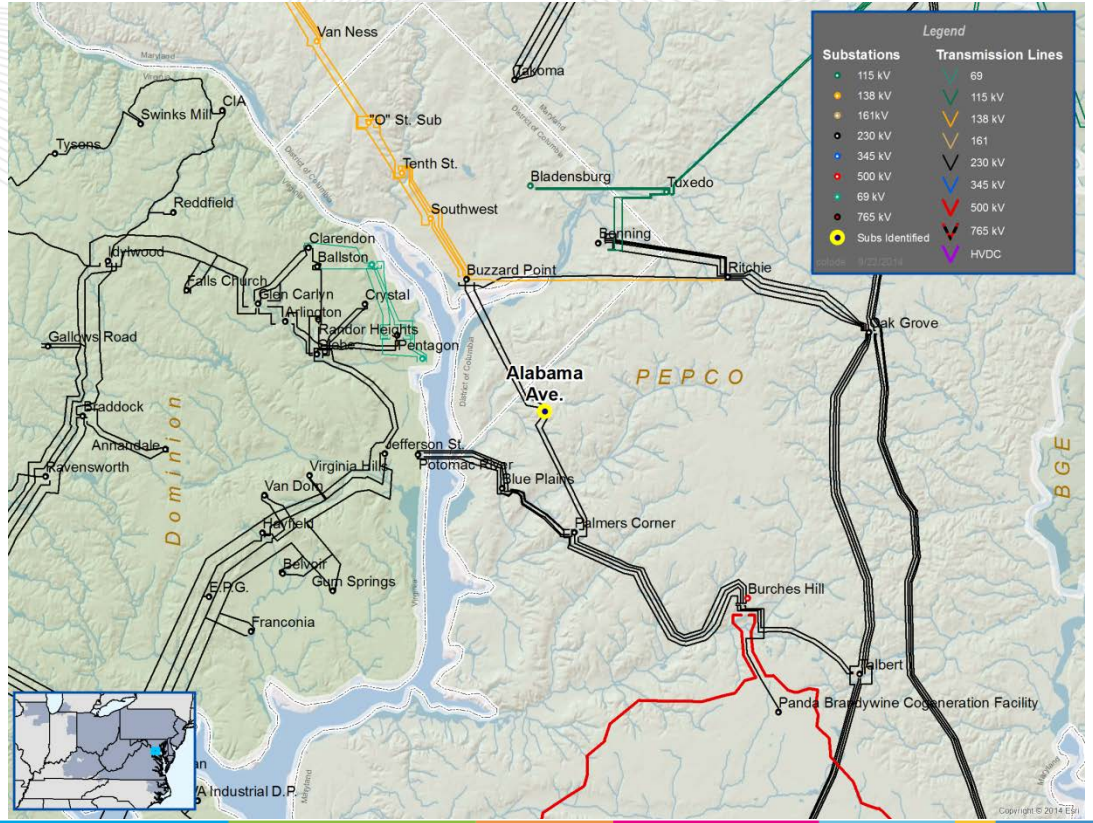


PEPCO Transmission Zone

- Supplemental Project :
- The shunt reactors are being added at Alabama Ave Sub. 136 on Feeders 23088 and 23089 to avoid overvoltage issues on the 230kV and 13.8kV buses at the station. Operating procedures are currently in place to address this problem, but result in the station Firm Capacity being based on the loss of two transformers. With the shunt reactors in place the Firm Capacity will be based on a single transformer outage with a resultant increase in capacity.
- Proposed Solution:
  - Install two 100 MVAR Shunt Reactors at Alabama Avenue Sub. 136. (S0842)
- Estimated Project Cost:

  $ 12 M
- Projected IS Date:

  12/31/2016

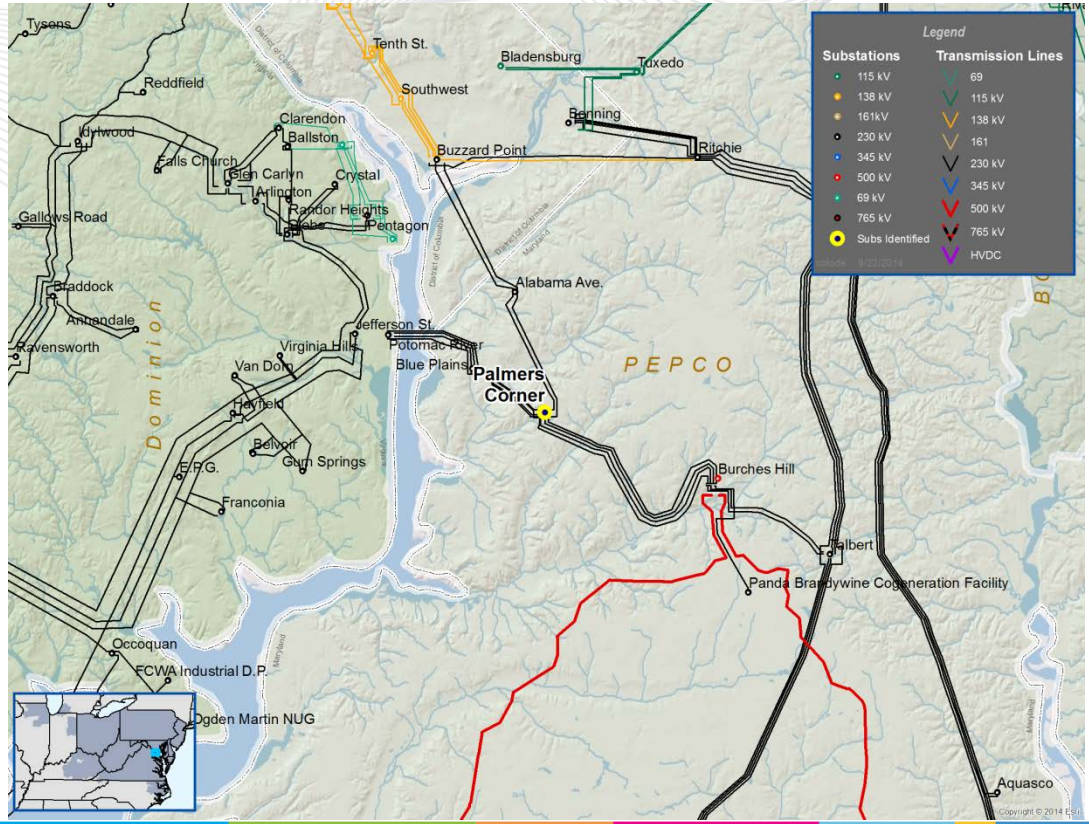


PEPCO Transmission Zone

- Supplemental Project :
- Improves reliability due to age and condition of the transformer.
- Proposed Solution:
  - Replace Palmers Corner Sub. 84 – TR #3 with a new 230/69kV 224 MVA transformer. (S0843)
- Estimated Project Cost:

  $ 2.2 M
- Projected IS Date:

  1/12/2015

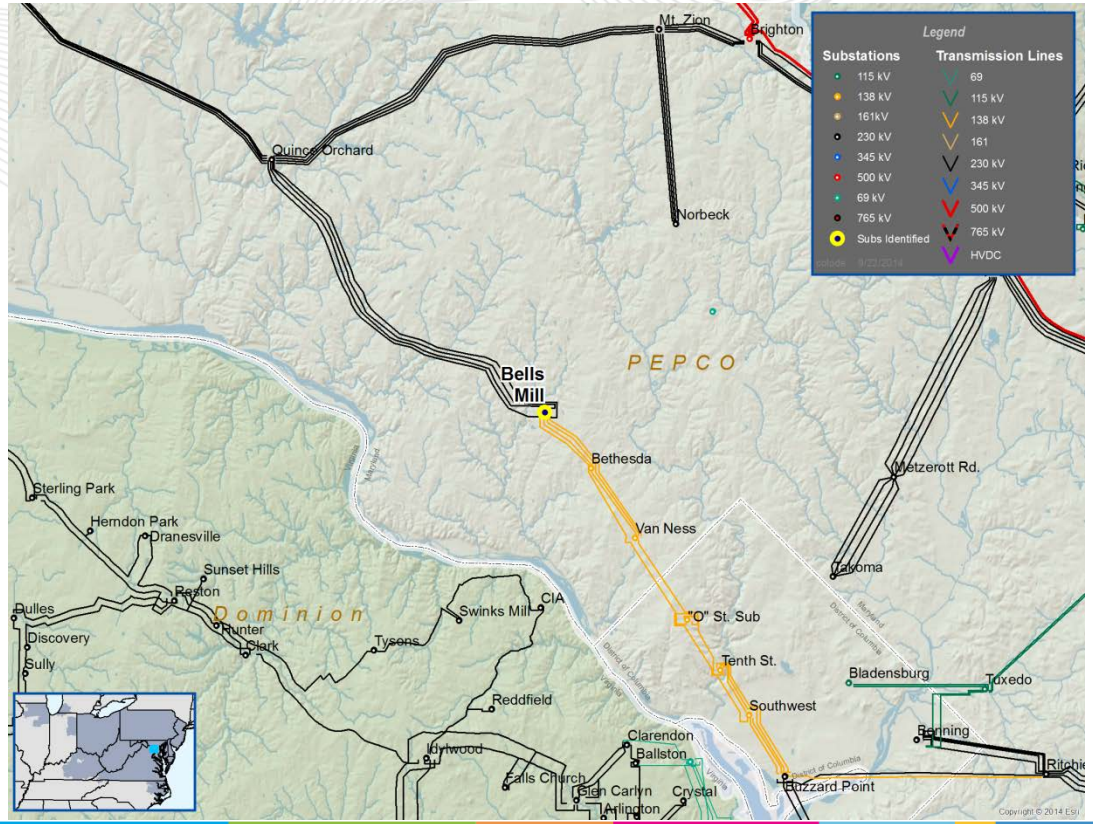


PEPCO Transmission Zone

- Supplemental Project :
- Improves reliability due to age and condition of the transformer.
- Proposed Solution:
  - Replace Bells Mill Sub. 121 – TR #14 with a new 230/69kV 280 MVA transformer. (S0844)
- Estimated Project Cost:

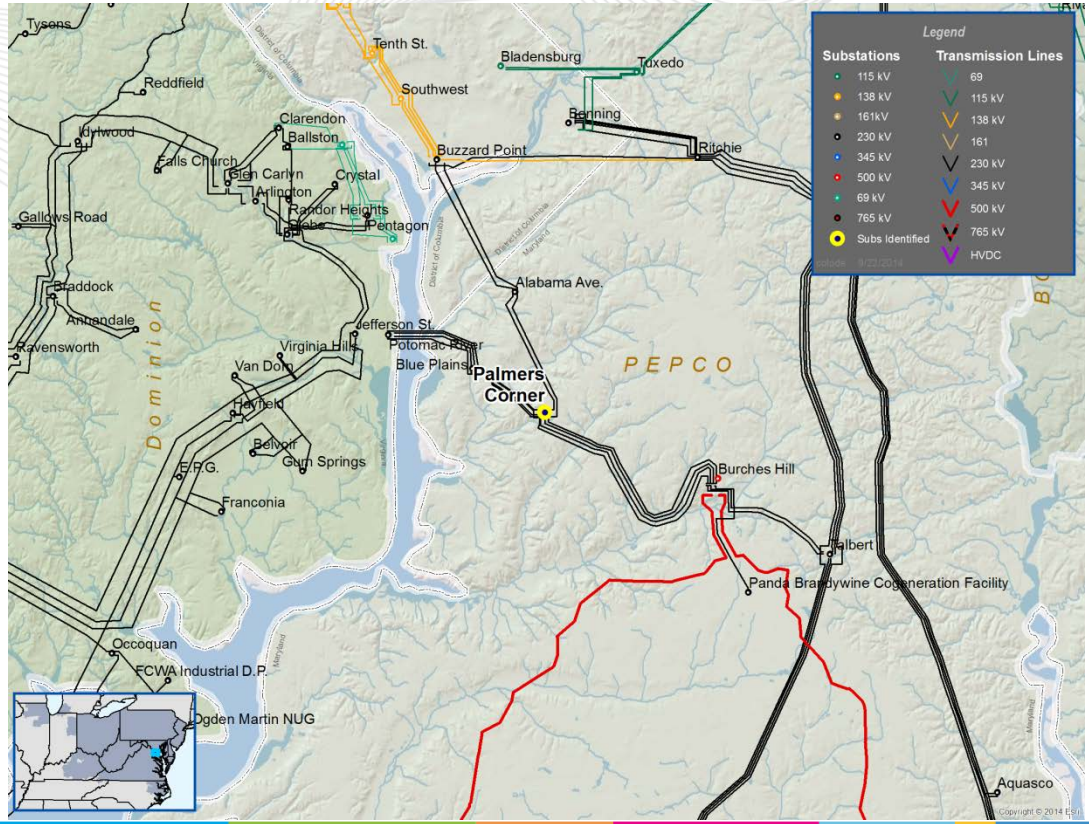
  $ 3.3 M
- Projected IS Date:

  1/31/2015



PEPCO Transmission Zone

- Supplemental Project :
- Improves reliability by having “Hot Standby” to add operational flexibility.
- Proposed Solution:
  - Install Palmers Corner Sub. 84 230/69kV 224 MVA TR #1. (S0845)
- Estimated Project Cost: $ 3 M
- Projected IS Date: 3/4/2015

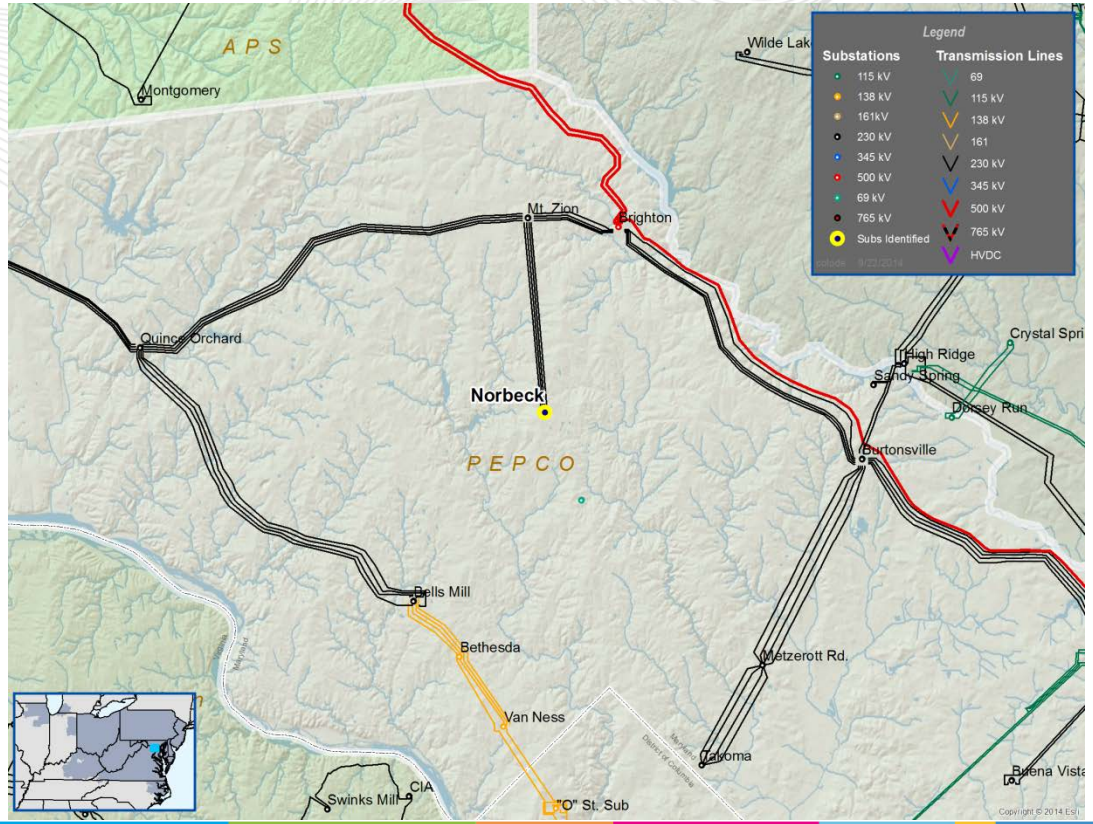


PEPCO Transmission Zone

- Supplemental Project :
- Improves reliability due to age and condition of the transformer.
- Proposed Solution:
  - Replace Norbeck Sub. 158 – TR #3 with a new 230/69kV 224 MVA transformer. (S0846)
- Estimated Project Cost:

  $ 2.7 M
- Projected IS Date:

  5/1/2015

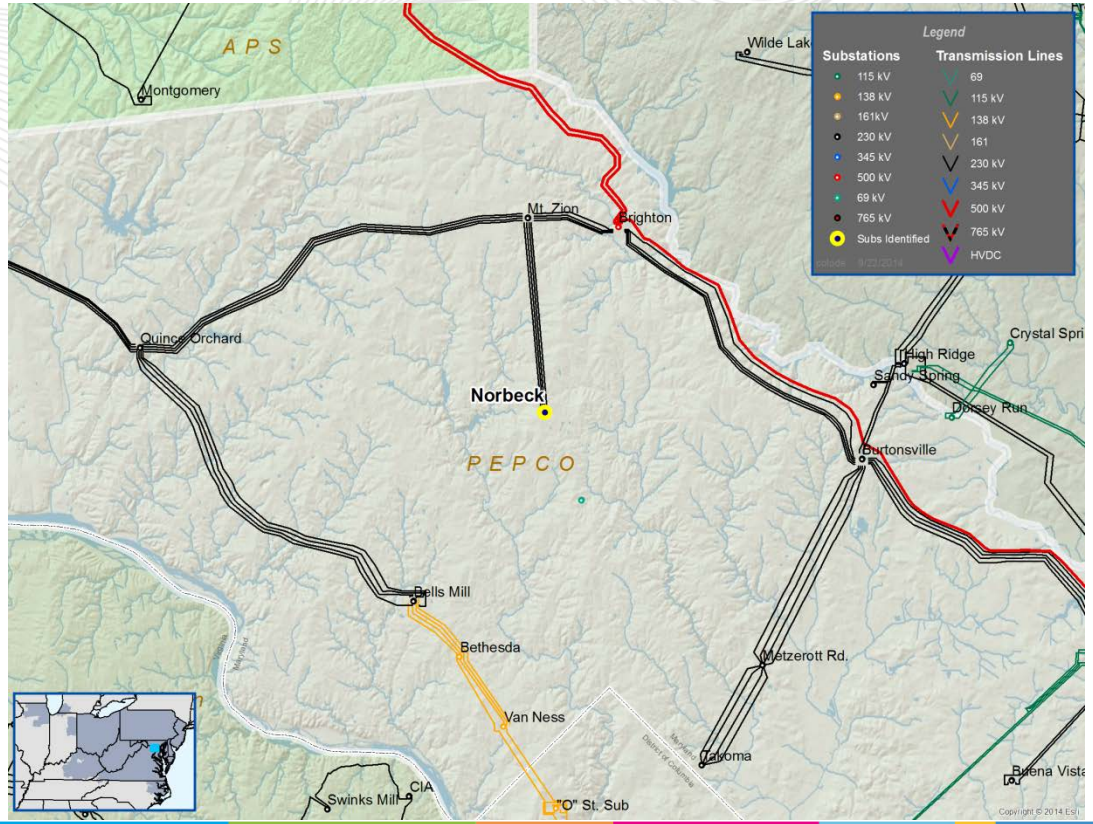


PEPCO Transmission Zone

- Supplemental Project :
- Improves reliability due to age and condition of the transformer.
- Proposed Solution:
  - Replace Norbeck Sub. 158 – TR #4 with a new 230/69kV 224 MVA transformer. (S0847)
- Estimated Project Cost:

  $ 2.6 M
- Projected IS Date:

  6/2/2015

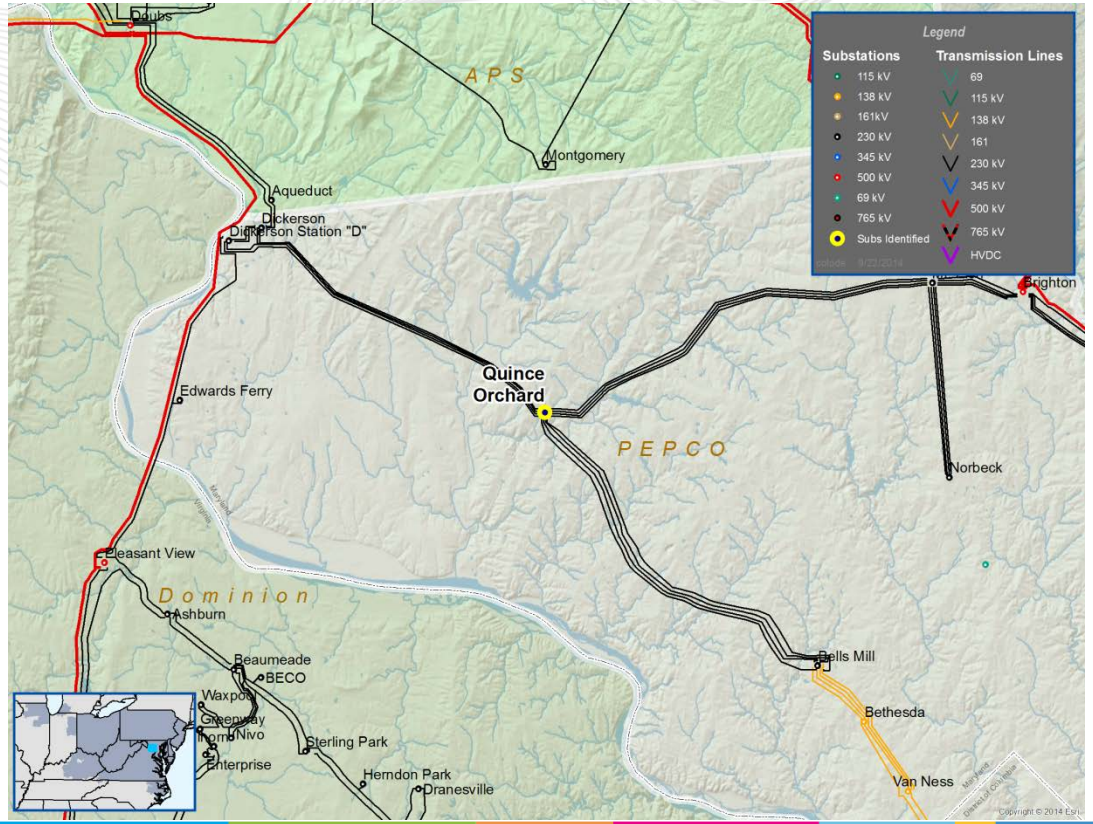


PEPCO Transmission Zone

- Supplemental Project :
- Improves reliability due to age and condition of the transformer.
- Proposed Solution:
  - Replace Quince Orchard Sub. 118 – TR #3 with a new 230/69kV 224 MVA transformer. (S0848)
- Estimated Project Cost:

  $ 2.7 M
- Projected IS Date:

  6/15/2015

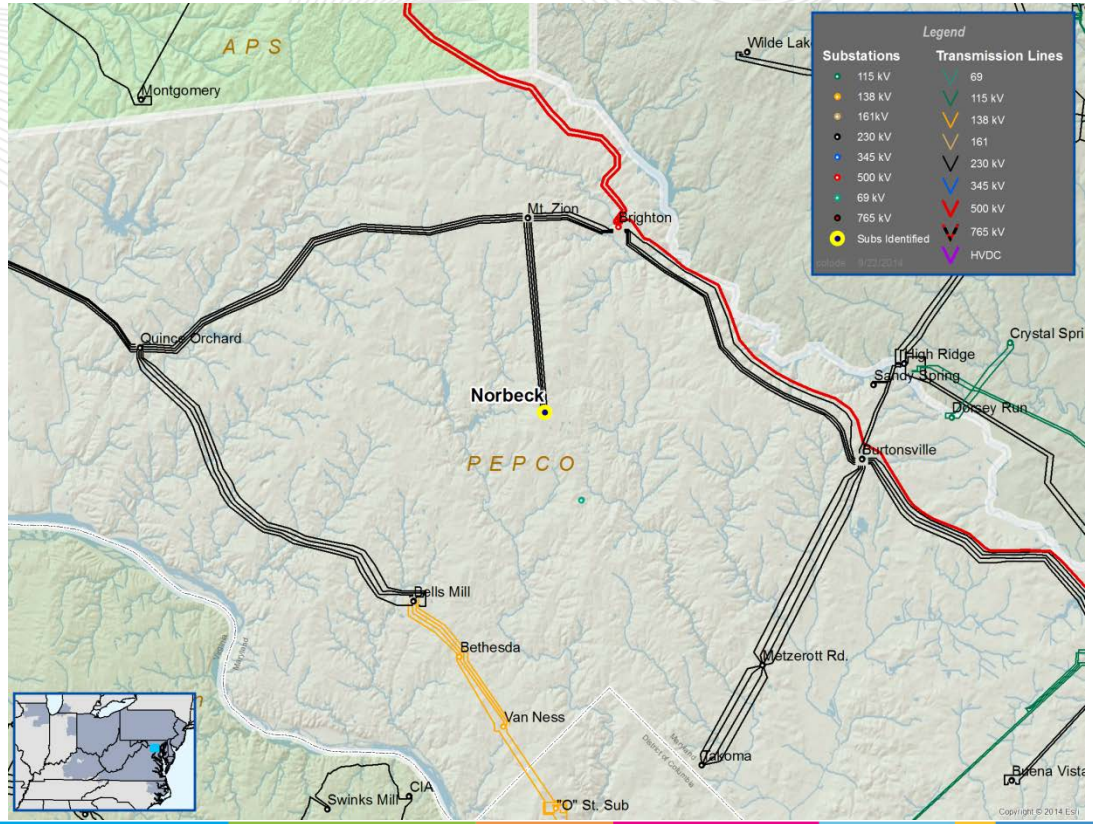


PEPCO Transmission Zone

- Supplemental Project :
- Improves reliability due to age and condition of the transformer.
- Proposed Solution:
  - Replace Norbeck Sub. 158 – TR #2 with a new 230/69kV 224 MVA transformer. (S0849)
- Estimated Project Cost:

  $ 2.5 M
- Projected IS Date:

  11/1/2015

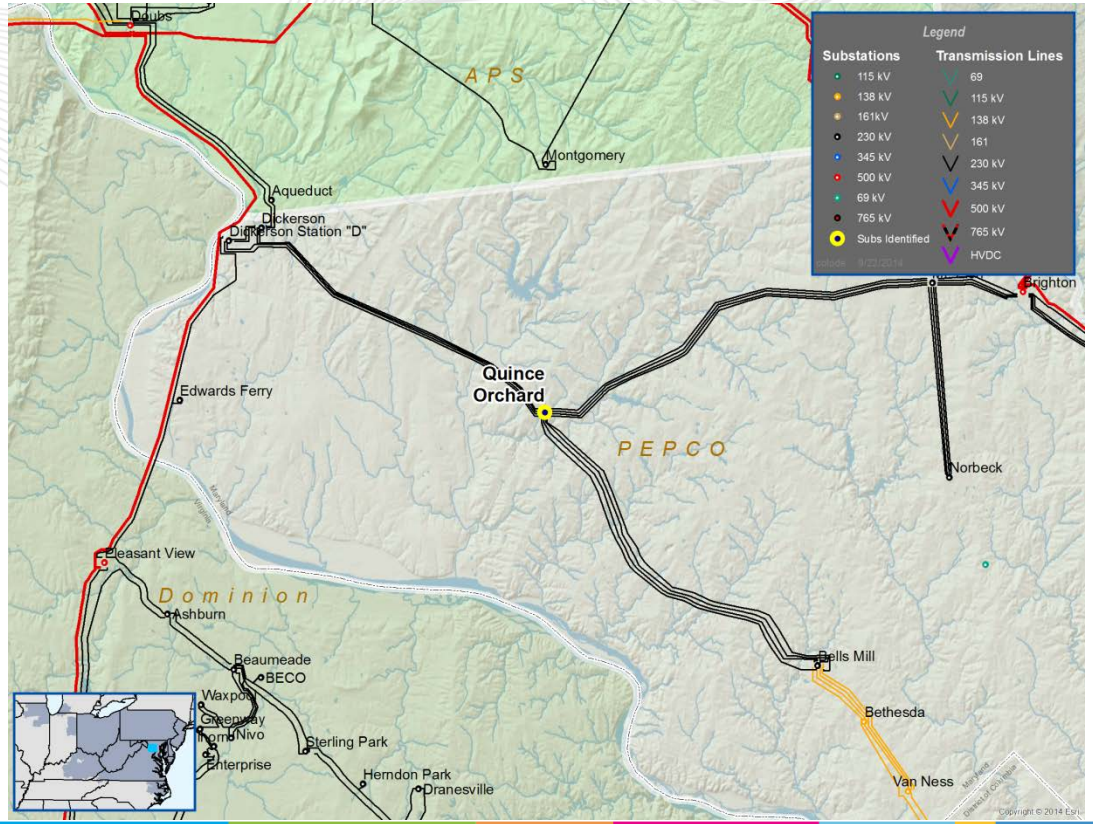


PEPCO Transmission Zone

- Supplemental Project :
- Improves reliability due to age and condition of the transformer.
- Proposed Solution:
  - Replace Quince Orchard Sub. 118 – TR #1 with a new 230/69kV 224 MVA transformer. (S0850)
- Estimated Project Cost:

  $ 2.7 M
- Projected IS Date:

  12/15/2015

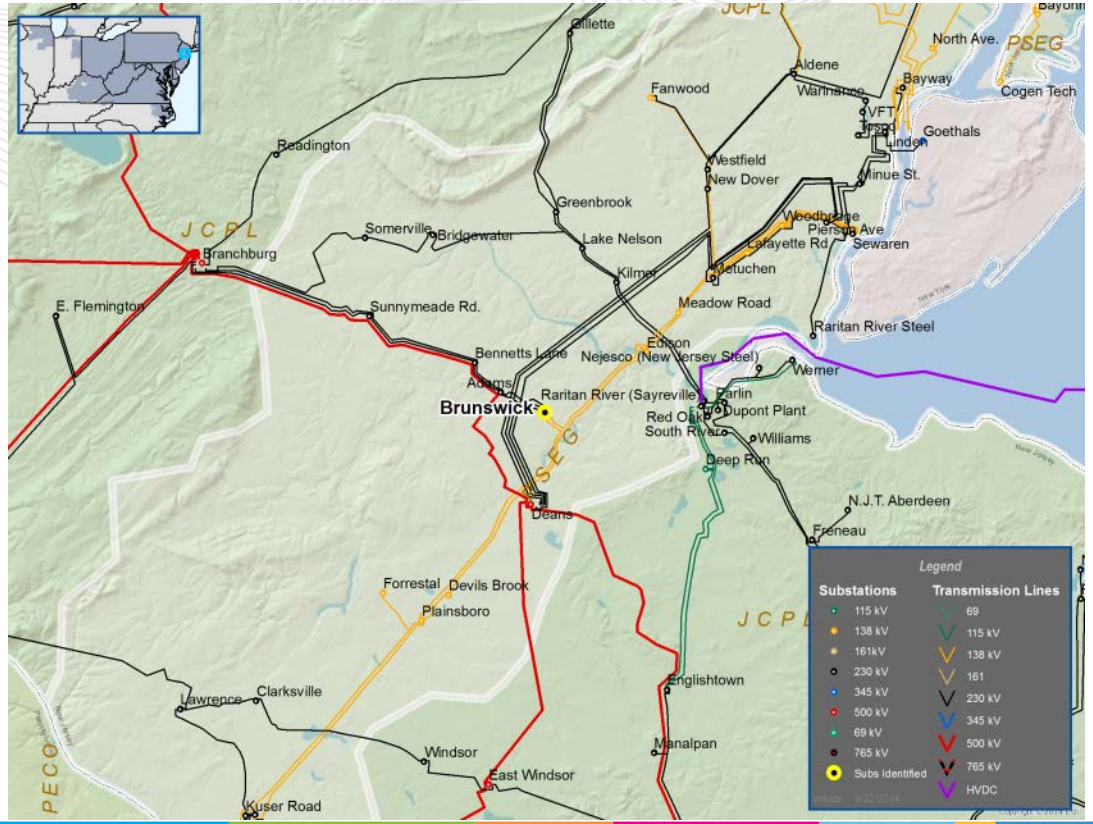


PSE&G Transmission Zone

- Supplemental Project:
- Improve reliability due to age and condition of the transformer.
- Proposed Solution:
  - Replace Brunswick 230/69 kV transformer 220-5 (S0758).
- Estimated Project Cost:

  $ 15 M
- Projected IS Date:

  12/31/2015

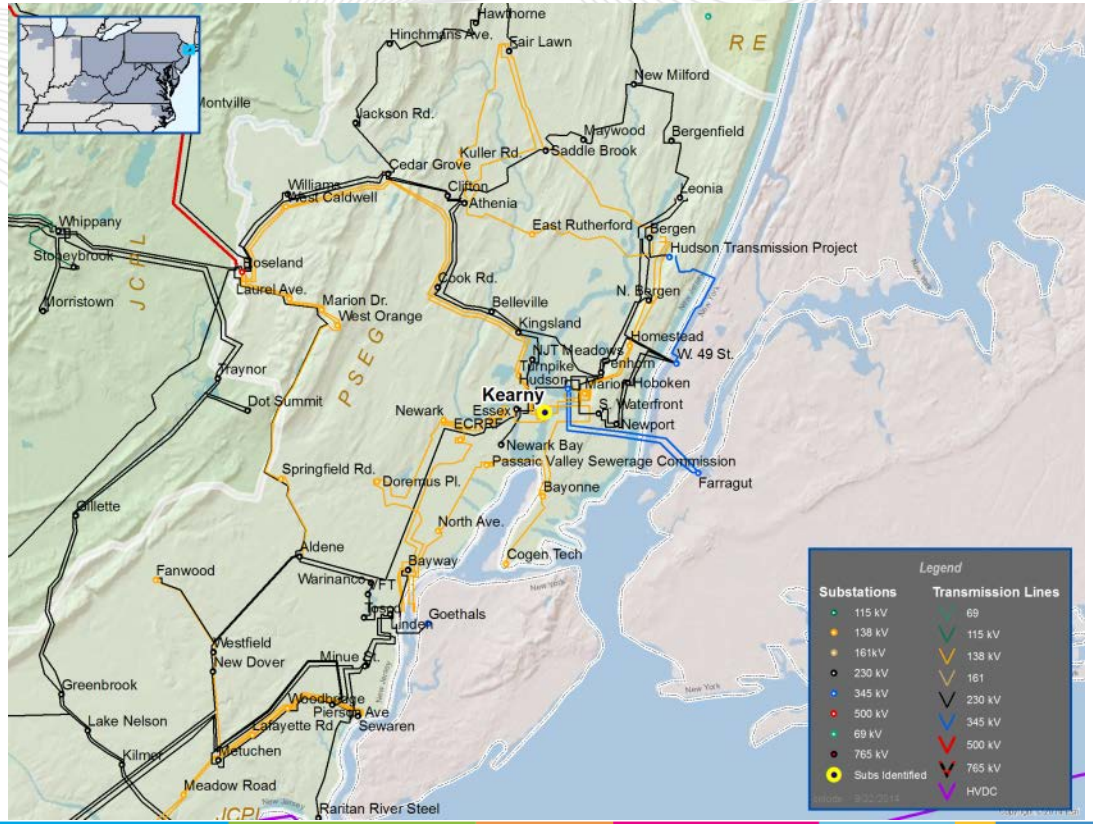


PSE&G Transmission Zone

- Supplemental Project:
- To improve reliability due to load increase in the Kearny vicinity. In addition it improves reliability and transformer condition at several Class H substations.
- Proposed Solution:
  - Install two 230/13 kV transformers at Kearny Substation (S0759).
- Estimated Project Cost:

  $ 14 M
- Projected IS Date:

  12/31/2015

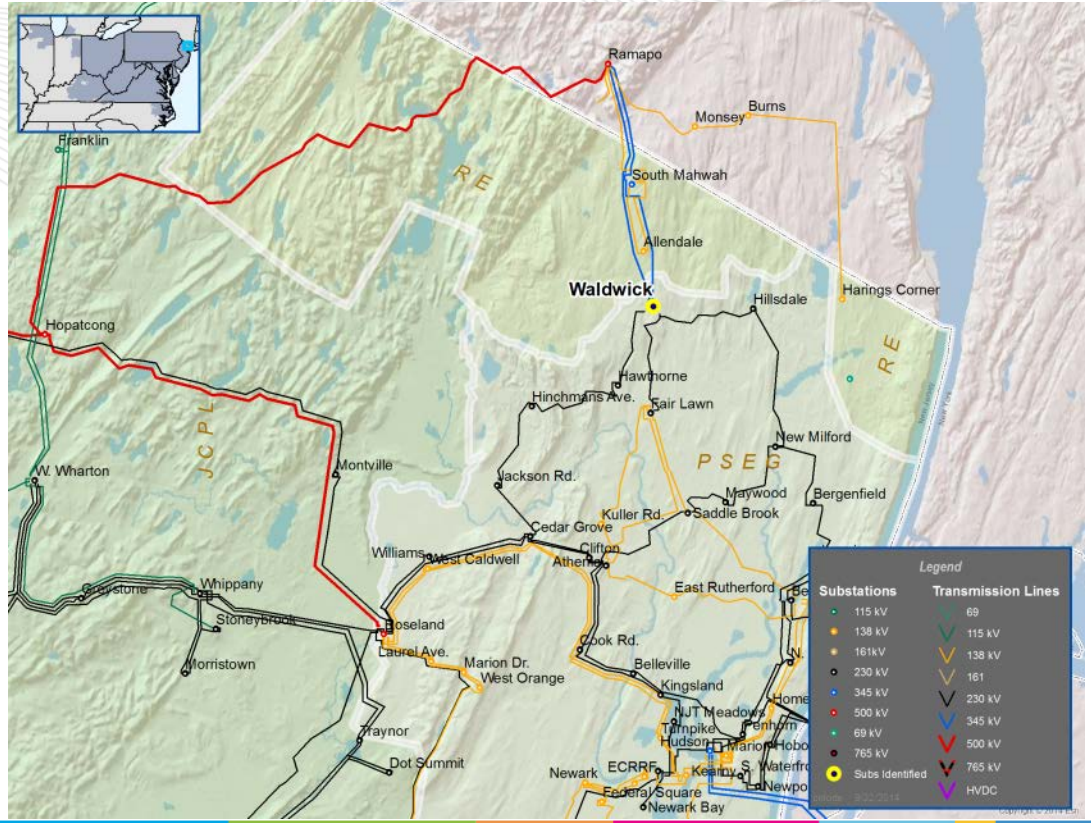


PSE&G Transmission Zone

- Supplemental Project:
- To improve reliability due to station overload. In addition it improves reliability and transformer condition at several Class H substations.
- Proposed Solution:
  - Install two 230/13 kV transformers at Waldwick Substation (S0760).
- Estimated Project Cost:

  $ 14 M
- Projected IS Date:

  12/31/2015

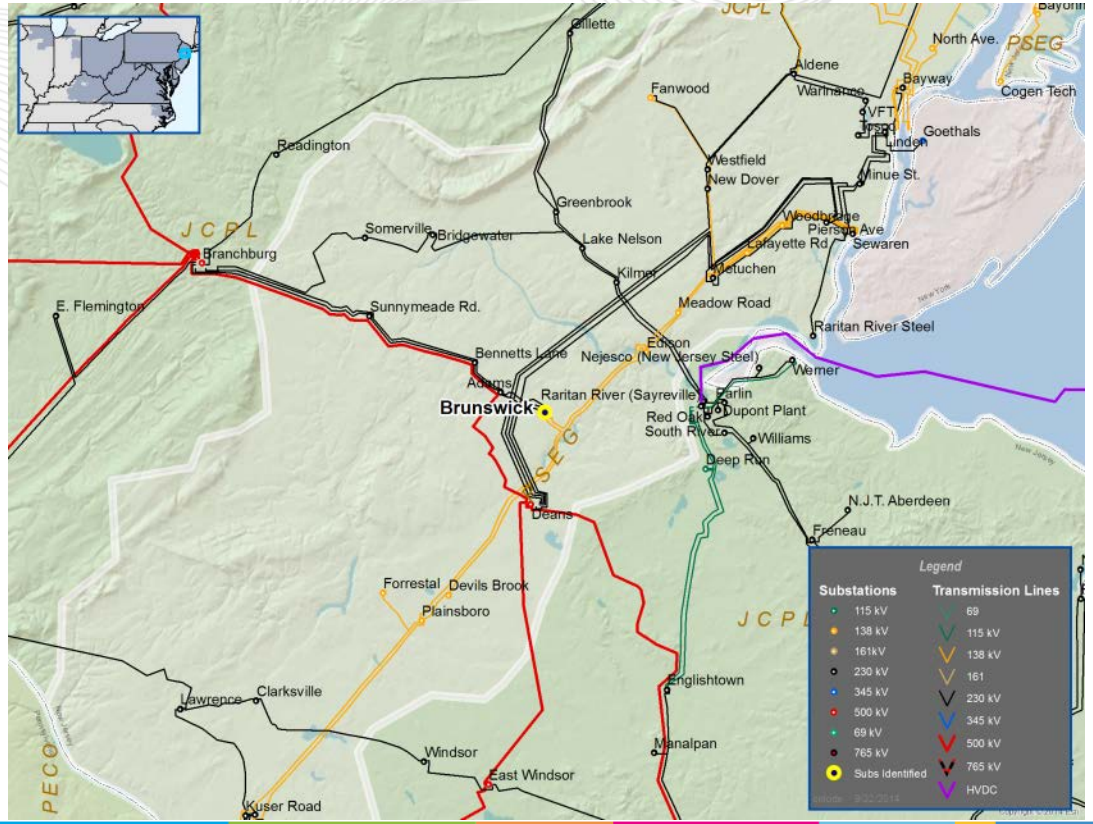


PSE&G Transmission Zone

- Supplemental Project:
- Improve reliability due to age and condition of the transformer.
- Proposed Solution:
  - Replace Brunswick 230/69 kV transformer 220-1 (S0761).
- Estimated Project Cost:

  $ 15 M
- Projected IS Date:

  12/31/2017

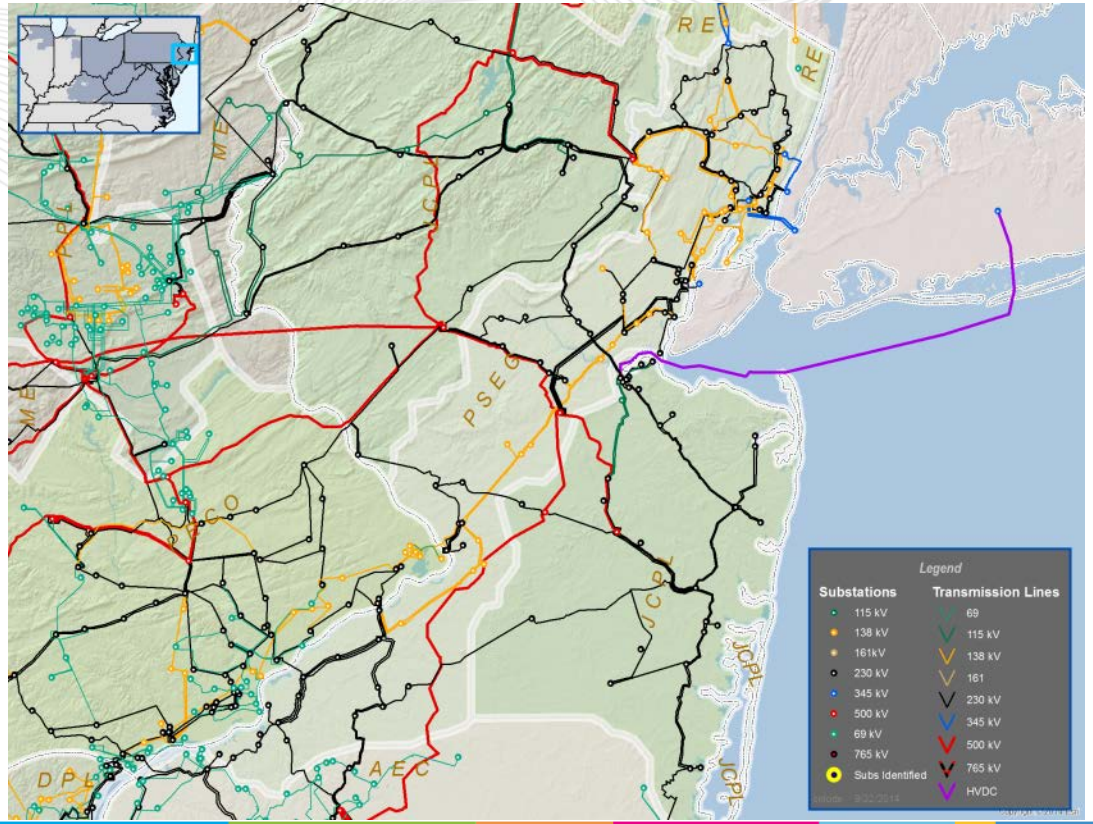


PSE&G Transmission Zone

- Supplemental Project:
- To improve reliability and transformer availability during contingency/failure
- Proposed Solution:
  - Purchase one spare 230/138-27-11 kV dual ratio high side transformer (S0762).
- Estimated Project Cost:

  $ 7.8 M
- Projected IS Date:

  12/31/2015

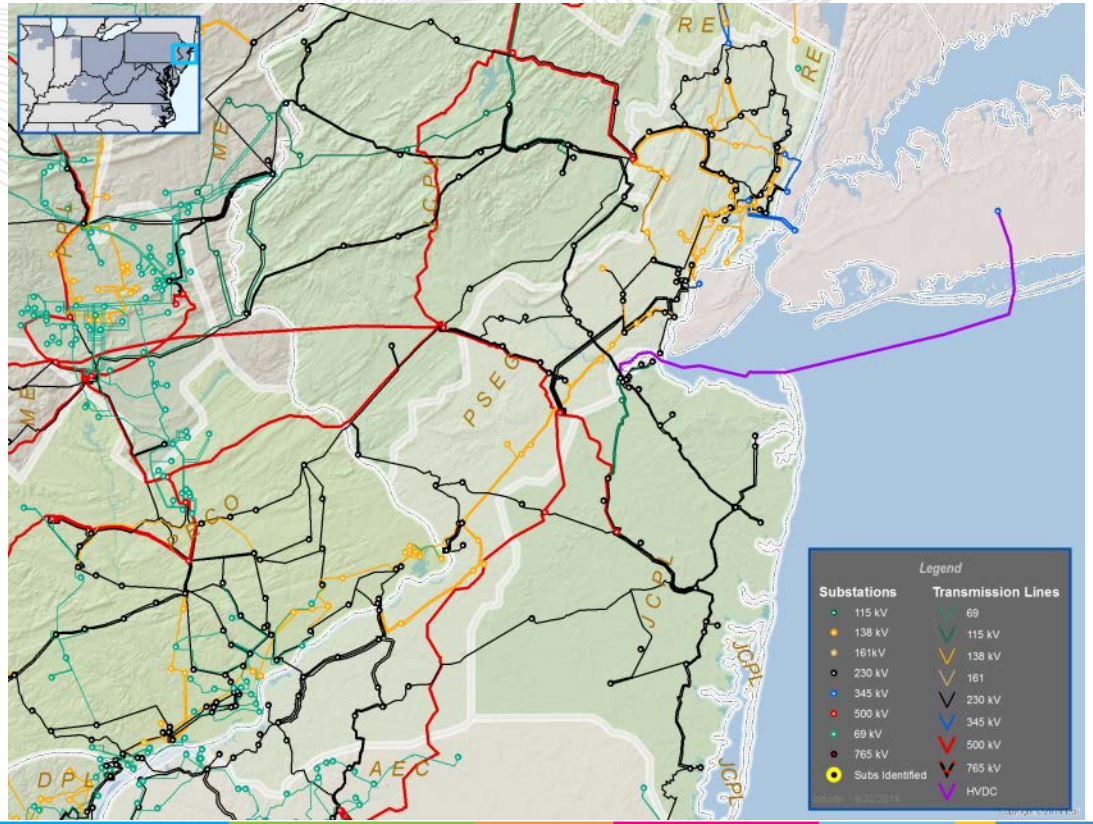


PSE&G Transmission Zone

- Supplemental Project:
- To improve reliability and transformer availability during failure.
- Proposed Solution:
  - Purchase eight 69/4 kV Transformers for future use (S0763).
- Estimated Project Cost:

  $ 3.6 M
- Projected IS Date:

  12/31/2017

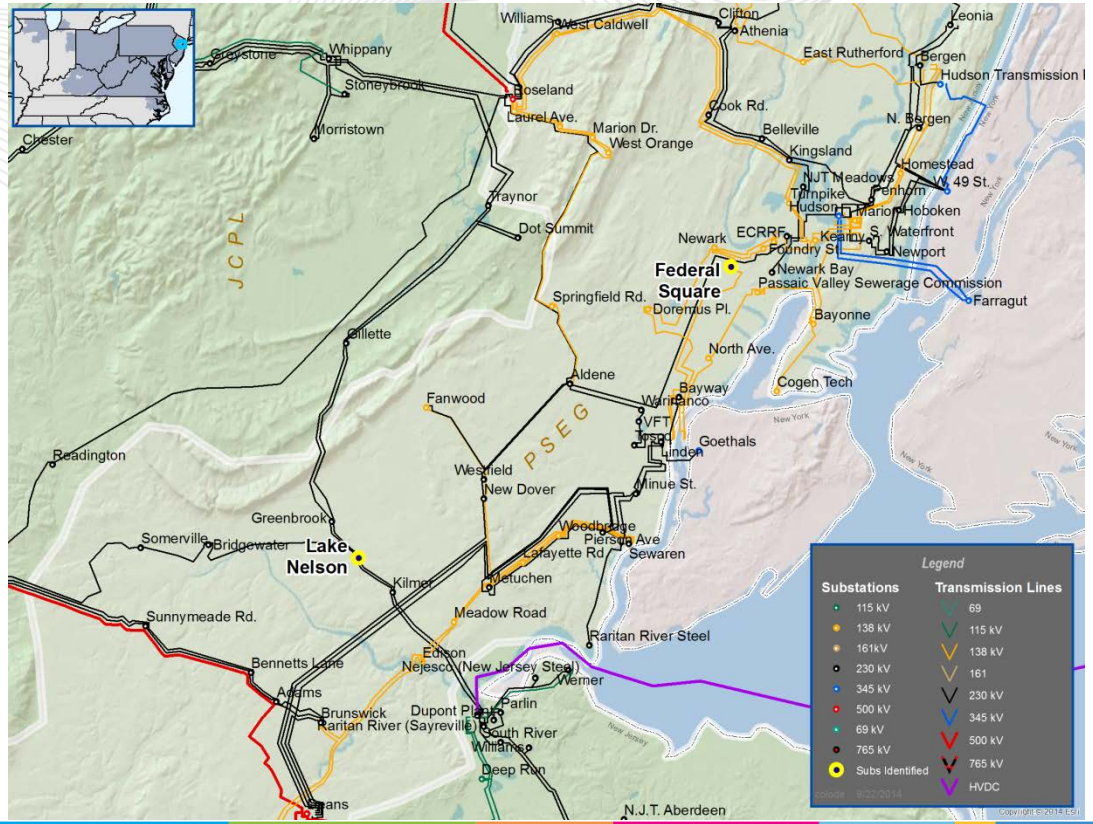


PSE&G Transmission Zone

- Supplemental Project:
- To improves reliability by remotely monitoring major assets
- Proposed Solution:
  - Install microprocessor relays, transformer equipments, SCADA systems and alarm panels at Lake Nelson T-1, Harts Lane T-1, T-2, T-3, Sand Hills T-1, T-2 and Federal Square T-1, T-2, T-3 (S0851).
- Estimated Project Cost:

  $ 13.5 M
- Projected IS Date:

  12/31/2015



Questions?

Email: RTEP@pjm.com

- Revision History
  - Version 1: Original version posted to the PJM TEAC on 9/23/2014