



Sub Regional RTEP Committee PJM Mid-Atlantic PHI

January 25, 2019

Solutions

Supplemental Reliability Upgrades

Need Number: ACE-2018-0001

Need Presented: 10/29/2018

Meeting Date: 1/25/2019

Process Stage: Solution

Supplemental Project Driver: Asset Condition

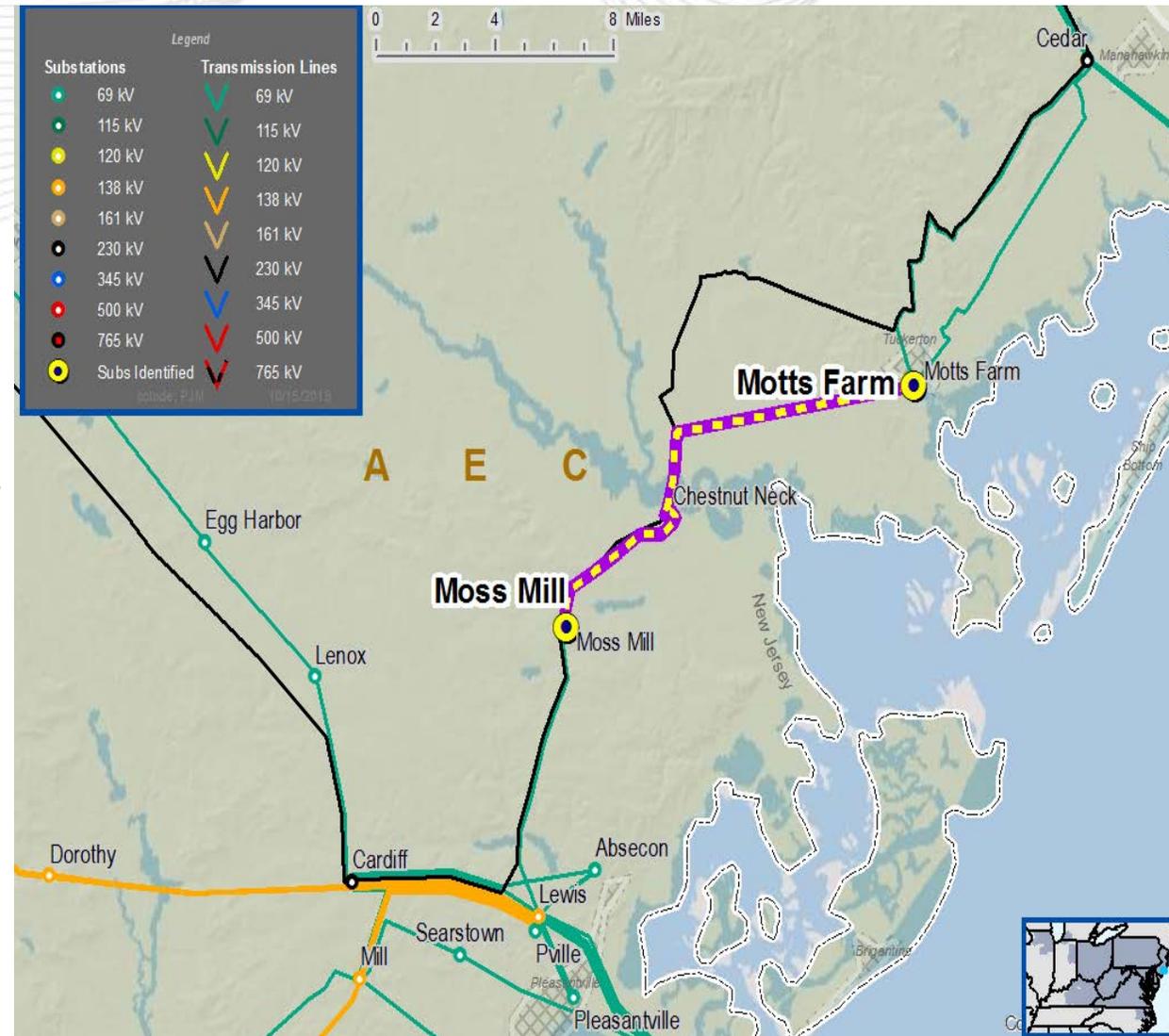
Problem Statement:

Comprehensive inspection data revealed deterioration on Moss Mill – Motts Farm 69 kV line.

Specific Assumption References:

SRRTPE Assumptions presentation from January 26, 2018

- Infrastructure replacement (EOL/condition/obsolescence) resulting in increased capacity and/or configuration changes; consistent with efficient asset management decisions



Need Number: ACE-2018-0001

Proposed Solution:

Rebuild line from Moss Mill – Motts Farm substations. All structures, conductor, and static wire will be replaced with new steel poles, conductor, and OPGW.

Estimated Cost: \$27.4M

Projected In-Service Date: 5/31/2022

TO Alternatives Considered:

Alternative 1

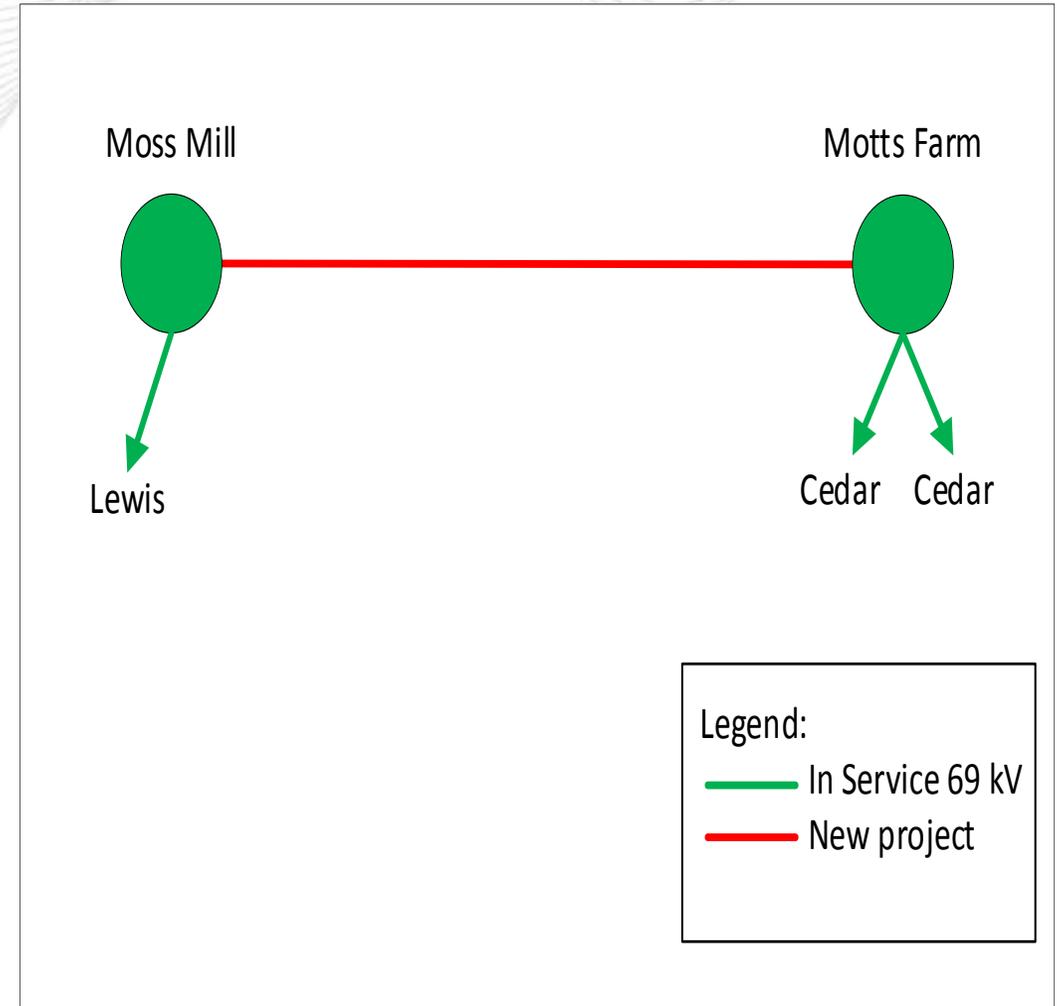
Construct new line between Moss Mill-Motts Farm substations

- Significantly higher cost than rebuild

Alternative 2

Leave existing line as-is

- Risk of future outages remains due to deteriorated equipment on line





AE Transmission Zone

Need Number: ACE-2018-0002

Need Presented: 10/29/2018

Meeting Date: 1/25/2019

Process Stage: Solution

Supplemental Project Driver: Asset Condition

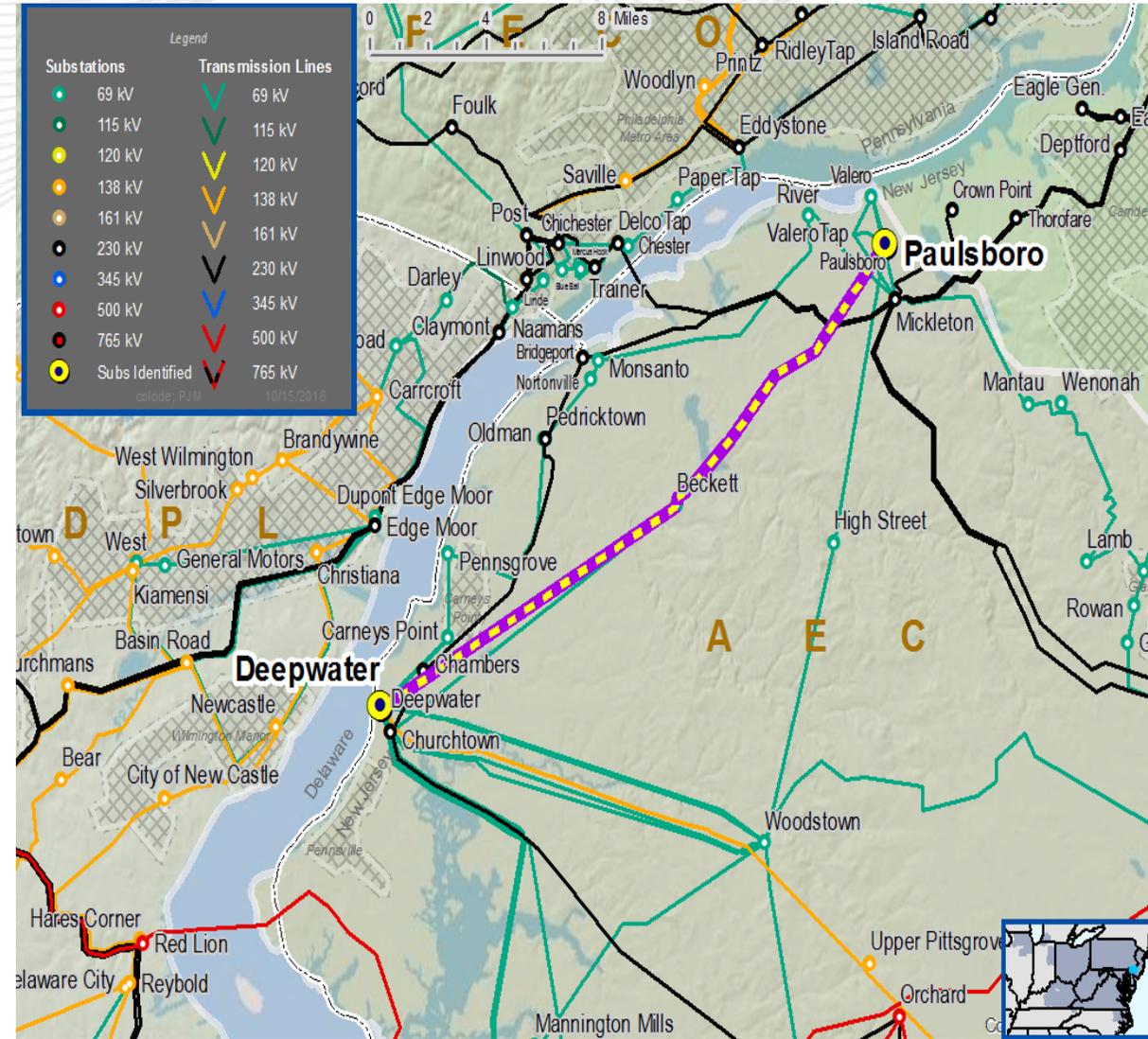
Problem Statement:

Comprehensive inspection data revealed deterioration on Deepwater - Paulsboro 69 kV line.

Specific Assumption References:

SRRTPE Assumptions presentation from January 26, 2018

- Infrastructure replacement (EOL/condition/obsolescence) resulting in increased capacity and/or configuration changes; consistent with efficient asset management decisions



Need Number: ACE-2018-0002

Proposed Solution:

Rebuild line from Churchtown – Paulsboro substations. All structures, conductor, and static wire will be replaced with new steel poles, conductor, and OPGW.

Estimated Cost: \$25M

Projected In-Service Date: 12/31/2023

TO Alternatives Considered:

Alternative 1

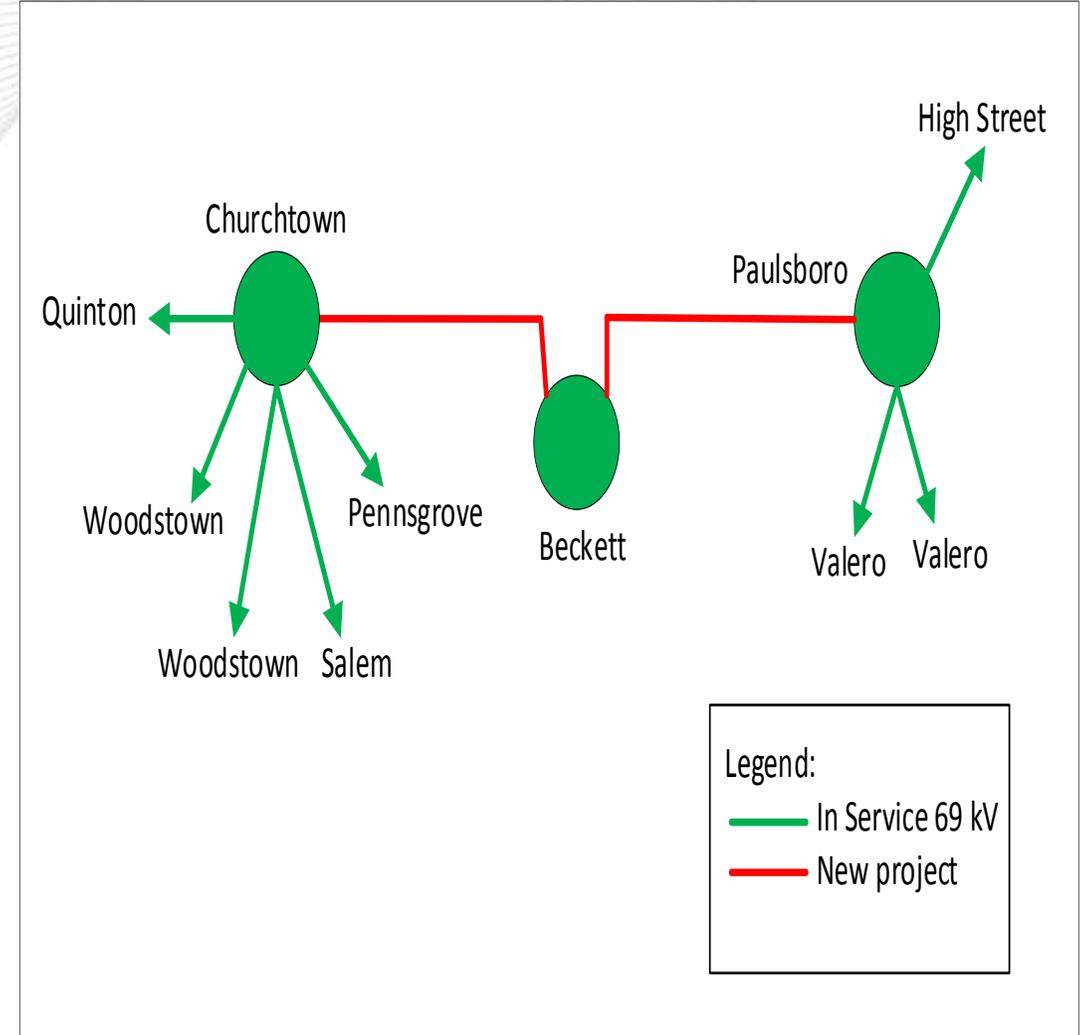
Construct new line between Churchtown – Paulsboro substations

- Significantly higher cost than rebuild

Alternative 2

Leave existing line as-is

- Risk of future outages remains due to deteriorated equipment on line





AE Transmission Zone

Need Number: ACE-2018-0003

Need Presented: 10/29/2018

Meeting Date: 1/25/2019

Process Stage: Solution

Supplemental Project Driver: Asset Condition

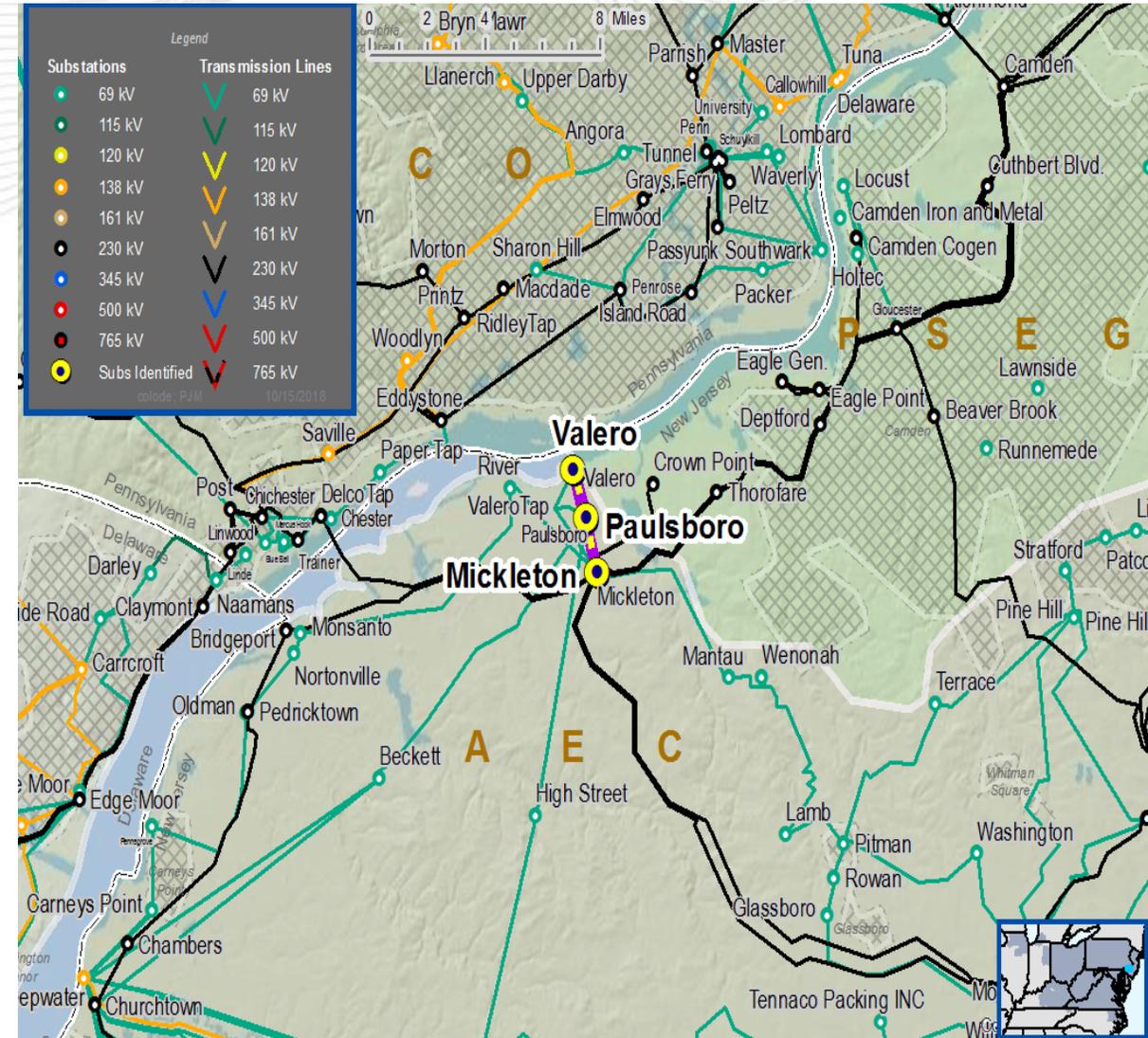
Problem Statement:

Comprehensive inspection data revealed deterioration on Mickleton – Paulsboro – Valero 69 kV line.

Specific Assumption References:

SRRTPE Assumptions presentation from January 26, 2018

- Infrastructure replacement (EOL/condition/obsolescence) resulting in increased capacity and/or configuration changes; consistent with efficient asset management decisions.



Need Number: ACE-2018-0003

Proposed Solution:

Rebuild line from Mickleton – Valero – Paulsboro substations. All structures, conductor, and static wire will be replaced with new steel poles, conductor, and OPGW.

Estimated Cost: \$10M

Projected In-Service Date: 12/31/2023

TO Alternatives Considered:

Alternative 1

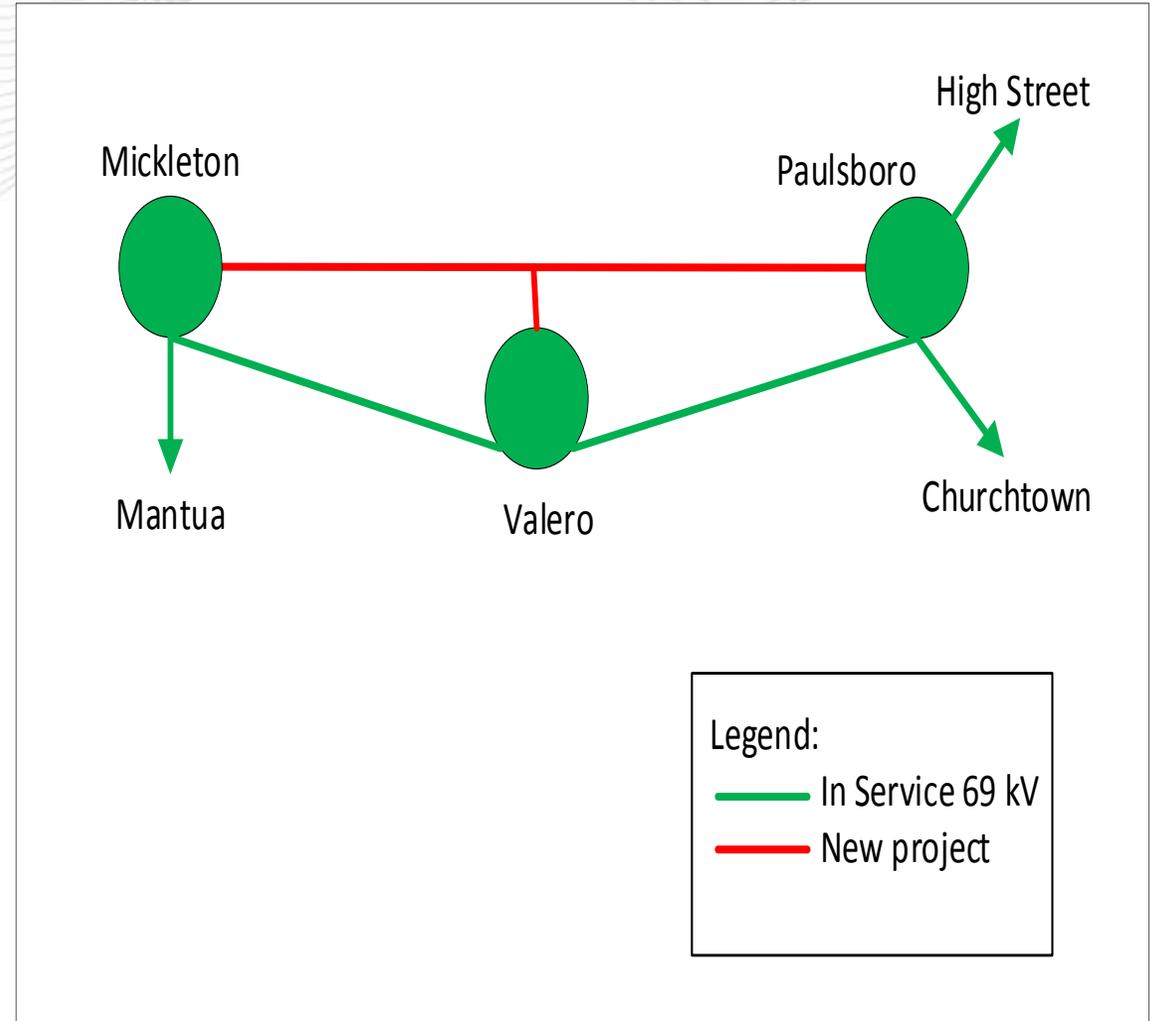
Construct new line between Mickleton – Valero – Paulsboro substations

- Significantly higher cost than rebuild

Alternative 2

Leave existing line as-is

- Risk of future outages remains due to deteriorated equipment on line



Need Number: ACE-2018-0004

Need Presented: 10/29/2018

Meeting Date: 1/25/2019

Process Stage: Solution

Supplemental Project Driver: Asset Condition

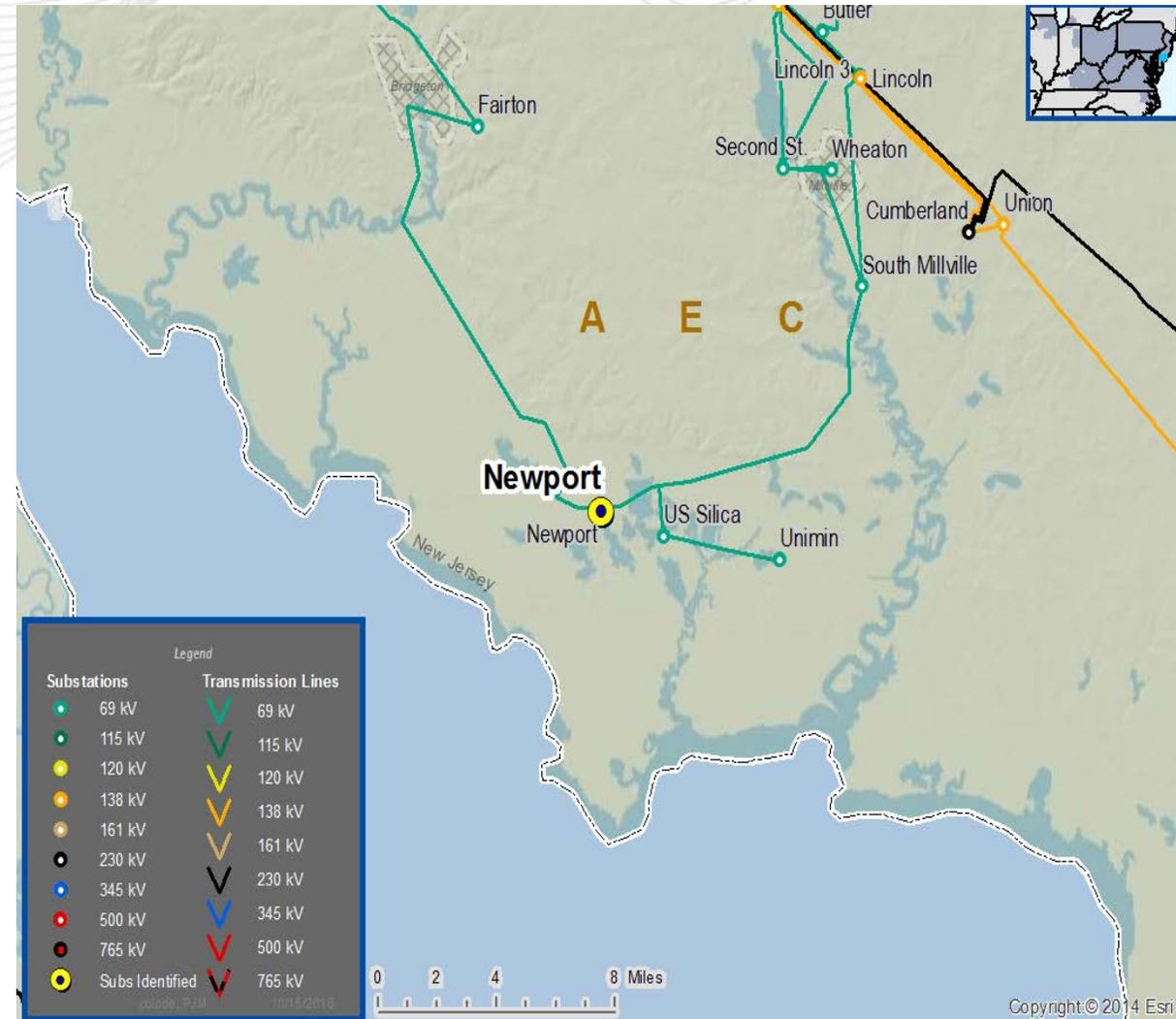
Problem Statement:

Inspection revealed deteriorated equipment in 69/12 kV Newport Substation

Specific Assumption References:

SRRTPE Assumptions presentation from January 26, 2018

- Infrastructure replacement (EOL/condition/obsolescence) resulting in increased capacity and/or configuration changes; consistent with efficient asset management decisions
- Transmission System configuration changes due to new or expansion of existing distribution substations



Need Number: ACE-2018-0004

Proposed Solution:

Establish new 69/12 kV Ring Bus substation at existing Newport Substation

Estimated Cost: \$7M

Projected In-Service Date: 5/31/2023

TO Alternatives Considered:

Alternative 1

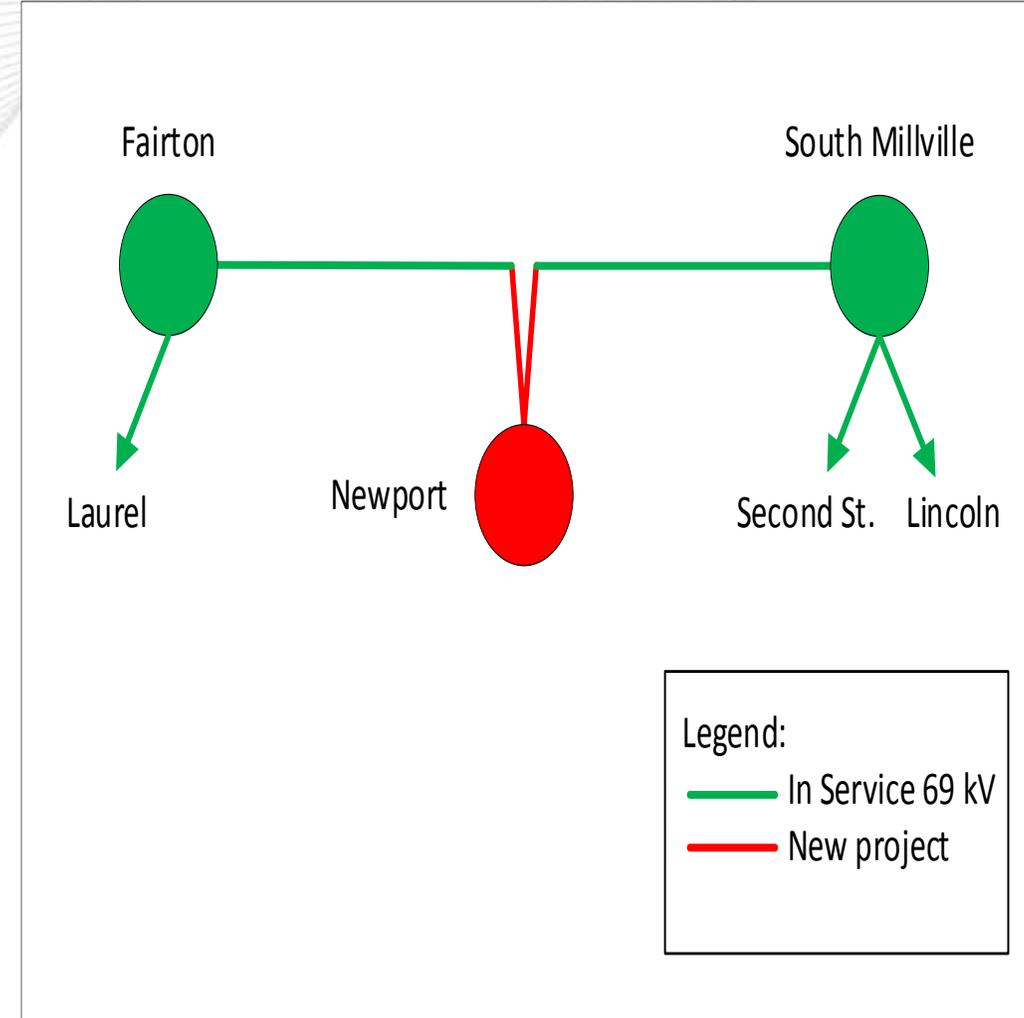
Reuse existing 69 kV box structure

- Structurally deficient
- Location would impede proposed layout of new substation

Alternative 2

Construct 69 kV line bus

- Deviates from bus design standards



Need Number: DPL-2018-0004

Need Presented: 10/29/2018

Meeting Date: 1/25/2019

Process Stage: Solution

Supplemental Project Driver: Asset Condition

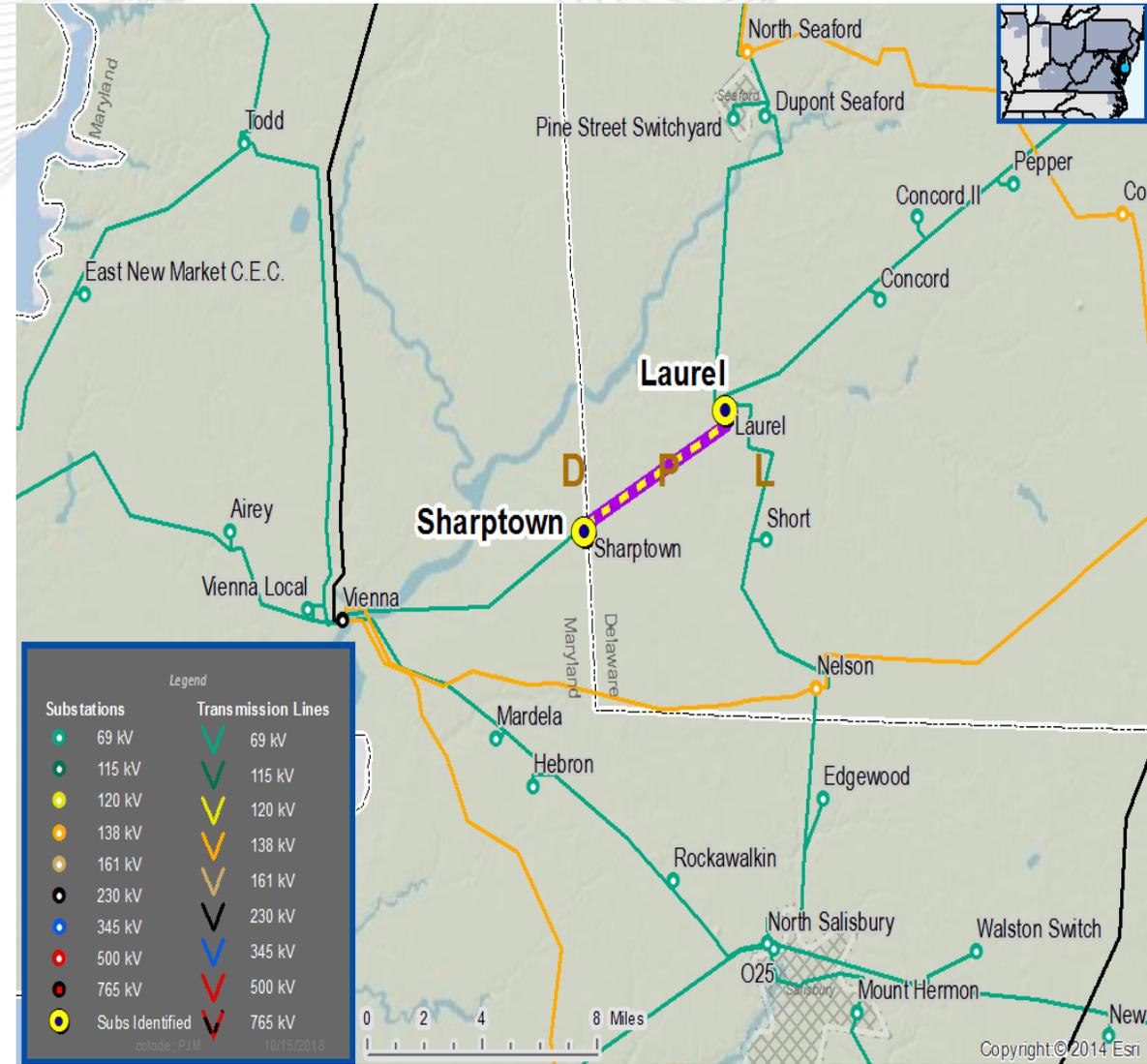
Problem Statement:

Comprehensive inspection data revealed deterioration on Sharptown – Laurel 69 kV line.

Specific Assumption References:

SRRTPE Assumptions presentation from January 26, 2018

- Infrastructure replacement (EOL/condition/obsolescence) resulting in increased capacity and/or configuration changes; consistent with efficient asset management decisions



Need Number: DPL-2018-0004

Proposed Solution:

Rebuild line from Sharptown – Laurel substations. All structures, conductor, and static wire will be replaced with new steel poles, conductor, and OPGW.

Estimated Cost: \$11M

Projected In-Service Date: 5/31/2022

TO Alternatives Considered:

Alternative 1

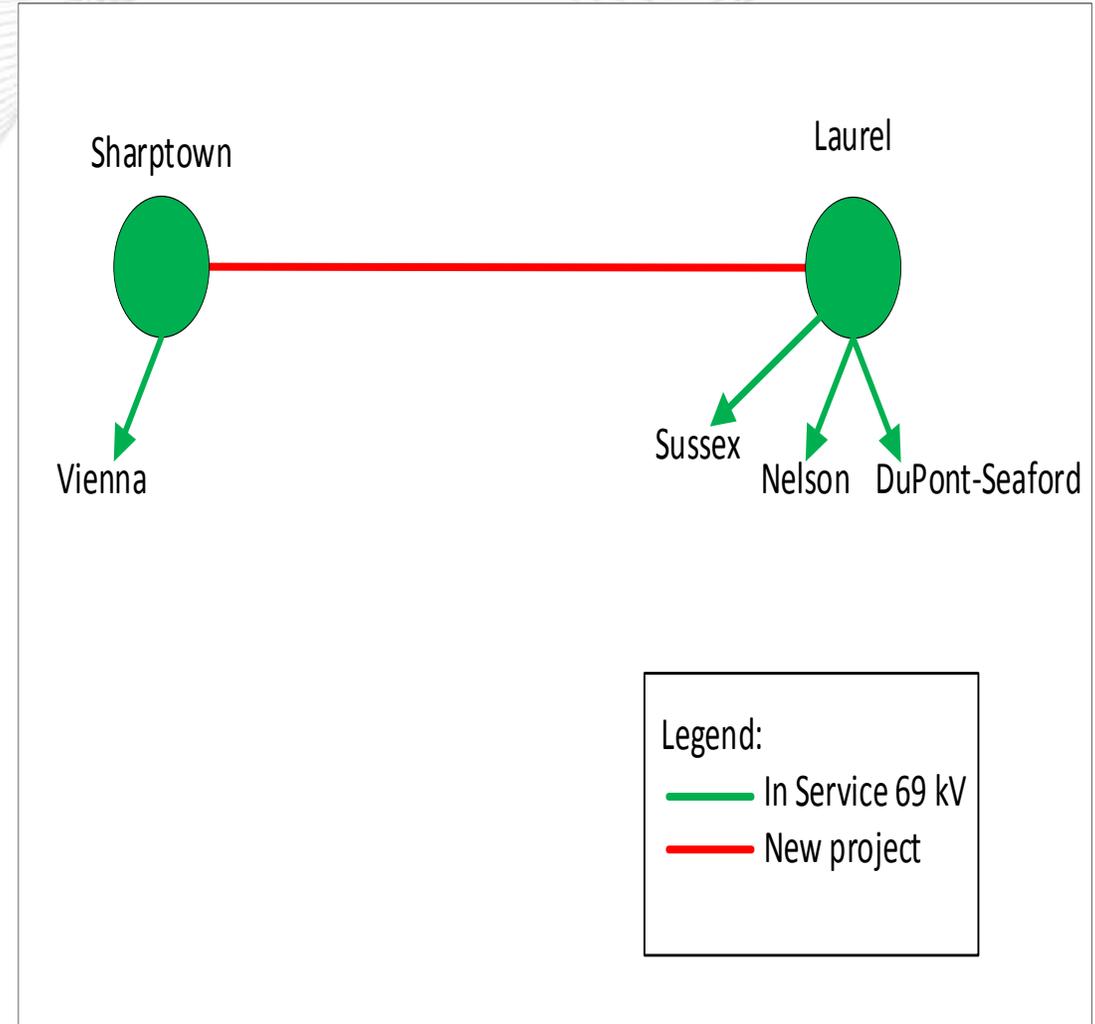
Construct new line between Sharptown – Laurel substations

- Significantly higher cost than rebuild

Alternative 2

Leave existing line as-is

- Risk of future outages remains due to deteriorated equipment on line



Need Number: DPL-2018-0005

Need Presented: 10/29/2018

Meeting Date: 1/25/2019

Process Stage: Solution

Supplemental Project Driver: Asset Condition

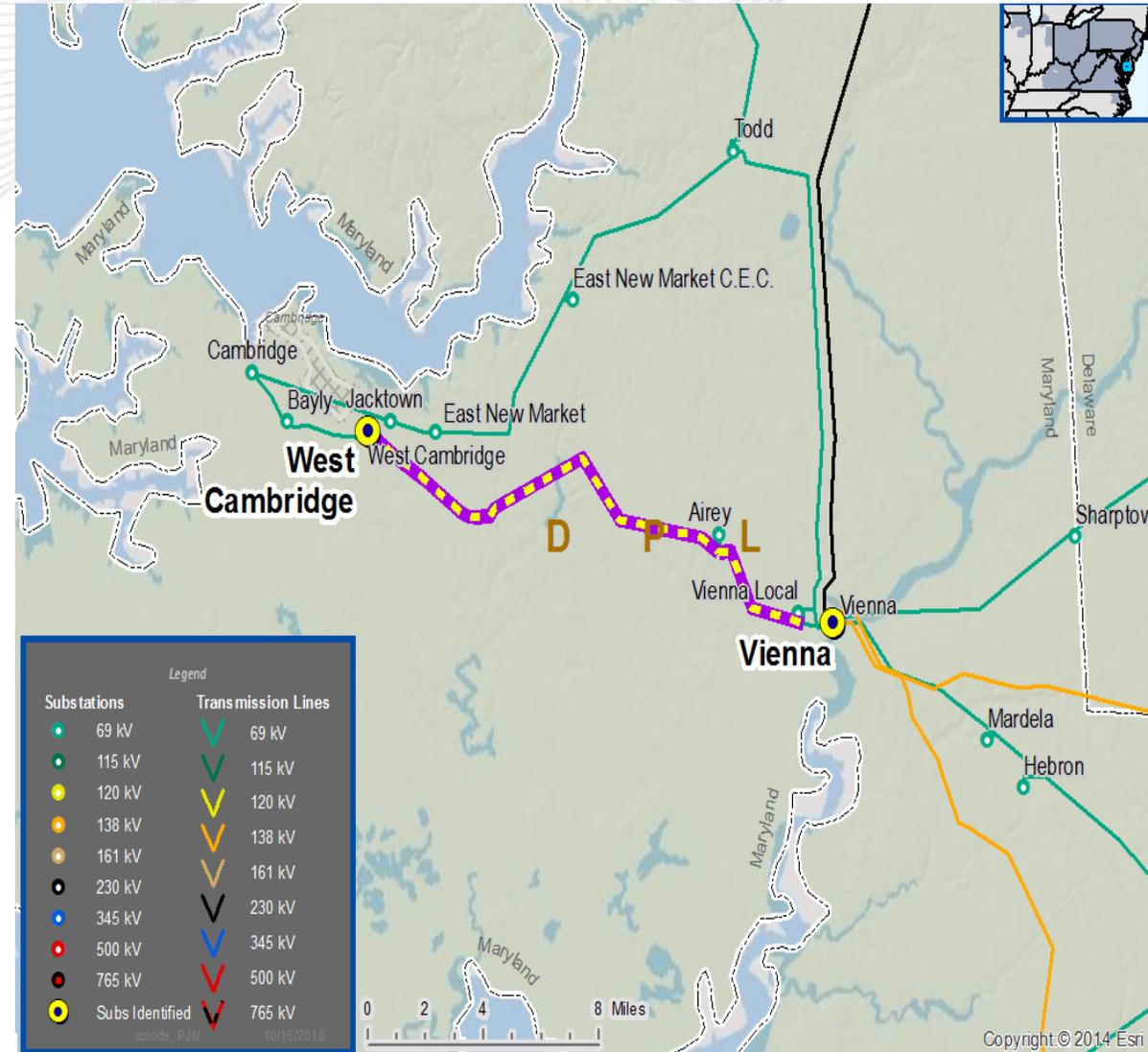
Problem Statement:

Comprehensive inspection data revealed deterioration on Vienna – West Cambridge 69 kV line.

Specific Assumption References:

SRRTPE Assumptions presentation from January 26, 2018

- Infrastructure replacement (EOL/condition/obsolescence) resulting in increased capacity and/or configuration changes; consistent with efficient asset management decisions



Need Number: DPL-2018-0005

Proposed Solution:

Rebuild line from Vienna – West Cambridge substations. All structures, conductor, and static wire will be replaced with new steel poles, conductor, and OPGW.

Estimated Cost: \$28.7M

Projected In-Service Date: 12/31/2022

TO Alternatives Considered:

Alternative 1

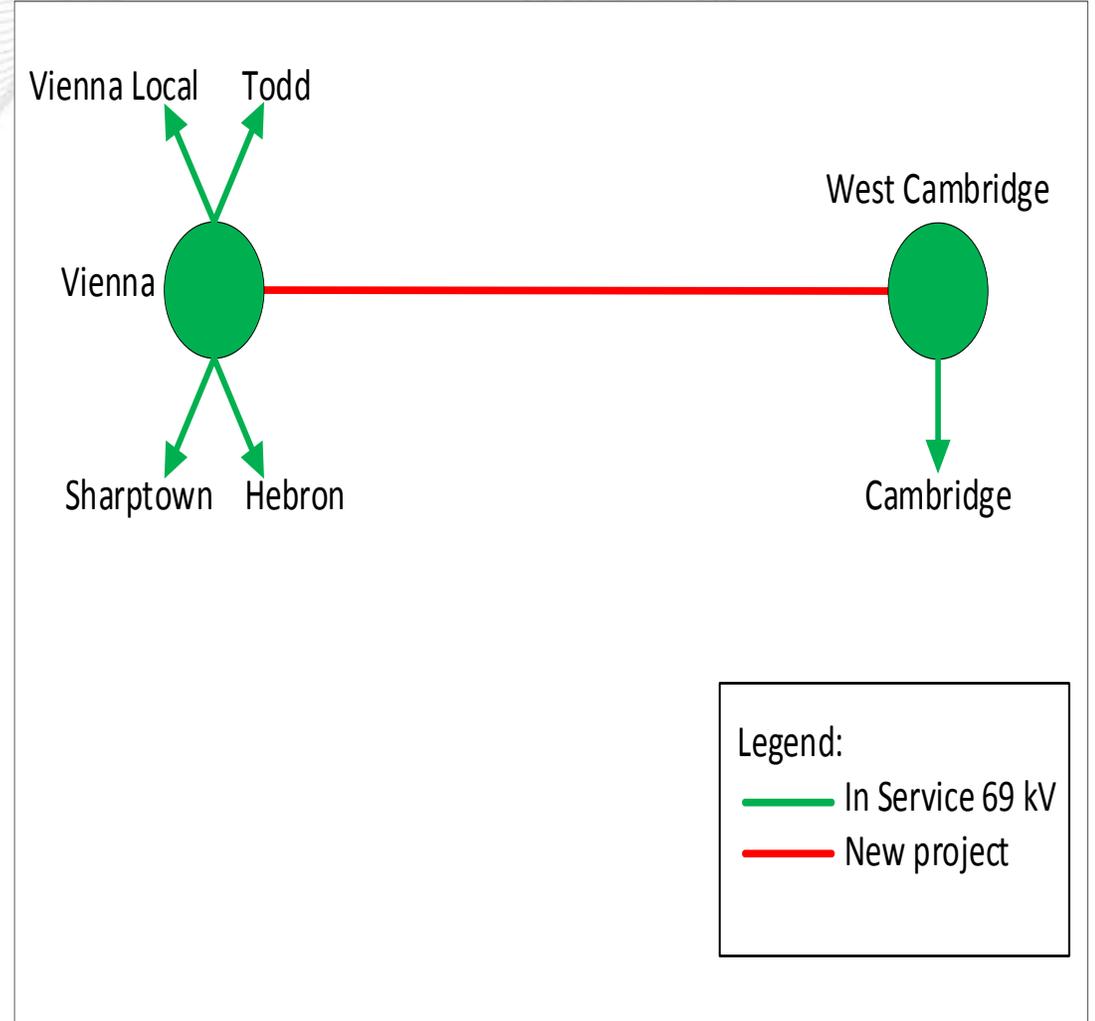
Construct new line between Vienna – West Cambridge substations

- Significantly higher cost than rebuild

Alternative 2

Leave existing line as-is

- Risk of future outages remains due to deteriorated equipment on line



Needs

Supplemental Reliability Upgrades

Need Number: DPL-2019-0001

Meeting Date: 1/25/2019

Process Stage: Need

Supplemental Project Driver: Customer Request

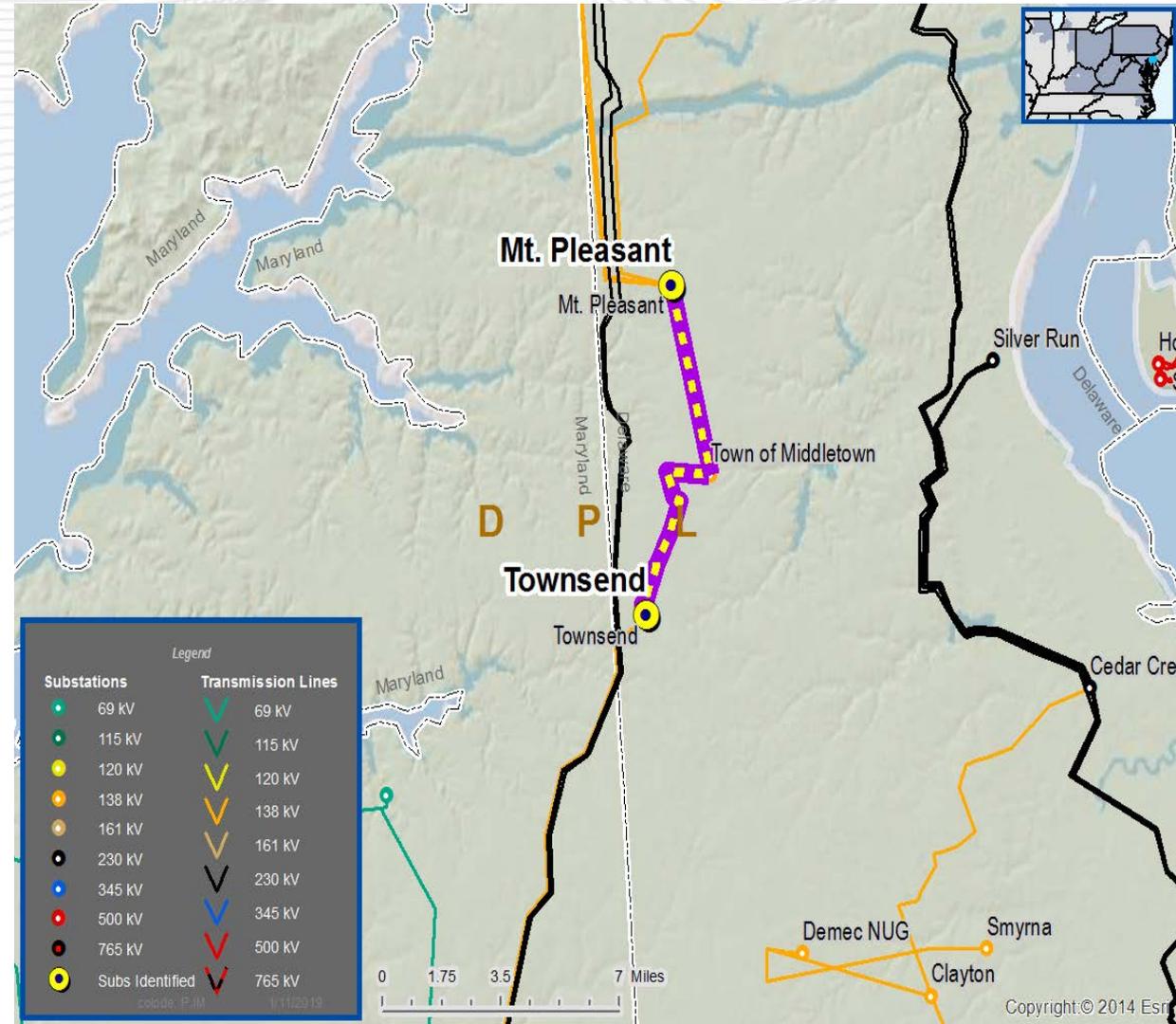
Problem Statement:

Customer has requested a new 138 kV interconnection point off the Mt. Pleasant to Townsend 138 kV line due to load growth within the municipality.

Specific Assumption References:

SR RTEP Assumptions presentation from December 7, 2018

- New transmission customer interconnections or modification to an existing customer



Questions?





Revision History

1/15/2019– V1 – Original version posted to pjm.com