

# **Glebe Substation to Potomac River Substation**

*Proposed 230kV Line & Substation Enhancement Project*

City of Alexandria Working Group Update  
March 23, 2016

# Agenda

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- A. Review of local energy need, status of project
- B. Proposed project & alternatives studied
- C. Routing options
- D. Path forward

# Local Reliability Concerns

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What has transpired since September of 2014?

- Two new PJM load forecast cycles continue to show a net increase in electric demand for the area
- Despite economic headwinds combining with continued integration of EE and DSM to slow the pace of this forecasted growth, our updated analysis still indicates the need for a transmission solution in this area
- Re-evaluated electrical alternatives that will address the projected overloads

## **Local Reliability Concerns** *(continued)*

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Demand on existing infrastructure is forecasted to exceed capacity by Summer 2020, which will negatively impact service reliability to customers in the **City of Alexandria and Arlington County**, and violate federal capacity requirements.

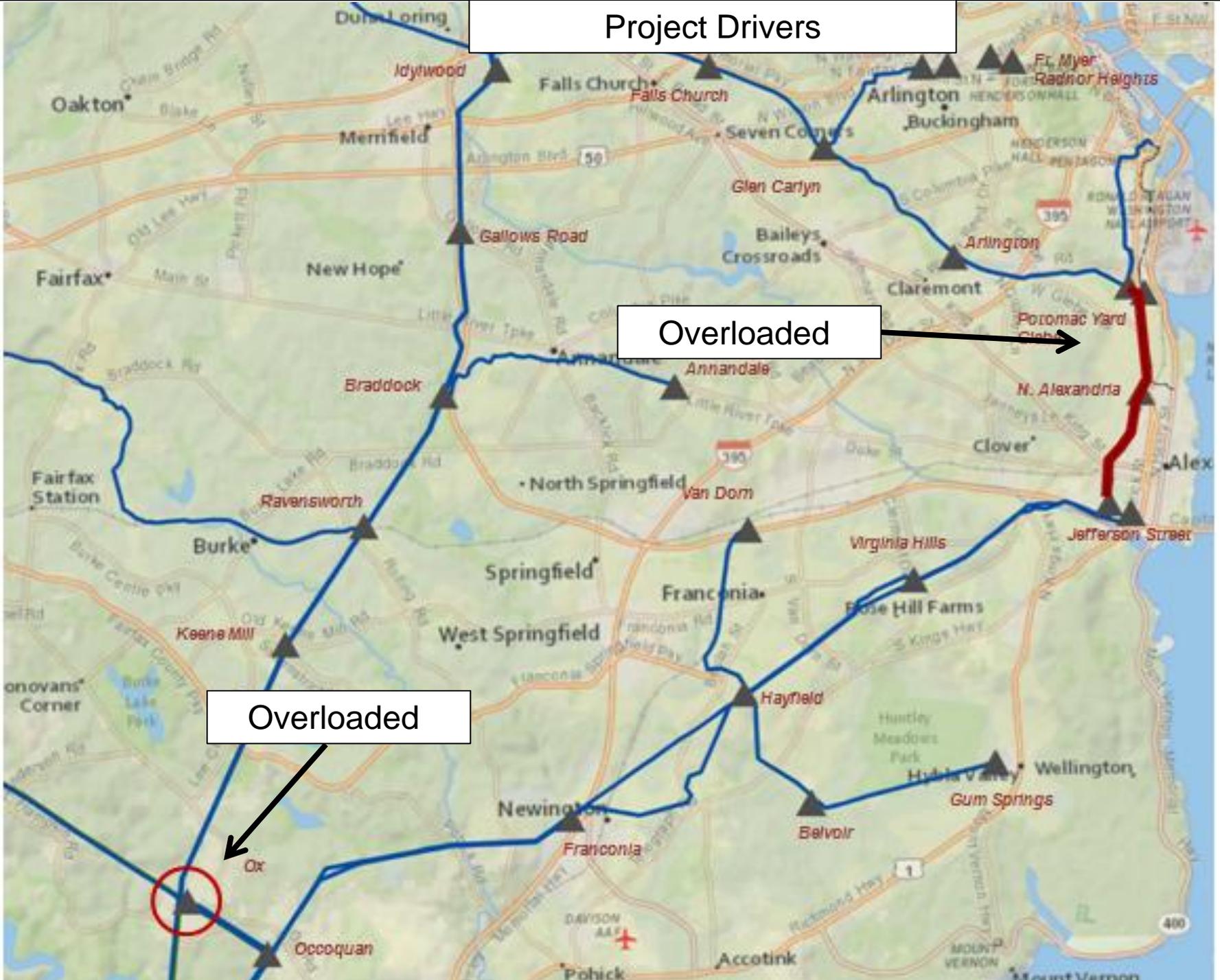
The following lines and transformers are forecasted to exceed 100% capacity:

- Two existing underground transmission lines between **North Potomac Yard, North Alexandria and South Carlyle**
- Ox 500kV-230kV transformers

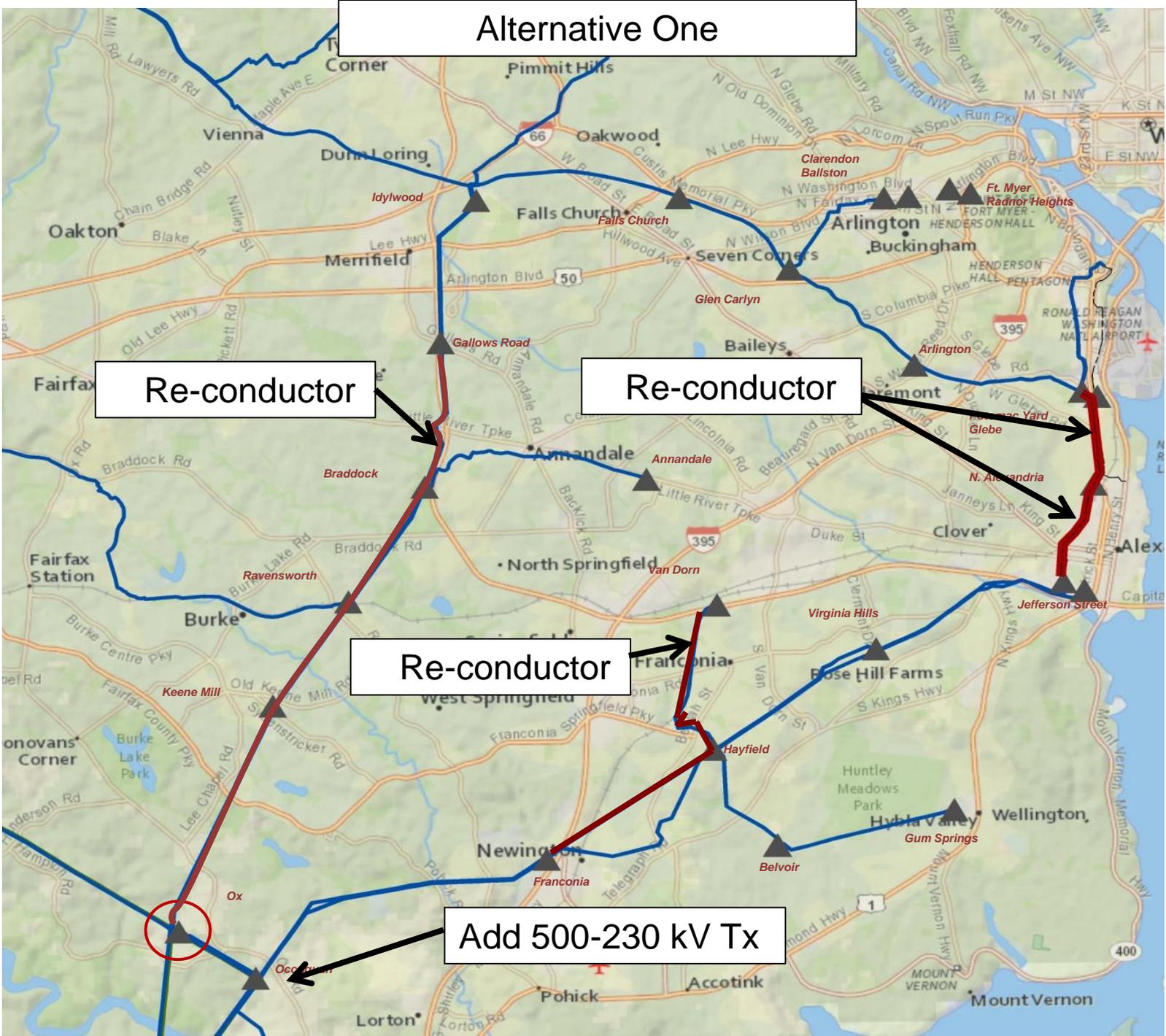
# Project Drivers

Overloaded

Overloaded



# Alternative One



Re-conductor

Re-conductor

Re-conductor

Add 500-230 kV Tx

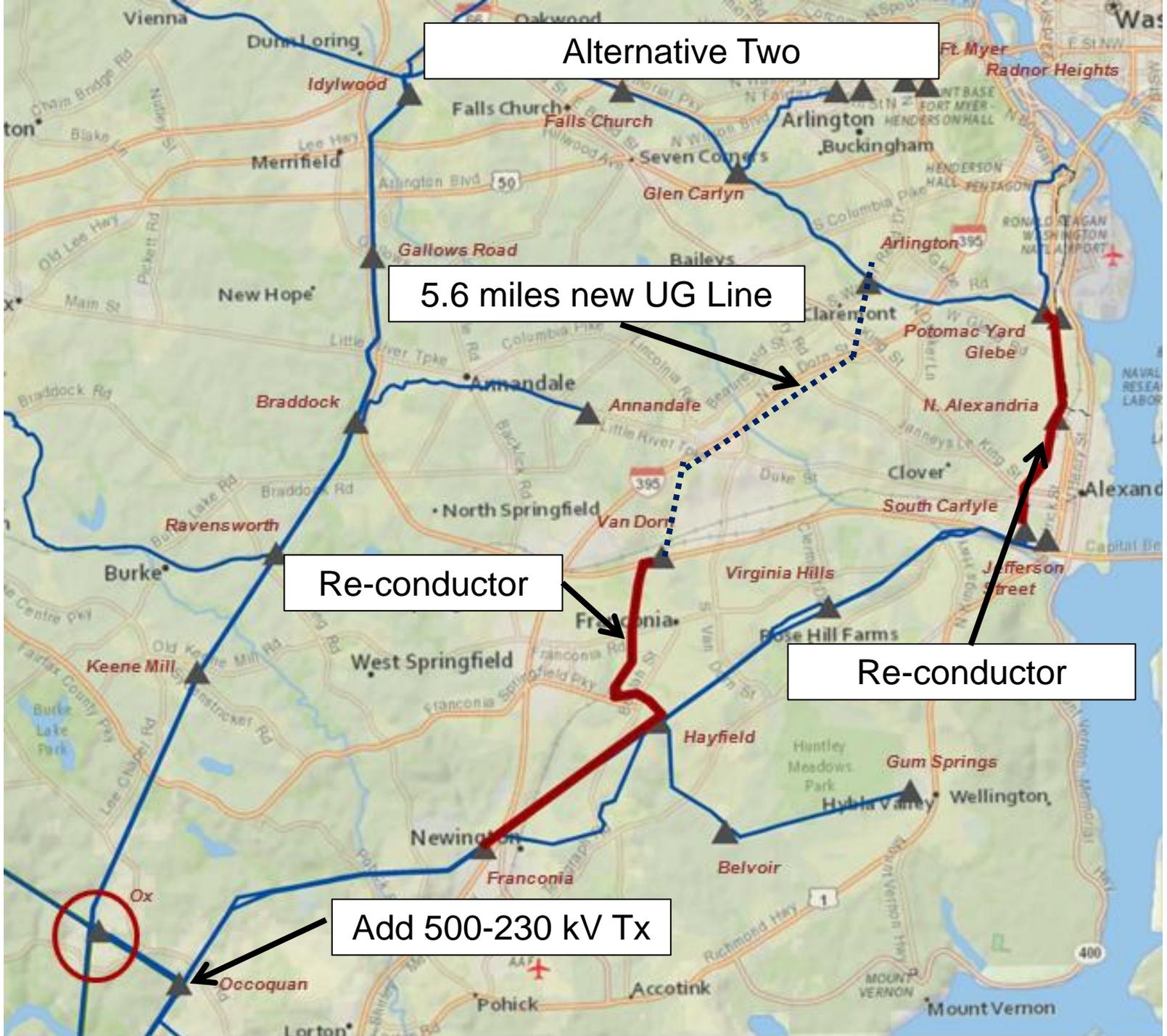
# Alternative Two

5.6 miles new UG Line

Re-conductor

Re-conductor

Add 500-230 kV Tx

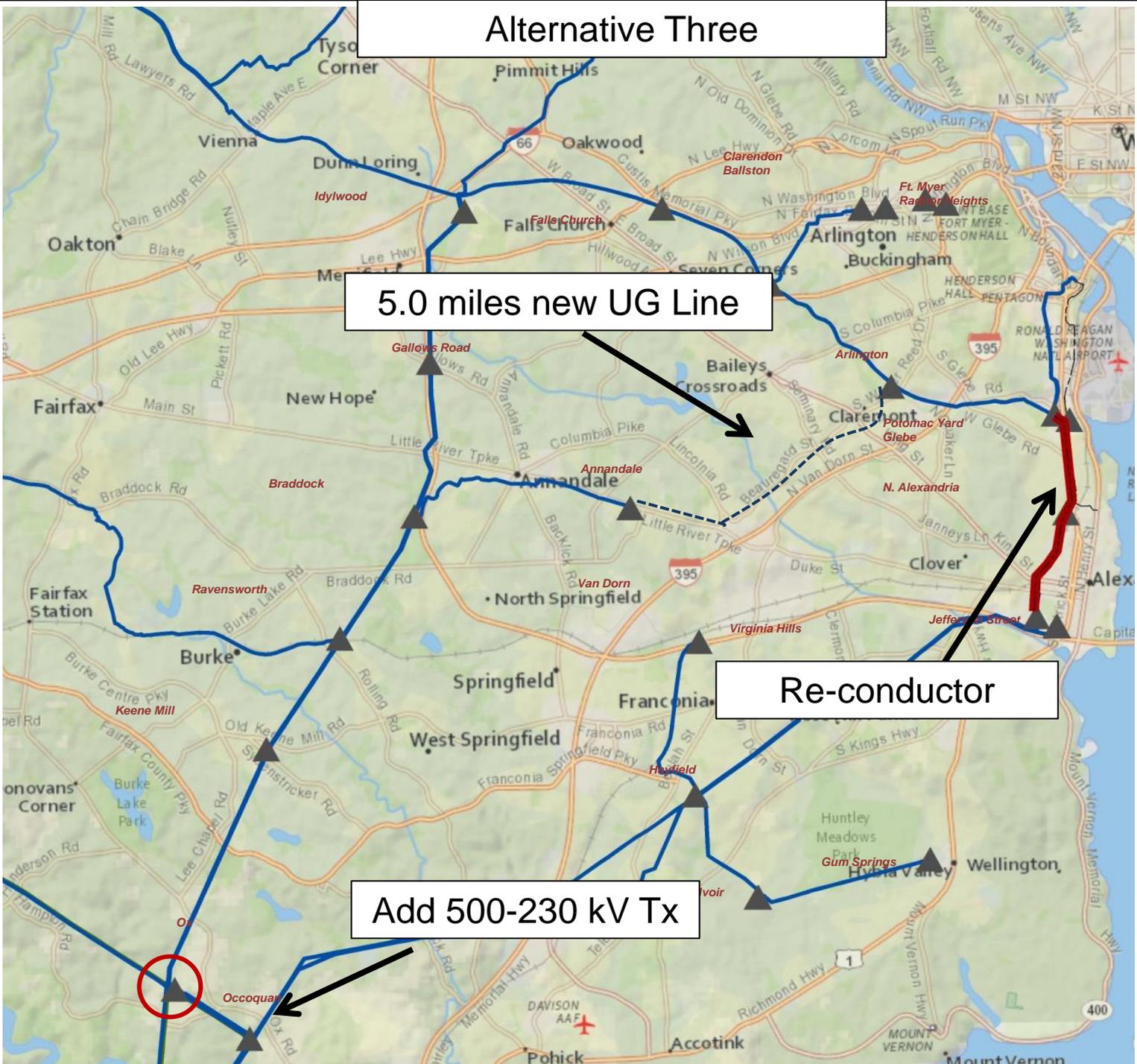


# Alternative Three

5.0 miles new UG Line

Re-conductor

Add 500-230 kV Tx



# Current Solution:

## Glebe – Potomac River Sub 230kV Line

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- Currently PJM-approved project
- 230kV line is approximately 2.0 miles long
- Relocates North Potomac Yards Terminal Station
- Rebuild Glebe 230kV Switching Station with GIS
- SCC application:
  - If Glebe to Potomac River Sub becomes the final project, then Dominion plans to file both together in late summer 2016
  - If any other alternative is selected, then Potomac Yard will be filed separately in late summer 2016

# Benefits of Glebe-Potomac River Substation

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Analysis indicates this solution resolves identified deficiencies, and is potentially least impacting and least cost.

Solution offers:

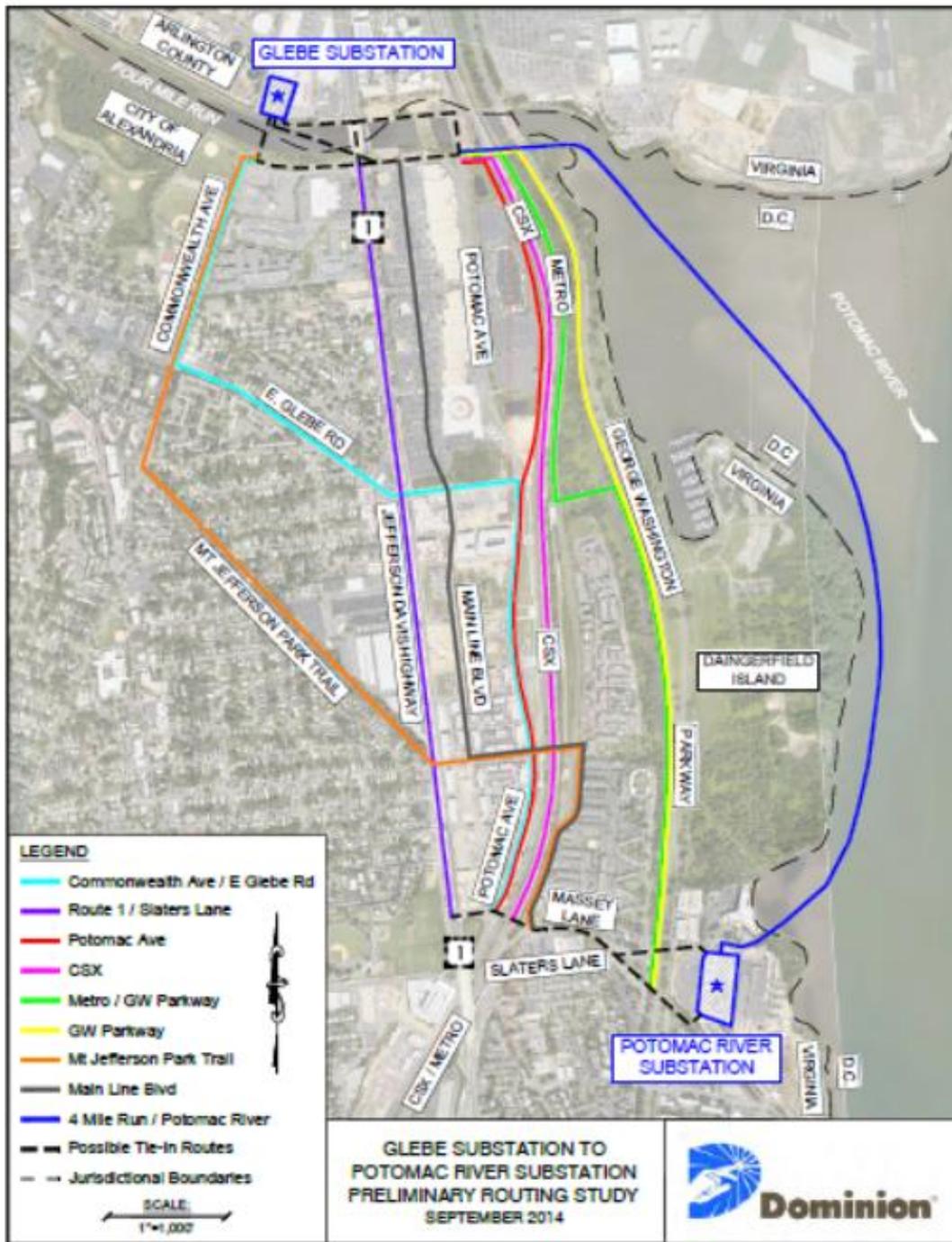
- Most effective solution
- Least impactful electrical alternative
- Injection of new interconnection to region

# New transmission infrastructure will:

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- Resolve overload issues locally, and
- Add an interconnection between Pepco and Dominion which will strengthen local and regional reliability to residents, neighbors and critical government agencies





# Routing & SCC Application

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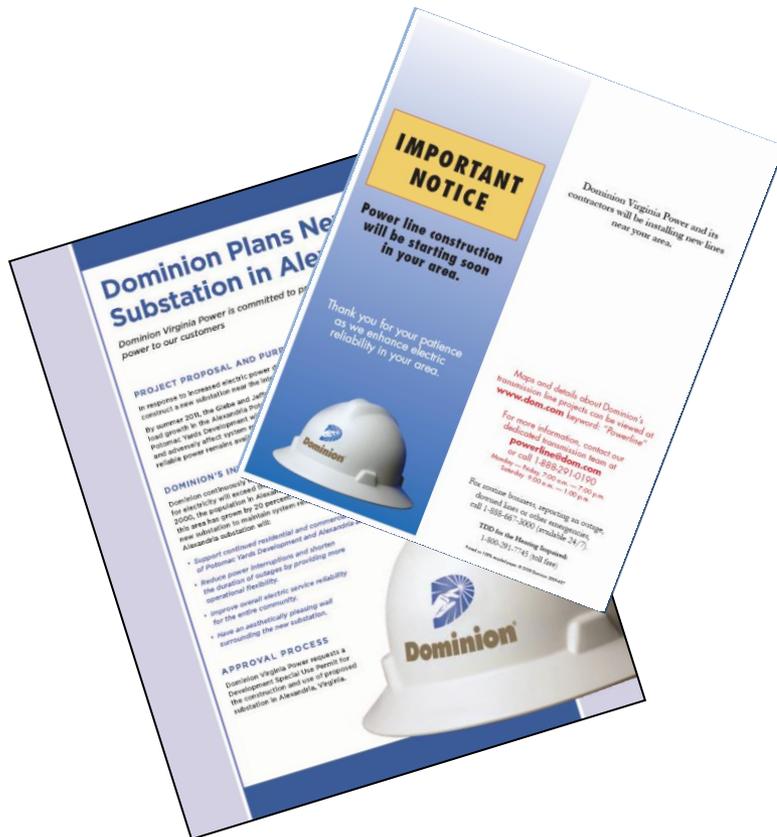
Based on current constraints, Dominion **will pursue** underground routing as **part of** the preferred solution for the Glebe to Potomac River Substation project. However, **if a buildable overhead route exists we will provide information on such an alternative to the State Corporation Commission in order to support a complete application filing for this project.**

The SCC Guidelines of Minimum Requirements for Transmission Line Applications Filed Under Virginia Code Section 56-46.1 and The Utility Facilities Act requires the Company to provide routing information on viable alternatives. Our legal interpretation of these guidelines, combined with decades of regulatory precedent, confirms that analysis of a viable overhead route must be included in the application if one exists.

# Updated Outreach Plan

Ongoing updates to community stakeholders, including:

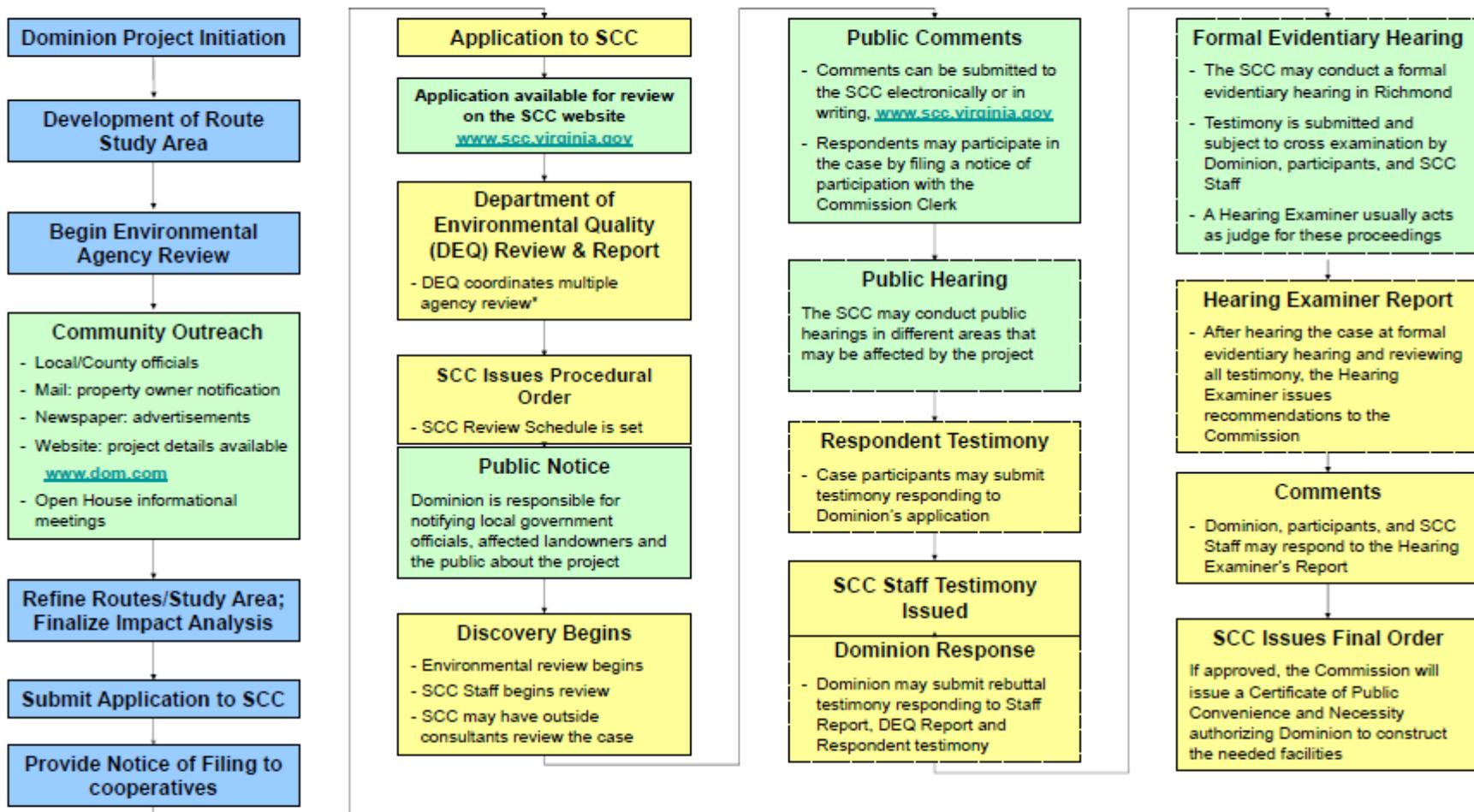
- ✓ Milestone mailers
- ✓ Project site updates
- ✓ Dedicated 800# & email
- ✓ Open house TBD



# The Transmission Line Approval Process

Virginia's State Corporation Commission (SCC) has regulatory authority over all electric utilities and requires that all transmission facilities at or above 138 kV be certified by the SCC.

The SCC determines the need for a proposed line and the route. Among other elements considered, the SCC must determine that the selected route reasonably minimizes the impact on scenic assets, historic districts, and the environment.



\*DEQ coordinated agency review includes: Virginia Marine Resources Commission, Department of Conservation & Recreation, Department of Game & Inland Fisheries, Department of Historic Resources and others.

**Average SCC Review Process: One year to 2+ years**

**Dominion**

**Public Participation**

**SCC**

**How to comment to the SCC:** Public commented related to Commission cases are accepted for a limited time. Cases for which comments are currently being accepted by the SCC are listed in the Public Comments/Notices page.

<http://www.scc.virginia.gov/case/publicComments.aspx>

This is a conceptual diagram to illustrate the certification process and is not intended to be a legal description.

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**Questions ?**