Western Chesterfield

Electric Transmission Improvement Project

October 24, 2024

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Welcome

- Welcome / Introductions
- Project Overview Presentation
- Open House Style until 8 p.m.

** The presentation will be recorded and placed on our website after the meeting.*

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Our Commitment

- Explain project information clearly
- Listen and respect questions, concerns from our community members, learn
- Act in the interest of our customers and neighbors

Thank you for being here.

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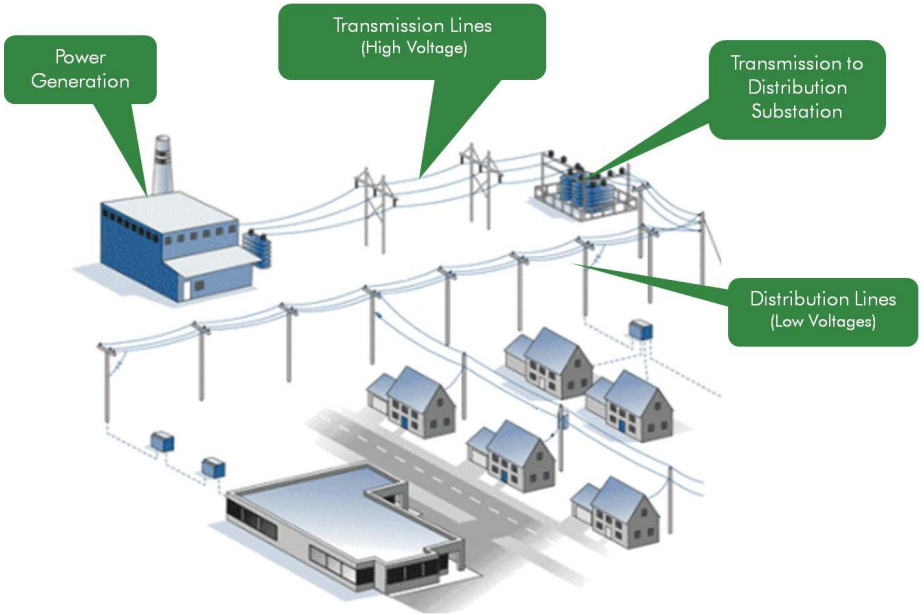
Electric Transmission 101

Electric transmission and electric distribution lines both carry electricity, but they look different and serve different functions.

Electric transmission lines are high voltage lines that carry electricity from our power stations to substations.

Once the transmission line reaches a substation, the voltage is lowered and delivered to your home or business via electric distribution lines.



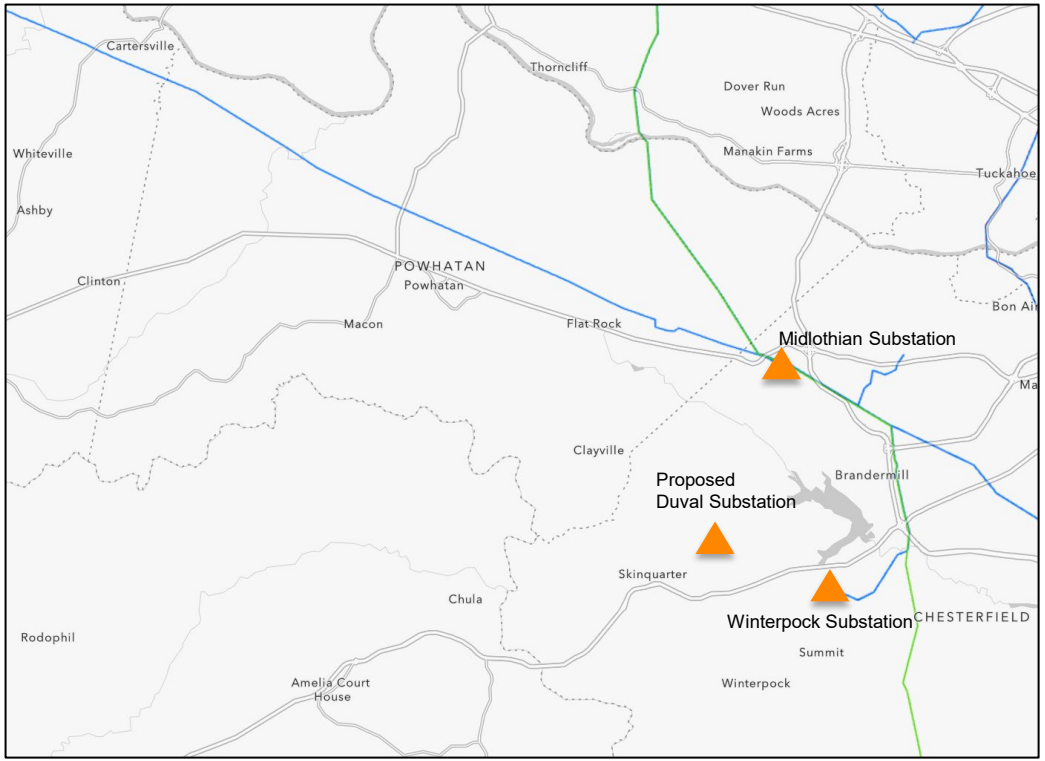
Project Overview - Need

Western Chesterfield County is experiencing substantial growth.

- Residential and commercial development has outgrown the existing distribution network
- Distribution requires more options to maintain operational flexibility to ensure reliability standards

A transmission solution is needed to meet the electric power load growth and prepare for planned development in the western area of the county, including Upper Magnolia.

- Need to reinforce the distribution network due to this native growth
- Adds operational flexibility, switch-before-fix approach
- Planned for additional economic development in the area
- By 2028, transmission reinforcement is needed to serve the load growth



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Proposed Solution

The project includes two main components to meet the new power needs and maintain reliability:

1. A new substation will be located within the Upper Magnolia property, located off Duval Road and east of the planned Powhite Parkway extension.

2. One double-circuit 230 kV electric transmission line is needed to connect the new substation to our existing electric transmission grid. The the proposed corridor will begin at our existing Midlothian substation, South of Route 60.
    - Planning for 160-foot-wide right-of-way in anticipation of future growth

Note - The SCC filing will list overhead, underground, and hybrid options.

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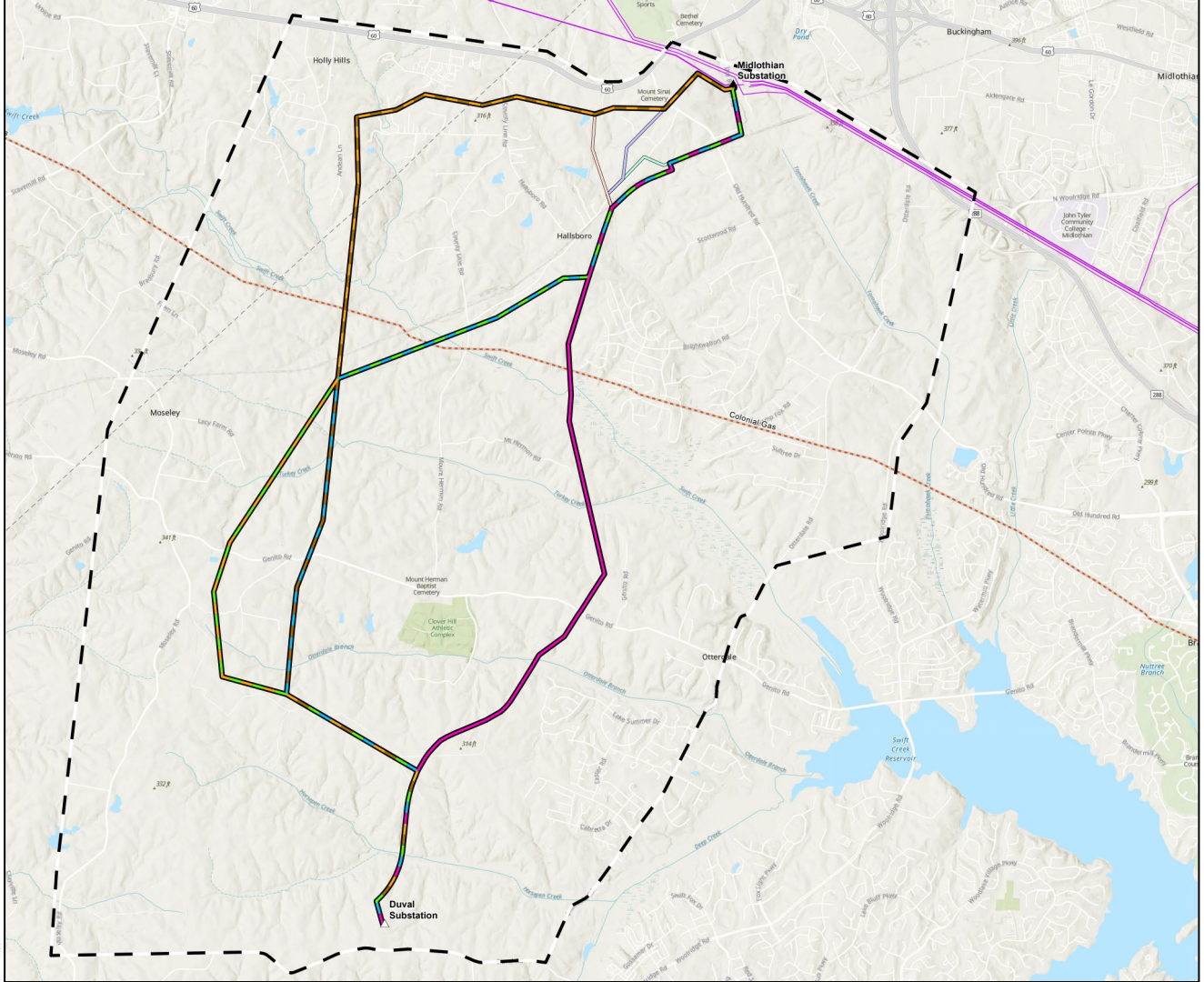

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Preliminary Overhead Route Overview

Western Chesterfield Electric Transmission Improvement Project
Chesterfield and Powhatan Counties
Virginia

- Existing Substation
- Proposed Substation
- Existing 16" Colonial Pipeline
- Existing Dominion Transmission Lines
- Study Area

Overhead Route Alternatives (160' ROW)

- Route 1A
- Route 1A
- Route 2A
- Route 2B
- Route 3

Mount Hermon Variation (160' ROW)

- Mount Hermon Variation Route 1
- Mount Hermon Variation Route 2
- Mount Hermon Variation Route 3

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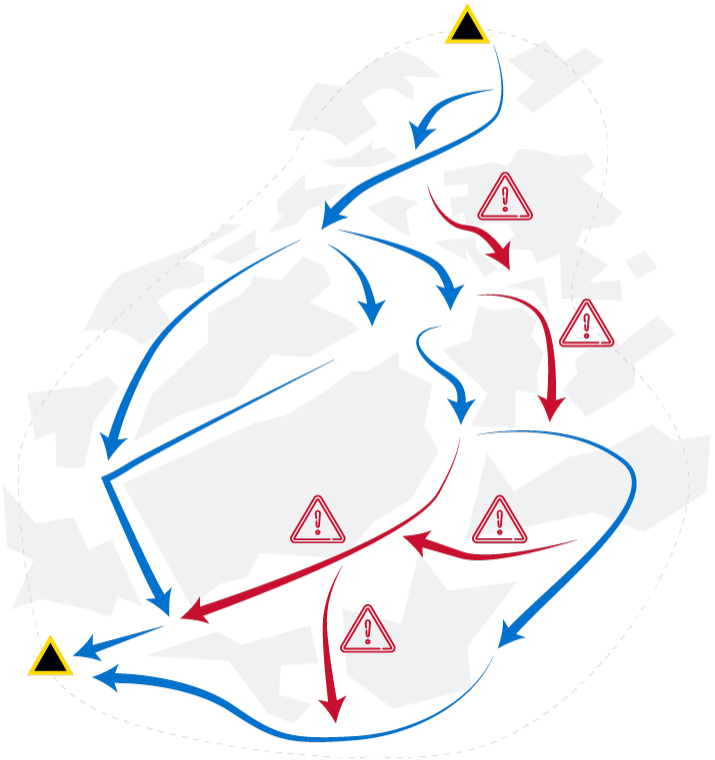
Routing Process

Key Considerations and Constraints:

- Wetlands
- Historic/Cultural areas
- Residential Areas
- Planned Developments
- Conservation Easements
- Government-owned lands

Current routes are 7.5 – 9 miles in length.



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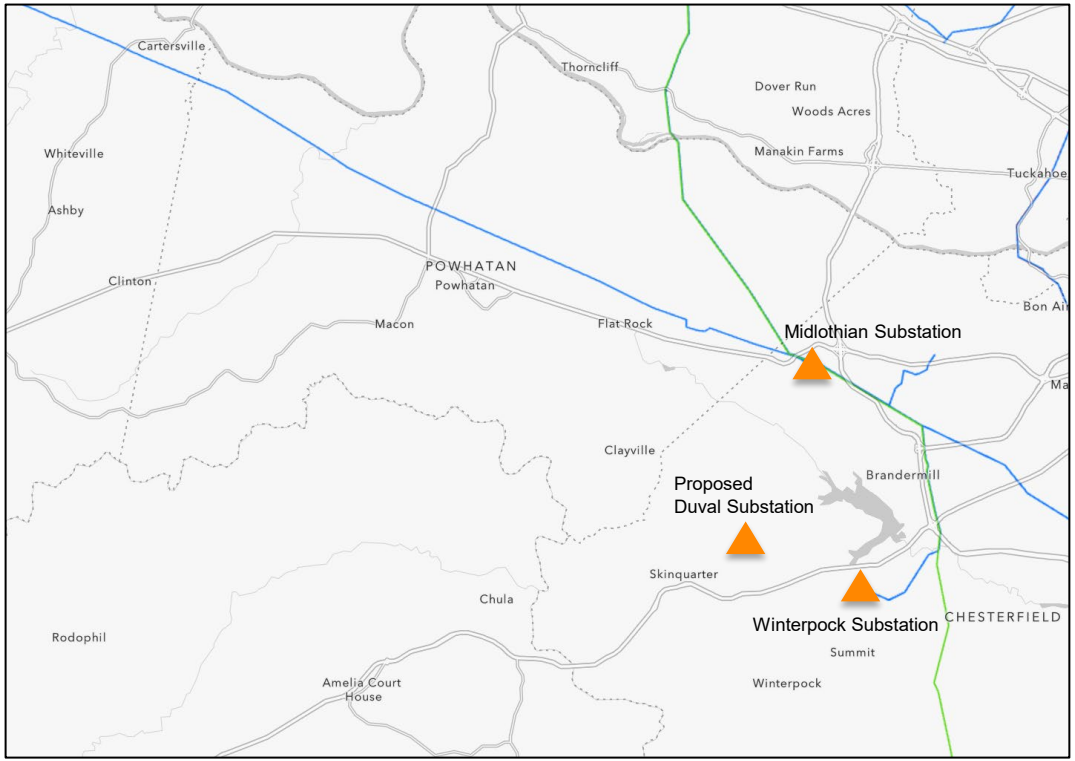
Routing Constraints

- Existing electric transmission infrastructure is limited
- Existing development limits routing from Winterpock Substation



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Structure Type

A **double-circuit monopole** is a single-pole structure that supports two separate electrical circuits. Each circuit typically consists of three conductors (wires) for carrying electricity, which means a double-circuit pole has a total of six conductors.

This design allows more power to be transmitted on a single pole, increasing capacity and reliability while using less land than having two separate poles.

- 160 ft. wide right-of-way corridor
- Approximately 110-130 ft. tall

The structure design is preliminary. Each structure type and height are subject to change based on final engineering.

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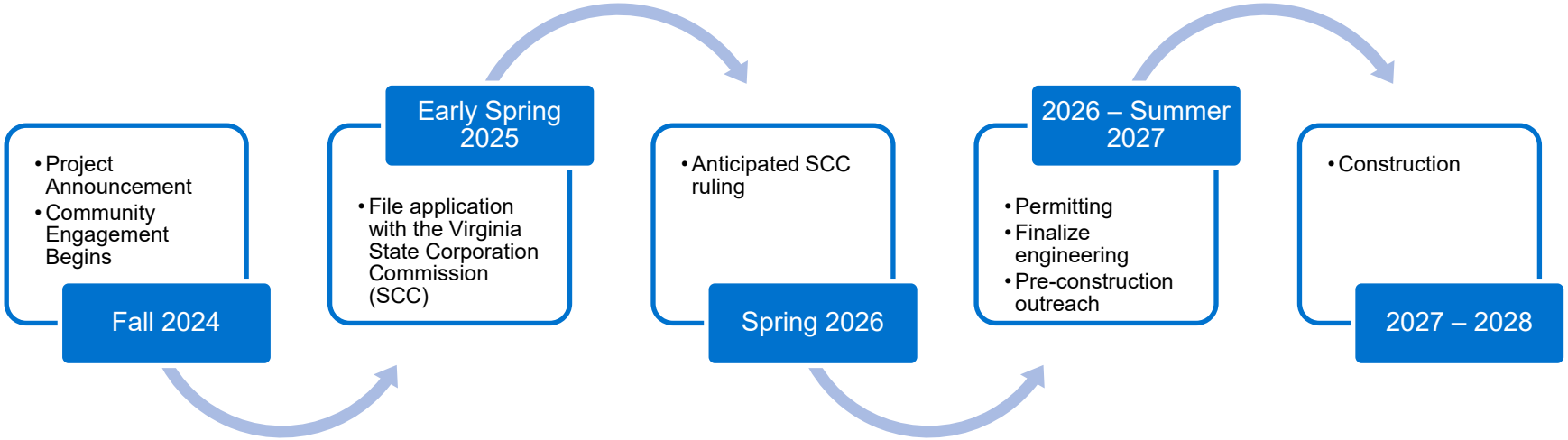
Proposed Timeline



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State Corporation Commission (SCC) Process

- Dominion Energy will file an application with the SCC to review whether the project is needed and which route reasonably minimizes impacts.
- One proposed route and alternative routes for SCC consideration will be listed in the application.
- The SCC will review the case and decide which route the company will construct.

Opportunities for public involvement throughout the process, including public hearings.

The SCC review process typically lasts about one year but may vary.

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SCC Scenarios

- One Double-Circuit 230 kV monopole line (two circuits total)
- Dominion Energy would request 160’ right of way, accommodating four circuits if future load increases.

Scenario 1: Current Electrical Demand

- An additional Double-Circuit 230 kV monopole line, parallel to the announced September transmission line, would be added to the SCC filing
- All circuits would be within the 160' right of way
- Four circuits total

Scenario 2: Increased Electrical Demand before SCC Filing

- A double-circuit monopole is a single pole that supports two separate electrical circuits.
- Each circuit consists of three conductors (wires) for carrying electricity.

Reminder: Electrical Circuits

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Underground/Hybrid Considerations

- An underground feasibility study is currently underway. An underground alternative will be included in the SCC application.
- The underground routes are generally similar to the overhead routes in terms of routing and right-of-way requirements.
- Underground transmission lines cost significantly more than overhead transmission lines
- Hybrid options will also be evaluated.
  - Overhead and an underground section.
  - Require a transition station (similar to a substation) to transition from underground to overhead

Outreach

Public outreach is an essential piece of the project planning process.

- Project Announcement
- Multiple Community Meetings
- HOA Outreach
- Individual Property Owner Meetings As Requested
- Project Website & Dedicated Communications Team
- Simulations & Project Informational Videos
- GeoVoice

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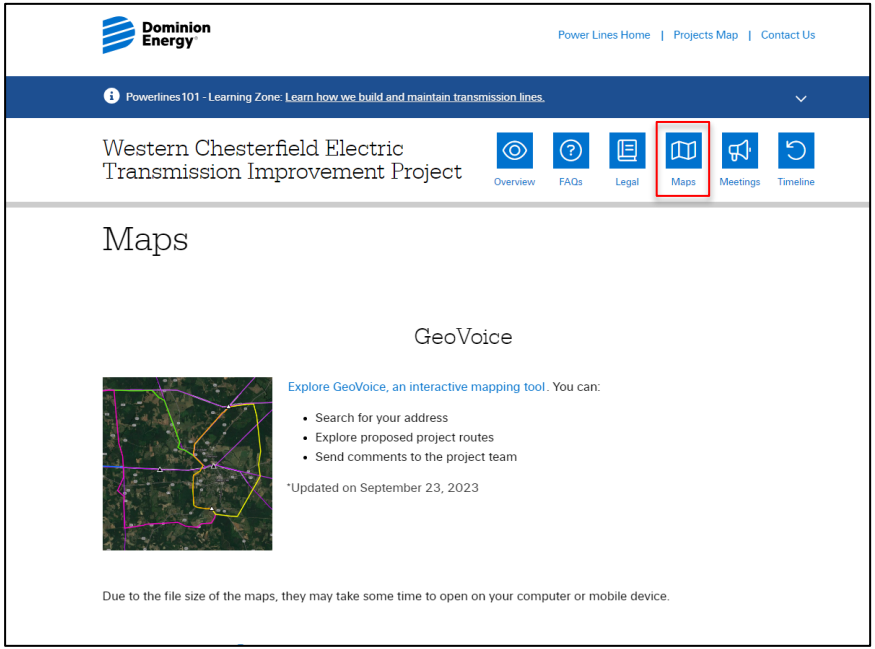
GeoVoice

- Review the study areas
- Interactive mapping tool
- Evolves as routing options are refined
- Add comments, provide input or share insight on the location of important personal concerns or natural and historical resources
- Track project development and receive updates



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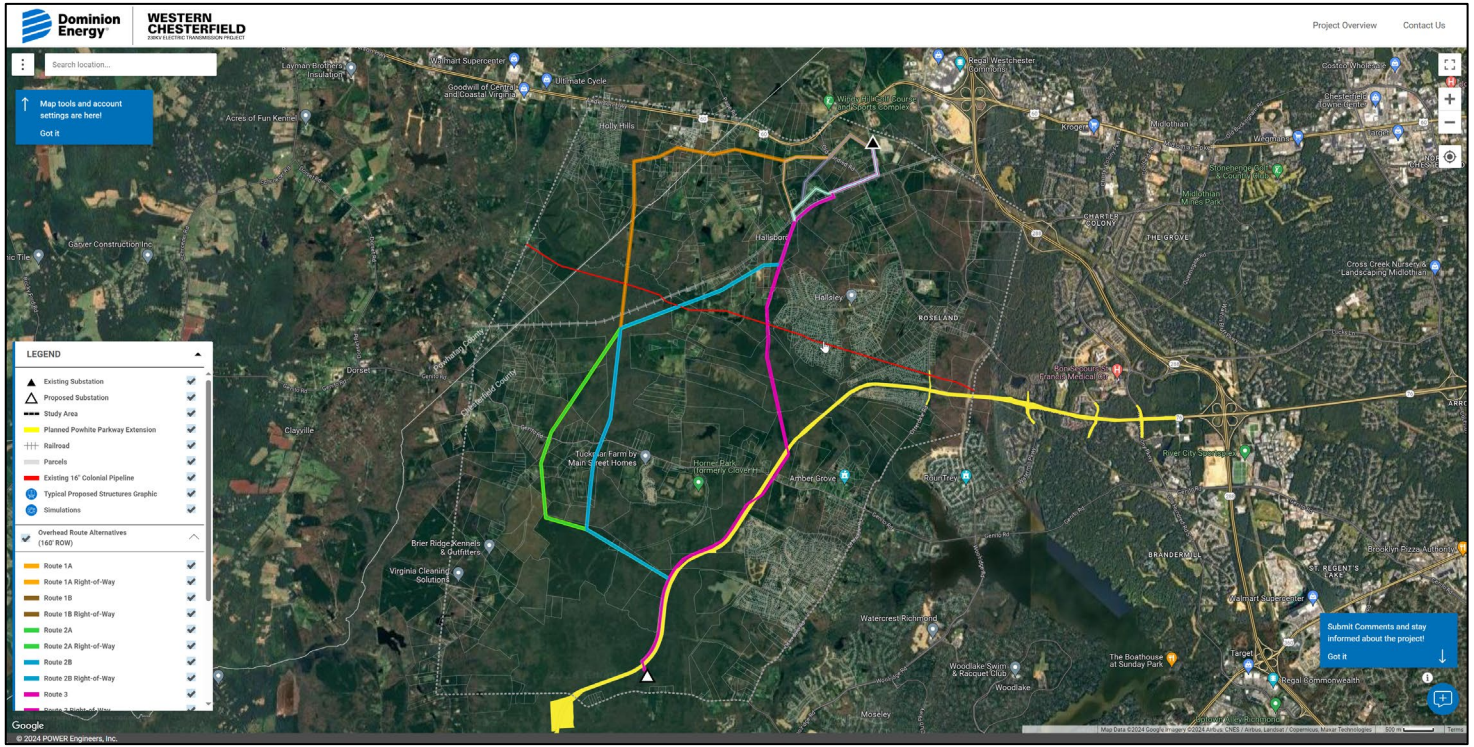
GeoVoice



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Thank You

Electric Transmission Contacts

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Western Chesterfield Website:

DominionEnergy.com/westernchesterfieldET

For general project questions:

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