

Morrisville- Wishing Star 500 & 230 kV Electric Transmission Project

**Virtual Community Meeting
May 5, 2025**



What this looks like for our communities.

We must upgrade and add new energy infrastructure in the Commonwealth to ensure reliable energy supporting residential homes, businesses, data centers, and vital government services.

New electric infrastructure will improve reliability for all customers in the region, enable EV growth, and help distribute cleaner energy.

We are **actively engaged** with our customers and other stakeholders to develop solutions and provide benefits to residential, small business, national security, or homeland defense customers.



Key Regulatory Bodies



FERC – Exclusive jurisdiction to determine and regulate the reliability of the electric transmission grid



NERC – Regulatory authority to develop and enforce the mandatory reliability standards – criteria, data and methodology to evaluate and ensure the reliability of the bulk power system in North America



PJM – Regional transmission organization (RTO) that coordinates the movement of wholesale electricity in all or parts of 13 states and the District of Columbia; Virginia law mandates Dominion Energy's membership



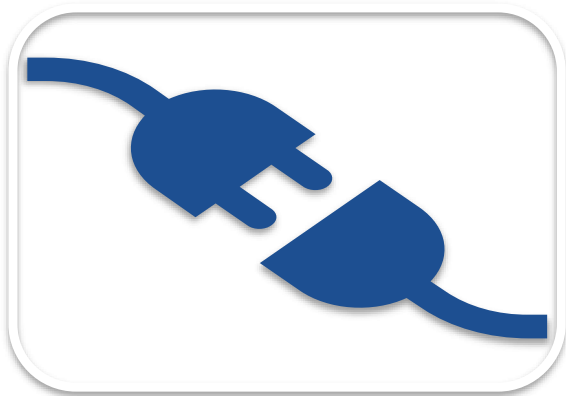
State Regulators – State Corporation Commission, Department of Environmental Quality, Department of Transportation, and others



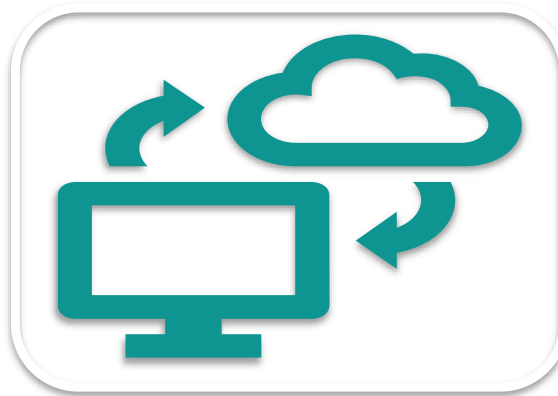
Local Governments – Regulate local land use (substations); typically, electric transmission lines equal to or less than 138 kV

The Energy Landscape is Changing

*^
Rapidly*



Electrification



“Datafication”



“Greenification”

Load Growth Across Virginia

Northern Virginia has the largest data center market in the world ¹

Loudoun County²



Northern Virginia

Data Center Alley

2020 → 2,518 MW⁴

2028 → 8,346 MW⁴

+231%

Doubling of area substations

Central/Southside

2020 → 402 MW⁴

2028 → 2,953 MW⁴

+634%

Quadrupling of area substations

Publicly disclosed data center locations³

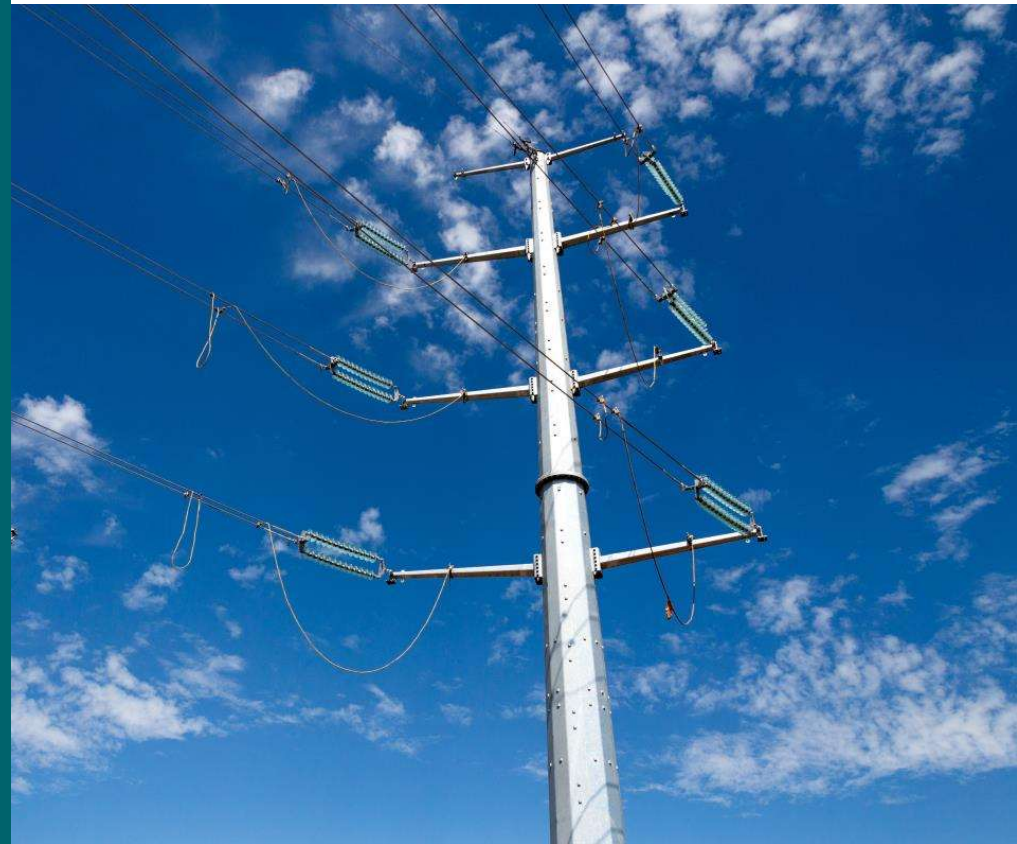
Data center locations in Loudoun County

¹<https://www.vedp.org/industry/data-centers> ²February 2022 Loudoun County Data Center Land Study

³Data Center locations provided by Data Center Hawk ⁴Includes Co-Op load projections

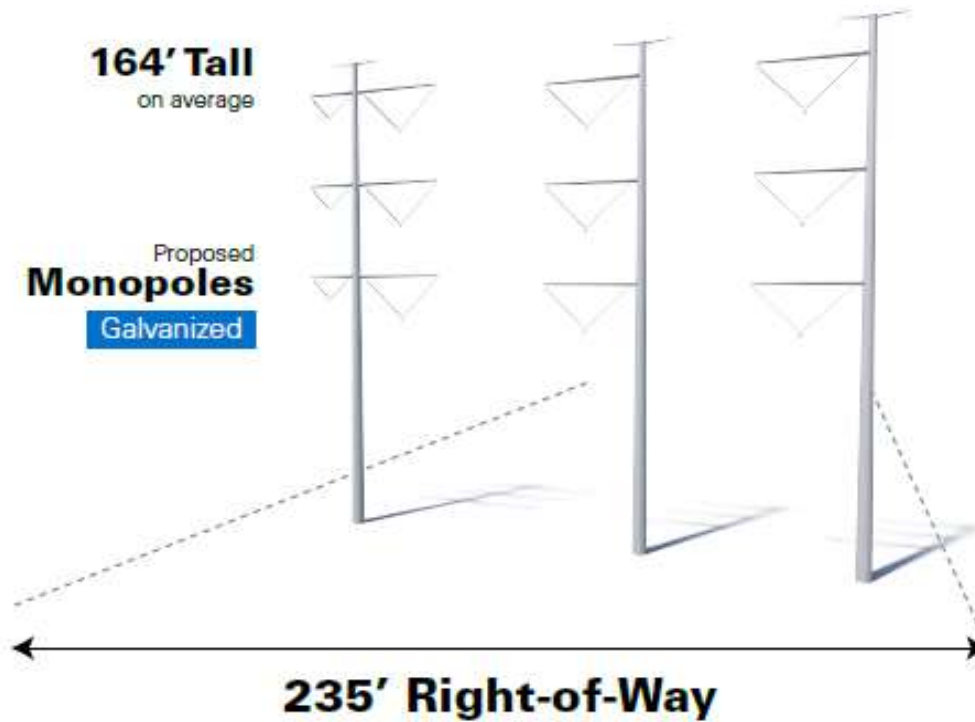
Morrisville to Wishing Star

- Crosses three counties: Fauquier, Prince William, and Loudoun.
- The project involves installing a new 500 kV transmission line within, adjacent to, or near **36.5** miles of existing right of way (ROW).
- Additionally, a new 230 kV transmission line will be added in Fauquier County, along with an expansion of the Morrisville Substation.
- This infrastructure addition will enhance our ability to deliver electricity efficiently and ensure the continued reliability of our electric grid.
- The new transmission line will utilize **monopole structures** that are generally taller than the existing lattice structures to limit corridor expansion.



Morrisville Substation Expansion Rendering

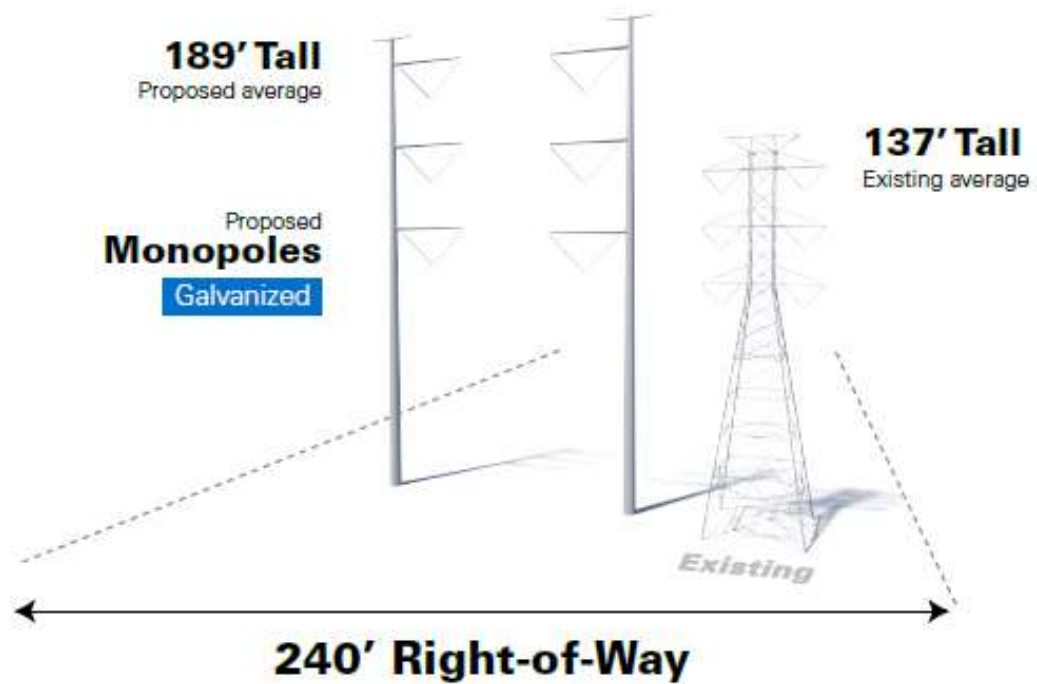




**MORRISVILLE TO
WISHING STAR**
Transmission Line Project

Typical Proposed Right-of-Way
Segment 2A

Visualization is for discussion purposes only.
Final design is subject to change pending public,
engineering, and regulatory review.



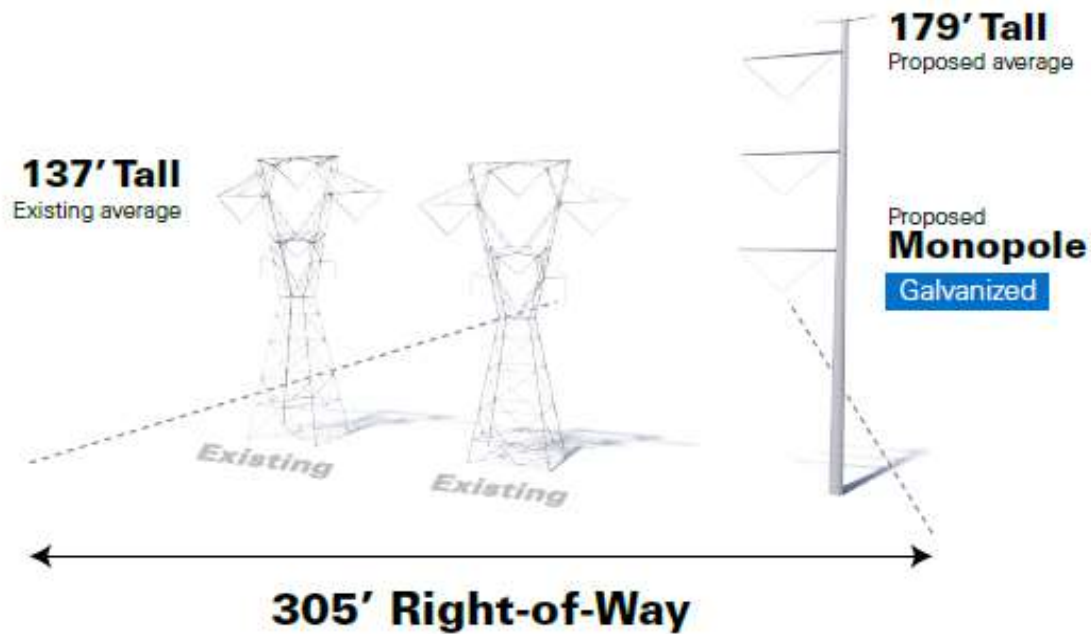
May 14, 2025



**MORRISVILLE TO
WISHING STAR**
Transmission Line Project

Typical Proposed Right-of-Way
Segment 2B

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**MORRISVILLE TO
WISHING STAR**
Transmission Line Project

Typical Proposed Right-of-Way
Segment 3

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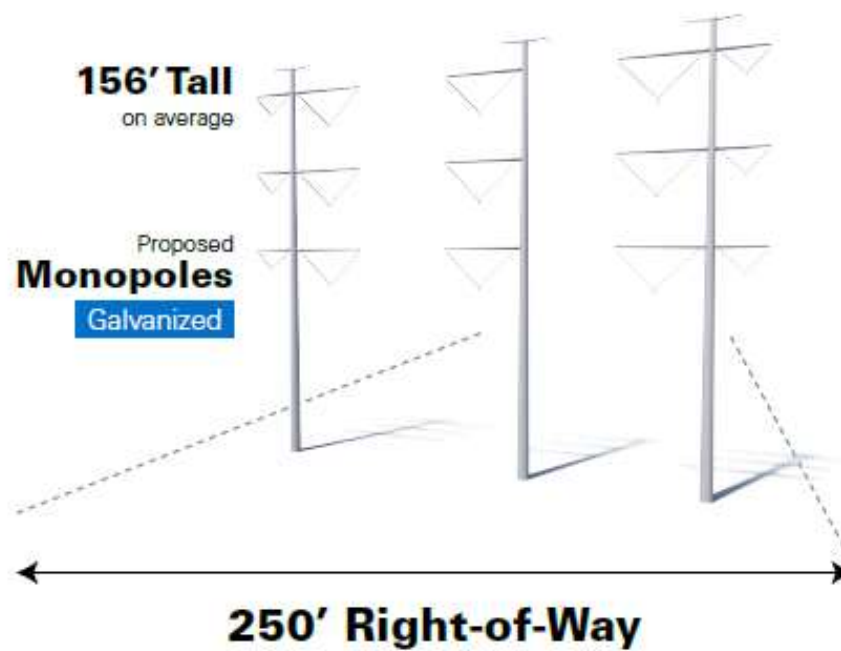
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**MORRISVILLE TO
WISHING STAR**
Transmission Line Project

Typical Proposed Right-of-Way
Segment 4

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May 14, 2025





Underground Routing

Dominion Energy studied and found that installing the Morrisville-Wishing Star 500 kV transmission line underground is technically possible but impractical due to environmental impacts, construction difficulties, high costs, schedule delays, and operational issues.

Open Trenching Impacts

- Most of the route will need open trenching, which could affect sensitive environmental areas along the route. This includes permanent changes to wetlands and possible impacts on water flow.

Trenchless Construction Needs

- In areas where trenchless construction methods are required, trenchless construction requires a 370-ft-wide construction right-of-way and a 300-ft-wide permanent right-of-way.

Right-of-Way Restrictions

- Underground right-of-way would have the same clearing requirements and use restrictions as an overhead line.

Utility Relocation Challenges

- Existing underground utilities, such as water, gas, and internet, would need to be relocated, increasing the project's complexity, cost, and timeline.

Directional Drilling Complexity

- The number of roads, waterbodies, and railroads necessitates special techniques like directional drilling for underground construction, making the process more complex and costly.



GeoVoice

Sign up to provide our team with comments about the locations that matter to you. For example, you can add details about natural or historic resources in your community or more information related to your specific property.



**Dominion
Energy**

Morrisville to Wishing Star Transmission Line Project

Welcome

Welcome to the interactive map tool for Dominion Energy's Morrisville to Wishing Star Transmission Line Project. You can use this tool to explore the proposed project and get important project updates including proposed structure information and simulated photography showing proposed infrastructure. Finally, you can use our online commenting tool, GeoVoice, to communicate directly with our team about any questions or concerns you have about the project. Thank you for helping us plan Virginia's clean energy future. What matters to you, matters to us, and we want to hear from you today.



DominionEnergy.com/MorrisvilleWishingStar



Committed to public engagement.

Dominion Energy takes our responsibility seriously to provide our customers with **safe, reliable, and secure energy**.

We're **committed** to exploring all options to address any concerns regarding these needed projects.

We're meeting with local government leaders, businesses, and the communities we serve to share our plans and **listen** to their feedback.



Community Meeting Details

- Tues., May 13
- 6 to 8 PM
- Mary Walter Elementary School
 - 4529 Morrisville Rd, Bealeton, VA 22712

Fauquier County

1

- Thurs., May 15
- 5:30 to 7:30 PM
- Patriot High School
 - 10504 Kettle Run Rd, Nokesville, VA 20181

Prince William County

2

- Wed., May 21
- 5:30 to 7:30 PM
- The Lodge at Hanson Park
 - 23394 Endeavor Dr, Aldie, VA 20105

Loudoun County

3

Thank you

May 14, 2025

