

Why a New Transmission Line Through Western Loudoun is NOT Needed A Proposal for a Viable Alternative

- No good route exists for a 500 kV transmission line through western Loudoun.
- Power lines should take full advantage of existing rights-of-way without infringing on private or conservation land, historic districts, or park land.
- Advanced conductors (composite core wires) promoted by the US Department of Energy can help accomplish this.
- Virginia has an opportunity to be a national leader in the application of advanced technologies and demonstrate how the nation can enhance its electric grid and meet future power needs for the next 25 years.

About Composite Core Conductors: Advanced But Not New

- Composite core conductors can be used at much less cost than underground line. Compared to conventional conductors, they can carry twice the power on lighter-weight lines, with less loss of power and less sagging.
- This technology has been deployed at voltages up to 345 kV in the US, and two of the five composite core manufacturers operating in the US have participated in the building of at least two 500 kV lines in the challenging environment of Indonesia. A 500 kV pilot of one mile was done in 2013 in Tennessee.
- The US Department of Energy sees advanced conductors as a key tool to achieving national grid goals for 2050.
- The additional cost of using these conductors could be offset by not building the NextEra line and even better, by not building the new line through Maryland.

Regional Approach Needed

- With Prince William County data centers doubling the power load in the area, the center point for demand moves south. Enhancing existing rights-of-way to increase capacity could increase delivery of power to that new load center.
- The shortcomings of the PJM process mean that regulators in four states are left to consider individual proposals from various energy companies in those four states. This disjointed approach could lead to future power shortfalls and lead even more transmission lines in western Loudoun.
- Nowhere in this regulatory process is there any certainty that regulators will have the benefit of considering the full range of available technical options.
- A regional approach to promote the use of advanced technologies to improve the national grid is needed.

What We Can Do

- Seek help from elected County, State representatives and the Governor to pull together the broadest possible coalition of stakeholders.
- Urge a more strategic, long-term regional approach to transmission line decisions by the SCC and regulators from MD, WV and PA, along with other stakeholders.