

Loudoun Reliability Engagement Group

Second Meeting Executive Summary Report

The second meeting of the Loudoun Reliability Engagement Group was held on August 17, 2022, from 11:00 AM to 2:00 PM at Founders Hall in Ashburn, VA.

Member Organizations in Attendance

- Black History Committee (Friends of Thomas Balch Library)
- League of Women Voters of Loudoun County
- Loudoun Chamber of Commerce
- Loudoun Coalition of Homeowners and Condominium Associations
- Loudoun County Board of Supervisors
- Loudoun County Department of Economic Development
- Loudoun County Fire & Rescue Department
- Loudoun Wildlife Conservancy
- Loudoun County Preservation and Conservation Coalition
- NAIOP
- Piedmont Environmental Council
- Rotary Club of Ashburn
- VA Asian Chamber of Commerce

Absent Organizations

- Friends of the W&OD trail
- Loudoun County Department of Equity & Inclusion
- Loudoun Preservation Society
- Loudoun Soil & Water Conservation District
- NAACP Loudoun Branch
- Northern Virginia Technology Council
- NOVA Parks
- NVAR (Northern VA Realtors)

Dominion Energy Team

- Brendon Shaw, External Affairs Manager at Dominion Energy
- Carla Picard, ERM
- Carter Jones, ERM
- Christine Conrad, Ph.D., President at C2 Environmental
- Dominic Minor, Sr. Economic Development Market Specialist at Dominion Energy
- Greg Mathe, Manager of Electric Transmission Communications at Dominion Energy
- Greg Vozza, Power Engineer at MPR Associates
- Harrison Potter, Transmission Planning at Dominion Energy
- Jake Rosenberg, ERM Routing Specialist
- James Young, Environmental Project Manager at HDR
- John Kascsak, Manager of Substation Projects, Dominion Energy
- Kristi Moore, ERM
- Matt Teichert, ERM Routing Specialist
- Matthew Vinson, Engineer at Dominion Energy
- Peggy Fox, Media/Community Relations Manager at Dominion Energy
- Rob Richardson, Electric Transmission Communications Consultant at Dominion Energy
- Sarah Barreca, ERM

Meeting Summary

1. Introductions & Agenda Overview

Kristi Moore kicked off the meeting just a few minutes after 11 a.m. by welcoming everyone and thanking the group members for the time invested in participating in these meetings. She noted the table assignments, reviewed the day's agenda with the group, and began facilitating individual member introductions.

She then explained the LREG's purpose – to help bring local perspective, have a candid conversation, and ask questions. Lastly, she briefly recapped the first LREG meeting back in July 2022, including a discussion on growth in Loudoun County and the need for additional reinforcement for the electric grid. Other topics included the SCC process, its role as the regulatory authority for electric transmission projects, and the importance of “sharing our homework” as part of the routing considerations.

2. Transmission Constraints

Rob Richardson led a conversation about the recent transmission constraint issues that media outlets had covered. He began the discussion by reviewing how the energy grid works; power is generated and flows along transmission lines to substations, which are converted and sent to customers via the distribution network.

Recent news focused on a transmission constraint concentrated entirely on high energy usage customers in eastern Loudoun County. Rob clearly stated that the transmission constraint does not impact residential and other commercial customers. He further clarified that the issue only affects the future development of additional data centers in eastern Loudoun County.

In part, the upcoming projects in Loudoun County are meant to alleviate the underlying issue that has caused this transmission constraint.

QUESTION	ANSWER
<i>Why did we just hear about this, and then two weeks later, we read another news story that said Dominion had already developed a solution?</i>	Dominion Energy has been in contact with impacted customers since the start of the issue. The news media discovered the transmission constraint.
<i>Where is the cutoff on who is and is not impacted by the transmission constraint?</i>	This only impacts the largest energy usage customers in eastern Loudoun County.
<i>Is this why this group is here?</i> <i>The way this was presented to the public put us in an awkward position with our organizations – we had just shared that we were starting work on this committee, and then the news article “we have a solution.”</i>	Yes, we have been working on this for years. As discussed in the last meeting, we are taking steps to increase capacity and push more current through the existing system. Still, we knew it would reach a point where additional infrastructure would be unavoidable.
<i>Are there thoughts on slowing data center development? Can you tell data center customers that there is insufficient power to serve them?</i>	Dominion Energy has a legal obligation to serve all customers and cannot pick and choose which customers to serve with power.

3. Data Center Basics & Energy Demand

Dominic Minor reviewed data center basics, including the unprecedented growth rate of data centers in Loudoun County, the types of data centers, how much energy they use, and the historic growth of energy demand from data centers in NOVA from 2013 to 2021. He noted that from 2019 to 2021, the energy demand increased by roughly 1000 MWs, equivalent to approximately 250,000 homes.

Harrison Potter then reviewed the existing transmission infrastructure in Loudoun County. Using basic map overlays, he showed the current north-south running 500kV transmission line and the transmission corridors from that line through the primarily residential portions of Loudoun County to the area known as Data Center Alley. He noted the need for additional energy infrastructure to serve the area to relieve the transmission constraint to Data Center Alley.

It is important to note that both PJM Interconnection and the State Corporation Commission independently verify the need for these projects.

Dominion Energy is constantly projecting current capacity capabilities and future needs. Dominion also projects the grid’s ability to meet emergency peak energy demands. Greg mentioned that 1 MW of electricity is enough to power approximately 250 homes.

QUESTIONS	ANSWERS
<i>Why doesn't the eastern corridor provide flow to Data Center Alley?</i>	Because there is no generation in the eastern corridor pushing energy flow toward Data Center Alley.
<i>Will the new energy infrastructure be through new or existing corridors?</i>	All options are being explored to solve and address the need.
<i>Does power generation determine where transmission lines go?</i>	Solely through the lens of solving the transmission constraint, it would be ideal to have a power generation source near Alexandria, VA, and a 500kV line through Fairfax County.
<i>Is local generation an option?</i>	Not unless EPA rules are changed. The onsite power generation data centers have is solely for emergency use and cannot be the primary power source.

<i>Who pays for all the new energy infrastructure?</i>	: All energy customers throughout the Commonwealth share the costs of energy infrastructure projects through their electric bills. The costs are split proportionally based on the amount of energy usage.
<i>Is this the first project through the southern corridor into Data Center Alley?</i>	Yes
<i>Looking at your trend line, and anticipating this indefinite growth, what if Loudoun County changes the local regulations or zoning to limit or cap growth potential?</i>	These reliability projects address existing demand from already approved and current data centers.
<i>Couldn't the county be influenced to concentrate the growth in certain areas so we do not have this infrastructure spreading all over the county? Are you (Dominion) having these conversations with the county?</i>	We talk with the county about these issues at least weekly.

4. Table Group Map Discussion

Jake Rosenberg began the exercise by reviewing routing considerations tied to siting transmission lines.

QUESTIONS	ANSWERS
<i>You did not mention viewshed as one of the considerations. Loudoun County has a multi-billion-dollar tourism industry. Have you ever considered balloon studies?</i>	Yes, we are creating highly accurate visual simulations so that people visiting our open house event in a few weeks can see precisely how the new line would look in the proposed location.

Members were then given copies of the proposed routing maps to review, comment on, and ask project team members questions.

Table 1

LREG Organizations:

Loudoun Chamber of Commerce
Loudoun County Preservation and Conservation Coalition
Loudoun Coalition of Homeowners and Condominium Associations

Black History Committee (Friends of Thomas Balch Library)

Project Team Members:

Dominion Energy Communications Consultant
Dominion Energy Project Manager
Engagement Team, ERM

Comments & Questions:

- Green spaces and open land is ideal for new transmission lines and substations
- Where is the Settle-Dean Cabin on this map?
 - It is not on this map; it is south of Rt. 50
- It is my highest priority to maintain Broad Run. Data Centers should go somewhere else. I do not care if they do not have power.
- Why not collocated along existing routes?
 - Dominion Response: We are collocating where it is possible to do so.
- Are you talking to MWAA about crossing airport property?
 - That would involve a separate National Environmental Policy Act (NEPA) process that could extend the project timeline.
- Are you upgrading the existing lines?
 - This project is the upgrade. We are bringing in a new 500kV and 230kV line.
- Given the distance between structures, there shouldn't be too many in Broad Run.
- Dominion Energy: We have not decided on the type of structures we are using.
- We have a Tribal Relations coordinator to inform tribes about upcoming projects and coordinate their concerns. There are strict rules surrounding conduct once cultural and heritage sites are discovered.
- We will request that the County investigate potential heritage sites along the route.
- Recreational trails are not entirely represented on this map.
- I do not know which route variations are the best, given that so few options are available.

Table 2

LREG Members

Loudoun County Fire & Rescue
Virginia Asian Chamber of Commerce
League of Women Voters of Loudoun County
Loudoun Wildlife Conservancy

Project Team Members

Engineering, Dominion Energy
Routing Team, ERM
Engagement Team, ERM

Wildlife perspective: this alignment is very concerning. Broad Run is one of few places in the county where you have intact, contiguous green space; the forested wetlands are extremely valuable. Best bird biodiversity in all of southeast Loudoun. These stormwater ponds have great waterfowl diversity in the winter months. The existing line is bad enough, but this is like death by 1,000 cuts.

Opportunity: there is an existing water line ROW that is already cut closer to the stream; not sure of the width but using that could reduce the amount of new tree removal.

Can it be put underground? Requirements for cleared maintained ROW would be almost the same but much more invasive than a structure foundation every 700-900 feet.

- Ebird: online tool, shows nesting hot spots, only has 2-3 years of data so far
- Consider species of greatest conservation need, like the red-headed woodpeckers.
- Consider co-locating along HOA Trails. Also need to evaluate the presence of berms.

Table 3

LREG Members

NAIOP
Rotary Club of Ashburn
Loudoun County Economic Development
Piedmont Environmental Council

Project Team Members

Routing Team, ERM
Environmental Department, Dominion Energy
Project Manager, Dominion Energy
Engagement Team, ERM

Comments & Questions:

- Will there be a topographic version of the route map available?
 - Dominion: We have a team studying what the lines will look like from different viewpoints and will create 3D renderings of those viewpoints.
- What are the technical elements?
 - Dominion: We take into effect terrain and restricted height by the airport.
- Have you had discussions with landowners?
 - Jake Rosenberg: We are in contact with 85 percent of the landowners along the route and road network developers.
- There will be no demolition teams. We are not taking down anyone’s home.
- The proposed tower structures will be available in the SCC filing.
- We do not have visibility on where data centers are going in the future.
- Projects we are discussing now are to help the system as an aggregate. Not one specific data center.

5. Route Map Overview

Jake Rosenberg led the group in an overview of the route map showing the entire project area and the viable alternative routing options that were considered, the recreational trails through Broad Run, developments south of Broad Run that prevent routing there, and impediments to collocating along existing roads due to future expansions.

QUESTIONS	ANSWERS
<i>Does the County Board of Supervisors get to approve the route?</i>	No, transmission line projects are exempt from local zoning ordinances and are under the jurisdiction of the State Corporation Commission.

<p><i>How are data centers connected to the grid?</i></p>	<p>With the size of the energy demand from today's data centers, a substation is planned for nearly every site.</p> <p>These projects are for the system as a whole and not for individual data centers. Individual data center projects are being built in parallel.</p>
<p><i>Can the 230kV line go underground?</i></p>	<p>Yes, but the cost and time implications must be considered. Additionally, undergrounding often has even more significant environmental impacts than overhead lines.</p>

6. Table Discussion Recap

Table 1

The table group agreed and reported that the project has only a few critical decisions due to the map constraints.

The group commented that Broad Run is an essential area for wildlife and recreation and requested that the large lattice structures are not used. Adding that, it will be important for the LREG group members to discuss what they have learned with Loudoun County government officials because electric transmission implications result from various local policy decisions.

One table group representative mentioned that underground lines take much longer to repair than overhead lines, which should be a concern for everyone in the area.

Table 2

The table group reported that the project "stinks" from a wildlife standpoint. Broad Run is the largest contiguous green space in eastern Loudoun County, with fantastic biodiversity. Any further development of that area will have a negative environmental impact. It was mentioned that this area of the county has been overdeveloped and left few options available to route the new transmission lines. He asked that the line be collocated along Evergreen Mills Rd to avoid Broad Run.

Table 3

The table group reiterated the points made by the other table groups. The group requested that the route aim to reduce the number of structures in Broad Run to minimize the impact.

The group discussed the maintained right-of-way and long-term impact on vegetated wetlands. Christine Conrad offered that scrub-shrub can be maintained and that many species thrive in the opening created at the woods edge.

7. Introduction to GeoVoice

Rob Richardson gave an overview of GeoVoice, an online mapping and comment tool that will allow anyone to view the route, comment, and request a follow-up from the project team. This will be available on the project website by next week.

QUESTIONS	ANSWERS
<p><i>Do you use this tool for other projects?</i></p>	<p>Yes, we have used GeoVoice for several different projects.</p>
<p><i>Is there an end date for this tool?</i></p>	<p>No, this tool will remain throughout the project lifecycle.</p>
<p><i>When will we learn about future projects?</i></p>	<p>We can give a preview of future projects at a future LREG meeting.</p>