

Loudoun Reliability Engagement Group

Tenth Meeting Full Summary Report

The tenth meeting of the Loudoun Reliability Engagement Group was held on Wednesday, December 6, 2023, from 11:00 a.m. to 2:00 p.m. at Founders Hall in Ashburn, VA.

Member Organizations in Attendance

- Goose Greek Association
- Loudoun Chamber of Commerce
- Loudoun Coalition of Homeowners and Condominium Associations
- Loudoun County Board of Supervisors, Michael R. Turner's Office
- Loudoun County Department of Economic Development
- Loudoun County Fire and Rescue
- Loudoun County Preservation and Conservation Coalition
- Loudoun Habitat for Humanity
- Loudoun Water
- Loudoun Wildlife Conservancy
- NAIOP Northern Virginia
- Piedmont Environmental Council

Absent Organizations

- Bike Loudoun
- Black History Committee (Friends of Thomas Balch Library)
- League of Women Voters of Loudoun County
- Loudoun County Department of Equity & Inclusion
- NAACP Loudoun Branch
- VA Asian Chamber of Commerce

Dominion Energy Team

- Charlotte McAfee, Dominion Energy
- Dominic Minor, Dominion Energy
- Erica Bridges, Dominion Energy
- Greg Vozza, Dominion Energy
- James Young, Dominion Energy
- John Mulligan, Dominion Energy
- Kathleen Leonard, Dominion Energy
- Peggy Fox, Dominion Energy
- Rob Richardson, Dominion Energy
- Steve Hudson, Dominion Energy
- Tim Sargeant, Dominion Energy
- Carter Jones, ERM
- Kristi Moore, ERM
- Roya Smith, ERM

Meeting Summary

1. Welcome and Introductions

Kristi Moore, ERM, began the meeting by welcoming the group and leading them through introductions. She reviewed the agenda and provided a recap of the previous LREG meeting.

Kristi introduced the first presentation in the lineup, a Data Center Overview. She stated that the objective of LREG meetings is not to debate data centers but rather to come together to consider how Dominion Energy (Dominion) can most effectively meet its legal obligation as a public company to provide electric service to its customers.

2. Data Center Overview

Dominic Minor, Dominion Energy, presented a Data Center Overview, which focused on the basics of data centers. Data Center Overview topics included the main types of data centers, such as their different power requirements and appearances.

Dominic started his presentation by sharing that much of the electric demand in the area comes from colocation data centers. He explained that colocation data centers allow businesses to lease space for servers and other computing hardware.

Dominic provided LREG members with a visual summary of historical energy demand trends using a graph to illustrate the relationship between data centers and Dominion’s distribution. He then shared supplemental information about the data center market in Northern Virginia.

Rob Richardson, Dominion Energy, added that Dominion’s peak demand is about 21,000 megawatts (MW) and that data centers account for 3,200 MW [15.2%] of consumer demand for energy during this period.

QUESTIONS/COMMENTS	ANSWERS
How much of PJM’s forecast is for Northern Virginia?	Rob: We will follow up with you on that.
Does the forecast indicate where the data centers will be built?	Dominic: No, just how much power [is projected to be used within the territory].
What is your forecast beyond five years? What is it for Loudoun?	Dominic: Systemwide, we anticipate demand to triple in the next 15 years, 2038. Dominic: We would have to follow up with you on that.

Rob explained that Dominic’s role and responsibilities include serving as the first point of contact for future data center customers to receive power. Future data center customers provide Dominion with a load letter, which contains all the information associated with a facility’s overall electrical load, as projected. Rob commented that Dominion is also responsible for providing PJM, the regional transmission organization, with forecasts on an annual basis during the open window project. PJM evaluates the forecasts and uses the information to determine which projects are needed.

QUESTIONS/COMMENTS	ANSWERS
A member requested access to the load letters Dominic mentioned and the subsequent forecast.	Dominic: Load letters are propriety information and cannot be shared.
What is Dominion’s proposed project submission that solved the issue that the NextEra project seeks to address? How would that project connect to the existing grid?	Rob: It’s a separate company, and I don’t know much about it. My understanding is that it would connect to the new substation, Aspen.
How can Dominion influence data center developers to play nice when zoning is by right?	Dominic: There is little Dominion can do other than work with the county to permit and build the approved substation site plans. Rob: Public outreach from data centers is up to the data centers. The relationship between data centers and Dominion is transactional due to the legal obligation to serve.
How has the share of demand from data centers shifted over the years?	Dominic: In 20240, we anticipate data centers to be 40-45% of the company’s overall demand.

Rob explained that the cost of transmission projects is distributed across PJM based on their calculations of the benefit received by each service territory. The State Corporation Commission (SCC) controls Dominion’s rates for the transmission rider.

QUESTIONS/COMMENTS	ANSWERS
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Can you explain the bulk rate discount?	Dominic: I am not familiar with the term, but we have a load rate for customers, and the per kilowatt is slightly less the more they use.
Is it possible that existing data centers will need more power in the future?	Dominic: There are multiple solutions for addressing the need for more electricity.
How does data center siting impact Dominion’s planning?	Dominic: We are seeing data centers populate around transmission line projects, and they all have different project schedules.
Would it be fair to say that new transmission line projects induce demand for more data centers?	Dominic: That would be a fair statement since data centers want to be located near existing energy infrastructure.
How is it that data centers are located further from data center alley to compensate for the latency issue?	Dominic: Artificial intelligence (AI) technology makes the latency issue less relevant.
Where are you going to put future transmission line projects?	<p>Rob: We’ve walked through the linear corridors available in the area for potential projects.</p> <p>Kristi: Dominion shares projects when they have them and are working on them. This group has been helpful in sharing their perspective to improve projects.</p> <p>John Mulligan: Dominion deals with three voltages of transmission lines: 115 kV, 230 kV, and 500 kV. These lines are being upgraded to higher voltages, and Dominion is building 500 kV lines more than ever before.</p> <p>James Young: It’s not an easy answer on where a transmission line will go next because of the nature of the electric grid. Transmission lines do not operate in silos.</p>
Is there a way for local stakeholders to have input in future projects to PJM?	Rob: Often, projects submitted to PJM are simply a start and an endpoint with a vague sense of how and where to go to connect them. I will take the feedback to ET Planning regarding the desire to comment on projects going to PJM.
When did PJM approve the current set of projects in Loudoun and let Dominion know?	Dominic: Aspen to Golden came from the 2022 open window.

3. Open House Recap

Rob began discussing the basics of Aviator to Takeoff, noting that the routing goes through an industrial area. The project wanted to route across the southern portion of Dulles Airport to limit impacts, but the airport declined. Fairfax County Government is currently working to convince the airport to allow the project to use airport property. The project is looking for an answer from the SCC by March of 2025, with construction to follow the next year.

A member expressed her approval of the open house and complimented Dominion’s decision to distribute subject matter experts throughout the room. She said that she appreciated that experts were on hand to answer attendees’ questions and address their concerns.

A member asked to see the project map overlaid with the future North Collector Road.

Rob covered the basics surrounding the Twin Creeks to Apollo project, explaining that it is a two-mile-long line that seeks to collocate with Aspen to Golden. Attendees sought information about

the NextEra project and the Aspen to Golden project. Rob noted that only one resident of Woodlands at Goose Creek, a development that would be most impacted by the Aspen to Golden project, attended the open house.

A member noted that Dominion was very mindful of the natural resources in the area. Steve Hudson, Dominion Energy, noted that Dominion worked hard to reduce impacts to riparian areas and other natural resources.

Steve announced that Dominion worked with the Belmont Innovation team on developing a native species list for their development. James added that Dominion strives to maintain an open meadow environment in their transmission rights-of-ways (ROWs). He followed up to say that Dominion cannot force property owners to plant specific species but that Dominion can maintain and operate in accordance with an approved plant species list.

4. Aspen to Golden Updates

Rob stated that the Aspen to Golden project was supposed to be filed in November 2023; now, the target filing date has been pushed back to February 2024 due to feedback Dominion received from community members regarding the proposed structure type.

Acting on community feedback, Dominion leadership requested that the team study an alternate structure type called a monopole. Dominion organized a new set of open houses for January 2024 to gather community feedback on the monopole tower structure.

Rob observed that an alignment south of Route 7 would be Dominion’s preferred route and then identified a variation north of Route 7. Rob explained that an approved site plan for that area necessitates a variation, but the project team does not believe the site plan would impact a line south of Route 7. He shared that the project would prefer to parallel down Loudoun County Parkway rather than Broad Run and that using a monopole structure makes that more of a probability than if Dominion built H-frame structures.

A routing alignment featuring hybrid structure types dictates that H-frames would go west of Belmont Ridge Rd and that monopoles would run along Route 7, with a few exceptions needed for clearance. Dominion has not yet decided which structure type to include in their SCC submission.

Rob observed that the route option traveling north of Route 7 was largely disapproved of by community members, per the stakeholder feedback gathered by Dominion. He noted that if there are data centers south of Route 7, then it wouldn’t make sense for multiple crossings.

QUESTIONS/COMMENTS	ANSWERS
With the 100 ft ROW, does that open up the Dulles Greenway?	Rob: It does not. There are fewer impacts, but they still exist.
I appreciate the work the team has done to take feedback and work to reduce the width of the ROW. What can be done to reduce it further to go down the W&OD Trail?	Rob: The problem with the [W&OD] trail six months ago is the same problem today. Those lines cannot be taken out of service for construction, and any additional ROW along the trail would impact homes.
What is the height of the monopoles?	Rob: The average height is 175 ft.
A member noted his support for the monopoles and reduced ROW. He commented on the impacts on the natural resources by routing through Broad Run.	
Loudoun Water is cognizant of the impacts on Broad Run, but we realize that every inch of buildable land on the Loudoun Water property will be needed to meet the goals of Loudoun Water’s master plan. Loudoun Water is	

leaning towards the Loudoun County Parkway alignment but needs to consider it and study the details.	
What's the average distance between the monopole structures?	Rob: That information is not yet available.
Explaining the existence of data centers south of Route 7 would help make the case to the public.	
There is an application for a cell tower in the cloverleaf near the hospital on Route 7. Is it possible for the transmission structures to host cell phone antennas?	Rob: Yes, we have spoken to those permit filers and are working on a solution.
Do you know how many more residents and businesses will see the monopoles now with the increased structure height?	Rob: To determine this, we are working on a visibility viewshed for the new structure type.
It looks like there are three lines on the monopoles versus two on the H-frame. Can you explain this?	Rob: Each structure carries a double circuit of 500 kV and 230 kV lines, each with three phases.
Are property owners compensated for their impacted viewshed?	Rob: The company pays for easement agreements on property that is crossed, but no, people are not paid for impacts on their views.

An LREG member suggested Dominion feature structure type comparison graphics of the proposed tower structures in relation to nearby existing structures at the next open house.