

# Loudoun Reliability Engagement Group

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## Seventh Meeting Executive Summary Report

The seventh meeting of the Loudoun Reliability Engagement Group was held on June 1, 2023, at 11 AM at Founders Hall in Ashburn, VA.

### LREG Organizations in Attendance

- Loudoun Preservation & Conservation Coalition
- Loudoun County Economic Development
- Piedmont Environmental Council
- Loudoun Coalition of Homeowners and Condominium Associations
- Habitat for Humanity – Loudoun County
- NAIOP Commercial Developers
- Bike Loudoun
- Loudoun Coalition of Homeowners and Condominium Associations
- NAACP Loudoun Branch
- Loudoun Preservation & Conservation Coalition, Alternate
- Loudoun County Department of Equity & Inclusion. Alternate
- Bike Loudoun, Alternate
- NAACP Loudoun Branch, Alternate
- Loudoun County Board of Supervisors – Supervisor Turner’s Office
- Goose Creek Association
- Loudoun Chamber of Commerce
- Loudoun Wildlife Conservancy, Alternate

### LREG Organizations Invited, Not in Attendance

- League of Women Voters of Loudoun County
- Black History Committee (Friends of Thomas Balch Library)
- VA Asian Chamber of Commerce
- Rotary Club of Ashburn

### Dominion Energy Team

- Rob Richardson, Dominion Energy
- Greg Vozza, MPR Associates
- Kathleen Leonard, Dominion Energy External Affairs
- Peggy Fox, Dominion Energy
- James Young, Dominion Energy
- Laura Meadows, Dominion Energy
- Tim Sergeant, Dominion Energy
- Kristi Moore, ERM
- Carter Jones, ERM
- Roya Smith, ERM
- Jared Brandell-Douglas, ERM
- Jake Rosenberg, ERM

## Meeting Summary

### 1. Welcome, Introductions, and Recap:

Kristi Moore, ERM, began the meeting with introductions, an overview of the meeting format, and a recap of the last meeting:

- Data Center Growth & Loudoun Reliability Projects
- Web Map Platform Comments
- Aspen to Golden Routing Discussion

### 2. Twin Creeks to Apollo:

Rob Richardson, Dominion Energy, introduced this project as serving specific data centers in Loudoun County. He stated that while “all projects to date have been reliability projects,” none have been for one customer or data center, but rather to bring in bulk electric power to the Ashburn Area. Twin Creeks to Apollo will collocate and have a similar timeline to Aspen to Golden, hence why the discussion is being had today.

The Planning Department studies every delivery point request. Distribution serves individual customers. If the existing distribution infrastructure cannot serve the load request, then Dominion Energy will look at upgrading the infrastructure. If Dominion Energy cannot serve through upgrades, new infrastructure is needed.

Roya Smith, ERM, then provided a routing overview:

- Collocate the two projects to minimize impacts.
- Developers site the substations and determine which is a factor when looking to route a project.
- Existing underground infrastructure is an additional constraint.
- 225' combined right of way; Twin Creeks to Apollo alone has a 100' wide.

Question/Comment	Answer
The southern route (that crosses Toll Brothers Rd.) will not happen because the land has not been studied enough for historical importance. Cutting through that route is a non-starter.	
I heard about another data center near Goose Creek.	Twin Creek to Apollo substation will serve the JK/Cochran data center site. The bluff against Goose Creek creates routing challenges.
Are you collocating with Loudoun Water?	Dominion Energy cannot build directly on the water lines as the structure needs to be 75-100' from them.
Have you talked to Loudoun County about this?	Yes, and the county wants it near Belmont Ridge Road.
How much of this work is for future needs?	Aspen to Golden is to serve current and future load demand. Twin Creeks to Apollo is for a specific customer.
How big are the substations?	Generally, substations are 12-15 acres.  Distribution substations are smaller and take up less space.
Are the substations on the data center project footprints?	Yes, Dominion Energy is working with developers to site them on their property.
There will be two sets of towers, how high?	135' high for 500/230 kV and 100-120' high for 230 kV.
Why can't you just tap off of Aspen to Golden [for Twin Creeks to Apollo]?	They will be, but new lines are also needed.
There is a desire to parallel Belmont Ridge Rd. to Goose Creek. It also lowers the structure height because it avoids the crossing.	
Dominion Energy has no say over substation locations?	Correct, even the county has no influence because it's by-right zoning.
There's no way to influence the substation locations, even if it's by-right?	None directly, but the suggestion can be made in advance.

### 3. Aspen to Golden Routing Updates:

Jake Rosenberg, ERM, led the discussion regarding routing for Aspen to Golden. The W&OD is the most direct, but there is limited space. Permission is needed from Northern Virginia Parks and 93 homes would be directly impacted.

The Dulles Greenway Route also has limited in space and would require crossing 230 kV lines. There are no homes within the Route 7 right of way and fewer homes near the right of way. The Dulles Greenway operators plan to extend the silver line to Leesburg which would push the transmission lines out. Jake then explained that the proposed route will be near the Belmont Cemetery.

Question/Comment	Answer
What do you mean by impacted or affected?	Impacted homes are counted as part of the routing study. There are 90 homes within 100 of the right of way would be impacted on the W&OD trail which makes that route infeasible. There are 52 homes within 100 feet of the Dulles Greenway right of way that would be impacted. The routing team surveys homes within 50', 100', 250', and 500' of the ROW.
Can you place sections of the line underground?	Yes, but it takes up more space because of construction means, horizontal directional drilling (HDD) and the need for a transition station.
It was done at Haymarket, why not here?	This is 500 kV, not 230 kV line. Undergrounding a 500 kV line has only been done once before in the U.S.  The right of way still has to be maintained when a line is underground. Undergrounding involves removing the topsoil, refilling, and reseeding – there are greater environmental impacts, whereas overhead lines only have the structure foundations.
Where is the power coming from to feed these lines?	North Anna (nuclear) and other generation facilities feed the backbone 500 kV line.
Will there be multi-use paths collocated with the route?	Potentially, yes.
Gem Bingol: Will the powerlines attract data centers along Route 7?	Zoning does not support data centers along Route 7, and county plans would not support new data centers there. The Board of Supervisors is also trying to fast-track changes to prevent data centers along Route 7.
Can you show the future need expansions where these projects might go?	We don't have that answer today but we will work to provide one prior to the next meeting.
What are the pros and cons of Route 7? Can you show the differences? The northern route seems more attractive.	The northern route is more built out than the southern route, but Dominion Energy is still studying to learn more.
The public will ask about new large transmission lines' visual, noise, and health impacts.	

### 4. Takeaways:

- Kristi Moore, ERM, shared that July 13 is the target date for the next meeting. The agenda will include a summary of the virtual and in-person open houses.
- A virtual open house is scheduled on June 22 from 12 p.m. -1p.m via Webex. A link will be shared on the DominionEnergy.com/NOVA website.
- An in-person Open House will take place at Broad Run High School on June 29 from 5 p.m.to 8 p.m.