

# **Warrenton Wheeler Gainesville 230kV Reliability Project**

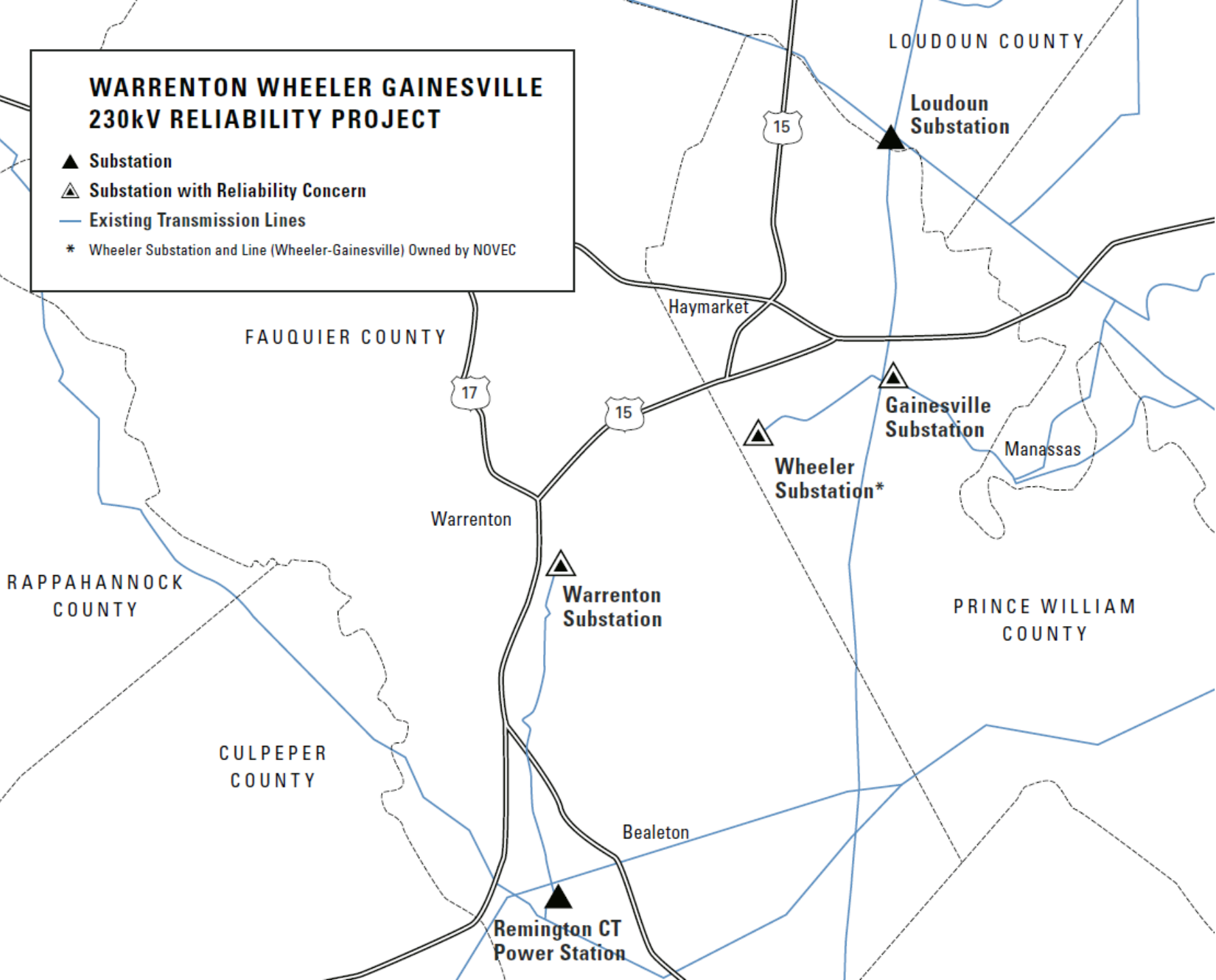
**February 28, 2013**

# Key Messages

- ❑ **Dominion Virginia Power and Northern Virginia Electric Cooperative (NOVEC) have been working together to address three separate, local electric reliability concerns encompassing Warrenton and Gainesville.**
  - Concerns include two potential violations of NERC\* Reliability Standards.
  - We are in the preliminary planning stage and at this point, we have more than one possible solution.
  
- ❑ **We would like to work with the people in the local community who know the area best to help us develop our recommendation for the State Corporation Commission.**
  - We are seeking participants for a Community Advisory Group -- a group of local representatives from a cross section of public and private interests in the area to consider all aspects of the project and provide valuable input that will help guide the utilities.

# WARRENTON WHEELER GAINESVILLE 230kV RELIABILITY PROJECT

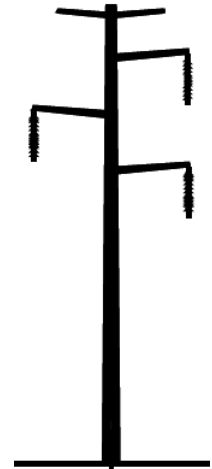
- ▲ Substation
- ▲ Substation with Reliability Concern
- Existing Transmission Lines
- \* Wheeler Substation and Line (Wheeler-Gainesville) Owned by NOVEC



# Three Local Reliability Concerns

## 1. The load on the existing Warrenton line is forecasted to exceed 100 megawatts (MW) in 2017.

- NERC Reliability Standards, which are mandatory and subject to audit, provide the framework for Dominion's planning criteria.
- From Dominion's Facility Interconnection Requirements, load on radial transmission lines without alternate supply should be limited to approximately 100 MW.
  - *A key factor in evaluating the load limitation on a radial transmission line is the distribution load that can be switched to circuits served from other sources.*



Average Height: 80'  
Existing structure type,  
Warrenton line

## 2. The load on NOVEC's existing Wheeler line already exceeds 100 MW.

- NOVEC is not subject to the same federal criteria, but faces the same operational issues with a radial line.

## 3. An outage of Gainesville Substation will result in the loss of more than 300 MW, or roughly 75,000 customers

- Exposure risk: a single event resulting in the loss of more than 300 MW is a violation of Dominion, PJM and NERC standards.

# WARRENTON WHEELER GAINESVILLE 230kV RELIABILITY PROJECT

- ▲ Substation
- ▲ Substation with Reliability Concern
- Existing Transmission Lines
- \* Wheeler Station/Line Owned by NOVEC
- ..... Study Area, Option A
- Wreck/Rebuild, with Temp Line
- - - Convert 115 to 230kV

## OPTION A

### Warrenton-Wheeler

Blue shaded area indicates study area to be explored for possible routes through community process  
Estimated Cost: \$75 M

- *Wheeler to Gainesville line would be converted from 115 to 230kV*

## OPTION B

### Loudoun-Wheeler-Gainesville & Remington-Warrenton

Red lines indicate a possible alternative, rebuilding existing corridors (Remington-Warrenton, Wheeler-Gainesville) for double circuit. Estimated Cost: \$95 M

- *Structure height would increase by ~25'*
- *Corridors would have to be expanded to accommodate temporary lines*

FAUQUIER COUNTY

LOUDOUN COUNTY

Loudoun Substation

Gainesville Substation

Wheeler Substation\*

Manassas

PRINCE WILLIAM COUNTY

Warrenton Substation

CULPEPER COUNTY

Bealeton

Remington CT Power Station

Warrenton

Haymarket

# Community Advisory Group

- ❑ Dominion and NOVEC plan to form a Community Advisory Group (CAG) that involves representatives from a cross-section of public and private interests in Fauquier and Prince William counties. The CAG would provide community perspectives on opportunities, constraints and issues to aid Dominion in developing feasible routing options for inclusion in an application to the State Corporation Commission.

- This group will meet a minimum of six times this year to consider all aspects of the project and provide valuable input that will help guide the utilities.



# Path Forward

**Thursday  
February 28, 2013**

- LAUNCH: Meet with local elected officials, community leaders, media

**Mid-March**

- Extend invitations for Community Advisory Group

**April-Oct 2013**

- Work with Community Advisory Group
- Open House events

**Late 2013**

- Prepare and submit application to SCC

**May 2017**

- Project completion target

