

PJM Facilities Study Report
For
Network Upgrade N9201
Transition Cycle #1

June 2025

Introduction

This Facilities Study has been prepared in accordance with the PJM Open Access Transmission Tariff and PJM Manuals. The Transmission Owner (TO) is Virginia Electric and Power Company (VEPCO or Dominion).

A. Project Description

The System Impact Study for PJM Interconnection Transition Cycle #1 has identified the need for PJM Network Upgrade N9201. The scope of this Network Upgrade includes the following:

- Replacement of the wave trap on line 238 at Carson Substation.

The Preliminary Scoping Document located in the Appendices, Attachment #1.

B. Transmission Owner Facilities Study Results

1. Detailed Scope of work for Network Upgrade N9201:

The following is a detailed description of Transmission Owner Upgrades for Network Upgrade N9201. These facilities shall be designed according to the Transmission Owner's Applicable Technical Requirements and Standards. Once built the Transmission Owner will own, operate, and maintain these facilities.

See Preliminary Scoping Summaries located in the Appendices, Attachment #1.

2. MILESTONE SCHEDULE FOR COMPLETION OF DOMINION WORK

Facilities outlined in this report are estimated to take 14 months to construct, from the time of full execution of the Generation Interconnection Agreement and completion of a construction kickoff call. This schedule may be impacted by the timeline for procurement and installation of long lead items and the ability to obtain outages to construct and test the proposed facilities.

Description	Start month	Finish month
Engineering	1	9
Permitting/Procurement	3	10
Construction	11	14

3. ASSUMPTIONS IN DEVELOPING SCOPE/COST/SCHEDULE

- The preliminary construction schedule is dependent on outage availability.
- See Attachment 1 – Preliminary Scoping Summary – Substation for additional assumptions

4. LAND REQUIREMENTS

Dominion will be responsible for the following expectations in the area of Real Estate:

- Any additional land needed for Storm Water Management, Landscaping, and Wetlands/Wetlands Mitigation.
- Any other Land/Permitting requirements required by the Network Upgrade

5. ENVIRONMENTAL AND PERMITTING

The Dominion will be responsible for the following expectations in the area of Environmental and Permitting:

- Assessment of environmental impacts related to the Network Upgrade including:
 - Environmental Impact Study requirements
 - Environmental Permitting
- A stormwater easement and/or specific stormwater design BMP's to allow access to and use of the facilities, including a maintenance agreement for said stormwater facilities.
- Conditional Use Permit for Substation
- Any additional land needed for Storm Water Management, Landscaping, and Wetlands/Wetlands Mitigation
- Any other Permitting requirements required by the Network Upgrade

C. APPENDICES

Attachment #1: Preliminary Scoping Summary – Carson Substation



Project Number: N9201 – Carson Substation

Project Description: ***SUBSTATION SCOPE OF WORK***
Line 238 WTR Replacement

Date: 6/20/2025

Revision Number: 0

Project Summary

Network Upgrade N9201 provides for the replacement of the wave trap on line 238 to Carson Substation.

Assumptions & Clarifications:

- 1. The scope of work depicted on the drawings assumes that there is no overlap with other designs and construction activities, except if mentioned in this Project Summary.*
- 2. Relay Settings and P&C design will be revised as part of the SPE Scope of Work.*
- 3. 4-hole pad connections must be replaced with 6-hole pad connections to maintain 4000A ratings.*

Purchase & install substation material – Network Upgrade:

1. One (1), 230kV, 4000A wave trap
2. Conductors, connectors, conduits, control cables, steel, and grounding materials as per engineering standards

Relocate substation material – Network Upgrade:

1. One (1), 230kV, CCVT

Remove substation material – Network Upgrade:

1. One (1), 230kV, 2000A wave trap
2. Conductors, connectors, conduits, control cables, steel, and grounding materials as per engineering standards

Purchase and install relay material – Network Upgrade:

1. One (1), 1340 – 24” dual SEL-411L DCB/PLC line panel

Remove relay material – Network Upgrade:

1. Remove Panel No. 29