

PJM Facilities Study Report
For
Network Upgrade N9653
Transition Cycle #1

August 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 N9653. The scope of this Network Upgrade includes the following:

- Replace Line Switch at Northern Neck

B. Transmission Owner Facilities Study Results

1. Detailed Scope of work for Network Upgrade N9653:

The following is a detailed description of Transmission Owner Upgrades for Network Upgrade N9653. 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.

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

2. MILESTONE SCHEDULE FOR COMPLETION OF DOMINION WORK

Facilities outlined in this report are estimated to take 45 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	30
Permitting/Procurement	3	38
Construction	36	45

3. ASSUMPTIONS IN DEVELOPING SCOPE/COST/SCHEDULE

- The preliminary construction schedule was developed assuming the line switch replacement

would be completed in conjunction with the N9651 reconductoring the 1059 line from Northern Neck to Moon Corner.

- The preliminary construction schedule is dependent on outage availability.
- 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.
- Relay Settings and P&C design will be revised as part of the SPE Scope of Work.

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 – Substation Northern Neck



Project Number: N9653.0 – Northern Neck Substation

SUBSTATION SCOPE OF WORK
Project Description: Replace Line Switch 105959M

Date: 08/13/2025

Revision Number: 0

Project Summary

Network Upgrade N9653.0 provides for the replacement of switch 105959M to 3000A for line 1059 at Northern Neck Substation in Richmond County, Virginia.

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.*

Purchase and install substation material – Network Upgrade:

1. One (1), 115kV, 3000A, 3-phase end-break switch
2. One (1), 115kV, 10 in-lb., 125VDC motor operator
3. Conductors, connectors, conduits, control cables, and grounding materials as per engineering standards

Remove substation material – Network Upgrade:

1. One (1), 115kV, 1200A, 3-phase end-break switch
2. One (1), 115kV, 10 in-lb., 125VDC motor operator
3. Conductors, connectors, conduits, control cables, and grounding materials as per engineering standards

Purchase and install relay material – Network Upgrade:

1. One (1), 4548 – non-earthing switch MOAB control box
2. One (1), 4103 – local control MOAB AC/DC distribution box