Facilities Study Report

For

Physical Interconnection of

PJM Generation Interconnection Request

Project ID AG2-382/AH1-271

“Cashie 230 kV”

Introduction

This Facilities Study has been prepared in accordance with the PJM Open Access Transmission Tariff, as well as the Application and Studies Agreement between the Project Developer and PJM Interconnection, LLC (PJM or Transmission Provider (TP)). The Transmission Owner (TO) is Virginia Electric and Power Company d/b/a Dominion Energy Virginia (Dominion).

This Facility Study was performed to satisfy the Phase 2 Facility Study requirement of the PJM Tariff. The Facility Study is intended to provide scope, cost and schedule estimates for the project as currently defined and approved for Phase 2 study. In the event project changes are made during DP2 that impact this report, updates will be provided as part of the Phase 3 report. Following execution of the project's final agreement, this report will not be updated to account for other changes made as part of the agreements modification clause and instead the scope change process will be followed.

A. Transmission Owner Facilities Study Summary

1. PROJECT DESCRIPTION

The Project Developer (PD) has proposed a Solar Generating Facility located in Bertie County, North Carolina with a designated PJM Project ID of AG2-382. The installed facilities will have a total Maximum Facility Output (MFO) of 70 MW with 42 MW of this output being recognized by PJM as Capacity. PJM Project ID of AH1-271 increases the total MFO to 110 MW with 66 MW of this output being recognized by PJM as Capacity.

2. POINT OF INTERCONNECTION (POI)

AG2-382/AH1-271 will interconnect with the Dominion transmission system via the existing Cashie Substation

The proposed generation interconnection is shown on the single line diagram in Attachment #1.

3. POINT OF CHANGE IN OWNERSHIP

The Point of Change in Ownership between the two stations will be the 230kV disconnect switch 4-hole pad on the transmission line structure outside the Cashie Substation fence.

4. SCOPE OF PROJECT DEVELOPER INTERCONNECTION FACILITIES

Project Developer will design, build, own, operate and maintain the Project Developer Interconnection Facilities on Project Developer’s side of the Point of Change in Ownership (PCO). This includes, but is not limited to:

- Circuit breakers and associated equipment located between the high side of the MPT(s) or GSU(s) and the Point of Change in Ownership
- Generator lead line from the Generating Facility to the Point of Change in Ownership
- Relay and protective equipment, telecommunications equipment, and Supervisory Control and Data Acquisition (SCADA) to comply with the TO's Applicable Technical Requirements and Standards

B. Transmission Owner Facilities Study Results

The following is a description of the planned Transmission Owner facilities for the physical interconnection of the proposed AG2-382/AH1-271 projects to Dominion transmission system. These facilities shall be designed according to all Dominion Applicable Technical Requirements and Standards in effect March 20th, 2026. Dominion Energy Virginia – Electric Transmission Facility Interconnection Requirements, Procedure Version 25.0, dated October 1, 2025, shall apply. Once built, Dominion will own, operate, and maintain these Facilities.

1. TRANSMISSION OWNER INTERCONNECTION FACILITIES:

The Transmission Owner Interconnection Facilities include the portion of the interconnection switching station which is associated solely with the single feed to the generating facilities collector station. The equipment associated with the Transmission Owner Interconnection Facilities includes disconnect switch, conductors and connectors.

The proposed Transmission Owner Interconnection Facility scope is detailed in Attachment #3 & Attachment #4.

2. STAND ALONE NETWORK UPGRADES

No Stand Alone Network Upgrades have been identified in the Facility Study Report

3. NETWORK UPGRADES

Substation Expansion at Cashie 230kV:

Cashie Substation will be expanded to accommodate the new generation interconnection.

The proposed substation expansion scope is shown in Attachment #3 & Attachment #5.

Upgrades to neighboring facilities:

Earleys Substation

The proposed neighboring facility scope is detailed in Attachment #6.

Trowbridge Substation

The proposed neighboring facility scope is detailed in Attachment #7.

4. OTHER SCOPE OF WORK

Other scope includes the metering accuracy CCVT's, metering accuracy CT's, and associated metering equipment.

5. MILESTONE SCHEDULE FOR COMPLETION OF [TO] WORK

Facilities outlined in this report are estimated to take 47 months to construct, from the time the Generation Interconnection Agreement is fully executed. This schedule may be impacted by the timeline for procurement and installation of long lead items, the ability to obtain outages to construct and test the proposed facilities.

Description	Start month	Finish month
Detailed Design	1	10
Permitting/Procurement	2	37
Construction	27	47

6. ASSUMPTIONS IN DEVELOPING SCOPE/COST/SCHEDULE

Assumptions can be found in Attachments #3-7

7. REVENUE METERING REQUIREMENTS

All revenue metering needed for this interconnection project must meet the metering requirements stated in Appendix 2, section 8 of the AG2-382/AH1-271 GIA, and in PJM Manuals M01 and M14D. The details of applicable revenue metering requirements are given in the Dominion Energy Virginia – Electric Transmission Facility Interconnection Requirements (FIR) Rev 25.0 posted on PJM website.

The revenue metering will be installed on the Dominion side of the Point of Change in Ownership will be installed, owned and maintained by Dominion.

8. LAND REQUIREMENTS FOR INTERCONNECTION SUBSTATION

Land requirements for the Interconnection Substation needed for this interconnection project must meet the requirements in Dominion's Facility Interconnection Requirements and NERC Compliance Procedure FAC-001 posted on PJM's website.

Dominion would be responsible for the following expectations in the area of Real Estate.

- The land required for Dominion's substation and project specific areas around must be deeded over title-in-fee.
- Any additional land needed for Storm Water Management, Landscaping, and Wetlands/Wetlands Mitigation.
- Dominion Real Estate and Counsel will provide standard real estate checklist word document. Process needs to start at least 6 months prior to closing date.
- Required subdivision plat and associated documentation to be reviewed prior to subdividing parcel with the county.
- Suitable Access Road from Substation to a Virginia/North Carolina State Maintained Roadway.
- Dominion will require access road, transmission line and utilities easement to the Substation.
- Any other Land/Permitting requirements required by the Substation.

The Project Developer is responsible for the following expectations in the area Real Estate.

- Land and/or Permitting associated with the Generation Facility and the Generation Line to the Point of Change in Ownership (PCO) structure.

9. APPLICABLE TECHNICAL REQUIREMENTS AND STANDARDS

These facilities shall be designed according to all Dominion Applicable Technical Requirements and Standards in effect March 20th, 2026. Dominion Energy Virginia – Electric Transmission Facility Interconnection Requirements, Procedure Version 25.0, dated October 1, 2025, shall apply.

10. ENVIRONMENTAL AND PERMITING

Dominion would be responsible for the following expectations in the area of Environmental and Permitting.

- Assessment of environmental impacts related to the Interconnection Facility and/or Network Upgrades including:

  Environmental Impact Study requirements

  Environmental Permitting

- Dominion will require a stormwater easement for substation specific stormwater design BMP's to allow access to and use of the facilities.

  A maintenance agreement should be in place in perpetuity 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 Substation

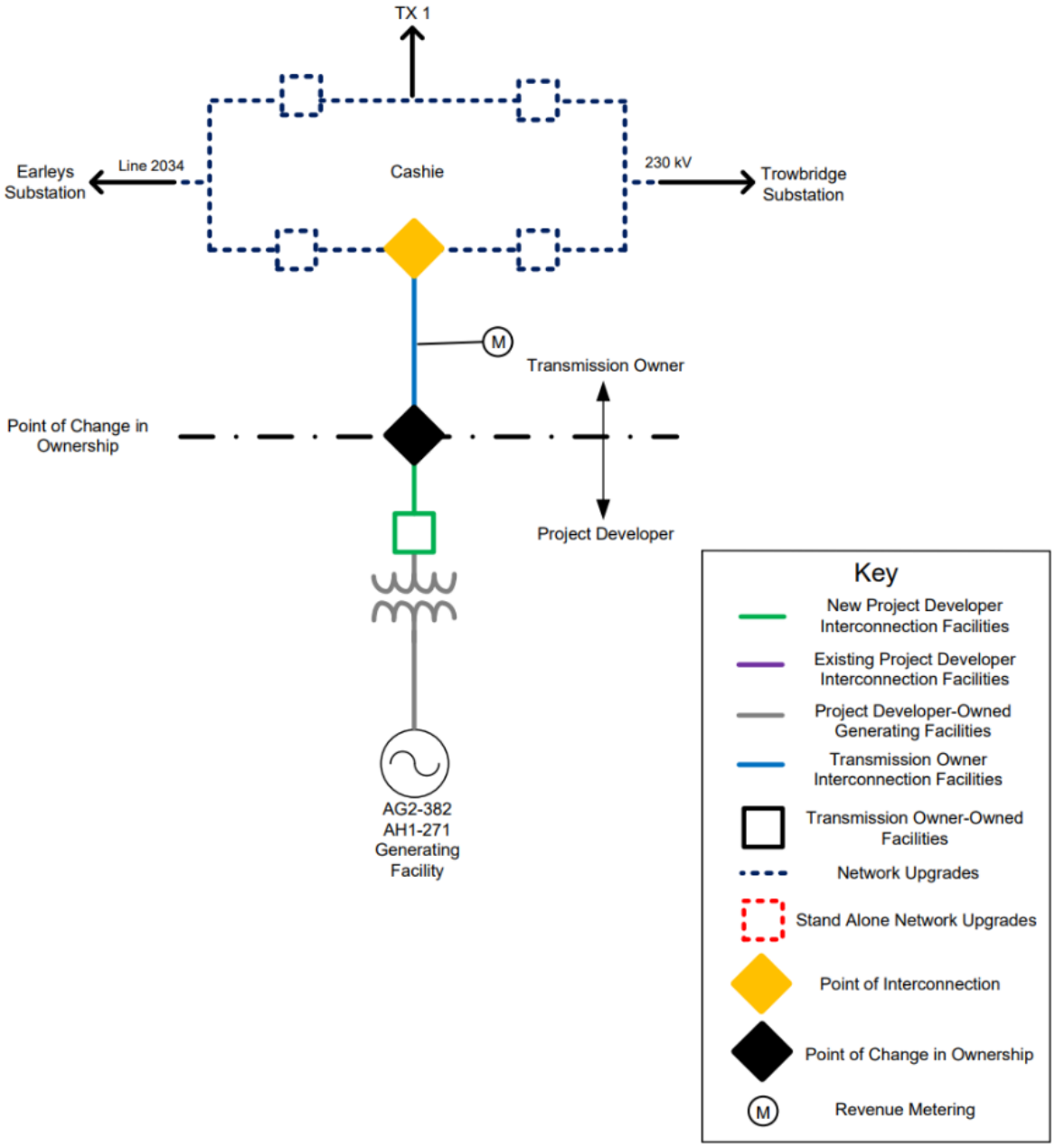
The Project Developer is responsible for the following expectations in the area Environmental and Permitting.

- Environmental and/or Permitting associated with the Generation Facility and the Generation Line to the Point of Change in Ownership (PCO) structure.

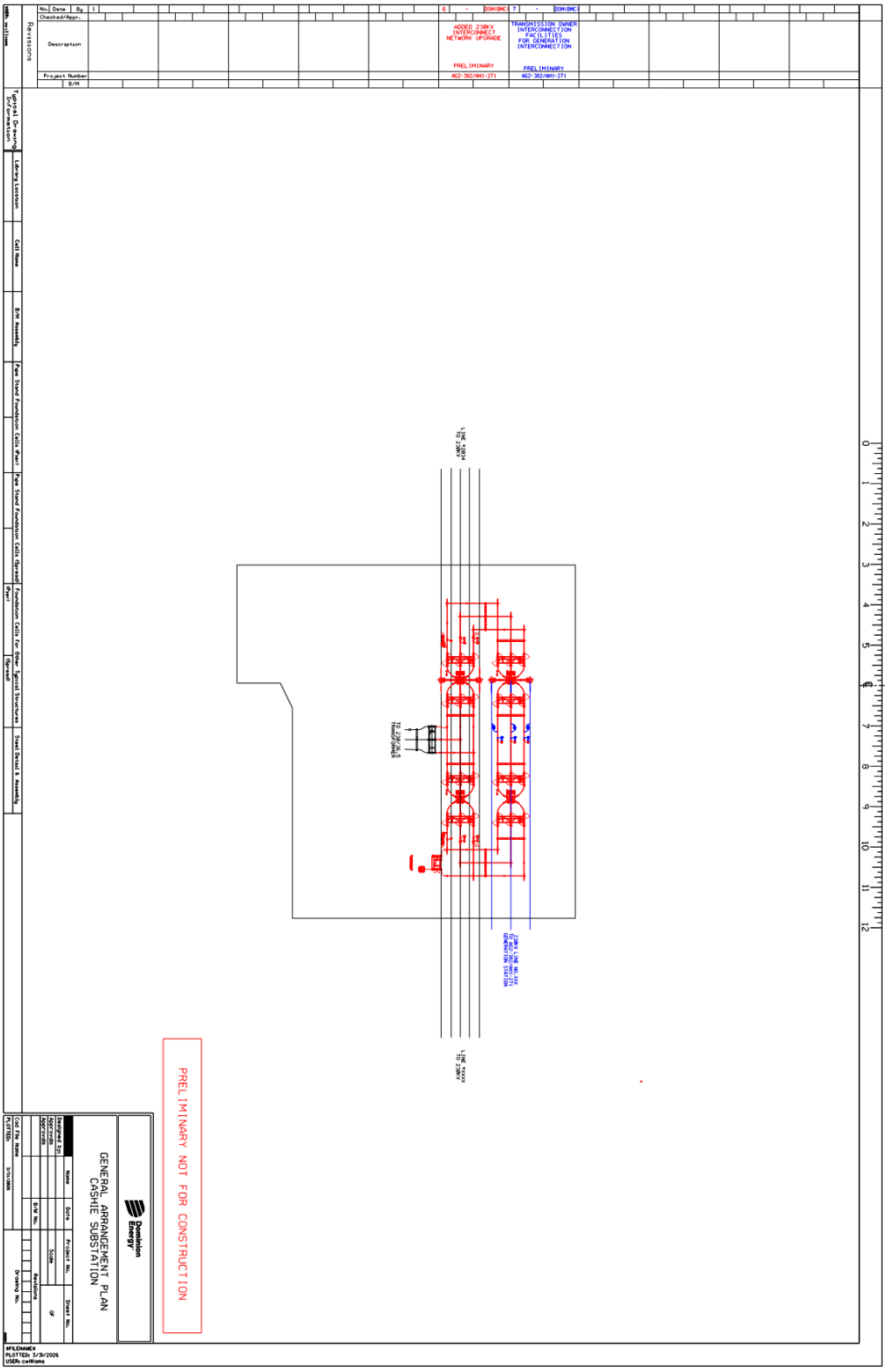
C. APPENDICES

Attachment #1:	Single line Diagram for the Physical Interconnection
Attachment #2:	Substation General Arrangement
Attachment #3:	Network Upgrade & Transmission Owner Interconnection Facility Scope - Substation
Attachment #4:	Transmission Owner Interconnection Facility Scope - Transmission
Attachment #5:	Network Upgrade – Transmission
Attachment #6:	Network Upgrade – Trowbridge Substation
Attachment #7:	Network Upgrade – Earleys Substation

Attachment #1: Single line Diagram for the Physical Interconnection



Attachment #2: Substation General Arrangement



Attachment #3: Network Upgrade & Transmission Owner Interconnection Facility Scope - Substation

Project Summary

Project number AG2-382/AH1-271 provides for the initial construction of a new 230kV generation interconnect line into the existing Cashie Substation in Bertie County, North Carolina.

The objective of this project is to add one new line postion and four new 230kV breakers installed at Cashie Substation to support the new solar farm built by Project Developer.

The Generating Facilities will be located outside of Cashie Substation. The Point of Change in Ownership between the two stations will be the 230kV disconnect switch 4-hole pad on the transmission line structure outside the Cashie Substation fence. The Project Developer will bring its conductor to the demarcation point.

Transmission line engineering is to provide a new number for the new line between Cashie Substation and the 230kV solar farm interconnect.

Transmission line engineering is to renumber the existing line segment between the new 230kV four breaker ring switching station and Trowbridge Substation. The existing line segment between the new 230kV four breaker ring switching station and Earleys Substation shall remain 2034.

Additional work is required at Earleys Substation and Trowbridge Substation.

Security and fence type – match existing fence.

Assumption:

Currently, the scope and estimate assume dominion standard spread footer foundation. Once the soil information is available and it is prudent to change the design to “helical pile foundations” the Dominion team should be informed to adjust the project estimate at the earliest possible opportunity.

Purchase and install substation material – Network Upgrade:

1. Approximate station fence line dimensions of 350’ x 335’. At a minimum, site preparation and grading will be required to extend 15’ beyond these dimensions for station grounding. Additional property and site prep may be required for proper grading and stormwater management, etc.
2. Approximately 1,163 linear ft of 5/8” chain link, 12ft tall, perimeter fence around the station along with the security cameras and integrators as per existing fence standards.
3. Four (4), 230kV, 4000A, 63kAIC, SF-6 circuit breaker
4. Eight (8), 230kV, 4000A, 3-phase double-end break switch
5. Nine (9), 230kV, relay accuracy CCVT
6. Nine (9), 180kV, 144kV MCOV surge arrester
7. One (1), 230kV, 3000A 2-phase center break switch (for PVT’s)
8. One (1), 230kV, 100KVA PVT’s for station service (to be verified during the detail design)
9. One (1), motor operator
10. Two (2), 230kV, 4000A wavetrap (to be verified during the detail design)
11. Two (2), 230kV, line tuner
12. One (1), 24' x 40' control enclosure
13. One (1), 125VDC, 400 Ah station battery and two 50 Amp chargers (size to be verified during detail engineering)
14. Two (2), 230kV, heavy duty steel backbones (by Transmission)
15. Two (2), shield wire poles and two spans of shield wire (by Transmission)
16. Approximately 210 ft of cable trough

17. Two (2), 38” x 38” x 42” precast yard pull box
18. Station stone as required
19. Station lighting as required
20. Steel structures as required including switch stands, bus supports, CCVT and wave trap supports
21. Foundations as required including equipment and bus support stands
22. Conductors, connectors, conduits, control cables, cable trough, and grounding materials as per engineering standards

Remove substation material – Network Upgrade:

1. One (1), 230kV, 2000A, 3-phase gang operated SF6-HD load-break switch
2. One (1), 230kV, 2000A, vacuum-LD load breaker switch
3. One (1), 230kV relay accuracy CCVT
4. One (1), 230kV, 400A wavetrap
5. One (1), 230kV, backbone structure
6. Steel structures as required including CCVT and wave trap supports
7. Foundations as required including equipment and bus support stands
8. Conductors, connectors, conduits, control cables, and grounding materials as per engineering standards

Purchase and install relay material – Network Upgrade:

1. Four (4), 1510 - 24” dual SEL-351-7 transmission breaker with reclosing panel
2. Four (4), 4510 - SEL-2411 breaker annunciator
3. Two (2), 1340 - 24” dual SEL-411L DCB/PLC line panel
4. Two (2), 4506 - 3-phase CCVT potential make-up box
5. One (1), 1603 - 24” SEL-451 islanding control scheme panel
6. One (1), 4000 - station service potential make-up box
7. One (1), 4548 - non-earthing switch MOAB control box
8. One (1), 4103 - non-earthing switch MOAB AC/DC distribution box
9. One (1), 4018 - 500A station service AC distribution panel
10. One (1), 4007 - 225A outdoor transmission yard AC NQOD
11. One (1), 4019 - 225A 3-phase throw over switch
12. One (1), 4016 - 600A PVT disconnect switch
13. One (1), 4153c - wall mount station battery monitor
14. One (1), 5618 - SEL-3555 communications panel
15. One (1), 1255 - station annunciator panel
16. One (1), 5021 - SEL-2411 RTU panel
17. One (1), 5609 - fiber optic management panel
18. Four (4), 4526_A - circuit breaker fiber optic make-up box
19. One (1), 5202 - 26” APP 601 digital fault recorder
20. Five (5), 4040 - security fiber/power make-up box
21. One (1), 5603 - station network panel no. 1
22. One (1), 5603 - station network panel no. 2
23. One (1), 4051 - power block
24. One (1), 4042_D1B - security utility - utility ATS
25. One (1), 4044 - 225A 1Ø outdoor main security AC NQOD
26. Two (2), 4040 - 100A 1Ø outdoor security AC NQOD
27. One (1), 5616 - station security panel
28. One (1), 5616 - station security fence panel
29. Two (2), 4018 - 225A station service AC distribution panel branch breaker
30. One (1), high voltage protection (HVP) box (provided by IT) (to be verified during detail engineering)
31. One (1), telephone interface box (to be verified during detail engineering)

The Transmission Owner Interconnection Facilities include the portion of the interconnecting switching station which is associated solely with the single feed to the generating facilities collector station. The equipment associated with the Transmission Owner Interconnection Facilities includes the disconnect switch, conductors and connectors.

Other Scope includes metering accuracy CCVT's and metering accuracy CT's.

Purchase and install substation material – Transmission Owner Interconnection Facilities Upgrade:

1. One (1), 230kV, 4000A, 3-phase double end break switch (by Transmission)
2. Conductor, connectors, conduits, control cables, foundations, steel structures and grounding material as per engineering standards

Purchase and install relay material – Transmission Owner Interconnection Facilities Upgrade:

1. One (1), 1340 - 24" dual SEL-411L CD/Fiber line panel
2. One (1), 1323 - 24" SEL-487E/735 PMU and PQ monitoring panel

Purchase and install metering material – Other:

1. Three (3), 230kV, metering accuracy CCVT
2. Three (3), 230kV, 500:5 metering accuracy CT
3. One (1), 1425 - 24" dual SEL-735 transmission and generator interconnect metering panel
4. One (1), 4524 - revenue metering CT make-up box
5. One (1), 4506 - 3-phase CCVT potential make-up box with metering (P4)

Attachment #4: Transmission Owner Interconnection Facility Scope - Transmission

Preliminary Scoping Summary

This project serves to construct a new 230kV developer generation tie-in line from existing Cashie to a point of change in ownership (PCO) structure, which is located in Bertie County, NC. The new 230 kV circuit will hereby be referred to as line 2XXX. The point of change in ownership (PCO) structure will be proposed structure 2XXX/3, which is to be installed outside existing Cashie Substation on Dominion owned property. The PCO structure is the demarcation point between Dominion Energy and the developer. The demarcation point on the PCO structure will be the compression terminal pads on the ahead side of proposed structure 2XXX/3. See **Figure 1** for the project location.

This scope only includes the installations for the “Transmission Ownership Interconnection Facilities” (TOIF) for the gen-tie line into Cashie Substation. See the "Network Upgrade" scope for the remaining installations.

The proposed structures are one (1) 230kV single circuit engineered steel double deadend 3-pole structure and one (1) 230kV steel self-supporting switch structure. The new conductor and shield wire to be used will be twin bundled (2) 768.2 ACSS/TW (20/7) “Maumee” conductor and two (2) DNO-11410 OPGW.

Length of Route	**0.06 miles**
Location of the subject line (County/State)	**Bertie County, NC**
Total Number of Permanent Structures	**2**
CPCN/SCC Required?	**No**
New ROW Required?	**Yes**

New ROW Required:

ROW Length	ROW Width
0.02 Miles	80 ft.

This project will utilize current Dominion 230kV standards. The conceptual estimate includes cost for the following:

Transmission Owner Build - Permanent Facilities to be Installed

Structures: See attached spreadsheet for heights and loading information. All structures will be galvanized steel.

Structure Type	Dwg Number	Str. Qty.
230kV SC ENGR Steel DDE 3-Pole Structure	12.158	1
230kV Steel Self-Supporting Switch Structure – Includes 4000 Amp Switch	12.830	1

Wire:

1. Mileage listed is per circuit.
2. Conductors include dampers and spacers. Fiber includes dampers and splices.
    - Estimate includes approximately four (4) fiber splices

Length (Miles)	Circuit	# If Bundled-Wire Type "Name"	Start-End
0.06	1	Twin Bundled (2) 768.2 ACSS/TW (20/7) "Maumee" Conductor	Existing BB 2XXX/1 – Proposed Str. 2XXX/3
0.06	2	DNO-11410 OPGW	Existing BB 2XXX/1 – Proposed Str. 2XXX/3

Transmission Owner Build - Existing Facilities to be Transferred or Modified

1. Install three (3) new conductor crossing deadend assemblies [Reference Drawing 32.338], two (2) new OPGW deadend assemblies [Reference Drawing 96.061], and two (2) new OPGW safety catches [Reference Drawing 96.100] on existing backbone structure 2XXX/1.

Scope Notes/Assumptions

1. Due to allocated amount of time, no PLS-CADD modeling was done for this project, which results in higher level scopes. Projects in the Transition Cycle 2 – Phase 2 will need to go through full conceptual engineering design prior reaching detailed engineering.

2. This project requires the acquisition of a laydown yard.

3. The generalized structure heights for this project are 75/60/75 ft for proposed structure 2XXX/3. This was determined for the high-level estimate projects for Dominion Generation Interconnection Projects.

4. All deadend engineered steel structures outside the substation (Structures 2XXX/3) will be designed for full-construction deadend loading for construction conditions.

5. Project area code required loading include: NESC Heavy, 95 mph wind, ¾" Ice & 30 mph wind.

6. For detailed engineering, it is assumed LiDAR survey is required, including ROW file.

7. Structure heights are subject to change pending potential FAA restrictions in the area. The high-level conceptual scope and estimate do not have any FAA restrictions applied but will be used to file with FAA to determine if they are sufficient.

8. Crossing insulators will be used whenever crossing over substation fence.

9. An existing right of way width of 120' is assumed for existing 230kV line 2034 based on DEV MapViewer. An additional 80 ft of right of way will need to be acquired from Cashie Substation to proposed structure 2XXX/3 (approximately 0.02 miles) for this project to accommodate the 230 kV Dominion ROW preferences.

10. The PCO structure 2XXX/3 is located outside existing Cashie Substation and will be installed on Dominion owned property. This structure will be the demarcation point between the developer and Dominion Energy.

11. The transmission team has identified no encroachments within the project area based off the .kmz and DEV MapViewer.

12. A wetland delineation has not been completed as part of this conceptual package.

13. A substation general arrangement was provided by the conceptual substation engineering team. See **Figure 2** for the Cashie Substation general arrangement used for this project.

14. The assumed reel lengths for this project are 12,000 feet.

15. Cross slopes are not accounted for in this conceptual design. Structures designed assuming a 1.5' foundation reveal at the center of the structure.

16. The developer collector station will be located approximately 2.27 miles to the southeast of Cashie Substation.

17. This project scope assumes that it is independent from other projects in the Transition Cycle.

18. Projects GITAG2-382 and GITAH1-271 each include the same project scope since they are dependent on each other. Should one of the two (2) projects withdraw from the Transition Cycle, the scope would transfer to the other remaining scope in the Transition Cycle.

Estimate Notes/Assumptions

1. This scope and estimate for project AG2-382/AH1-271 refers to the "transmission-ownership interconnection facilities" (TOIF). This includes the engineering, project management, and construction costs for the transmission assets between Cashie Substation and proposed structure 2XXX/3 (PCO Structure). See the "network upgrade" (NW) scope and estimate for the remaining installations associated with project AG2-382/AH1-271.

    a. One estimate has been provided for this scope.

        i. Transmission Ownership Interconnection Facilities (TOIF)

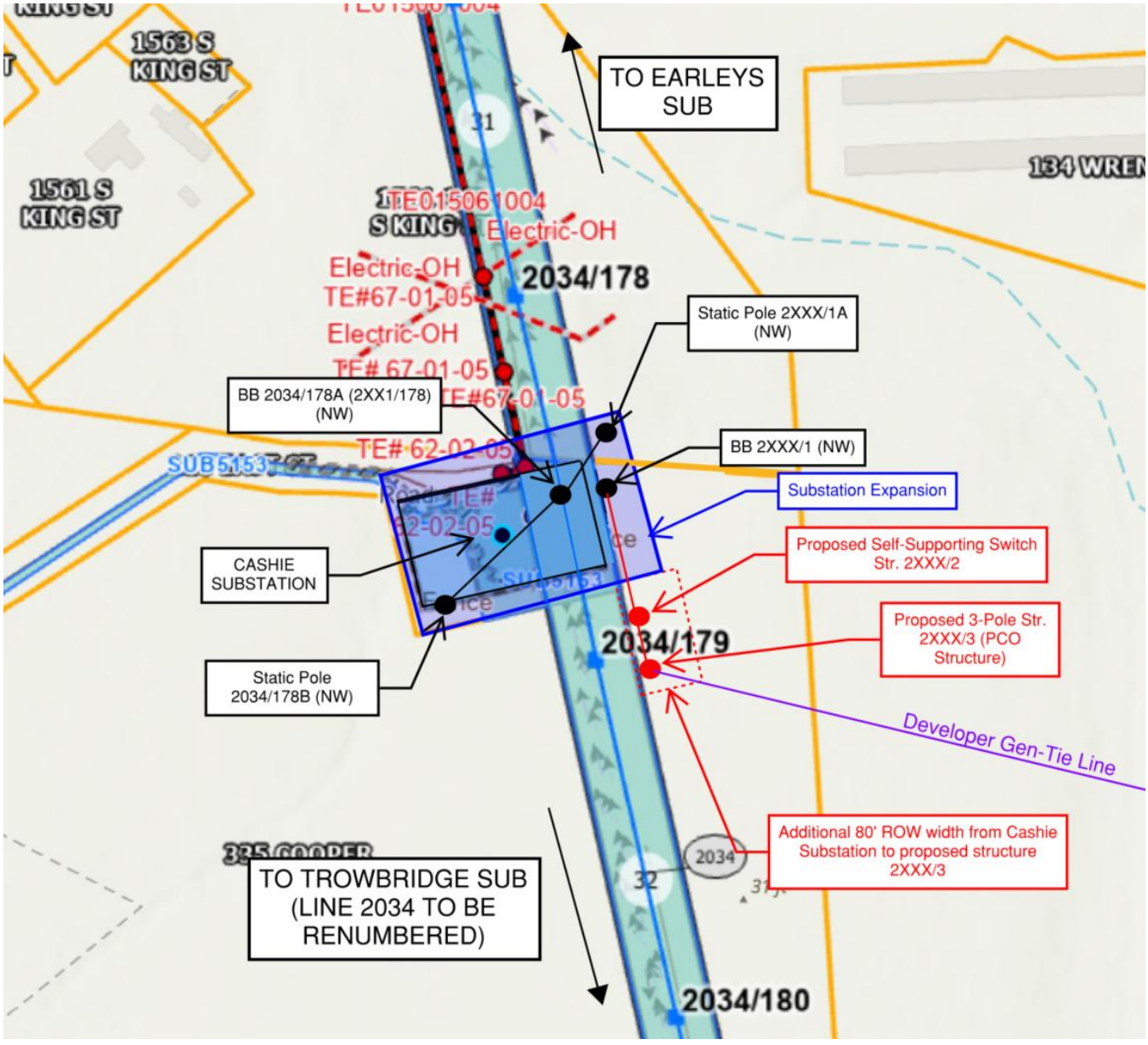
2. Engineered steel pole costs were determined based off typical wind and weight spans, line angles, and average structure heights for each voltage. These inputs were used to derive an estimated steel pole weight, which was used to develop the structure costs. This was determined for the high-level estimate projects for Dominion Generation Interconnection Projects.

3. Engineered pole foundation costs were based off the projects' location and structure type in the regional soil profile map. The regional soil profile map used for this project is Coastal Plains West.

4. Survey costs were determined based on substation proposed location, fiber installation, and impacts on existing line.

5. Transition Cycle 2 - Phase 2 estimates utilize Dominion 2025 labor and material adjustment rates.

Figure 1 – Project Location



Attachment #5: Network Upgrade - Transmission

Preliminary Scoping Summary

This project serves to expand existing Cashie Substation such that a new 230kV developer generation tie-in line can terminate inside Cashie Substation, which is to be located in Bertie County, NC. The new 230 kV circuit will hereby be referred to as line 2XXX. Existing 230 kV line 2034 will be cut and will terminate inside Cashie Substation at proposed backbone structure 2034/178A. Line 2034 will be renumbered to 2XX1 from Cashie Substation to Trowbridge Substation. See **Figure 1** for the project location.

This scope only includes the installations associated with the "Network Upgrades" (NW) inside of Cashie Substation. See the "Transmission Owner Interconnection Facilities" (TOIF) scope for the remaining tie line installations.

The proposed structures to be installed is two (2) 230kV single circuit steel backbone structures and two (2) steel static poles. 7#7 Alumoweld will be utilized for shielding within Cashie Substation.

Length of Route	**0.0 Miles**
Location of the subject line (County/State)	**Bertie County, NC**
Total Number of Permanent Structures	**4**
CPCN/SCC Required?	**No**
New ROW Required?	**No**

This project will utilize current Dominion 230kV standards. The conceptual estimate includes cost for the following:

Transmission Owner Build - Existing Facilities to be Removed

Structures

Structure Type	Dwg Number	Str. Qty.
230 kV SC Concrete Backbone with a Switch	-	1

Transmission Owner Build - Permanent Facilities to be Installed

Structures: See attached spreadsheet for heights and loading information. The structure will be galvanized steel.

Structure Type	Dwg Number	Str. Qty.
230kV SC Steel Backbone Structure	12.901	2
Steel Static Poles	9.008	2

Wire:

1. Mileage listed is per circuit
2. Static includes dampers.

Length (Miles)	Circuit	# if Bundled-Wire Type "Name"	Start-End
0.03	1	7#7 Alumoweld Shield Wire	Proposed Static Pole 2XXX/1A – Proposed BB 2034/178A (2XX1/178)
0.04	1	7#7 Alumoweld Shield Wire	Proposed BB 2034/178A (2XX1/178) – Proposed Static Pole 2034/178B

Transmission Owner Build - Existing Facilities to be Transferred or Modified

1. Transfer the existing twin bundled (2) 545.6 ACAR conductor for Line 2034 from existing backbone structure 2034/178A onto proposed backbone structure 2034/178A (2XX1/178) on the ahead and back side.
2. Transfer the existing two (2) 3#6 Alumoweld shield wire for Line 2034 from existing backbone structure 2034/178A onto proposed backbone structure 2034/178A (2XX1/178) on the ahead and back side.

Scope Notes/Assumptions

1. Due to allocated amount of time, no PLS-CADD modeling was done for this project, which results in higher level scopes. Projects in the Transition Cycle 2 – Phase 2 will need to go through full conceptual engineering design prior reaching detailed engineering.

2. It is assumed that the existing conductor and shield wire for line 2034 can be transferred to the new proposed backbone structure 2034/178A (2XX1/178) inside Cashie Substaiton. It is also assumed that existing structures 2034/178 and 2034/179 can be re-used as part of this project. More information will need to be obtained on these structures, conductor, and shield wire lengths during detailed design to confirm that this design is feasible.

3. This project does require acquisition of a laydown yard.

4. Project area code required loading include: NESC Heavy, 95 mph wind, ¾" Ice & 30 mph wind.

5. For detailed engineering, it is assumed LiDAR survey is require.

6. A wetland delineation has not been completed as part of this conceptual package.

7. Crossing insulators will be used whenever crossing over substation fence.

8. A substation general arrangement was provided by the conceptual substation engineering team. See **Figure 2** for the Cashie Substation general arrangement used for this project.

9. The assumed reel lengths for this project are 7,100 feet for 7#7 Alumoweld shield wire.

10. Cross slopes are not accounted for in this conceptual design. Structures designed assuming a 1.5' foundation reveal at the center of the structure.

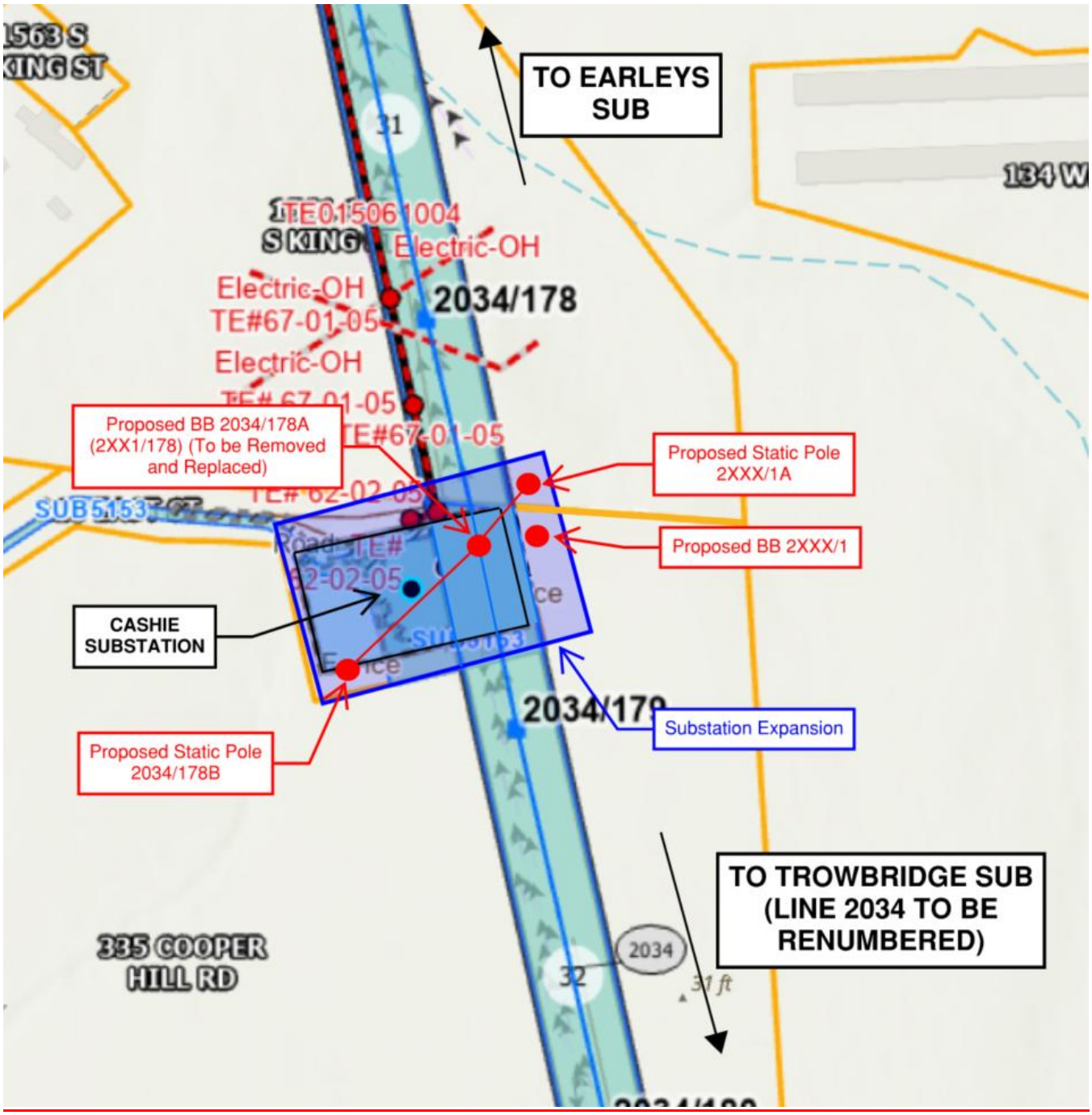
11. This project scope assumes that it is independent from other projects in the Transition Cycle.

12. Projects AG2-382 and AH1-271 each include the same project scope since they are dependent on each other. Should one of the two (2) projects withdraw from the Transition Cycle, the scope would transfer to the other remaining scope in the Transition Cycle.

Estimate Notes/Assumptions

1. This scope and estimate for project AG2-382/AH1-271 refers to the "network upgrade" (NW). This includes the engineering, project management, and construction costs for the transmission assets inside Cashie Substation. See the "transmission ownership interconnection facilities" (TOIF) scope and estimate for the remaining installations associated with project AG2-382/AH1-271.
    a. One (1) estimate has been provided for this project.
        i. Network Upgrade (NW)
2. Engineered steel pole costs were determined based off typical wind and weight spans, line angles, and average structure heights for each voltage. These inputs were used to derive an estimated steel pole weight, which was used to develop the structure costs. This was determined for the high-level estimate projects for Dominion Generation Interconnection Projects.
3. Engineered pole foundation costs were based off the projects' location and structure type in the regional soil profile map. The regional soil profile map used for this project is Coastal Plains West.
4. Survey costs were determined based on substation proposed location, fiber installation, and impacts on existing line.
5. Transition Cycle 2 - Phase 2 estimates utilize Dominion 2025 labor and material adjustment rates.

Figure 1 – Project Location



Attachment #6: Network Upgrade – Trowbridge Substation

Project Summary

Project AG2-382/AH1-271 provides for drawing work addition, islanding panel addition, relay resets, and field support necessary to change line 2034 destination from Earleys Substation to GITAG2-382/GITAH1-271 Generator Interconnect. The line number may be changed. Consult the construction One Line. This project is the Remote End Network Upgrade for the AG2-382/AH1-271 Generator Interconnect Project.

Purchase and install relay material:

1. One (1), 1603 – 24” SEL-451 islanding control scheme panel

Attachment #7: Network Upgrade – Earleys Substation

Project Summary

Project AG2-382/AH1-271 provides for drawing work addition, islanding equipment addition, relay resets, and field support necessary to change line 2034 destination from Trowbridge Substation to GITAG2-382/GITAH1-271 Generator Interconnect. The line number may be changed. Consult the construction One Line. This project is the Remote End Network Upgrade for the AG2-382/AH1-271 Generator Interconnect Project.

Purchase and install relay material:

1. One (1), UPLC II transfer trip TX/RX set