

**Facilities Study Report**

**For**

**Physical Interconnection of**

**PJM Generation Interconnection Request**

**Project ID AF2-042**

**Clover-Rawlings 500 kV**

December 2024

## Introduction

This Facilities Study has been prepared in accordance with the PJM Open Access Transmission Tariff Part VII, and, if applicable, 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 (VEPCO or Dominion).

### A. Transmission Owner Facilities Study Summary

#### 1. PROJECT DESCRIPTION

The Project Developer (PD) has proposed a Solar Generating Facility located in Halifax, VA with a designated PJM Project ID of AF2-042. The installed facilities will have a total Maximum Facility Output (MFO) of 500 MW with 300 MW of this output being recognized by PJM as Capacity.

#### 2. POINT OF INTERCONNECTION (POI)

AF2-042 is a new service request project that will interconnect with the Dominion transmission system via a newly constructed 500 kV three breaker ring bus switching station.

AF2-042 will be tapping the Clover–Rawlings 500 kV line 556, approximately 5.86 miles from Clover and 48.30 miles from Rawlings. The construction of the new interconnection substation will result in the splitting of the existing Clover–Rawlings 500 kV line 556 into two lines on the transmission system. The line is to be cut-in between existing structures 556/22 and 556/23. Line 556 is being renumbered to 5XXX between Clover substation and new 500 kV 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 will be the 500kV disconnect switch 4-hole pad inside the Dominion station by the common 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 AF2-042 project to the Dominion transmission system. These facilities shall be designed according to Dominion Applicable Technical Requirements and Standards. Once built, Dominion will own, operate, and maintain these Facilities.

### **1. TRANSMISSION OWNER INTERCONNECTION FACILITIES:**

The Transmission Owner Interconnection Facilities will include, but not be limited to, the following:

A 500 kV backbone structure and foundation within the fence of the Interconnection Substation, to terminate the Project Developer's generator lead line.

Line conductor from the backbone structure to the bus position in the switchyard of the interconnection substation.

#### **Purchase and install substation material – Transmission Owner Interconnection Facilities:**

1. One (1), 500kV, 5000A, 3-phase double end break switch
2. Three (3), 500kV, metering accuracy CCVT
3. Three (3), 500kV, 500:5 metering accuracy CT
4. Conductor, connectors, conduits, control cables, foundations, steel structures and grounding material as per engineering standards

#### **Purchase and install relay material – Transmission Owner Interconnection Facilities:**

1. One (1), 1110 – 24" dual SEL-587Z/351A transmission bus panel
2. One (1), 4200\_W1 – bus differential CT make-up box
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)
6. One (1), 1323 – 24" SEL-487E/735 PMU and PQ monitoring panel
7. Two (2), 4541 – control cable make-up box
8. Two (2), 4528A – generation fiber make-up box

The Project Developer has the option to select 'Option to Build' as is their right under the PJM Generator Interconnection Agreement.

If "Option to Build" is selected, the Project Developer becomes responsible for the purchase and install of the TOIF facilities listed above, as well as the oversight costs included in 4. OTHER SCOPE OF WORK.

### **2. STAND ALONE NETWORK UPGRADES**

The Stand Alone Network Upgrades will include, but not be limited to, the following:

#### ***For new interconnection substation:***

AF2-042 Interconnection Substation (NXXXX)

A new 500 kV three breaker ring bus switching station will be constructed along the Clover–Rawlings 500 kV transmission line 556 to interconnect the project with the Dominion transmission system.

The objective of this project is to build a 500kV three breaker ring bus to support the new solar farm built by Project Developer. The site is located along Dominion's existing 500kV, 556 line from Clover Substation to Finneywood Substation. The cut line will consume two of the positions in the ring bus. The third position will be for the 500kV feed from Project Developer's Collector Station for the new solar farm.

The Project Developer will provide the property and access to the switching station. The grounding systems for each station will be tied together. All substation permitting, site preparation and grading activity will be performed by the Project Developer. All permits are the responsibility of the developer.

Substation design and relay protection are based on Dominion's Facility Interconnection Requirements, NERC Compliance Procedure FAC-001 (version 23), that is posted on PJM's website. This standard meets or exceeds the PJM Transmission and Substation Design Subcommittee Technical Requirements and the PJM Protection Standards (PJM Manual 7).

The scope of work includes the following:

**Purchase and Install - Stand Alone Network Physical Facilities:**

1. Approximate station fence line dimensions of 445' x 585'. 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 2,060 linear ft of 5/8" chain link, 15 ft tall, perimeter fence around the station along with the security cameras and integrators as per design 2 fence standards
  - a. Twelve (12), 20 ft tall super post
  - b. Anti-dig barrier footing between the perimeter fence foundations
  - c. Foundations for the fence posts, super posts, etc.
  - d. Ground tail, and miscellaneous grounding materials for fence posts, panel to panel connections, and security and communication boxes as per the current engineering standards
  - e. Security integrations for fence
3. Three (3), 500kV, 5000A, 63kAIC, SF-6 circuit breaker
4. Six (6), 500kV, 5000A, 3-phase double end break switch
5. Six (6), 500kV, relay accuracy CCVT
6. Two (2), 500kV, 5000A wave trap
7. Two (2), line tuner
8. Nine (9), 396kV, 318kV MCOV surge arrester
9. Two (2), 10kV, 8.4kV MCOV surge arrester
10. Two (2), SMD-20 fused disconnects with BCL fuse (to be verified during detail engineering)
11. Two (2), 167kVA, 13.2 -.12/.24kV transformer (to be verified during detail engineering)
12. One (1), dry type TX for security enclosure
13. One (1), 800A manual throwover switch
14. Three (3), 100A, outdoor security AC NQ panel
15. One (1), 800A, 3-phase, outdoor utility distribution panel
16. Two (2), 150kW generator

17. Four (4), 1000-gallon liquid propane tank
18. Four (4), rosemount tank level monitor
19. Three (3), ATS (ratings to be verified during detail engineering)
20. One (1), 24' x 40' control enclosure
21. One (1), 14' x 24' security enclosure
22. One (1), 125 VDC, 400 Ah station battery and two 50 Amp chargers (size to be verified during detail engineering)
23. Approximately 840 ft of cable trough, with two (2) 20 ft road crossing section
24. One (1), 600A 1-phase outdoor security manual throwover switch (to be verified during detail engineering)
25. Seven (7), 38" x 38" x 42" precast concrete pull box
26. Station stone as required
27. Station lighting as required
28. Steel structures as required including switch stands, bus supports, station service transformers, CCVT and wave trap supports
29. Foundations as required including control house, equipment, and bus support stands
30. Conductors, connectors, conduits, control cables, cable trough, and grounding materials as per engineering standards

**Purchase and Install - Stand Alone Network Relay Protection Equipment:**

1. Three (3), 1510 – 24" dual SEL-351-7 transmission breaker with reclosing panel
2. Three (3), 4510 – SEL-2411 breaker annunciator
3. Three (3), 1515 – 500KV breaker panel (use with 1510)
4. Three (3), 4536 – 500KV breaker condition monitor
5. Two (2), 1340 – 24" dual SEL-411L DCB/PLC line panel
6. One (1), 1603 – 24" SEL-451 islanding control scheme panel
7. Two (2), 4506 – 3-phase CCVT potential make-up box
8. Two (2), 4007 – 225A outdoor transmission yard AC NQOD
9. Five (5), 4016 – 600A disconnect switch
10. One (1), 4018 – 800A I-line AC distribution panel
11. One (1), 4019 – 225A 3-phase throwover switch
12. One (1), 4042 – security utility ATS (level 1,2)
13. One (1), 4042 – security generator ATS (level 1,2)
14. Two (2), 4000 – station service potential make-up box
15. One (1), 4153 – wall mount station battery monitor
16. One (1), 5618 – SEL-3555 communications panel
17. One (1), 1255 – station annunciator panel
18. One (1), 5021 – SEL-2411 RTU panel
19. One (1), 5609 – fiber optic management panel
20. Three (3), 4526\_D – breaker with BCM fiber make-up box
21. One (1), 5202 – 26" APP 601 digital fault recorder
22. One (1), 5203 – traveling wave fault locator panel - TWS (to be verified during detail engineering)
23. One (1), 5603 – station network panel no. 1
24. One (1), 5603 – station network panel no. 2
25. One (1), 5616 – station security panel
26. One (1), 3102 – security enclosure alarm box
27. One (1), 4821 – generator and ATS interface box

28. One (1), 4533 – security generator monitor
29. One (1), 4526\_G – generator monitor fiber make-up box
30. Two (2), 4800 – generator
31. Three (3), 4040 – 100A 2Ø outdoor security AC NQOD (Prov. by Sub Eng)
32. Two (2), 4040 – 100A 2Ø indoor security AC NQOD (Prov. by Sub Eng)
33. One (1), 4041 – security enclosure 600A 2Ø I-line AC dist pnl (Provided w/ Enclosure)
34. Two (2), 4018 – 225A station service AC distribution panel branch breaker
35. One (1), high voltage protection (HVP) box (provided by IT) (to be verified during detail engineering)
36. One (1), telephone interface box (to be verified during detail engineering)
37. One (1), 800A auto transfer switch (Provided by Sub Eng)
38. One (1), 800A disconnect switch

The Project Developer has the option to select ‘Option to Build’ as is their right under the PJM Generator Interconnection Agreement.

By selecting this construction process method, the Project Developer shall secure all required real estate, obtain all necessary permits, perform site work including site preparation and grading, furnish equipment, construction personnel and ancillary materials as found in the facility study for construction of the switching station in compliance with Dominion Energy Substation Engineering Standards.

If the Project Developer selects “Option to Build”, the work required is as follows:

**Option to Build, Stand Alone Network Upgrade Physical Facilities – Project Developer:**

1. Approximate station fence line dimensions of 445’ x 585’. 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 2,060 linear ft of 5/8” chain link, 15 ft tall, perimeter fence around the station along with the security cameras and integrators as per design 2 fence standards
  - a. Twelve (12), 20 ft tall super post
  - b. Anti-dig barrier footing between the perimeter fence foundations
  - c. Foundations for the fence posts, super posts, etc.
  - d. Ground rail, and miscellaneous grounding materials for fence posts, panel to panel connections, and security and communication boxes as per the current engineering standards
  - e. Security integrations for fence
3. Three (3), 500kV, 5000A, 63kAIC, SF-6 circuit breaker
4. Six (6), 500kV, 5000A, 3-phase double end break switch
5. Six (6), 500kV, relay accuracy CCVT
6. Two (2), 500kV, 5000A wave trap
7. Two (2), line tuner
8. Nine (9), 396kV, 318kV MCOV surge arrester
9. Two (2), 10kV, 8.4kV MCOV surge arrester
10. Two (2), SMD-20 fused disconnects with BCL fuse (to be verified during detail engineering)
11. Two (2), 167kVA, 13.2 -.12/.24kV transformer (to be verified during detail engineering)

12. One (1), dry type TX for security enclosure
13. One (1), 800A manual throwover switch
14. Three (3), 100A, outdoor security AC NQ panel
15. One (1), 800A, 3-phase, outdoor utility distribution panel
16. Two (2), 150kW generator
17. Four (4), 1000-gallon liquid propane tank
18. Four (4), rosemount tank level monitor
19. Three (3), ATS (ratings to be verified during detail engineering)
20. One (1), 24' x 40' control enclosure
21. One (1), 14' x 24' security enclosure
22. One (1), 125 VDC, 400 Ah station battery and two 50 Amp chargers (size to be verified during detail engineering)
23. Approximately 840 ft of cable trough with two (2) 20 ft road crossing station
24. One (1), 600A 1-phase outdoor security manual throwover switch (to be verified during detail engineering)
25. Seven (7), 38" x 38" x 42" precast yard pull box
26. Station stone as required
27. Station lighting as required
28. Steel structures as required including switch stands, bus supports, station service transformers, CCVT and wave trap supports
29. Foundations as required including control house, equipment, and bus support stands
30. Conductors, connectors, conduits, control cables, cable trough, and grounding materials as per engineering standards

**Option to Build, Stand Alone Network Upgrade Relay Protection Equipment – Project Developer:**

1. Three (3), 1510 – 24" dual SEL-351-7 transmission breaker with reclosing panel
2. Three (3), 4510 – SEL-2411 breaker annunciator
3. Three (3), 1515 – 500KV breaker panel (use with 1510)
4. Three (3), 4536 – 500KV breaker condition monitor
5. Two (2), 1340 – 24" dual SEL-411L DCB/PLC line panel
6. One (1), 1603 – 24" SEL-451 islanding control scheme panel
7. Two (2), 4506 – 3-phase CCVT potential make-up box
8. Two (2), 4007 – 225A outdoor transmission yard AC NQOD
9. Five (5), 4016 – 600A disconnect switch
10. One (1), 4018 – 800A I-line AC distribution panel
11. Two (2), 4018 – 225A station service AC distribution panel branch breaker
12. One (1), 4019 – 225A 3-phase throwover switch
13. One (1), 4042 – security utility ATS (level 1,2)
14. One (1), 4042 – security generator ATS (level 1,2)
15. Two (2), 4000 – station service potential make-up box
16. One (1), 4153 – wall mount station battery monitor
17. One (1), 5618 – SEL-3555 communications panel
18. One (1), 1255 – station annunciator panel
19. One (1), 5021 – SEL-2411 RTU panel
20. One (1), 5609 – fiber optic management panel
21. Three (3), 4526\_D – breaker with BCM fiber make-up box
22. One (1), 5202 – 26" APP 601 digital fault recorder

23. One (1), 5203 – traveling wave fault locator panel - TWS (to be verified during detail engineering)
24. One (1), 3102 – security enclosure alarm box
25. One (1), 4821 – generator and ATS interface box
26. One (1), 4533 – security generator monitor
27. One (1), 4526\_G – generator monitor fiber make-up box
28. Two (2), 4800 – generator
29. Three (3), 4040 – 100A 2Ø outdoor security AC NQOD (Prov. by Sub Eng)
30. Two (2), 4040 – 100A 2Ø indoor security AC NQOD (Prov. by Sub Eng)
31. One (1), 4041 – security enclosure 600A 2Ø I-line AC dist pnl (Provided w/ Enclosure)
32. One (1), 800A auto transfer switch (Provided by Sub Eng)
33. One (1), 800A disconnect switch

### **3. NETWORK UPGRADES**

The Network Upgrades will include, but not be limited to, the following:

#### ***Transmission Line Tie-in for new interconnection substation:***

Line 556, 500 kV, will be cut and looped into the new interconnection substation.

This project serves to cut in 500 kV line 556 into a new substation called Randolph Substation, which is to be located in Charlotte County, VA. The line is to be cut-in between existing structures 556/22 and 556/23. Line 556 is being renumbered to 5XXX between Clover substation and Randolph Substation.

The proposed structures to be installed are two (2) 500kV engineered steel single circuit 3-pole double deadend structures, two (2) 500kV single circuit A-Frame backbones and three (3) steel static poles. The new conductor and shield wire to be used will be triple bundled (3) 1351.5 ACSR (45/7) conductor and two (2) 7#7 Alumoweld shield wires.

#### **Modification to Existing Facilities:**

1. Cut and transfer the existing triple bundled (3) 1351.5 ACSR (45/7) conductor for Line 556 from the ahead side of existing structure 556/22 to the back side of proposed structure 5XXX/23.
2. Cut and transfer the existing triple bundled (3) 1351.5 ACSR (45/7) conductor for Line 556 from the back side of existing structure 556/23 to the ahead side of proposed structure 556/22.
3. Cut and transfer existing two (2) 7#7 Alumoweld shield wire for Line 556 from the ahead side of existing structure 556/22 to the back side of proposed structure 5XXX/23.
4. Cut and transfer existing two (2) 7#7 Alumoweld shield wire for Line 556 from the back side of existing structure 556/23 to the ahead side of proposed structure 556/22.

#### **Permanent Facilities to be Installed:**

1. Install two (2) 500kV engineered steel single circuit 3-pole double deadend structures on foundations as follows:
  - a. Structures 5XXX/23 and 556/22



2. Install two (2) 500kV single circuit A-Frame backbones on foundations as follows:
  - a. Structure 556/21 and 5XXX/24
3. Install three (3) steel static poles on foundations as follows:
  - a. Structures 5XXX/24A, 5XXX/24B, and 5XXX/24C
4. Install approximately 0.22 miles of 3-phase triple bundled (3) 1351.5 ACSR (45/7) conductor as follows:
  - a. Install approximately 0.11 miles from proposed structure 5XXX/23 to proposed backbone 5XXX/24.
  - b. Install approximately 0.11 miles from proposed structure 556/22 to proposed backbone 556/21.
5. Install approximately 0.22 miles of two (2) 7#7 Alumoweld shield wires as follows:
  - a. Install approximately 0.11 miles from proposed structure 5XXX/23 to proposed backbone 5XXX/24.
  - b. Install approximately 0.11 miles from proposed structure 556/22 to proposed backbone 556/21.
6. Install approximately 0.30 miles of one (1) 7#7 Alumoweld shield wire between the static poles and proposed backbones inside Randolph Substation.

#### ***Upgrades to neighboring facilities:***

Additional work is required at Clover Substation and Finneywood Substation.

#### **Clover Substation**

Project AF2-042 provides for drawing work, relay resets, islanding panel addition and field support necessary to change line 556 destination from Finneywood to AF2-042 Generator Interconnect. The line number may be changed.

#### **Purchase and install relay material:**

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

#### **Finneywood Substation**

Project AF2-042 provides for drawing work, relay resets, and field support necessary to change the line 556 destination from Clover Substation to AF2-042 Generator Interconnect.

### **4. OTHER SCOPE OF WORK**

The Project Developer will supply and own metering equipment that will provide instantaneous net MW and MVar per unit values in accordance with PJM Manuals M-01 and M-14D, and Sections 8.1 through 8.5 of Appendix 2 to the GIA.

If the Project Developer selects “Option to Build”, the oversight required is as follows:

**Option to Build, Stand Alone Network Physical Facilities & Oversight – Dominion:**

1. All Physical Engineering related oversight and approvals of activities related to equipment procurement, design, construction, and energization of switching station
2. All Real Estate related oversight and approval of activities related to construction of switching station
3. All Permitting related oversight and approval of activities related to construction of switching station
4. All Survey related oversight and approval of activities related to construction of switching station
5. All Construction and Methods oversight and approval of activities related to construction and energization of switching station
6. All Project Management oversight activities related to construction and energization of switching station
7. Review and approve all riser conductor, connectors, spacers, and bolts related to connection of the switching station to the Bulk Electric Transmission System
8. Review and approve all material related to the integration of the security fence software package back to the Corporate Security Fusion Center

**Option to Build, Stand Alone Network Relay Protection Equipment – Dominion:**

1. All Protection & Controls Engineering oversight and approval of activities related to equipment procurement, design, construction, and energization of switching station
2. All relay panel installation methods oversight and approval of activities related to construction and energization of switching station
3. All relay, communications, security settings related to the connection of the switching station to the Bulk Electric Transmission System
4. One (1), 5616 – station security panel
5. One (1), 5603 – station network panel no. 1
6. One (1), 5603 – station network panel no. 2
7. One (1), high voltage protection (HVP) box (Provided by IT) (to be verified during detail engineering)
8. One (1), telephone interface box (to be verified during detail engineering)

**Option to Build, Transmission Owner Interconnection Facilities; Physical Facilities & Oversight – Dominion:**

1. All Physical Engineering related oversight and approvals of activities related to equipment procurement, design, construction, and energization of switching station
2. All Construction and Methods oversight and approval of activities related to construction and energization of switching station
3. All Project Management oversight activities related to construction and energization of switching station

## **Option to Build, Transmission Owner Interconnection Facilities Relay Protection**

### **Equipment – Dominion:**

1. All Protection & Controls Engineering oversight and approval of activities related to equipment procurement, design, construction, and energization of switching station
2. All relay panel installation methods oversight and approval of activities related to construction and energization of switching station
3. All relay, communications, security settings related to the connection of the switching station to the Bulk Electric Transmission System

## **5. MILESTONE SCHEDULE FOR COMPLETION OF TO WORK**

Facilities outlined in this report are estimated to take 51 months to construct, from the time the Generator 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	3	43
Construction	41	51

## **6. ASSUMPTIONS IN DEVELOPING SCOPE/COST/SCHEDULE**

### **General Assumptions:**

1. The estimated procurement lead time for breakers is based on current Dominion pre-ordered breaker production slots. These production slots will be assigned after the agreement is executed.
2. The preliminary construction schedule is dependent on outage availability.
3. The Generation Interconnection facility will share a fence line with Developer's collector station.

### **TOIF/SANU Conceptual Design Notes:**

1. Currently, the scope and estimate assume Dominion standard spread footer foundations. 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.

2. Finneywood station is scheduled to be built before AF2-042. The Finneywood station will be built between Clover and Rawlings. The line number will be 556 between Finneywood and the new 500kV station. The line segment between the new 500kV station and Clover will be renumbered.
3. Security and fence type – design level 2.

#### **Network Upgrades Conceptual Design Notes:**

1. Engineered steel pole costs were determined based off typical wind and weight spans, line angles, and average structure heights for each voltage.
2. Engineered steel 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 Piedmont.
3. Survey costs were determined based on substation proposed location, fiber installation, and impacts on existing line.

### **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 AF2-042 GIA, and in PJM Manuals M01 and M14D. The details of applicable revenue metering requirements are given in section 4.1.6 Metering and Telecommunications of Dominion's Facility Interconnection Connection Requirement NERC Standard FAC-001 posted on PJM website.

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

- a. Hourly compensated MWh received from the Generating Facility to the TO;
- b. Hourly compensated MVARh received from the Generating Facility to the TO;
- c. Hourly compensated MWh delivered from the TO to the Generating Facility; and
- d. Hourly compensated MVARh delivered from the TO to the Generating Facility.

The Project Developer will access revenue meter via wireless transceivers or fiber cabling to meter with RS-485 or Ethernet communication port for dial-up reads. Project Developer must provide revenue and real time data to PJM from Project Developer Market Operations Center per "PJM Telemetry Data Exchange Summary" document available at PJM.com.

### **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, NERC Compliance Procedure FAC-001 (version 23), that is posted on PJM's website.

The Project Developer 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.

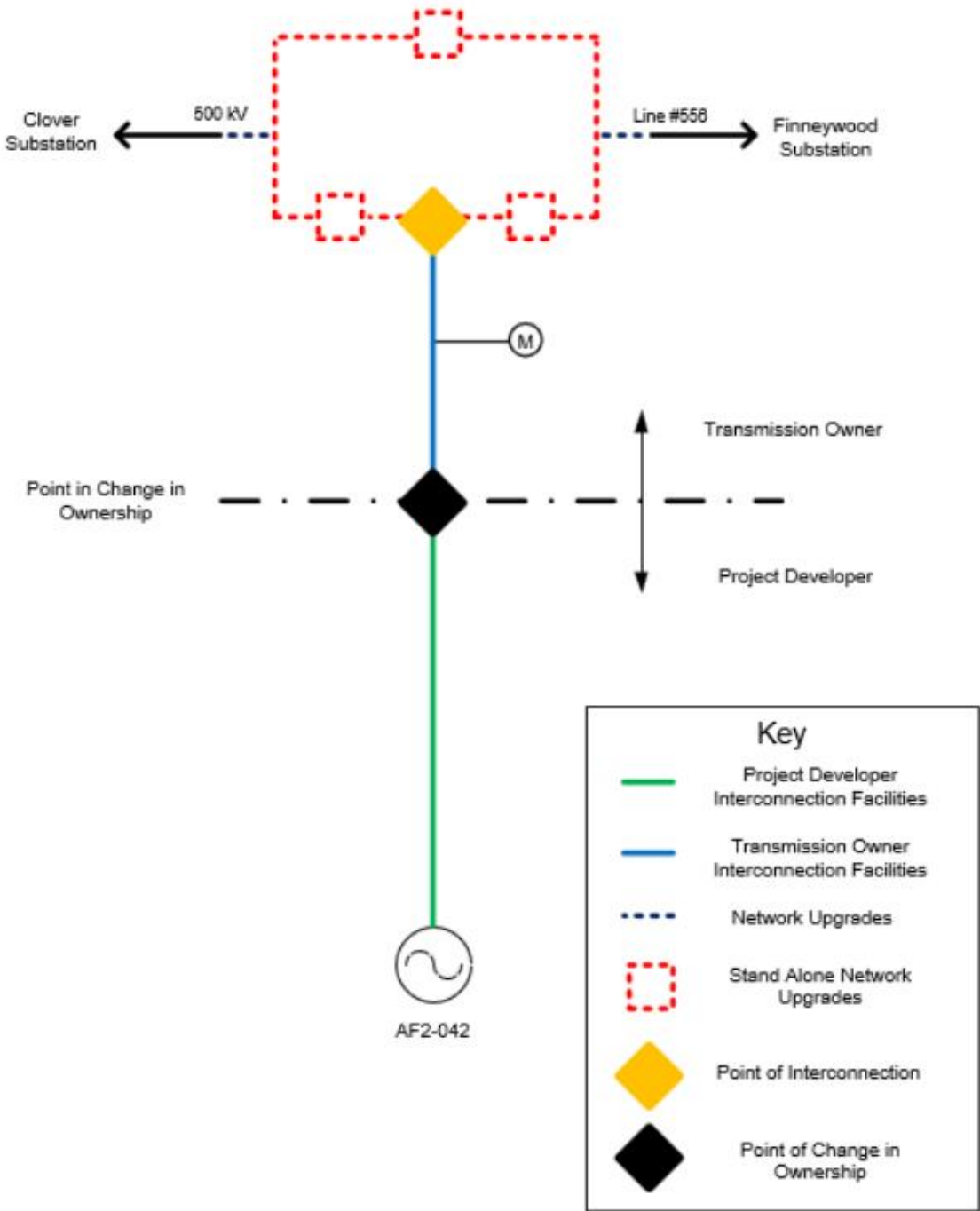
## **9. ENVIRONMENTAL AND PERMITTING**

The Project Developer 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

C. APPENDICES

Attachment #1: Single line Diagram for the Physical Interconnection



Attachment #2: Substation General Arrangement

