



Idylwood Substation Rebuild and Rearrangement Project

Case No. PUR-2017-00002

Quarterly Update Report

December 15, 2021



Background

On Sept. 8, 2021, the Virginia State Corporation Commission (“SCC”) issued an Order on Motion, authorizing Virginia Electric and Power Company d/b/a/ Dominion Energy Virginia (the “Company”) to extend the project construction to the new Dec. 31, 2026 in-service date for the Idylwood Substation Rebuild and Rearrangement Project (“Rebuild Project” or “Project”).¹

The Company, in part, requested the in-service date extension because:

The unanticipated delay in obtaining the necessary local approvals has disrupted the Company’s prior scheduling, sequencing, and planning for the construction of the Rebuild Project requiring the Company to release any prior outage requests it had made to support the prior schedule. In addition, the ability to obtain and coordinate both distribution- and transmission-side outages in northern Virginia, generally, and in the area of the Project, specifically, has become increasingly difficult due to customer and system loading. For example, because obtaining outages in the peak loading seasons of winter and summer generally is not possible, it essentially is mandatory that the work must be performed during the fall and spring. Moreover, the limited fall and spring outage windows must accommodate increased outage needs in the Northern Virginia area for ongoing projects and system needs. The Company also must coordinate its outages to ensure reliability contingencies in the area and must coordinate outages with certain customers, such as the Washington Metropolitan Area Transit Authority. Outages must be submitted months in advance. Adding to those scheduling difficulties, as part of compliance with its local approvals, construction is limited to certain times and must be performed in a manner that reduces noise to ensure the Company minimizes impacts to the nearby community. Recent work on another GIS project at a different substation has further informed the Company’s view on the added complexity of installation of new GIS systems. Finally, compounding these variables, to the greatest extent possible, the Company must keep the Idylwood Substation energized during project construction to meet the growing load needs of the surrounding areas. These current circumstances have led to more complex, on-the-ground

¹ *Application of Virginia Electric and Power Company For approval and certification of electric transmission facilities under Va. Code § 56-46.1 and the Utility Facilities Act, Va. Code § 56-265.1 et seq., PUR-2017-00002, Order on Motion at 4 (Sept. 8, 2021).*



logistics and construction sequencing than initially anticipated for this Project during the proceeding before the Commission.²

As required by the Order on Motion, the Company shall::

- Submit quarterly construction status updates regarding the Rebuild Project to the Director of the Commission’s Division of Public Utility Regulation until the Rebuild Project is completed or until further order of the Commission.
- Post each quarterly construction status update on the Company's website: www.DominionEnergy.com/shreve.
- Post its Construction Timeline on the website and update the Construction Timeline, as needed, to maintain accuracy.

Project Overview

The Idylwood Substation Rebuild Project rebuilds the existing Idylwood Substation on Shreve Road, originally built in the late 1950s, to support growing capacity and projected reliability concerns in the region. These enhancements will allow Dominion Energy to continue providing safe and reliable electric service to the community.

Due to the limited space at the site, Dominion Energy is investing in Gas Insulated Substation (“GIS”) technology. The existing substation currently uses Air-Insulated Technology. By utilizing GIS technology, Dominion Energy will be able to largely utilize the Substation’s existing footprint while modernizing the facility to meet area demand and minimizing impact to surrounding neighbors. GIS is the best available technology and offers several benefits:

- GIS equipment takes up less space, allowing Dominion Energy to accommodate growth in the area, while operating within the existing property;
- GIS is more reliable than traditional air-insulated substations, meaning fewer outages for customers; and
- GIS requires less maintenance than traditional substations.

Idylwood Substation is a necessary and important component of the electrical system and is critical in maintaining reliability for the area. As such, it is necessary that most of the substation equipment remain energized while crews perform their work. This increases the complexity of

² Application of Virginia Electric and Power Company For approval and certification of electric transmission facilities: Idylwood Substation Rebuild and Rearrangement of 230 kV Transmission Lines #202, #207, #251, #266, #2035, and #2097, PUR-2017-00002, Motion of Virginia Electric and Power Company for Relief from May 31, 2020 In-Service Date at 4-5 (Apr. 27, 2020).



the Project and has also impacted our timeline. To perform operations safely, crews must work in a limited space and temporarily relocate some of the equipment to install new equipment. Additionally, we must limit the number of crews working inside the substation at the same time.

Status Update

Each quarter, the Company will provide a construction update on the following information:

- Permitting
- Achievements
- Challenges
- Upcoming Construction
- Public Outreach and Communications
- Budget
- Noteworthy Changes

Permitting

The Company plans to submit a building permit application to Fairfax County for the future 230 kV GIS building in order to have approval by October 2022. The Company intends to work diligently with Fairfax County to obtain approval on time, but if permit approval is not obtained by this date, it could delay the construction schedule.

Achievements

Since the Commission's Sept. 8, 2021 Order on Motion, the Company has accomplished several milestones for the Project, including:

1. Completion of the 38 kV GIS building. Additional wiring and electrical work will continue.
2. Permanently relocated transmission line #2035 that will connect to the future 230 kV GIS. This was initially scheduled for 2024. However, the Company was able to complete this earlier than initially planned.
3. Completed oil containment vault for transformers and passed testing.
4. Began foundation work for phase one of the new brick wall in October 2021 – Shreve Road facing side. This is expected to be complete in Q1 2022.

Challenges

Although several key milestones have been achieved, the Company faced several challenges this quarter, including:

1. Concrete delivery delays – concrete is highly sought after in the northern Virginia area. On several occasions, concrete deliveries did not arrive on time or did not arrive at all. When deliveries were delayed until late afternoon, the Company had to reschedule the deliveries to avoid working beyond allowable construction hours. The rescheduled dates were several days to several weeks later.
2. Contractor delays – Wall foundation contractors failed to show up on the scheduled start date. Additionally, crews lost approximately two weeks of work while devising a new plan to avoid impacts to the tree save area and missed approximately six working days due to inclement weather.
3. Material delays – Shortage of steel and Solid Insulated Bus (SIB Bus) delivery delay from the Netherlands (the SIB Bus is needed before the temporary construction high bus can be energized).
4. COVID-19 exposures of multiple crews, including the on-site construction manager, caused a two-week project shutdown.

The Company anticipates concrete, material, and contractor delays may continue to be a challenge over the next several months. When possible, we are placing orders in advance with the most reliable concrete companies to minimize changes in delivery dates.

Upcoming Construction

1. Installing phase one of the new brick wall – Fall 2021 – February 2022
2. Solid Insulated Bus (SIB Bus) – November – December 2021
3. Energize Temporary Construction High Bus Structure – late January 2022
4. Install turn lane into the substation from Shreve Road – Spring 2022.
 - The project team has determined that the existing overhead Cox and Verizon lines will need to be relocated, as well as the streetlights, which are maintained by Dominion Energy, prior to installing the turn lane. The team is working with Cox and Verizon to expedite this process. However, their schedule is out of the Company's control.
5. Remove transformer #4 from service and the site – early 2022.
6. Underground distribution work at manholes on Shreve Road – early 2022

Public Outreach and Communications

The Company has been in communication with the Holly Crest HOA about the landscaping schedule and will prioritize the community's request to install landscaping as soon as possible. The anticipated timeframe to begin installation is spring or fall 2022, after phase one of the wall is complete and the turn lane has been installed.



Notification for the following activities will occur:

1. Energization of the Temporary Construction High Bus in January 2022.
2. Distribution work on Shreve Road – early 2022
3. Installation of the turn lane, which will require temporary sidewalk closures, in spring 2022.

Budget

\$80.02 million of \$159 million spent.

Noteworthy Changes

None.