

Dominion Energy – Elm Substation Modernization – May 2026

Town of Warrenton, VA – Special Use Permit (SUP-26-1)

Statement of Justification

Elm Substation is a dated substation with worn equipment and structures that are antiquated compared to current technology. Thus, there is a need to perform a complete station modernization to ensure safe and reliable electric service to the surrounding area. Because the site is zoned R-10, a Special Use Permit (administered via the Town of Warrenton) is needed to expand the station. The existing fence around the substation is 7' tall with 1' of barbed wire and the proposed 153 linear feet of new fenceline will match the existing fence (7' tall with 1' of barbed wire). Fences over 6' tall are not permitted on properties zoned R-10, and requires a Special Use Permit. The proposed fence is required for substation security to prevent human and animal interaction with the electric substation. It should be noted that the station is being modernized solely to replace aging equipment, and not to support new development in the area – the same amount of power/electricity will come through the station before and after the project is complete. As a result, the surrounding community will experience improved reliability and fewer power outages.

No land acquisition is necessary for this project, as it will be entirely contained on property owned by Dominion Energy. However, multiple parcels (all owned by Dominion Energy) along Linden Street will be combined into one parcel via a Boundary Line Adjustment (BLA) Plat process. It is our intent to have the BLA process track concurrently with the SUP process.

The site is located in a residential area near the intersection of Madison Street and Linden Street. The existing entrances from Madison Street and Linden Street will be used during and after construction – no new entrances are proposed. There are no wetlands or streams located on this site. The substation does not require a connection to the Town's water or sewer facilities. Traffic to the site after construction is complete will be limited to a few vehicles per month.

Access Narrative

Access During Construction

Access to the site during construction will primarily be made via the existing entrance gate on Linden Street. Secondary access will be provided off Madison Street. It is anticipated that 10+ vehicles could access the site daily during construction for material deliveries. 6-10 personnel are anticipated to be on site daily.

Loading and unloading will take place within the existing paved area outside of the substation (see SUP Exhibit). Daily construction traffic will primarily consist of passenger vehicles and pickup trucks. The largest vehicles anticipated during construction will be dump trucks, low-boy trailers, cement mixers, roll-off dumpsters, and wheeled cranes. Maintenance of traffic (MOT) and traffic control plans will be provided with the site plans as necessary.

Access After Construction

Once construction is complete, there will not be daily access to the site. It is estimated that 1 trip will be made to the site every month, dependent upon station needs, that will primarily consist of pickup trucks. This site will not

permanently store any additional material or vehicles. Primary access to the site will continue to be from the existing gate off Linden Street, with occasional use from the entrance off Madison Street.

Erosion and Sediment Control and Stormwater Management

Dominion Energy is a holder of Standards and Specifications for Erosion and Sediment Control and Stormwater Management that have been approved by the Virginia Department of Environmental Quality. Dominion Energy, rather than the Town of Warrenton, is responsible for self-administration to ensure compliance with these Standards & Specifications. The Town of Warrenton shall not conduct erosion and sediment control nor stormwater management reviews for this project. However, the Town of Warrenton is an MS-4 community, and therefore may comment on the plans due to any potential pollutants that may leave the site to ensure preventative measures are in place to prevent illicit discharge.

Evaluation Criteria; Issues for Consideration - per Town of Warrenton Zoning Ordinance §11-3.10.3)

1. Whether the proposed Special Use Permit is consistent with the Comprehensive Plan.

- a. The proposed Elm Substation Modernization project does not conform with the Town's Comprehensive Plan. Per the Town's Future Land Use map, the project site lies within a "Medium Density Residential" district, which does not currently permit the use of a substation. However, given that the site is an existing substation that has been in operation for quite some time, we feel that this conflict with the Town's Comprehensive Plan is not particularly detrimental and can be mitigated with the processing of this Special Use Permit (SUP) application.

2. Whether the proposed Special Use Permit will adequately provide for safety from fire hazards and have effective measures of fire control.

- a. In the event of a fire inside the substation, Dominion has specific guidelines that the Town Fire Department will be made aware of. These guidelines are provided below.
 - i. Burning electrical equipment is already ruined and will be replaced. The safest course of action is to let it burn.
 - ii. Contact Dominion and wait for their personnel to arrive. Never attempt to enter a substation without utility personnel present. Number to call: 800-684-8486
 - iii. Evacuate the area and keep everyone at least 300 feet away from the substation.
 - iv. Electrical equipment contains oil. Be alert for explosions and toxic smoke.
 - v. Protect area exposures to prevent fire from spreading.
 - vi. If an equipment fire must be suppressed, utility personnel and the incident commander will tell you how to proceed.

3. The level and impact of any noise emanating from the site, including that generated by the proposed use, in relation to the uses in the immediate area.

- a. The two new transformers will replace the old, outdated units and will reduce the decibel level currently produced by the station. The existing transformers have a factory tested sound level of 63dB at a distance of 6 feet. The proposed transformers have a maximum guaranteed sound level of 61dB at a distance of 6 feet. The transformers are the only pieces of equipment on site that generate any kind of substantial noise.

4. The glare or light that may be generated by the proposed use in relation to uses in the immediate area.

- a. There are two (2) proposed lights inside the station, both located on the control enclosure, at an approximate height of 9.5'. These lights are downward facing, will not spill over onto adjacent properties, and are for night-time security purposes. A cut sheet of the proposed fixture has been included with this submittal.

5. The proposed location, lighting and type of signs in relation to the proposed use, uses in the area, and the sign requirements of this ordinance.

- a. All proposed signage will be posted directly on the fence. These signs will not be individually lit. The proposed signage will be identical to what is present at the site today.
- b. For safety and security, there are "DANGER – KEEP OUT – HIGH VOLTAGE" signs posted at regular intervals around the perimeter chain-link fence. In addition, the two entrance gates into the station will remain locked at all times.



Picture 1 - Example photo of substation perimeter fence signage.

6. The compatibility of the proposed use with other existing or proposed uses in the neighborhood, and adjacent parcels.

- a. The existing use of the subject site is a substation and is proposed to remain as such. This use is not currently permitted in the R-10 zoning district, hence the need for a Special Use Permit to enlarge the station.

7. The location and area footprint with dimension (all drawn to scale), nature and height of existing or proposed buildings, structures, walls, and fences on site and within the neighborhood.

- a. The existing station is approximately 115' x 84', and the proposed station will be approximately 150' x 84', with the expansion being on the north side of the site (away from Madison Street). The existing chain link fence surrounding the station is the typical 2" mesh, 7' tall with 1' of barbed wire on top. The expanded fence line will match the existing chain link fence (see example photo below). Any sections/areas of existing fence that are damaged or unsightly will be replaced with this project.
- b. The Town's Ordinance currently prohibits the installation of any fence over the height of 6'. The applicant requests that the 7' tall fence with 1' of barbed wire be included in this Special Use Permit. The intent is for the new security fence to match the existing security fence that is there now.



Picture 2 - Example photo of existing security fence.

- c. The proposed equipment includes circuit breakers (12'± height), buswork (20'± height), transformers (18'± height), and a control enclosure (14'± height). The finish color for the proposed equipment will be predominantly galvanized steel (gray), with some aluminum (silver) and porcelain insulators mixed in. The proposed equipment at the substation is similar in appearance to what is there now, and is highlighted on the enclosed site plan drawing. There are also other nearby unsightly storage materials and containers/sheds outside of the substation that will be removed as a part of this project.

8. The nature and extent of existing or proposed landscaping, screening and buffering on the site and in the neighborhood.

- a. Per 8-8.4, the Town currently requires a 25' wide landscape buffer yard from the property line. However, this requirement would significantly encroach into the existing substation and is therefore not

feasible. Because of impacts to the operation of the station it would cause, we therefore respectfully request a Variance to this requirement. We propose a variable width landscape buffer along Madison Street and an 8' wide landscape buffer along Linden Street. There is existing landscaping around the substation that currently provides screening, but is in poor/unsightly condition. The Applicant proposes to clean up/remove the existing landscaping and replace it with upgraded/new evergreen plantings to improve the screening and aesthetics of the substation.

9. The timing and phasing of the proposed development and the duration of the proposed use.

- a. The proposed construction will not be phased (i.e. Phase 1, Phase 2, etc.) - it will be performed at one time. Once the construction is complete and the station is energized, it will remain in the energized state unless there is a planned outage for maintenance or emergency. In other words, the substation is not on/energized only at certain times of the day – it is on 24/7/365.

10. Whether the proposed Special Use Permit will result in the preservation or destruction, loss or damage of any significant topographic or physical, natural, scenic, archeological, or historic feature.

- a. The proposed project will not impact any significant topographic or physical, natural, scenic, archeological, or historic features.

11. Whether the proposed Special Use Permit at the specified location will contribute to or promote the welfare or convenience of the public.

- a. The proposed project will enhance the reliability of electric service to residential and commercial customers in the area.

12. The traffic expected to be generated by the proposed use, the adequacy of access roads and the vehicular and pedestrian circulation elements (on and off-site) of the proposed use, all in relation to the public's interest in pedestrian and vehicular safety, efficient traffic movement and access in case of fire or catastrophe.

- a. Traffic to the site after construction is complete will be limited to a few vehicles per month. The site is not located in a heavy pedestrian corridor (i.e. no sidewalks or walkways), and therefore will not have an impact on foot traffic.

13. Whether the proposed use will facilitate orderly and safe road development and transportation.

- a. Access to the substation will be provided by two (2) existing entrances - one off Madison Street and one off Linden Street. The entrance off Madison Street will be widened to enhance vehicle maneuverability into and out of the site. Primary access to the site will be provided by the existing gate off Linden Street.

14. Whether, in the case of existing structures proposed to be converted to uses requiring a Special Use Permit, the structures meet all code requirements of the Town of Warrenton.

- a. No existing structures will be converted to a use requiring a Special Use Permit.

15. Whether the proposed Special Use Permit will be served adequately by essential facilities, services and utilities.

- a. There is no water or sewer service to the site – existing or proposed.

16. The effect of the proposed Special Use Permit on environmentally sensitive land or natural features, wildlife habitat and vegetation, water and air quality.

- a. There will be no impacts to environmentally sensitive land/natural features, wildlife habitat/vegetation, or water/air quality as a result of this project. Erosion and sediment controls will be in place throughout construction that will prevent sediment from leaving the site and protect water quality. In addition, there will be dust control on site to protect air quality, and measures to prevent sediment/dirt from being tracked onto the neighborhood roads.

17. Whether the proposed Special Use Permit use will provide desirable employment and enlarge the tax base by encouraging economic development activities consistent with the Comprehensive Plan.

- a. N/A – this substation will not feature any personnel on site on a full-time basis.

18. The effect of the proposed Special Use Permit use in enhancing affordable shelter opportunities for residents of the Town, if applicable.

- a. N/A

19. The location, character, and size of any outdoor storage.

- a. The existing equipment/material stored on site will be removed. Outdoor storage is not being proposed with this Special Use Permit.

20. The proposed use of open space.

- a. There are no proposed/new open space areas. However, the existing grassed/vacant lots behind the substation to the north will be joined with the substation parcel (via the Boundary Line Adjustment process). These areas will remain grassed/vacant.

21. The location of any major floodplain and steep slopes.

- a. There are no major floodplains or steep slopes located on site.

22. The location and use of any existing non-conforming uses and structures.

- a. The existing and proposed use of this site is a substation which is a non-conforming use, hence the need for a Special Use Permit. Outdoor storage of materials & equipment, also a non-conforming use, is not being proposed with this Special Use Permit.

23. The location and type of any fuel and fuel storage.

- a. N/A

24. The location and use of any anticipated accessory uses and structures.

- a. The existing sheds on site will be removed with this project. No new structures outside of the substation are proposed.

25. The area of each proposed use.

- a. The existing station is approximately 115' x 84', and the proposed station will be approximately 150' x 84', with the expansion being on the north side of the site (away from Madison Street).

26. The proposed days/hours of operation

- a. The substation will continuously be in use and remotely monitored. There will not be an employee on site daily.

27. The location and screen of parking and loading spaces and/or areas.

- a. There are no permanent/dedicated parking spaces or loading spaces - any parking on site will be temporary/short-term. The existing paved area behind the station will be used for parking during maintenance operations or outages. The attached SUP Exhibit identified areas for parking and loading during construction.

28. The location and nature of any proposed security features and provisions.

- a. Security cameras will be located on site to monitor the substation. The substation is currently secured with a 7' tall chain link fence with 1' of barbed wire. The proposed expansion of the fence line will match the existing fence. The two (2) entrance gates into the station are locked.

29. The number of employees.

- a. There will not be an employee on site daily – the station is not manned.

30. The location of any existing and/or proposed adequate on and off-site infrastructure.

- a. See the attached SUP concept plan for the location of existing and proposed infrastructure. There is no off-site infrastructure proposed.

31. Any anticipated odors which may be generated by the uses on site.

- a. There are no anticipated odors associated with the site.

32. Refuse and service areas.

- a. There are no refuse or services areas associated with the site.