CENTRAL VIRGINIA ELECTRIC COOPERATIVE

SPECIAL USE PERMIT – RESPONSES

Project Proposal

- Its public need or benefit

  The existing 115 kV transmission line is 40+ years of age and needs to be replaced due to deterioration of the wood poles and wood cross-arms. This upgrade will increase the reliability of the CVEC system. The transmission line is a radial feed to four other substations serving almost 6,750 customers, including the Wintergreen Resort area. CVEC has had several outages within the past three years which affected all 6,750 customers.

- How the special use will not be a substantial detriment to adjacent lots

  CVEC will be rebuilding an existing 115 kV Transmission Line starting from thunder ridge road to the CVEC Martin's Store Substation southwest approximately 6.98 miles with using approved entrances. No impacts to adjacent lots will occur.

- How the character of the zoning district will not be changed by the proposed special use, and how the special use will be in harmony with the following;

  - The purpose and intent of the Zoning Ordinance,
    o the uses permitted by right in the zoning district

    The transmission line falls within the Rural Areas zoning classification and within the "Rural Area 3" of the Comprehensive Plan per the https://gisweb.albemarle.org website. The utility is a permitted use by right in the zoning district and the rebuild project will be in harmony with the intent of the Ordinance.

    o the regulations provided in Section 5 of the Zoning Ordinance as applicable

    Chapter 5 Building Regulations of the Albemarle County Code of Ordinances does not apply to this project. Please see "Consistency with Comprehensive Plan" section below..

    o the public health, safety and general welfare.

    Per the USDA's RUS website, "providing reliable … electricity is essential to sustaining the economic well-being and quality of life for all the nation's rural residents." Replacing a deteriorated line protects the public by avoiding downed powerlines and dangerous accidents as well as keeping the power on to the homes

and businesses whose residents need reliable electricity to ensure their safety and comfort in day-to-day life.

Consistency with the Comprehensive Plan

This rebuild project falls in line with the spirit of the Comprehensive Plan which discusses the future of the county zoning and planning efforts. Objective 10, Strategy 10a (ACP, S-53) of the Comprehensive Plan ensures the "adequate provision of electricity…to support existing and anticipated development in the County through coordination with utility companies." Strategy 8c (ACP, 5.19) outlines corridor guidelines for utilities, however a transmission line Right of Way requires the area to be free of large trees and bushes to maintain safety for the general public, avoid damage to the energized line and to ensure reliable power and does not apply to this situation. (ACP, S-19).

Impacts on Public Facilities and Public Infrastructure

Properties surrounding the transmission line are rural with a mix of vacant, residential, farmland, hunting property, etc. All right of way is clear with a mix of maintained fields. No disruptions to traffic are anticipated. CVEC is working with property owners to determine access to their right of way and will make arrangements with impacted landowners. Multiple access points will be utilized along the transmission route as designated on the attached sketch plan. The majority of the work will take place Monday through Friday from 7:00 am to 5:00 pm. Some work may occur outside those hours as needed, such as to complete a phase of construction that would be impractical or dangerous to stop mid process, or in an effort to reduce impacts to customers, such as taking outages.

Impacts on Environmental Features

No impacts are expected from the proposed project due to the work being performed in an existing Right-of-Way. The design will avoid sensitive areas, and matting will be utilized for any work in a wetland or sensitive area. All work will be performed with a rubber-tracked vehicle throughout the project length. Existing right of way includes multiple overhead crossings of Stillhouse Creek, Perry Creek, Taylor Creek, Rockfish River, Paul's Creek and other unnamed tributaries lying with the Lower Mechums River Water Supply Watershed.

Most of the proposed pole locations are accessible through existing dirt roads and access points avoiding waterbodies; other pole locations will be accessed through private properties and direct access from roads. CVEC is working with property owners to determine access to the work areas if not accessible directly from the DOT road. If any waterbodies are to be crossed, bridging and matting following the standard erosion and sedimentation control measures will be employed. The existing Right-of-Way is maintained and eliminates the need for clearing along the project area. Minor clearing of brush and saplings will take place if needed for access to new structures, no grading is planned.

One or more maps showing the proposed project's regional context and existing natural and manmade physical conditions

Attached – see Site Plans

A conceptual plan showing the existing and proposed facilities (towers/poles, lines, other related facilities)

Attached – see Site Plans

1) Entrance, driveways, and parking (application/plan should distinguish between new permanent entrances/access roads, temporary construction entrances, and existing access ways)

   Attached- See Access Plan Drawings showing entrances and access points to project areas.

2) Typical cross-sections to show proportions, scale and streetscape/cross sections/circulation; (For this project, show cross-sections or photo-simulations of ground-level views of the proposed towers, to demonstrate appearance in landscape)

   See "Typical Cross Section" drawing attached.

3) The general location of pedestrian and bicycle facilities

   Not applicable

4) Building envelopes, (only if new structures or substation equipment are proposed)

   Not applicable

5) Parking envelopes (only if new parking is proposed)

   Not applicable

6) Public spaces and amenities

   Not applicable

7) Areas to be designated as conservation and/or preservation areas; (see note below about vegetation management)

   Not applicable

8) Conceptual stormwater detention facility locations

Not applicable

8) Conceptual grading (if any is proposed)

Not applicable

Other Special Studies or documentation, if applicable, and any other information identified as necessary by the county on the pre-application comment form.

- Narrative should address plans for vegetation management in the corridor. Another SP recently approved by the Board included requirements (in line with that utility's plan) to apply Integrated Vegetation Management (IVM) within the corridor rather than moving/clearing. If possible, we would recommend that this proposal also include the use of IVM.

Central Virginia Electric Cooperative (CVEC) performs extensive work each year to cut and maintain rights-of-way for new and existing electric lines along its 4,500-mile system utilizing Integrated Vegetation Management (IVM). Well-maintained rights-of-way are essential to providing reliable and safe electric service as well as ideal habitats for wildlife and low-growth vegetation. In December 2019, CVEC was awarded a "Habitat Partners© Certificate" from the Virginia Department of Game and Inland Fisheries (DGIF) for work done to maintain their rights-of-way. The Certificate is awarded as part of the DGIF's Corporate Habitat program and is open to businesses and industries interested in habitat improvement projects on their lands which will make a substantial contribution to the welfare of wildlife communities. CVEC was awarded the certificate for recognition of their large-scale habitat management efforts in its rights-of-way to control invasive exotic species, minimize mowing and herbicide applications, and promote the growth of native perennial flowers, grasses, and sedges, which support a great diversity of wildlife species such as pollinators and quail. In an effort to protect milkweed plants and honeybee hives in/near the rights-of-way, CVEC uses its vegetation management software to map areas where the plants or hives are located, ensuring they are not disturbed by crews or contractors working in the area.

CVEC also made use of its vegetation management system to remove trees that are crowding and shading plants vital to pollinators, including milkweed – the Monarch butterfly plant of choice. CVEC's vegetation management efforts promise positive results for both the environment and CVEC's service reliability. CVEC invests more than $2.5 million annually in its vegetation management system in order to increase reliability for its members and to remove danger trees from areas near the electric lines. Clearing the rights-of-way also allows safe access for CVEC linemen and trucks if the power needs to be restored or lines need to be repaired or upgraded. The investment in vegetation management is paying off and, by systematically clearing the

rights-of-way, CVEC is making room for plants and habitat that are critical to the survival of pollinators and other wildlife species.



- Narrative should address need for upgrade and for increased pole/wire height.

1. Need for Upgrade and increased pole/wire height

This transmission line project does not include a capacity upgrade. The existing conductor is 336 ACSR and the new conductor will remain 336 ACSR. The transmission line project is an upgrade to the poles only. The existing 115 kV transmission line is 40+ years of age and needs to be replaced due to deterioration of the wood poles and wood cross-arms. The transmission line is a radial feed to four other substations serving almost 6,750 customers, including the Wintergreen Resort area. CVEC has had several outages within the past three years which affected all 6,750 customers.

Rebuilding the existing 115 kV transmission line will provide a substantial increase in reliability to the customers served. The existing 115 kV Transmission Line is constructed with wood poles on an H-frame construction primarily near the west side of the CVEC easement. The existing 115 kV poles range in height from 60' to 70'. The new 115 kV Transmission Line to replace the existing

transmission line will be a single-pole design on ductile iron poles with vertical construction and a three-phase distribution underbuild. Ductile iron poles are resistant to woodpeckers, insects, and rot, and has a weathered Natural Finish, which is bare iron and looks similar to a wood pole finish. The new 115 kV poles will range in height from 70' to 95'. The existing 115 kV H-frame transmission line will be removed once the new line is constructed. The new 115 kV single-pole transmission line will be constructed near the center of the existing 150' CVEC easement. No additional easement will be required. Therefore, due to going from a two-pole structure with flat construction on cross-arms to a single pole structure with vertical construction and underbuilding the distribution on the transmission line, the new poles require additional height to maintain proper clearances. The single pole construction will clean up the transmission line and easement by reducing the overall number of poles required and make the visual impact much more pleasant.

2. Reasons for addressing only a portion of the corridor

CVEC has completed the rebuilding of the existing 115 kV Transmission Line from the CVEC Midway Substation southwest approximately 3.85 miles all the way through thunder ridge road. This project proposed to complete the remaining 6.98 miles of the existing 115 kV Transmission Line from thunder ridge road through the Martin's Store substation.