**Proposed Action:** Carlton Area Transmission Upgrades

**Project No.:** P01367

**Project Manager:** Jay Chester, TEPS-TPP-1

**Location:** Yamhill County, Oregon

**Categorical Exclusion Applied (from Subpart D, 10 C.F.R. Part 1021):** B4.6 Additions and modifications to transmission facilities

**Description of the Proposed Action:** Bonneville Power Administration (BPA) proposes to conduct a variety of transmission line and substation upgrades in and near the Carlton Substation in Yamhill County, Oregon. The project would enhance the flexibility and reliability of operations and maintenance in the Carlton, Oregon area of the BPA transmission system.

The upgrades would take place on BPA-owned land, including inside the Carlton Substation, and in an adjacent, previously-disturbed transmission line corridor. Outside the substation fence, in the vegetated (grass-dominated) corridor, the current Forest Grove-McMinnville No. 1 115kV transmission line (FORG-MCMI) would be converted from a tap to a ‘loop’ into Carlton Substation. The existing disconnect switching structure 19/7 on the FORG-MCMI line – situated about 100 feet from the northwest corner of the substation fence – would be removed.

Approximately 74 feet to the south, a new tower structure would be installed to turn and support the new northern half of the loop. An additional 147 feet farther south along the FORG-MCMI line (and about 100 feet outside the substation fence), a new transmission tower structure would replace the existing 19/8 structure. This new structure would support the turn of the new southern half of the loop. There would be disturbance of the corridor ground and vegetation in removing the old structures and installing the new structures and accompanying guy wire anchors. Access by construction equipment would be over vegetation within the right-of-way or in an adjacent agricultural field since no developed access road is present in this section of transmission line corridor. Equipment would be staged either in the BPA vegetated corridor or inside the substation fence.

Inside the substation fence, the project would install a new bay (includes buried footings and aboveground steel buswork support framing) into which the northerly section of the line from Forest Grove would terminate. The other end of the new transmission line loop would terminate in an existing bay. Circuit breakers, voltage transformers, disconnect switches, surge arresters, and seismic support risers would be among the equipment upgraded or added to the 115kV bays as well as to the 230kV section of the yard to the east of the 115kV section. All substation installations requiring footings would disrupt the graveled surface but there would be no expansion of total graveled or impermeable area by the project.
The existing control house would remain in place, and a new separate control house would be built about ten feet to the west of the existing structure. The old building would continue to host controls for some transmission lines while some would be connected to the new building. Foundation excavation and all trenching required for new connections from equipment to the new building would be inside the substation yard. The electric utility service connection point for the substation would be replaced and the meter and transformer relocated to avoid interference with the new building. New AC and DC fuse panels would be installed in the yard and buildings. Lastly, there would be upgrades and new installations of electronic equipment, component racks, and wiring in the control houses.

**Findings:** In accordance with Section 1021.410(b) of the Department of Energy’s (DOE) National Environmental Policy Act (NEPA) Regulations (57 FR 15144, Apr. 24, 1992, as amended at 61 FR 36221-36243, Jul. 9, 1996; 61 FR 64608, Dec. 6, 1996, 76 FR 63764, Nov. 14, 2011), BPA has determined that the proposed action:

1) fits within a class of actions listed in Appendix B of 10 CFR 1021, Subpart D (see attached Environmental Checklist);
2) does not present any extraordinary circumstances that may affect the significance of the environmental effects of the proposal; and
3) has not been segmented to meet the definition of a categorical exclusion.

Based on these determinations, BPA finds that the proposed action is categorically excluded from further NEPA review.

/s/ Michael J. O’Connell  
Michael J. O’Connell  
Environmental Protection Specialist

Concur:

/s/ Katey C. Grange July 21, 2021  
Katey C. Grange  
Date  
NEPA Compliance Officer

Attachment(s): Environmental Checklist
Categorical Exclusion Environmental Checklist

This checklist documents environmental considerations for the proposed project and explains why the project would not have the potential to cause significant impacts on environmentally sensitive resources and would meet other integral elements of the applied categorical exclusion.

**Proposed Action:** Carlton Area Transmission Upgrades

**Project Site Description**

Carlton Substation and the transmission line right-of-way work area in Yamhill County, Oregon cover approximately 7 acres, and are situated on the edge of a narrow wooded stream corridor (Hawn Creek) that is surrounded by agricultural land of the Willamette Valley. Vegetation of the existing right-of-way access route is frequently maintained low grass cover and the transmission line right-of-way contains a mix of very thickly thatched tall grass cover, some small woody plants, and Himalayan blackberry. There is a National Wetlands Inventory-designated forested wetland to the southeast of the project area and seasonally saturated areas in the right-of-way construction access zone.

**Evaluation of Potential Impacts to Environmental Resources**

1. **Historic and Cultural Resources**

   Potential for Significance: No with Conditions

   **Explanation:** A BPA archeologist surveyed the project area and determined that the project would be unlikely to affect historic properties. On May 2, 2018, the Oregon State Historic Preservation Office concurred with the BPA determination, finalizing BPA compliance with Section 106 of the National Historic Preservation Act.

   **Notes:**
   - Stop all ground-disturbing work immediately if there is an inadvertent discovery of archeological artifacts and contact the BPA cultural resources staff.

2. **Geology and Soils**

   Potential for Significance: No with Conditions

   **Explanation:** There would be about 0.2 acres of temporary ground disturbance in the vegetated transmission right-of-way. About 0.02 acres of this would be permanent disturbance at the new and replaced structure locations. BPA would implement, and require contractors to implement, best management practices (BMPs) that would contain soils excavated for the project. No above-ground geological resources would be impacted, and a geotechnical investigation report prepared for the project demonstrates that there should be no obstructing bedrock at the anticipated burial depths for new or replacement structures.

   **Notes:**
   - Follow all applicable BMPs and adjust them as conditions dictate to prevent soil loss through runoff or wind.

3. **Plants (including Federal/state special-status species and habitats)**

   Potential for Significance: No with Conditions
Explanation: Work would cut, crush, or scrape plants from work areas, temporarily impacting about 0.2 acres of vegetation. The adjacent agricultural field would be an access option for construction traffic. About 0.3 acres of crops may be crushed if this option were chosen for access.

Within about six miles of Carlton Substation, there have been recorded observations of the federally listed plants: Nelson’s checker-mallow and Kincaid’s lupine; and of the federal species of concern, thin-leaved peavine. A query of the US Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) web-based Endangered Species Act (ESA) compliance tool also lists Willamette Daisy, water howellia, and Bradshaw’s desert-parsley as being potentially present in the Carlton Substation vicinity. There is a potential for the state-candidate meadow checker-mallow and thin-leaved peavine, though there are no recent detections within 2.5 miles of the project areas.

A general pedestrian survey of the transmission line work area found little evidence of forbs. The area to be impacted by the project is not a known population location of the listed Willamette Valley species. Also, since the work area is a small strip of open, regularly maintained vegetation bounded by intensive agriculture or a narrow forested riparian area, existing populations of the mainly prairie species would be unlikely to seed in. For these reasons, there would be no effect to the ESA-listed, species of concern, or state candidate plant species of the area.

Notes:
- Use a BPA-approved native seed mix to replant and restore all disturbed vegetation cover except for the agricultural crops. BPA recommends Heritage Seedlings’ (Salem, OR) Disturbed Ground/Late Seeding Mix & Grasses at eight pounds per acre. This mix will provide native pollinator habitat while stabilizing soil. If seeding during the fall season conflicts with the ground disturbance schedule, alert the EC and EP leads so another cover replacement solution can be provided.

4. Wildlife (including Federal/state special-status species and habitats)

Potential for Significance: No with Conditions

Explanation: ESA-threatened streaked horned lark occurrences have been verified on either side of the Hawn Creek corridor near Carlton Substation in agricultural fields. The species prefers low and sparse plant cover. While the last documented occurrence was recorded there in 2014, Oregon USFWS personnel confirmed in April 2019 that streaked horned lark would be highly unlikely to utilize the project area in the transmission corridor because of its thick vegetation and the proximity of forest borders. The other wildlife species from the ESA threatened and endangered (marbled murrelet, Northern spotted owl, and Fender’s blue butterfly) or species of concern (Oregon giant earthworm, Western pond turtle, American grass bug) list that could occur in the vicinity would be unlikely to occur near the substation since typical habitat is not present or otherwise potential habitat is too frequently disrupted by transmission operations and maintenance to host rare species. Bald eagles would be unlikely to nest nearby since Hawn Creek is a small riparian corridor that would not support eagle food needs. For these reasons, there would be no effect to the ESA-listed, nor any effect upon species of concern, eagles, or state candidate wildlife species of the area. Migratory birds would be unaffected because of timing controls listed below.

Notes:
- If the agricultural field is to be used for construction access, do so after August 31 and before April 15 to eliminate any potential to encounter breeding streaked horned larks.
- If vegetation must be crushed or cleared in the other BPA transmission and access rights-of-way of the project area, do so after July 15 and before March 15 to avoid disturbing other breeding birds protected under the Migratory Bird Treaty Act.
5. Water Bodies, Floodplains, and Fish (including Federal/state special-status species, ESUs, and habitats)

Potential for Significance: No with Conditions

Explanation: Carlton Substation is within hydrologic units of a distinct population segment of Upper Willamette steelhead and of an evolutionarily significant Unit of Upper Willamette Chinook Salmon. The transmission line corridor work would be limited to the transmission corridor and BMP’s would restrict sediments to the work area and prevent transport to the nearby (approximately 340 feet to the south) intermittent stream.

Notes:
- Establish all applicable BMPs to: contain soil materials onsite, revegetate bare ground, and prevent and contain any hazardous materials.

6. Wetlands

Potential for Significance: No with Conditions

Explanation: The BPA access road corridor that may be used as a route of construction travel has not been surveyed for wetlands, but it crosses a seasonally-saturated intermittent drainage where standing water may be present during wet periods. Construction vehicles using the route of travel when soils are unsaturated – typically in the dry summer months of July and August – would have no impact on potential wetlands. If the route is used during wet periods, the route would be protected by wetland matting and tracked vehicles would be used, but the project may still have temporary impacts to the saturated feature. However, these impacts would not rise to the level of needing wetland delineation and formal wetland fill permitting with the US Army Corps of Engineers (USACE) under the Clean Water Act, nor a Preconstruction Notification of the activity. The potential area of wetland matting would be below the reporting threshold of 0.1 acre of temporary matting installation as stipulated by the authorizing Nationwide Permit 57.

Notes:
- Avoid standing water and wet areas. If avoidance cannot be achieved, use tracked vehicles and place wetland matting in wet areas to be traversed by vehicles and equipment. The area of temporary matting must not exceed 0.1 acre, and all other applicable USACE National and Regional Permit conditions must be implemented. If these controls are not viable for the project, all access to the transmission corridor must be through the graveled substation or as permissions allow (see Landowner Coordination, below), the adjacent agricultural field outside streaked horned lark breeding period which runs from April 15 to August 31.

7. Groundwater and Aquifers

Potential for Significance: No

Explanation: Groundwater could be encountered in tower structure removal, replacement, and installation, but BMPs, such as the use of spill kits, would be implemented to prevent and contain spills of hazardous substances.

8. Land Use and Specially-Designated Areas

Potential for Significance: No with Conditions

Explanation: All work would take place on BPA-owned land. If BPA determines there is a need to access the adjacent agricultural field (BPA fee-owned land being cultivated by the adjacent landowner) as a route of travel, BPA would provide a courtesy 30-day notice. Because the
land is owned by BPA for the operation of transmission lines, the farmer has knowingly taken on the risk of crop loss. Therefore, construction activity would not change the land use beyond the construction timeframe.

Notes:
- Contact the adjacent landowner using BPA fee-owned lands if there becomes a need to traverse the adjacent agricultural areas.

9. Visual Quality
Potential for Significance: No

Explanation: All work would be replacement in-kind, or new installations of similar appearance and size whereby the project would not change the overall viewscape as is currently visible from the standard perspectives of nearby farms or roads.

10. Air Quality
Potential for Significance: No

Explanation: There would be temporary increases in localized vehicle and equipment fuel combustion emissions. Because the area is rural, the temporary air emissions would dilute freely.

11. Noise
Potential for Significance: No

Explanation: There would be intermittent loud construction noises, but it would be limited to typical working hours. The substation is surrounded by open areas and noise generated there would dissipate to tolerable levels for neighboring properties.

12. Human Health and Safety
Potential for Significance: No

Explanation: Workers would follow applicable state and BPA safety protocols; safety of the public or adjacent landowners would not be affected by the work.

Evaluation of Other Integral Elements

The proposed project would also meet conditions that are integral elements of the categorical exclusion. The project would not:

Threaten a violation of applicable statutory, regulatory, or permit requirements for environment, safety, and health, or similar requirements of DOE or Executive Orders.

Explanation: N/A

Require siting and construction or major expansion of waste storage, disposal, recovery, or treatment facilities (including incinerators) that are not otherwise categorically excluded.

Explanation: N/A
Disturb hazardous substances, pollutants, contaminants, or CERCLA excluded petroleum and natural gas products that preexist in the environment such that there would be uncontrolled or unpermitted releases.

Explanation: N/A

Involve genetically engineered organisms, synthetic biology, governmentally designated noxious weeds, or invasive species, unless the proposed activity would be contained or confined in a manner designed and operated to prevent unauthorized release into the environment and conducted in accordance with applicable requirements, such as those of the Department of Agriculture, the Environmental Protection Agency, and the National Institutes of Health.

Explanation: N/A

**Landowner Notification, Involvement, or Coordination**

*Description:* All project-related work would occur on BPA fee-owned land. BPA would provide at least 30-days’ notice to the adjacent agricultural field users if it would be utilized for construction access. The BPA Chemawa District Realty representative would provide the contact information. There would be no need to contact other adjacent landowners based on current knowledge. If the need to access other adjacent properties arises, BPA would initiate the process to secure rights.

Based on the foregoing, this proposed project does not have the potential to cause significant impacts to any environmentally sensitive resource.

Signed: /s/ Michael J. O’Connell

Michael J. O’Connell, ECT-4

Environmental Protection Specialist

July 21, 2021

Date