Categorical Exclusion Determination

Bonneville Power Administration
Department of Energy

Proposed Action: Alvey Substation 115kV Line and Substation Equipment Upgrades

Project No.: P02250

Project Manager: Debbie Staats – TEPS-TPP-1

Location: Lane 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: BPA is proposing to upgrade substation equipment and associated reconfiguration of some transmission lines' approach and termination connection to the Alvey Substation in Goshen, Oregon. The work would prevent potentially unreliable conditions during a forced outage and improve relay protection during routine switching.

Transmission line termination changes inside the substation yard would include the 115kV Lookout Point to Alvey No. 1 line, which would be reterminated from bay 5 to bay 12, and the 115kV Springfield Utility Board line (Alvey to 10th Street), which would be reterminated from bay 7 to bay 8. To accommodate these moves, BPA would install a 40-foot-tall transmission line deadend structure, two new sectionalizing breakers, two new disconnect switches, new controls for the disconnect switches, and bus differential relays. Additional planned yard upgrades would include adding surge arrestors to several bays, replacing a potential transformer and adding an additional one, rebuilding switchyard foundations, and rerouting the existing road within the substation. A base isolation system for a transformer bank would entail drilling shafts or micropiles for the transformer and transformer deadend structure. A basin would also need to be excavated at the transformer location to provide equal volume capture for the transformer in the event of a fluid leak.

Affected transmission lines (115kV Alvey to Capacitor Tie No. 1, in addition to the Lookout Point to Alvey No. 1 and Springfield Utility Board lines) would also have some pole structures relocated. The lines would be rerouted in the vegetated line corridors adjacent to the substation. All structures planned for replacement are wood-pole type and some have associated guy anchors that would need to be buried. To accommodate construction, crew operations and staging areas, the estimated area of disturbance is a 100-feet by 100-feet square around each structure. The following are the structures that would be impacted: Lookout Point to Alvey No. 1 line structures 16/7, 16/8, and 16/9; Springfield Utility Board line structure 1/1; and Alvey to Capacitor Tie line structure 1/1.

There would be associated guy wire with plate-style anchor installations, and counterpoise grounding line installations that would radiate from structures for about 50 feet. Counterpoise would be installed by trenching six, 12-inch-wide and 18-inch-deep paths from the five structures outside the substation fence and installing metal wire connected to the tower poles then

backfilling. The deadend structure to be installed in the substation would be connected to the existing grounding mat. There would be a total of 26 plate anchors installed at structures' guy wire ends. Each plate anchor installation would disturb approximately 21 square feet at the ground surface, and bury a 28-inch-square plate at a depth of about ten feet.

The work in the vegetated corridor would require removal of two small groves of mixed deciduous and coniferous trees in the adjacent open area of the BPA-owned Alvey land parcel. The westernmost grove has a maximum height of about 55 feet, and the grove to the east, nearer to the substation, has a maximum height of about 25 feet. In all, about 12 trees would be removed. All ground disturbance would be temporary except where new wood poles are positioned: crews would backfill with excavated soils, and a native grass seed mix would be applied to replace cover vegetation.

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 8, 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: Alvey Substation 115kV Line and Substation Equipment Upgrades

Project Site Description

Alvey Substation and the adjoined Alvey Maintenance Headquarters constitute nearly 40 acres of developed area in the Coast Range foothills of the Willamette Valley. The nearby transmission corridors are mainly grass-dominated with intermittent forbs and small woody plants, having been maintained by mowing. These areas grade into Douglas-fir dominated woodlands to the west where the transmission lines of concern in this project enter higher-elevation wooded corridors. There are BPA-mapped wetland features about 320 feet to the south of the open corridor where work would take place; there is a drainage ditch around the substation that is not a mapped wetland feature but supports wetland obligate plants. It was completely dry during the July 2020 visit. There are no open water features in proximity to the project site, with the nearest creek about 0.6 miles to the south, and the Coast Fork Willamette River (potential habitat for multiple protected fish species) about 1.4 miles to the east.

Evaluation of Potential Impacts to Environmental Resources

1. Historic and Cultural Resources

Potential for Significance: No

Explanation: A BPA archeologist performed a pedestrian survey of the entire project area and determined that the work would have No Adverse Effects on Historic Properties per §36 CFR 800.5(b). A determination letter was sent to the consulted tribes (Confederated Tribes of Warm Springs, and Confederated Tribes of Grande Ronde) and the Oregon State Historic Preservation Office on March 16, 2021. No response was received from the consulting parties.

2. Geology and Soils

Potential for Significance: No with Conditions

Explanation: There would be about 2 acres of temporary ground disturbance in the vegetated transmission right-of-way. This would result from staging and operating heavy equipment (potential scraping, rutting, and compaction) at the structure sites slated for removal and replacement, the counterpoise trenching, and the tree removal. The new wood pole structures would constitute the permanent ground disturbance of the project totaling approximately 0.05 acre. BPA would implement, and require contractors to implement, best management practices (BMPs) that would contain soils excavated for the project. The work would have no impact on the geology of the transmission corridor area. Work inside the substation yard would disturb man-made surfaces only, and would excavate fill and some natural soil underlying the fill. All materials excavated would be used as to the maximum extent possible.

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 up to 2 acres of vegetation, and permanently removing about 12 small to medium stature trees. A special-status vegetation survey was performed by a BPA botanist in July 2020 and found the vast majority of the work areas were dominated by non-native upland grasses and non-native forbs. There are minor occurrences of native forbs and native shrubs, and there are several small groves of native trees. Regular mowing has maintained overall low-growing species and has limited tree growth to areas well removed from transmission lines.

No special-status species were detected during the survey. A query for the Endangered Species Act (ESA)-listed, candidate or proposed plants included the typical Willamette Valley listed meadow species: Endangered Bradshaw's lomatium and Willamette daisy, and Threatened Kincaid's lupine and Nelson's checker-mallow. The native species that were found are not ESA listed.

Notes:

- Wash all vehicles (or store them onsite) before entering and leaving to reduce spread of noxious plants. Re-seed all disturbed areas with BPA-approved native seed mix; TFBV staff at Alvey Maintenance Headquarters have limited material on hand that should be used and serve as an example for further seed acquisition.

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

Potential for Significance: No with Conditions

Explanation: The ESA-Threatened bird species that have the potential to be in proximity to the project location (Northern spotted owl, streaked horned lark, and yellow-billed cuckoo) do not have recorded observations within a seven-mile search radius. The ESA-listed Endangered Fender's blue butterfly is known to occur in the area, and the corridor where vegetation would be damaged has scattered nectar plant species that may be utilized by the insect. However, there are no Kincaid's lupine or spurred lupine – obligate larval host food sources for the species. Any butterfly grazing for nectar in the area would vacate upon entry by heavy equipment or other direct work activity. In summary, there would be *no effect* on ESA-listed species that have potential to occur in the project area.

Species of Concern Western pond turtle has been documented within a mile of the substation, though these are water feature-associated as would be expected. There is no suitable water feature in proximity to the project.

Bald and Golden Eagle Protection Act-protected golden eagle has limited nearby occurrences, though this appears to have been foraging and not breeding. Work would not disrupt breeding of the species since there is no known nest in the vicinity of the substation and the transmission line work.

Migratory Bird Treaty Act (MBTA)-protected species noted by USFWS as having the potential to be at the site do not have documented occurrences noted in a seven-mile search radius. MBTA/Oregon special-status/Federal Species of Concern Oregon Vesper Sparrow has occurred in the search radius but its breeding behavior is associated with areas of greater structural diversity than mowed grasses. The purple martin, an MBTA/Oregon special-status bird also with past occurrence in the vicinity would be unlikely to breed because the trees in the project zone would be too young to host viable cavities.

Notes:

- Clear vegetation starting no earlier than July 12 to allow for the majority of potential breeding birds to fledge.

5. Water Bodies, Floodplains, and Fish (including Federal/state special-status species, ESUs, and habitats)

Potential for Significance: No

Explanation: There are no open water features in or in close proximity to the project. The seasonal drainage ditch around the substation fence would be unlikely to have water retained by the time work would start (mid-July). All ground disturbance would have sediment contained and controlled by standard BMPs and equipment would be subject to leak control and containment BMPs.

6. Wetlands

Potential for Significance: No with Conditions

Explanation: Delineated wetlands are nearby, however, the project work would not disturb these areas. The man-made seasonal drainage ditch around the substation is maintained by mowing along with the rest of the close-in transmission corridor. It does, however, support at least one obligate wetland species (pennyroyal) but has not been surveyed for other wetland determination criteria. For this reason, all work in the ditch prism would be avoided.

Notes:

- Do not disturb the drainage ditch vegetation or its prism.

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

Explanation: All work would take place on BPA-owned transmission facilities and associated BPA-owned land. All access to the work areas would be via BPA-owned access routes from BPA-owned staging 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 homes, businesses or roads. The loss of about 12 trees in the transmission corridor would not cause a noticeable change for casual viewers at a distance.

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 these would be limited to typical working hours. The substation is adjacent to Interstate 5 and light industry making the construction noise a temporary increase to pre-existing loud ambient noise of the area.

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 thus requiring no outside coordination.

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* *July 8, 2021*
Michael J. O'Connell, ECT-4 Date
Environmental Protection Specialist