

Categorical Exclusion Determination

Bonneville Power Administration
Department of Energy



Proposed Action: St. Johns Substation Transformer and Tie Line Conductor Replacement

Project No.: P03619

Project Manager: Dan Meier, TEPP-TPP-1

Location: Multnomah and Washington counties, Oregon

Categorical Exclusion Applied (from Subpart D, 10 C.F.R. Part 1021): B1.7 Electrical equipment; B4.6 Additions and modifications to transmission facilities; B4.11 Electric power substations and interconnection facilities

Description of the Proposed Action: Bonneville Power Administration (BPA) proposes to replace a transformer bank and associated substation equipment, add oil containment, and complete other critical upgrades at BPA's St. Johns Substation in Portland, Multnomah County, Oregon. The new substation equipment would necessitate the replacement of conductors on St. Johns Substation Tie No. 1, which is located immediately south of the St. Johns Substation yard. New surge arrestors would also be installed at BPA's Keeler Substation in Hillsboro, Washington County, Oregon. Replacement of the aging transformer bank and the associated upgrades is required to maintain transmission system reliability.

General construction equipment would be used, including light-duty vehicles, cranes, excavators, bulldozers, dump trucks, vacuum trucks, boom trucks, compaction equipment, and/or hand operated power tools. Any temporary material or equipment staging would be located in previously disturbed areas at the substations. Excavated material would be temporarily stockpiled on site and then used for backfill, dispersed on site, and/or disposed of off-site. All decommissioned equipment and excess material would be disposed of in accordance with all local, state, and federal regulations.

St. Johns Substation

Within the St. Johns Substation yard, the following actions are proposed:

- Replace three existing single-phase 230/115-kilovolt (kV) transformers with a single, three-phase 230/115-kV transformer
- Replace thirteen existing disconnect switches
- Install three new potential transformers
- Install new single-phase high-bus pedestal
- Install new station service rack
- Remove, replace, and/or install new grounding, concrete footings, conduit, cabling, and electronic equipment throughout the substation yard and within in the control house to support the new substation equipment

A new oil containment system would also be installed. The oil containment system would consist of a liner installed around the new transformer footing and conveyance piping with a series of catch basins and oil water separator vaults along the length, followed by a manual shut-off valve and stormwater outfall. Components of the containment system, including some conveyance piping, one catch basin, the three vaults, and the manual shut-off valve, would be buried outside of the substation yard to the north. The 8-inch-diameter conveyance piping would be buried in an approximately 110-foot-long trench to an outfall that would discharge stormwater at the base of the existing substation fill slope north of the substation fence. The remaining components of the system would be buried within the substation yard.

Equipment removal and additions would comprise approximately 35% of the existing substation equipment, and the overall substation upgrades would disturb approximately 0.3 acres within the previously-disturbed substation yard. Outside of the substation yard, soil excavation to install buried components of the oil containment system and soil compaction and rutting from vehicles and equipment would temporarily disturb up to approximately 0.25 acres. Access hatches installed flush with the ground surface and crushed rock added to the stormwater outfall would permanently disturb up to approximately 0.01 acre.

St. Johns Substation Tie No. 1

To meet the electrical requirements of the new St. Johns Substation transformer, all of the existing 115-kV conductor (approximately 1,200 feet) on St. Johns Substation Tie No. 1 would be removed and replaced. The tie line consists of two structures (1/1 and 1/2), which are located south of the St. Johns Substation yard, plus the spans from both of those structures to dead-end structures located within the substation yard.

Reconductoring the tie line would require staging pulling and tensioning equipment near structures 1/1 and 1/2. Minor vegetation clearing and/or grading may be required to safely stage and operate the pulling and tensioning equipment. Temporary guard structures would be installed to protect distribution lines underneath the tie line in the span between structures 1/1 and 1/2 when replacing hardware on the structures and stringing the new conductor. No new or improved access roads or landings are proposed; although off-road travel for short distances may be required.

Outside of the substation yard, soil excavation to install and remove the temporary guard structures and soil compaction and rutting from vehicles and equipment would temporarily disturb up to approximately 2.0 acres.

Keeler Substation

The equipment upgrades at St. Johns Substation would also necessitate the replacement of the St. Johns-Keeler No. 2 rod gaps with three new 115-kV surge arresters within the Keeler Substation yard. Equipment removal and additions would comprise approximately 5% of the existing substation equipment, and no ground disturbance would be required.

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/ Walker Stinnette

Walker Stinnette

Environmental Protection Specialist

Concur:

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: St. Johns Substation Transformer and Tie Line Conductor Replacement

Project Site Description

The proposed action would occur at BPA's St. Johns Substation in Portland, Multnomah County, Oregon (Township 2 North, Range 1 West, Donation Land Claim 43). The substation footprint and surrounding area have been altered and are primarily situated on non-native fill material imported during construction of the substation. The two soil units mapped within the project site, urban land – Latourell complex and urban land – Quafeno complex, are not classified as hydric. The majority of ground disturbance would occur within the existing St. Johns Substation yard, which is covered in crushed rock and has little to no vegetation. Outside of the substation yard, ground disturbance would occur to the north and south in areas that are routinely mowed and consist of common weeds, grasses, and forbs, including meadow foxtail (*Alopecurus pratensis*), sweet vernal grass (*Anthoxanthum odoratum*), white clover (*Trifolium repens*), narrowleaf plantain (*Plantago lanceolata*), Queen Anne's lace (*Daucus carota*), teasel (*Dipsacus fullonum*), red sorrel (*Rumex acetosella*) and an unidentified grass species in the genus *Poa*. A wetlands complex with permanent ponding is located downslope and approximately 100 feet north of the project site. The Columbia Slough and the Smith and Bybee Wetlands Natural Area are approximately 350 feet northeast of the project site. No waters or wetlands are present within the project site. Commercial and industrial land uses surround the project site.

All actions proposed at BPA's Keeler Substation in Hillsboro, Washington County, Oregon (Township 1 North, Range 2 West, Section 23) would occur inside the control house or within the existing substation yard, which is heavily disturbed, covered in crushed rock, and has little to no vegetation. Commercial and residential land uses surround the project site.

Evaluation of Potential Impacts to Environmental Resources

1. Historic and Cultural Resources

Potential for Significance: No

Explanation: On July 13, 2023, BPA initiated National Historic Preservation Act, Section 106 consultation with the following parties:

- Confederated Tribes of Siletz Indians
- Oregon Heritage: State Historic Preservation Office (Oregon SHPO)
- The Confederated Tribes of the Grand Ronde Community of Oregon

BPA conducted background research and an intensive field survey of the Area of Potential Effects (APE). No previously recorded archaeological resources were located within the APE, and no new archaeological resources were identified during the archaeological field survey. St. Johns Substation is considered eligible for inclusion in the National Register of Historic Places. However, the proposed project would not alter the integrity or eligibility of

the substation. Therefore, BPA determined on October 25, 2023, that the proposed project would result in no adverse effect to historic properties (BPA CR Project No.: OR 2023 113; SHPO Case No. 23-1516). Concurrence was received from Confederated Tribes of Siletz Indians on October 25, 2023 and from Oregon SHPO on November 21, 2023. No other comments were received.

2. Geology and Soils

Potential for Significance: No

Explanation: All ground disturbance at Keeler Substation and the majority of ground disturbance at St. Johns Substation would occur within the previously-disturbed substation yards. Ground disturbance outside of the St. Johns Substation yard would occur in areas that largely consist of non-native fill material imported during construction of the substation. Excavated soils would be temporarily stored onsite, and then backfilled, dispersed on site, and/or disposed of off-site. Temporarily disturbed soils would stabilize as vegetation is reestablished and would eventually return to pre-existing conditions following completion of the proposed action. Standard construction best management practices (BMPs) would minimize erosion and sedimentation. The proposed work would not substantially impact geology and soils.

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

Potential for Significance: No

Explanation: Installing portions of the oil containment system and replacing the tie line conductor would temporarily crush, strip, or clear common weeds, grasses, and forbs within routinely mowed areas north and south of St. Johns Substation. Permanent vegetation removal would occur where access hatches for the oil-water separator vaults would be installed at grade and in a small area where rock would be installed around the stormwater outfall. Temporarily disturbed areas would eventually return to pre-existing conditions following completion of the proposed action. There are no documented occurrences of any special-status plant species near the project site, and no suitable special-status species habitat is present.

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

Potential for Significance: No

Explanation: The proposed action could result in minor and temporary disturbance of normal wildlife behavior and wildlife displacement from elevated noise and human presence. However, there would be no permanent modification of wildlife habitat, and temporarily disturbed or displaced wildlife would likely reoccupy the site following completion of the proposed action. There are no documented occurrences of any special-status wildlife species near the project site, and no suitable special-status species habitat is present.

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

Potential for Significance: No

Explanation: No water bodies or floodplains were identified within the project site. However, a small pond is located downslope and approximately 100 feet north of the project site, and a 100-year floodplain associated with the Columbia Slough is mapped approximately 300 feet north of the project site. The Columbia Slough, which is located approximately 350 feet northeast of the project site, supports three fish species listed as Threatened under the Federal Endangered Species Act (ESA): steelhead (*Oncorhynchus mykiss*), Coho salmon

(*Onchorhynchus kisutch*), and Chinook salmon (*Oncorhynchus tshawytscha*). The Columbia Slough is designated critical habitat for all three fish species. No water bodies, floodplains, riparian habitat, or fish-bearing streams would be directly impacted by the proposed action, and standard construction BMPs would prevent indirect impacts to water bodies, floodplains, and special-status fish. Therefore, the proposed action would not impact water bodies or floodplains and would have no effect on special-status fish species or habitats.

6. Wetlands

Potential for Significance: No

Explanation: A wetland survey was completed in April 2023, and no wetlands were identified within the project site. However, a wetland complex is located downslope and approximately 100 feet north of the project site. Standard construction BMPs would prevent indirect impacts to off-site wetlands. Therefore, the proposed action would not impact wetlands.

7. Groundwater and Aquifers

Potential for Significance: No

Explanation: Ground disturbance is unlikely to reach depths to groundwater, and no new wells or other uses of groundwater or aquifers are proposed. The proposed action includes installation of an oil containment system that would capture oil in the event of equipment failure or spill and would minimize the potential for impacts to groundwater. Standard construction BMPs would reduce the potential for inadvertent spills of hazardous materials that could contaminate groundwater or aquifers. Therefore, the proposed action would not impact groundwater or aquifers.

8. Land Use and Specially-Designated Areas

Potential for Significance: No

Explanation: The proposed action is consistent with existing land use at the project site. No specially-designated areas would be impacted by the proposed action.

9. Visual Quality

Potential for Significance: No

Explanation: The proposed action would result in a perceptible change in the appearance of St. Johns and Keeler substations. However, the equipment replacements in the substation yards would be similar in size and appearance to existing equipment, and the secondary oil containment would have no above ground components. Any visual changes would be minor relative to the scale of existing structures and equipment and would be consistent with the existing visual quality of the area. The project site is not located in a visually sensitive area.

10. Air Quality

Potential for Significance: No

Explanation: The proposed action would produce minor and temporary dust and vehicle emissions in the local area. Standard construction BMPs would be implemented to minimize dust. There would be no long-term change in air quality following completion of the proposed action.

11. Noise

Potential for Significance: No

Explanation: The proposed action would produce minor and temporary noise from the use of vehicles and equipment and general construction activities, which could be intermittently audible from adjacent properties. St. Johns and Keeler substations are both located in developed urban areas with elevated ambient noise levels. Noise impacts would only occur during typical working hours (approximately 7 AM to 7 PM). There would be no long-term change in ambient noise following completion of the project.

12. Human Health and Safety

Potential for Significance: No

Explanation: All standard safety protocols would be followed throughout implementation of the proposed action to minimize risk to human health and safety. Therefore, the proposed action would not be expected to impact human health and safety.

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: The proposed action would occur entirely on BPA fee-owned property. No landowner notification, involvement, or coordination would be required.

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

Signed: /s/ Walker Stinnette

Walker Stinnette

Environmental Protection Specialist

2/7/2024

Date