**Proposed Action:** Jones Canyon Substation Shunt Reactor Installation

**Project No.:** P03491

**Project Manager:** Sarah A. Sprague, TEPS-TPP-1

**Location:** Gilliam County, Oregon

**Categorical Exclusion Applied (from Subpart D, 10 C.F.R. Part 1021):** B1.24 Property transfers; 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 install a new 230-kilovolt (kV) switchable air core shunt reactor bank and associated switching and protective equipment at BPA’s Jones Canyon Substation near Arlington, Gilliam County, Oregon (Township 2 North, Range 21 East, Section 8). The proposed action, which would stabilize voltage fluctuations that could otherwise damage transmission equipment, is required to maintain transmission system reliability and mitigate a safety risk.

BPA would install new substation equipment, including:

- Three switchable air core shunt reactors
- Three surge arrestors
- Power circuit breakers
- Disconnect switch
- Two current transformers
- Bus supports
- Two overhead ground wire structures
- Two yard panels
- Relaying and control equipment within the existing control house

To accommodate the new substation equipment, the Jones Canyon Substation yard would be expanded by approximately 30,000 square feet to the southwest. Expanding the substation yard would require excavating up to three feet deep; installing grounding, foundations, conduit, cable trench, stormwater catch basins, and drainage piping; backfilling and compacting fill material to the appropriate surface grade; adding crushed rock; and relocating the existing perimeter security...
fencing. A new approximately 900-square-foot stormwater detention pond would be excavated northwest of the expansion area with a new stormwater outfall installed in a trench from the substation yard. Completion of the yard expansion would require the use of light duty vehicles and heavy equipment, such as an excavator, dump truck, grader, compactor, and crane.

Inside the control house, BPA would modify or install new equipment racks to accommodate a new sequence of events recorder and supervisory control and data acquisition (SER/SCADA) system, a GPS clock system, relaying and control equipment, meters, and alarms.

BPA would acquire an approximately 1.75-acre temporary easement from Columbia Energy Partners (CEP) for an approximately 40-foot by 50-foot materials and equipment staging area. A new approximately 10-foot-wide by 300-foot-long construction access road with a gravel entrance would be installed immediately outside of the substation yard to the southwest. For stability, gravel could be added to the materials and equipment staging area and/or the temporary construction access road, if required. If gravel is applied to the materials and equipment staging area and the construction access road, it would likely be left in place following completion of construction.

**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/ W. Walker Stinnette  
W. Walker Stinnette  
Contract Environmental Protection Specialist  
CorSource Technology Group, Inc.

Reviewed by:

/s/ Carol P. Leiter  
Carol P. Leiter  
Supervisory Environmental Protection Specialist
Concur:

/s/ Sarah T. Biegel
June 6, 2022
Sarah T. Biegel
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:** Jones Canyon Substation Shunt Reactor Installation

**Project Site Description**

The project site is located on Bonneville Power Administration (BPA) fee-owned property and on property where BPA would acquire an easement from the underlying landowner at BPA’s Jones Canyon Substation near Arlington, Gilliam County, Oregon (Township 2 North, Range 21 East, Section 8). The site includes portions of the energized substation yard and an area southwest of the yard where the substation expansion would occur. The energized substation yard has been previously disturbed and covered in crushed rock with little to no vegetation. The remainder of the project site, where the substation yard expansion would occur, is undeveloped grassland consisting of mostly non-native weeds interspersed with a few native grasses and shrubs, including various bunchgrass species, rubber rabbitbrush (*Ericameria nauseosa*), and broom snakeweed (*Gutierrezia sarothrae*). Land surrounding the project site is largely open grassland that has been developed for energy generation and transmission, with several non-BPA-owned substations, high voltage transmission lines, and a wind farm. The Olex soil series, which is not hydric, is mapped within work areas, and no wetlands or surface waters are present within 1,000 feet of the project site.

**Evaluation of Potential Impacts to Environmental Resources**

1. **Historic and Cultural Resources**

   Potential for Significance: No with Conditions

   **Explanation:** On November 5, 2021, BPA initiated National Historic Preservation Act, Section 106 consultation with the following parties:

   - Confederated Tribes and Bands of the Yakama Nation
   - Confederated Tribes of the Umatilla Indian Reservation
   - Confederated Tribes of the Warm Springs Reservation of Oregon
   - Nez Perce Tribe of Idaho
   - Oregon Heritage: State Historic Preservation Office

   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. Two transmission lines located within the APE are considered eligible for inclusion in the National Register of Historic Places: Morrow Flat-Jones Canyon No. 1 and Jones Canyon-Santiam No. 1. However, the proposed undertaking would not alter the integrity or eligibility of either transmission line. Therefore, BPA determined on December 14, 2021, that the proposed undertaking would result in no historic properties affected (BPA CR Project No.: OR 2018 113; SHPO Case No.: 21-1486). On December 14, 2021, the Nez
Perce Tribe of Idaho concurred with BPA’s determination. No other comments were received.

Notes:
- Implement inadvertent discovery protocols in the unlikely event that cultural material is encountered during the implementation of this project. BPA would require that work be halted in the vicinity of the finds until they can be inspected and assessed by BPA and in consultation with the appropriate consulting parties.

2. Geology and Soils

Potential for Significance: No

Explanation: Permanent soil impacts would occur where currently undeveloped areas would be permanently excavated, compacted, and/or covered in gravel, including the expanded substation yard and the new detention pond as well as the materials and equipment staging area and/or the construction access road (if gravel is applied to these areas). Temporary soil impacts would occur in temporarily excavated areas and areas where vehicle and equipment use causes soil rutting and compaction. Temporarily disturbed soils would be stabilized as vegetation is reestablished and would eventually return to pre-existing conditions following completion of the project. Standard construction best management practices (BMPs) would minimize soil impacts and would prevent erosion and sedimentation. The proposed action would not impact geology.

Notes:
- Implement a BPA-approved Stormwater Pollution Prevention Plan (SWPPP), with an associated Erosion and Sediment Control Plan (ESCP) and Spill Prevention and Response Procedures (SPRP).
- Test material excavated from the substation yard for hazardous materials. If hazardous materials are identified, then excavated material and foundations would be disposed of off-site according to all local, state, and Federal regulations.
- Permanently retain gravel surfacing, if applied to the materials and equipment staging area and/or the construction access road, following completion of the project to prevent erosion and sedimentation of disturbed soils.
- Seed temporarily disturbed areas post-construction with a native seed mix appropriate for the site conditions.

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

Potential for Significance: No

Explanation: The proposed action would require clearing up to approximately 1 acre of low-growing vegetation primarily consisting of non-native weeds interspersed with a few native grasses and shrubs, including various bunchgrass species, rubber rabbitbrush, and broom snakeweed. Permanent vegetation impacts would occur where currently vegetated areas would be permanently excavated, compacted, and/or covered in gravel, including the expanded substation yard and the new detention pond as well as the materials and equipment staging area and/or the construction access road (if gravel is applied to these areas). Additional construction-related activities could temporarily crush or strip vegetation. Temporarily disturbed areas would eventually revegetate and return to pre-existing conditions following completion of the project. Standard construction BMPs would minimize vegetation impacts and the spread of noxious weeds. There are no documented occurrences of any special-status plant species near the project site, and no such species are expected to occur at the site.

Notes:
- Implement a BPA-approved SWPPP, with an associated ESCP and SPRP.
• Permanently retain gravel surfacing, if applied to the materials and equipment staging area and/or the construction access road, following completion of the project to prevent erosion and sedimentation of disturbed soils.
• Seed temporarily disturbed areas post-construction with a native seed mix appropriate for the site conditions.

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

Potential for Significance: No

Explanation: The proposed action would require development of land adjacent to Jones Canyon Substation that is not considered suitable habitat for special-status wildlife species, and no such species have been documented in the project site vicinity. Minor and temporary disturbance of normal wildlife behavior could occur from elevated noise and human presence during construction. Small burrowing mammal species such as mice and shrews could be killed when their burrows are crushed or excavated. BPA conducted a field survey and found no occurrences of the Oregon state-listed Washington ground squirrel (*Spermophilus washingtoni*) and confirmed with Oregon Department of Fish and Wildlife that the species is unlikely to occur in the area.

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

Potential for Significance: No

Explanation: The proposed action includes installation of a new stormwater management infrastructure, which would be built in accordance with all applicable local, state, and Federal regulations. No waterbodies, floodplains, or fish-bearing streams were identified within or near the project site. Standard construction BMPs would prevent indirect impacts to off-site waterbodies, floodplains, and fish, if present. Therefore, the proposed action would not impact water bodies and floodplains and would have no effect on special-status fish species or habitats.

Notes:
• Implement a BPA-approved SWPPP, with an associated ESCP and SPRP.

6. Wetlands

Potential for Significance: No

Explanation: No wetlands were identified within or near the project site. Standard construction BMPs would prevent indirect impacts to off-site wetlands, if present. Therefore, the proposed action would not impact wetlands.

Notes:
• Implement a BPA-approved SWPPP, with an associated ESCP and SPRP.

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. 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 would permanently change land use in areas that are currently undeveloped. All of the permanent land use changes would occur on BPA fee-owned property or on property where BPA has an easement with the underlying landowner, and there would be no permanent land use impacts to adjacent properties. 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 Jones Canyon Substation. However, these 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: Construction activities would result in a minor and temporary increase in dust and emissions in the local area. Standard construction BMPs would minimize air quality impacts. There would be no long-term change in air quality following completion of the proposed action.

11. Noise

Potential for Significance: No

Explanation: During construction, use of vehicles and equipment and general construction activities could temporarily and intermittently produce noise at levels higher than current ambient conditions. Standard construction BMPs would minimize noise impacts. No noise-sensitive land uses are present near the project site. 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: Standard construction BMPs would minimize risk to human health and safety. Therefore, the proposed action would not be expected to impact human health and safety.

Notes:
- Test material excavated from the substation yard for hazardous materials. If hazardous materials are identified, then excavated material and foundations would be disposed of off-site according to all local, state, and Federal regulations.

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: Prior to construction, BPA would sample to identify any hazardous substances, pollutants, contaminants, or CERCLA-excluded petroleum and natural gas products that could be present within the substation yard. If any such materials are identified, then BPA would appropriately manage them according to all local, state, and Federal regulations to ensure there are no uncontrolled or unpermitted releases.

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: BPA has been coordinating with an adjacent landowner to acquire a temporary construction easement. No other 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/ W. Walker Stinnette  
W. Walker Stinnette, EC-4  
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June 6, 2022