

# Categorical Exclusion Determination

Bonneville Power Administration

Department of Energy



**Proposed Action:** Alvey Substation 500-kV Shunt Reactor Addition

**Project No. (if applicable):** xxxxx

**Project Manager:** Mike Gilchrist

**Location:** Lane County, Oregon

**Categorical Exclusion Applied (from Subpart D, 10 C.F.R. Part 1021):** B4.11 Electric power substations and interconnection facilities

**Description of the Proposed Action:** BPA is proposing to install new equipment within BPA's existing Alvey Substation near the City of Eugene in Lane County, Oregon. The present method of controlling high voltages at Alvey Substation by switching transmission lines in and out of service exposes the lines and associated breakers, bus, and switches to undue risk of failure, and is in violation of National Energy Safety Code (NESC), Western Electricity Coordinating Council (WECC), and BPA operational and planning reliability criteria. The proposed project would provide a more reliable method for controlling high voltages by reducing the number of switching operations, and ensure compliance with NESC, WECC, and BPA standards and specifications.

In order to complete the project, BPA would first improve and reconstruct approximately 1,000 linear feet of BPA's existing dirt access road by blading and grading, and placing four inches of surfacing rock to improve access for construction vehicles and heavy equipment. BPA would then conduct a geotechnical study using hand augers to drill 6 inch diameter borings up to 20 feet in depth. A backhoe would excavate a 4-foot-deep hole for new concrete footings. Workers would pour the footings, and attach a new 500-kV shunt reactor. BPA would install new equipment associated with the new reactor, including a new 500-kV power circuit breaker, 500-kV disconnect switch, wiring, conduit, steel support, bus, footings, and oil containment equipment. Control cables and wiring would be installed in underground conduit to connect the new reactor and associated equipment with the control house. To install the conduit, trenches would be excavated up to 3-feet-deep from the new reactor and expansion area to connect with existing manholes and underground conduit ducts. All proposed construction activities would occur within BPA's existing access road prism, or fenced substation yard. All disturbed areas within the substation yard would be graded and rocked.

The proposed project would require that BPA temporarily disturb up to 4.5 acres for construction activities and equipment storage within the limits of previously disturbed BPA fee-owned land. Disturbance would result from geotechnical borings, organics/soil/debris removal, excavation, trenching, grading, the addition and compaction of fill materials, and the movement of construction vehicles and heavy equipment.

**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, July 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/ Zach Gustafson

Zach Gustafson  
Contract Environmental Protection Specialist  
David Evans and Associates, Inc.

Reviewed by:

/s/ Gene Lynard

Gene Lynard  
Supervisory Environmental Protection Specialist

Concur:

/s/ Katherine S. Pierce

Katherine S. Pierce  
NEPA Compliance Officer

Date: April 20, 2015

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 500-kV Shunt Reactor Addition

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## Project Site Description

The project site is located on BPA fee-owned property near the City of Eugene. The site consists of control houses, maintenance and equipment sheds, transmission lines and towers, substation equipment, and graveled and paved areas for vehicle circulation and equipment storage. The surrounding landscape includes forested stands, scrub-shrub and herbaceous plant communities, and palustrine emergent and palustrine scrub-shrub wetland complexes. Vegetated areas of the proposed project site are previously disturbed with evidence of fill and grading. Existing vegetation is primarily non-native forbs and grasses, and invasive weeds. Much of the site has been cleared and is regularly mowed to accommodate the transmission lines and towers present on the site.

## Evaluation of Potential Impacts to Environmental Resources

Environmental Resource Impacts	No Potential for Significance	No Potential for Significance, with Conditions
1. <b>Historic and Cultural Resources</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Explanation: Oregon State Historic Preservation Office (SHPO) concurrence with no effect determination May 22, 2014. Tribes consulted: the Confederated Tribes Siletz, the Cow Creek Band of Umpqua Tribe of Indians, and the Confederated Tribes of Grand Ronde.

Mitigation:

✓ In the event any archaeological material is encountered during project activities, the following actions should be taken:

- Stop work in the vicinity and immediately notify the BPA environmental lead, a BPA archaeologist, appropriate BPA project staff, interested Tribes, Oregon SHPO, and the appropriate local, state, and federal agencies.
- Implement reasonable measures to protect the discovery site, including any appropriate stabilization or covering.
- Take reasonable steps to ensure the confidentiality of the discovery site, including restricting access.

2. <b>Geology and Soils</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Explanation: 4.5 acres of temporary disturbance for equipment installation and access road improvement and reconstruction.

Mitigation:

- ✓ Implement erosion and sediment control best management practices (BMPs) immediately after clearing and prior to initiating ground disturbing activities to prevent erosion and runoff.
- ✓ Limit the amount of time soils are left exposed. Use BMPs on exposed piles of soil to reduce erosion potential from rain or wind.

3. **Plants** (including federal/state special-status species)

Explanation: Vegetation and rare plant survey conducted June 4-5, 2014 by Turnstone Environmental Consultants, Inc. No federally-listed or state special-status plant species are present. Nine Class B weeds identified in the project area.

Mitigation:

- ✓ Reseed disturbed areas with a regionally appropriate seed mix and apply mulch.
- ✓ Clean and inspect all construction vehicles and equipment for weeds prior to accessing the project site.

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

Explanation: No special-status species or designated habitat present at the project site. Project area has been previously disturbed for construction of substation and associated access roads.

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

Explanation: The project site is located 1.5 miles upstream of Middle Fork Willamette River, which contains migration, spawning, and rearing habitat for bull trout, chinook salmon, and steelhead trout; no other listed fish species are present. Critical habitat for bull trout and Upper Willamette ESU chinook salmon designated in Middle Fork Willamette River. No in-water work is proposed for the project.

Mitigation:

- ✓ Implement erosion and sediment control best management practices (BMPs) immediately after clearing and prior to initiating ground disturbing activities to prevent erosion and runoff.
- ✓ Do not allow petroleum products, sediment, and other deleterious materials (i.e. concrete wash out) to enter any stream, wetland, waterbody, or drainage conveyance.

6. **Wetlands**

Explanation: None present within the project site. Eighteen wetlands totaling 5.70 acres, and six jurisdictional waters of the U.S. adjacent to the project site were identified and delineated by CH2M Hill during three field visits (May 6 and 10, 2010, July 16-17, 2013, and on February 24, 2014), documented in a wetland delineation report dated June 2014.

Mitigation:

- ✓ Implement erosion and sediment control best management practices (BMPs) immediately after clearing and prior to initiating ground disturbing activities to prevent erosion and runoff.
- ✓ Do not allow petroleum products, sediment, and other deleterious materials (i.e. concrete wash out) to enter any stream.

7. **Groundwater and Aquifers**

Explanation: No new wells or use of ground water proposed.

Mitigation:

- ✓ Ensure spill containment and cleanup materials are readily available at the project site, staging areas, and in construction vehicles and equipment. Replace any used spill response material within 24 hours.

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|----------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|--------------------------|
| 8. <b>Land Use and Specially Designated Areas</b>                                                                                                              | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| <u>Explanation:</u> All work on BPA fee-owned property. Project area has been previously disturbed for construction of substation and associated access roads. |                                     |                          |
| 9. <b>Visual Quality</b>                                                                                                                                       | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| <u>Explanation:</u> The additional equipment would be visually consistent with existing structures and equipment already located at the substation.            |                                     |                          |
| 10. <b>Air Quality</b>                                                                                                                                         | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| <u>Explanation:</u> Small amount of dust and vehicle emissions during construction activities.                                                                 |                                     |                          |
| 11. <b>Noise</b>                                                                                                                                               | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| <u>Explanation:</u> Temporary, intermittent noise from construction activities during daylight hours. Operation noise would not change.                        |                                     |                          |
| 12. <b>Human Health and Safety</b>                                                                                                                             | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| <u>Explanation:</u> No impact to human health and safety from the proposed project.                                                                            |                                     |                          |

### 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, if necessary:

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

Explanation, if necessary:

- 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, if necessary:

- 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, if necessary:

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**Landowner Notification, Involvement, or Coordination**

No notification – all work on BPA fee-owned property and no visual or other effects to adjacent landowners.

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

Signed: /s/ Zachary Gustafson  
Zachary Gustafson  
Environmental Protection Specialist

Date: April 20, 2015