

United States Government

Department of Energy
Bonneville Power Administration

memorandum

DATE: February 23, 2010

REPLY TO
ATTN OF: KEC-4

SUBJECT: Environmental Clearance Memorandum

TO: Steve Prickett
Project Manager - TEP

Proposed Action: Lower Mid-Columbia / Midway-Vantage 230-kV Transmission Line Upgrade Project

Budget Information: Work Order #238901 and #231311, Task 03

Categorical Exclusion Applied (from Subpart D, 10 C.F.R. Part 1021): B4.6 “Additions or modifications to electric power transmission facilities that would not affect the environment beyond the previously developed facility...”

B4.7 Adding fiber optic cable to transmission structures or burying fiber optic cable in existing transmission line rights-of-way.

B4.13 “Reconstruction (upgrading or rebuilding) and/or minor relocation of existing electric powerlines approximately 20 miles in length or less...”

Location: Grant and Benton counties, Washington

Proposed by: Bonneville Power Administration (BPA)

Description of the Proposed Action: BPA is proposing to upgrade the lower Mid-Columbia area 230-kilovolt (kV) transmission system in Grant and Benton counties, Washington. The project requires re-conductoring 10.6 miles of the Midway-Vantage 230-kV transmission line, re-terminating the existing Vantage-Columbia 230-kV line at the Vantage Substation, and installing related transmission and communications equipment within the Midway and Vantage substations. Upgrades are needed to mitigate thermal overloads due to Columbia River flow management changes for environmental requirements, and to maintain system reliability in the area.

Upgrading the Midway-Vantage transmission line requires the removal of 10.6 circuit miles of the lower-capacity Pheasant and Gull conductor sections of the transmission line, from Midway Substation to tower 1/5 and from tower 11/1 to Vantage Substation, and re-stringing these sections with higher-capacity Deschutes conductor. (The middle section of the Midway-Vantage line runs on double-circuit towers and was already upgraded with Deschutes conductor when the Schultz-Wautoma line was built in 2004.)

To support the increased weight and tension of the new conductor, seven towers on the Midway-Vantage transmission line need to be replaced. The structures to be rebuilt include towers 1/1, 1/3, 1/4, 1/5, 14/3, 15/1, and 19/1. Most of these towers are dead-end structures, which need to be rebuilt to support the upgraded conductor at locations where the transmission line changes direction. The rebuilt towers will be nearly identical in height, size and appearance to the existing towers, but will be stronger to support the higher-capacity conductor. An additional tower, 19/7, will be added on the Midway-Vantage line outside of the Vantage substation to provide necessary separation from other transmission lines terminating into the substation. The appearance of tower 19/7 will also be consistent with the surrounding lattice-steel transmission towers.

The rebuilt towers will have grillage-type or plate footings that do not require concrete. The grillage-type footings will require four holes that are approximately 10 feet square and 12-14 feet deep, and will be used on most of the rebuilt towers. Tower 19/7 will have plate footings, which are smaller and require holes approximately 6 feet square and 7 to 9 feet deep. The concrete footings from the existing towers will be removed, and the new grillage or plate footings will be embedded in the area excavated for removal of the existing footings. The exceptions are the two Columbia River crossing towers, 1/3 and 1/4, which will be rebuilt adjacent (approximately 75 feet further from the Columbia River on either side) to the existing towers before removal. The footings for these towers require holes that are approximately 13 feet square and 12 to 14 feet deep. The concrete footings at the existing towers will be cut below grade and left in the ground to minimize ground disturbance. The potential disturbance area for vehicles, equipment, staging and construction around each rebuilt tower will be approximately 200 feet by 200 feet, with 400 feet by 400 feet disturbance area possible for each of the larger Columbia River crossing towers.

Upgrades to the Midway Substation include adding breakers, relays, meters, transfer trip, bus sectionalizing scheme and communication equipment. All of this work will take place within the existing substation yard, and will not require expansion of the existing facilities. In total, the upgrades at Midway Substation will require 2 new breakers and 8 new disconnect switches.

Upgrades to the Vantage Substation include re-terminating the existing Vantage-Columbia 230-kV transmission line from Bay 15 to Bay 22 and adding sectionalizing breakers, disconnect switches, bus, relays, meters, transfer trip and communication equipment. The disconnect switches in Bays 11 and 15 will be upgraded or replaced, and new bus sections and sectionalizing breakers will be installed. The equipment in the vacated Bay 15 will be left in place. The substation upgrades will not require expansion of the existing substation yard or fence. In total, the upgrades at Vantage Substation will require up to 5 breakers and 11 disconnect switches.

Two new wood pole H-frame structures will be required on the existing Vantage-Columbia line to re-route the transmission line into a different bay of the Vantage Substation. The disturbance area at each new H-frame structure will be approximately 100 feet by 100 feet. Within this area, poles will be staged on the ground, bucket trucks and backhoes will remove old poles, and an auger or backhoe will be used to dig holes for the new poles and guy anchors. The new poles will be placed approximately 9 feet below ground surface. The fiber optic line on the Vantage-Columbia transmission line structures will need to be re-routed into the substation. The fiber optic line will be buried in a trench approximately 36 inches deep and 150 feet long from the existing vault below tower 1/1 on the Vantage-Columbia transmission line to a race way inside the substation leading to the control house.

Some access road blading and grading will be required to accommodate the construction vehicles and equipment required to re-conductor the line and rebuild towers. While most of the access roads in the area will not need to be improved, the existing roads to towers 12/4, 13/2, 13/3, 13/6 14/3, 14/4, and 14/5 would need to be bladed and graded, and some sections of road may require approximately 6 inches of crushed rock.

The proposed access road improvement for the project is scheduled to begin in June 2010. The proposed construction period for the rest of the project, including rebuilding the towers, re-terminating lines into the Vantage substation and substation upgrades, will begin in November 2010. The proposed project completion date is May 1, 2011.

Findings: BPA has determined that the proposed action complies with Section 1021.410 and Appendix B of Subpart D 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). The proposed action does not present any extraordinary circumstances that may affect the significance of the environmental effects of the proposal. The proposal is not connected [40 C.F.R. 1508.25(a)(1)] to other actions with potentially significant impacts, is not related to other proposed actions with cumulatively significant impacts [40 C.F.R. 1508.25(a)(2)], and is not precluded by 40 C.F.R. 1506.1 or 10 C.F.R. 1021.211. Moreover, the proposed action would not (i) threaten a violation of applicable statutory, regulatory, or permit requirements for environment, safety, and health, (ii) require siting and construction or major expansion of waste storage, disposal, recovery, or treatment facilities, (iii) disturb hazardous substances, pollutants, contaminants, or Comprehensive Environmental Response, Compensation and Liability Act-excluded petroleum and natural gas products that pre-exist in the environment such that there would be uncontrolled or unpermitted releases, or (iv) adversely affect environmentally sensitive resources.

A review of the Grant and Benton county federally-listed species lists recorded by the U.S. Fish and Wildlife Service (USFWS) and the National Oceanic and Atmospheric Administration, National Marine Fisheries Office (NOAA Fisheries) indicated that the pygmy rabbit, Chinook salmon, steelhead trout, Ute-ladies' tresses, bull trout, Washington ground squirrel and greater sage grouse may all be present within the proximity of the project area. The proposed project also crosses designated Pacific salmon freshwater Essential Fish Habitat (EFH) for Upper Columbia River spring-run Chinook salmon, Upper Columbia River steelhead trout, and bull trout. The proposed project involves reconductoring the Midway-Vantage 230-kV transmission line using primarily existing transmission line right-of-way, towers and access roads, with minimal impacts beyond the existing transmission infrastructure. No suitable habitat or designated critical habitat for any listed or sensitive species is expected to be disturbed from the proposed project.

The Midway-Vantage 230-kV line spans both the Columbia River and Crab Creek. The Columbia River crossing towers are located beyond riparian habitat, and the rebuilt towers will be located approximately 75 feet further from the river. The proposed line upgrade will span the riparian areas and will not require new access roads or right of way clearing. To avoid any potential impacts to aquatic species and EFH, no ground disturbing activities will occur within 150 feet of any waters of the U.S., and no in-water work will occur. No pollutants, contaminants, or sediments will enter any waterways due to project construction. Pursuant to its obligations under the Endangered Species Act (ESA), BPA has made a determination of no effect to ESA-listed species and critical habitat. Likewise, pursuant to its obligation under the Magnuson-Stevens Act, BPA has made a determination that the proposed project will not adversely affect Essential Fish Habitat. BPA prepared a "No Effect" memorandum for the record.

Pursuant to its obligation under Section 106 of the National Historic Preservation Act, BPA initiated consultation with the Washington State Department of Archaeology and Historic Preservation (DAHP). Background research was conducted by the Yakama Nation Cultural Resource Program (CRP) on the Washington DAHP cultural site database on the natural and cultural landscape of the project area and its environs. Background research indicated a well known historic utilization of the area and found that a total of 33 previous cultural resource investigations have been conducted within 0.25 miles of the project area of potential effect (APE), with 10 of these surveys overlapping portions of the project area. The background investigation included consultation with Yakama Nation CRP Cultural Specialists who possess knowledge of Yakama culture and are trained in the recognition of Tribal historic properties, Traditional Cultural Properties, legendary sites, and traditional resource gathering areas. A comprehensive field survey of the APE, including the entire ROW of the proposed transmission line upgrade and access roads, was conducted by the Yakama Nation CRP archaeologists in September-October, 2009.

BPA sent letters, including copies of the cultural resource surveys stating the findings, to the Washington State DAHP, Confederated Tribes and Bands of the Yakama Nation, Confederated Tribes of the Colville Reservation, Confederated Tribes of the Umatilla Reservation, Nez Perce Tribe, Wanapum Tribe, tribal representatives at the Hanford Monument, and archaeologists at the BLM, BOR, USFWS, and DOE. The proposed upgrade project does not include the addition or expansion of facilities beyond the existing transmission infrastructure in the area, and the project as planned will not have a significant impact on the natural or cultural landscape. Based on the results of the survey, background research, and scope of the project, it is BPA's opinion that the proposed project would have no effect on significant or potentially significant archaeological resources. An archaeological monitor will be present as necessary during construction activities, and known archaeological sites will be identified and avoided. In addition, BPA's inadvertent discovery protocol will be given to construction staff. The Washington State DAHP concurred with BPA's determination of No Historic Properties Affected on February 16, 2010.

There will be no effect to floodplains or wetlands from the proposed project, and no tree clearing is required.

Contingent upon the satisfactory completion of the provisions identified on the attachment, this proposed action meets the requirements for the Categorical Exclusion referenced above. We therefore determine that the proposed action may be categorically excluded from further NEPA review and documentation.

/s/ Makary A. Hutson

Makary A. Hutson
Environmental Project Manager

Concur:

/s/ Katherine S. Pierce

Katherine S. Pierce
NEPA Compliance Officer

DATE: February 23, 2010

Attachment:

Environmental Provisions

ATTACHMENT ENVIRONMENTAL PROVISIONS

This categorical exclusion will meet the following provisions:

General Provisions

- No in-stream work. All ground disturbing work, refueling of vehicles and vehicle maintenance should not take place where any spilled material may enter any natural or manmade drainage conveyance including ditches, catch basins and pipes. Drip pans and absorbent pads will be placed under all leaking construction equipment.
- Maintain appropriate emergency spill response materials on-site to control unexpected and unanticipated releases of petroleum-based products or other hazardous materials. Have emergency supplies in an easily accessible location and clearly marked. Disposal of any spill material will be in accordance with applicable state and Federal requirements. Immediately notify the KEP Environmental Lead or COTR in the event of a spill or release to the environment.
- If there are any changes in construction activities that require relocation or change of work parameters, or for sites that have not been previously identified as work sites, construction shall not proceed until the KEP Environmental Lead for this project can evaluate those changes.

Cultural resources:

- An archaeological monitor will be present as necessary during construction activities, and known archaeological sites will be identified and avoided.
- In the unlikely event that cultural resources are uncovered during construction, work in the immediate vicinity of the discovery will be halted and a BPA archaeologist will be notified. BPA will then notify and consult with the Washington State Historic Preservation Officer, federal agency archaeologists and tribal cultural resource staff to determine how to proceed.

Vegetation protection and noxious weeds:

- Restrict construction activities to the area needed to work effectively. Construction crews should be instructed to restrict vehicles to designated areas and existing roads as much as possible.
- Designated areas would be used to store project equipment and supplies. The contractor should follow all applicable state and federal regulations to protect plant communities.
- After construction, disturbed areas not needed for ongoing access or maintenance should be promptly reseeded with native species where possible.

- Seed mix for revegetation should contain a mixture of the common native bunchgrasses and dryland species present in the project area. Coordinate with area land managers to verify the appropriate seed mixture.
- Do not spread noxious weed seeds:
 - Certify in writing that all vehicles, equipment, and machinery are free of all weeds including seeds before moving the equipment into the construction area. The COTR will inspect vehicles prior to bringing them on site.
 - When an area contaminated by weeds is encountered on, or off of, the construction site, use caution to prevent the spreading of weeds to other areas. This may include cleaning the equipment with high-pressure water prior to moving from one work site to another, or installing wheel washes. Notify the COTR as to the location of the noxious weeds.
- Use only weed-free materials, or inert materials for mulching and for erosion control.

Erosion control and land use:

- All standard erosion and sediment control Best Management Practices (BMPs) will be used for any ground disturbances and road improvements to protect water resources and avoid/minimize excessive erosion, soil sloughing, and other surface alterations.
- Require dust abatement on road and construction site, if necessary.
- Provide a schedule of construction activities to all landowners/agencies along the corridor that could be affected by construction.
- Plan and schedule construction activities, when practical, to minimize temporary disturbance, displacement of crops, and interference with farming activities, if necessary.
- Keep gates in as found condition (opened or closed). Coordinate construction sequence with landowner so that livestock may be moved, if necessary.

Public Health and Safety:

- Limit construction to normal daytime work hours for noise abatement.
- No equipment with un-muffled exhaust is allowed. Fit all equipment with sound-control devices that are as effective as the original equipment.
- Should contaminated media be unexpectedly encountered during implementation of the project, stop work and notify the COTR. Contaminated media include materials that are potentially harmful to the environment or human health and safety. Work will proceed only after measures approved by the WDOE are put in place to prevent the spread of contaminated materials and protect the health and safety of workers.

- Equip vehicles with fire suppression equipment, including a shovel, fire extinguisher, and bladder or water supply. Adhere to fire regulations on the Hanford National monument.
- Equip construction vehicles with spill containment kits able to respond to construction related spills.

DOE Hanford National Monument Site

- Courtesy call to Randy Krekel before entering the Hanford Site (office: 509.376.4264).
- The contractor shall bring in clean vehicles (no excessive mud, etc. stuck to undercarriage) and do a visual inspection of all vehicles before entering the property. All plant material will be removed before entering.
- Adhere to all fire and security regulations on the Hanford site.

USFWS Columbia Wildlife Refuge

- Courtesy call to Kelly Chase before entering the Refuge (office: 509.488.2668).
- The contractor shall bring in clean vehicles (no excessive mud, etc. stuck to undercarriage) and do a visual inspection of all vehicles before entering the property. All plant material will be removed before entering.

BLM Saddle Mountain Recreation Area

- Courtesy call to Bill Schurger before entering Saddle Mountain Recreation Area (office: 509.665.2116).