Subject: Supplement Analysis for the Big Eddy-Knight Transmission Project Final EIS (DOE/EIS-0421/SA-02)

Nathan Mullen  
Project Manager – TELP-TPP-3

Proposed Action: Big Eddy-Knight Transmission Project new information and design adjustments

Proposed by: Bonneville Power Administration (BPA)

Location: Klickitat County, Washington

Background: In 2011, BPA completed the Big Eddy-Knight Transmission Project Final Environmental Impact Statement (EIS) (DOE/EIS-0421) and issued a Record of Decision (ROD) documenting its decision to build and operate the Big Eddy-Knight transmission line. Construction of the transmission line began in fall 2011 and is currently underway.

During construction, the Confederated Tribes and Bands of the Yakama Nation (Yakama Nation) identified an area of high cultural importance that is crossed by the existing transmission line and would be further impacted by construction of the Big Eddy-Knight transmission line. BPA has proposed design adjustments to help avoid and minimize impacts to this culturally sensitive area. In addition, other proposed project design adjustments have been identified through construction implementation. This supplement analysis was prepared to determine whether the culturally sensitive area is significant new information relevant to environmental concerns and whether the proposed design adjustments are considered substantial changes to the proposal relevant to environmental concerns, such that either would warrant the need for a supplemental EIS.

Analysis: This supplement analysis finds that, while the culturally sensitive area is significant, the EIS anticipated the potential to disturb such sites and adverse affects to the site will be minimized by design adjustments, and that these proposed design adjustments, along with the other project design adjustments, are not substantial changes relative to actions as described in the 2011 final EIS and ROD. The following more specifically assesses the significance of the new information and project design adjustments relative to environmental concerns.

Culturally Sensitive Area

The new cultural information includes the expansion of the boundary of a previously identified site (previously identified as eligible for the National Register of Historic Places), as well as the identification by the Tribe of additional characteristics that increase the culturally sensitive area’s significance based on the National Register criteria. The culturally sensitive area is one of the more important areas to the Tribe in its ceded territory and is located in Washington between the Columbia River and State Route 14.

The 2011 EIS acknowledged that “Because the project transects areas significant to Columbia River Tribes and because the general area has a rich history, there is the potential for disturbing known cultural sites. Besides direct physical impacts, the proposed project could introduce visual elements that alter the character or setting of sensitive cultural and spiritual resource sites.” BPA strives to avoid or mitigate
potential impacts to sensitive cultural and spiritual sites, and developed a Programmatic Agreement with the Washington State Historic Preservation Office, Oregon State Historic Preservation Office, Forest Service, and the Advisory Council on Historic Preservation in consultation with the Yakama Nation and others, to, among other things, address impacts to sites discovered through project implementation.

In this situation, although some impacts to the culturally sensitive area are unavoidable, BPA has worked with the Yakama Nation to identify ways to help lessen impacts, including relocating planned transmission tower locations, removing a tower from the project altogether, and removing and relocating access roads. With proposed measures, impacts are considered commensurate with the potential impacts identified in the 2011 EIS.

**Design Adjustments to Minimize Impacts**

To help address impacts to the culturally sensitive area, BPA is proposing to adjust the originally designed locations of several transmission line towers, remove a tower, and adjust access road locations all within about a mile of the Washington side of the Columbia River. Because the tower removal and location adjustments create longer spans between towers, the towers will be slightly taller than originally designed. The relocations and removal will help avoid sensitive areas, place towers in the same disturbed locations of existing towers that will be removed as part of the project, and lessen overall tower footprint ground disturbance.

The proposed location of the first tower (8/1) on the Washington side of the Columbia River, which holds the conductor spanning the river, will be moved 20 feet north within the right-of-way and further from the edge of the bluff above the river. To accommodate the move, the originally proposed 237-foot tall tower will be raised by about 6 feet. The ground disturbance footprint will be the same as originally proposed and special monitoring will be used to affirm that blasting for tower footings will not impact surrounding sensitive areas.

The second tower (9/1) in this section of line will remain as designed. The third transmission line tower (9/2) will be relocated from its originally proposed location about 110 feet southwest in the right-of-way to the position of an existing tower that will be removed. This relocated tower will be about 30-feet taller than originally designed, but still within the height range proposed in the EIS and under the height that would trigger FAA lighting requirements.

The fourth transmission tower (9/3) will be removed altogether.

The fifth tower (9/4) will be relocated about 480 feet southwest within the right-of-way to the position of an existing tower that will be removed. This tower will be about 2-feet taller than originally proposed (still within the height range proposed in the EIS and under the height that would trigger FAA lighting).

The tower adjustments will not affect special-status plant or wildlife species, streams or wetlands. Although the towers will be slightly taller than originally designed, the height changes are small relative to the overall tower height, are still in the range of tower heights described in the EIS, and will not significantly alter visual impacts.

Due to the tower relocations, some permanent access roads will be eliminated, an access road will be relocated into existing right-of-way, and a temporary access road will be used.

About 3,200 feet of originally proposed access road that would have accessed towers 9/1, 9/3 and 9/4 will no longer need to be built. Access to towers 9/1 and 9/2 will be achieved through the development of a 1,200-foot long access road routed primarily within the existing right-of-way. No special-status plant or wildlife species will be impacted, no streams or wetland will be crossed, and no new culverts will be required. The road will be built and have similar road impacts as described in the EIS.

Access to the adjusted location of tower 9/4 will occur through the proposed use of about 1,800 feet of temporary access road. This road currently exists as an undeveloped, two-track dirt road. BPA plans to use the road as-is, but, depending on the weather, may need to place rock which would be removed after construction is complete.

Overall, the design adjustments intended to address impacts to the culturally sensitive area will lessen tower disturbance impacts by over 2 acres, lessen permanent access road disturbance by about...
2,000 linear feet, and will not significantly alter visual impacts or impacts to sensitive species or habitats from what was described in the EIS. Accordingly, these design adjustments do not represent a significant change in the project relevant to environmental concerns.

**Other Project Design Adjustments**
Other project design adjustments also have been identified as BPA has proceeded with construction of the project. These adjustments involve installing required guard structures where the project crosses the existing BNSF railroad on the Washington side of the Columbia River, as well as developing appropriate access to these guard structures.

Guard structures are temporary wood-pole structures with cross-arms placed on either side of a facility (distribution lines, roads, railroad crossings, navigable rivers) to catch conductors, ground wire, or fiber optic cable in the unlikely event that the conductor/wires fall while being removed or installed. Two sets of guard structures will be required; one set on either side of the BNSF railroad under the transmission line conductors that will be removed as part of the project, and one set on either side of the railroad under the proposed line. A single guard structure will consist of four wood poles, about 65-feet tall, placed in-line about 40 feet apart. Cross-arms will be attached between the poles near the top to create an H-shape. The poles will be placed about 7-feet deep in the rocked/gravel area at the side of the railroad bed. The guard structures will be removed once conductor work is completed.

In order to access guard structure locations, BPA needs to reroute approximately 500 linear feet of existing BNSF access road and develop a railroad crossing. The road, currently not on BSNF-owned property, will be relocated onto BNSF property and closer to the railroad track. The area of the road relocation is slightly hilly, marked with unauthorized dirt bike tracks, and has disturbed shrub-steppe vegetation. Because no streams will be crossed, no culverts will be required.

The railroad crossing is needed for construction equipment to reach the river side of the railroad track. The crossing will involve creating gravel approaches up the slight bank to the railroad bed and filling-in the areas between the tracks with cement. The gravel and cement will be removed when guard structure work is completed.

Work for the guard structures, road reroute, and railroad crossing will all be in areas that are heavily disturbed; no special status-plant or wildlife species, wetlands, or streams will be impacted. Impacts of the guard structure work to cultural sites will be addressed through continued consultation under the Programmatic Agreement with the Yakama Nation, SHPO, and other consulting parties.

**Findings:** This Supplement Analysis finds that: 1) with the proposed design adjustments, the new information regarding the expanded culturally sensitive area is not significant new circumstances or information relevant to environmental concerns regarding the project or its impacts; and 2) the proposed design adjustments do not represent substantial changes to the Big Eddy-Knight Transmission Line Project that are relevant to environmental concerns. Therefore, no further NEPA documentation is required.

/s/ Stacy L. Mason  
Stacy L. Mason  
Environmental Protection Specialist

**CONCUR:**

/s/ Katherine S. Pierce  
Katherine S. Pierce  
NEPA Compliance Officer  
Date: November 29, 2012