

memorandum

DATE: July 11, 2012

REPLY TO
ATTN OF: KEP-4

SUBJECT: Supplement Analysis for the Big Eddy-Knight Transmission Project Final EIS (DOE/EIS-0421/SA-1)

TO: Emmanuel Jaramillo
Project Manager – TEP-TPP-1

Proposed Action: Big Eddy-Knight Transmission Project design adjustments

Proposed by: Bonneville Power Administration (BPA)

Location: Wasco County, Oregon and 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. Through construction and further detailed design work, project adjustments have been identified. The adjustments include the following:

- Installation of two temporary transmission structures and associated temporary access roads on either side of the Columbia River
- Airway safety marking modifications to and between the two permanent transmission towers on either side of the Columbia River
- Development of a specific method for providing local utility power to the two permanent transmission towers on either side of the Columbia River, and
- Route adjustment of the local utility service line to Knight Substation

Analysis: With the proposed project design adjustments, the Big Eddy-Knight Transmission Project is essentially the same as described in the 2011 Final EIS and ROD. The transmission line will follow the same route selected in the 2011 ROD and will consist of the same facilities. The following more specifically assesses the significance of the project design adjustments relative to environmental concerns.

Temporary Structure Installation

Due to project construction delays, BPA must re-energize the existing Harvalum-Big Eddy transmission line prior to it being rebuilt on new towers across the Columbia River. BPA will reconnect the portion of line that is strung on new towers in Oregon to the existing Columbia River crossing tower. The connection will require construction of two temporary wood pole structures and temporary gravel roads to access the towers. All work will be within BPA right-of-way (ROW) and the temporary towers and roads will stay in place until such time that the existing towers on either side of the Columbia River are replaced with new towers and conductor can be strung.

The temporary structures will each consist of three wood poles placed in augured holes and stabilized with cross arms and guys. One structure will be located in the ROW of the new Big Eddy-Knight line north of new tower 7/4. The second structure will be located in the Harvalum-Big Eddy ROW south of existing tower 17/1. The temporary access road to the tower near 7/4 will be about 550 feet long and the road to the tower near 17/1 will be about 250 feet long.

Construction of the temporary transmission line structures and roads will require some clearing of predominantly disturbed grassland comprised of a mix of native and non-native shrub and grass species; disturbance of these vegetation types by the project was already considered and evaluated in the Final EIS. Furthermore, these structure sites and roadways will be restored or allowed to revert back to approximately pre-project conditions after the temporary structures are removed. No cultural resources were found during surveys in the area and the Oregon State Historic Preservation Officer has concurred with BPA's determination of no adverse affect. Cultural monitors will be on-site during disturbance activities, as is consistent with construction of the entire project. Therefore, the design adjustment of adding two temporary structures and associated temporary access roads does not represent a significant change in the project relevant to environmental concerns.

Airway Marking Modifications

In order to be visible to aircraft as required by the Federal Aviation Administration (FAA), BPA originally proposed lighting the permanent transmission towers on either side of the Columbia River and placing marker balls on the line's upper most wires. Because of difficulties in obtaining quality marker balls, BPA is planning to adjust the lighting scheme so that marker balls are not required.

The original proposed lighting described in the EIS for the these two towers included a light at the top of each tower that would flash white by day/red by night and two-to-four steady-burning red lights at mid-length and lower on the towers. BPA now plans to use three lights on each tower that will flash white during the day and red at night and the flashes will be in the sequence of middle, top, bottom...middle, top, bottom. The lights will include GPS units so beacons on both towers will flash in unison and will warn pilots that there is an obstruction between the lighted towers.

Because the marker balls would have also acted as bird deterrents, BPA will now install bird diverters on the two optical ground wires. The bird diverters are smaller in scale and less visible than the marker balls, but have similar or more effectiveness as bird deterrents.

The adjustment to the airway marking is similar to what was described in the EIS, in that it still uses lights to mark the towers and installs a form of bird deterrent. The arrangement and style of the lights will be different, but the number of lights is similar and the visual impacts will be similar to those described in the EIS. In addition, the use of different bird deterrents will not result in substantially different potential impacts to birds. Therefore, this design adjustment does not represent a significant change in the project relevant to environmental concerns.

Local Utility Service for Lighted Towers

After the Final EIS and ROD were completed, the specific method for providing electrical service to power the two lighted permanent transmission structures on either side of the Columbia River was identified. Northern Wasco PUD will provide service to the tower on the Oregon side via a 250 foot long line from the PUD's existing power line. The short line will consist of three single 45-foot-tall wood poles that will be placed in augured holes and stabilized with guy wires. On the Washington side, Klickitat PUD will provide electrical service to the lighted tower via an existing line that services the existing tower, but will require one additional 45-foot-tall wood pole with guy wires.

The plan to light the two transmission structures on either side of the Columbia River was included in the Final EIS, and disturbance from installing the required electrical service will occur in areas already reviewed and considered in the Final EIS. The line structures also will be consistent with the existing local distribution lines in the vicinity. Accordingly, the refinement of the method for providing local electrical service to the two lighted towers does not represent a significant change in the project relevant to environmental concerns.

Local Utility Service for Knight Substation

As described in the Final EIS, Knight Substation will obtain electrical service from Klickitat County PUD via a short PUD 12.5-kV line. The originally proposed line would have connected to an existing PUD line at the intersection of Pine Forest Road and Knight Road north of Knight Substation. The line would have run about 1.3 miles south down Knight Road on wood poles, then west underground along the substation access road to Knight Substation. Through further discussion with the PUD it has been determined that a route adjustment is required.

The line will now connect to the PUD's line on Pine Forest Road and head directly south to Knight Substation. The approximately one mile line will run entirely underground along a fence in agricultural fields. The line construction may create temporary disturbance to agricultural fields due to trenching depending on the construction seasonal timing. However, once constructed, the line will be far enough below the surface so that farming can continue to take place above it.

The proposed route will be shorter than the original line, in the same general vicinity as described in the EIS, will utilize undergrounding, and will have similar impacts (potential farming and soil disturbance) as those considered and evaluated in the 2011 Final EIS. Areas to be disturbed by construction have been surveyed for potential cultural resources consistent with ongoing Section 106 consultation for the project. No cultural resources were found and BPA expects concurrence with its determination of no adverse affect from the Washington State Historic Preservation Officer. The route adjustment for the station service to Knight Substation thus does not represent a significant change in the project relevant to environmental concerns.

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

/s/ Laura Roberts

Laura Roberts
Biological Scientist

CONCUR: /s/ Katherine S. Pierce
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NEPA Compliance Officer

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