

United States Government

Department of Energy
Bonneville Power Administration

memorandum

DATE: March 9, 2010

REPLY TO
ATTN OF: KEP-4

SUBJECT: Supplement Analysis for the McNary-John Day Transmission Line Project Final EIS
(DOE/EIS-0332/SA-2)

TO: Theresa Berry
Project Manager – TEP-TPP-3

Proposed Action: McNary-John Day Transmission Line Project design clarifications concerning certain transmission line structure heights and the McNary Substation office building

Proposed by: Bonneville Power Administration (BPA)

Location: Umatilla and Sherman counties, Oregon; Benton and Klickitat counties, Washington

Background: In 2002, BPA completed the McNary-John Day Transmission Line Project Final Environmental Impact Statement (EIS) (DOE/EIS-0332) and issued a Record of Decision (ROD) documenting its decision to build and operate the McNary-John Day 500-kilovolt (kV) transmission line. Since completion of that EIS and ROD, BPA has undertaken further detailed design work for the transmission line and associated facilities. As a result, the following project design clarifications have been identified:

- In order to provide sufficient clearance to safely span the Columbia River and meet electrical safety requirements for adequate separation of one transmission line from other transmission lines, the transmission line structures for the 500-kV McNary-John Day transmission line at its three crossings of the Columbia River – one near John Day Dam and the other two near McNary Dam – would be taller than those along the rest of the transmission line.
- The transmission line structures for the McNary-John Day transmission line also would be taller than those along the rest of the transmission line where this new line would cross over six existing high-voltage transmission lines that connect the McNary Dam powerhouse to the McNary Substation, in order to provide sufficient clearance of the new line over these existing lines.
- An existing prefabricated office building at BPA's McNary Substation would be removed and replaced with a new office building to be constructed at a different location on the McNary Substation property, in order to help accommodate the routing of the McNary-John Day transmission line.

- Portions of two existing overhead distribution transmission lines to the north and northwest of the McNary Substation would be removed and rerouted underground to avoid overhead conflicts with the McNary-John Day transmission line.

Analysis: With the proposed project design clarifications, the McNary-John Day transmission line project is essentially the same as described in the 2002 Final EIS and ROD. The transmission line will follow the same route, including use of various short line routing alternatives, which was selected in the 2002 ROD and will consist of the same facilities. The following more specifically assesses the significance of the project design clarifications that are identified above, relative to environmental concerns:

- *Structure heights at Columbia River crossing near John Day Dam.* At this river crossing, two dead-end structures – one on the Oregon side and one on the Washington side – for the McNary-John Day transmission line would be approximately 180 feet and 220 feet tall, respectively. In between these two structures would be an approximately 365-foot-tall suspension structure. These structures would be double circuit towers, rather than the single circuit towers that were originally planned. However, the same number of towers would be installed at the same locations as originally planned. The McNary-John Day transmission line crossing of the Columbia River also will be located adjacent and parallel to an existing river crossing by BPA’s Rock Creek-John Day 500-kV transmission line. This existing crossing already has taller tower heights over the river, including a suspension tower that is approximately 300 feet tall. In addition, multiple existing high-voltage transmission structures of various heights are already present in the vicinity of John Day Dam. These structures support several existing high-voltage transmission lines currently in this area. Because of these factors, the clarification of the structure heights at this river crossing is not expected to result in any significantly different or additional environmental impact from what was described in the 2002 Final EIS for the project, and visual impacts would be similar to those described in the EIS. The increased structure heights at this location, thus, do not represent a significant change in the project relevant to environmental concerns.
- *Structure heights at Columbia River crossing near McNary Dam.* At the two Columbia River crossings near McNary Dam, the four suspension structures that would be constructed for the line – two on the Oregon side and two on the Washington side – would each be approximately 340 feet tall. These 500-kV structures would be double circuit towers, and would replace four existing double circuit suspension towers (two 345-kV towers and two 69-kV towers) that currently support transmission lines crossing the Columbia River. The existing 345-kV towers are about 285 feet tall, and the existing 69-kV towers are about 190 feet tall. BPA would remove these towers and replace them with the new 500-kV structures. The replacement of existing towers would mean that the same number of towers would be installed at the same locations as currently exist for three of the towers. The fourth tower would be installed approximately 250 feet north of the existing tower to best accommodate the tower footings and minimize impact to the river bank. The existing towers that will be removed also are already taller than other towers in the area, and the increased height of the new structures would not be expected to substantially change views in the vicinity. In addition, as in the vicinity of the John

Day Dam, there are multiple existing high-voltage transmission structures of various heights in the vicinity of McNary Dam, with these structures supporting several existing high-voltage transmission lines currently in this area. Because of these factors, the clarification of the structure heights at this river crossing is not expected to result in any significantly different or additional environmental impact from what was described in the 2002 Final EIS for the project, and visual impacts would be similar to those described in the EIS. The increased structure heights at this location thus do not represent a significant change in the project relevant to environmental concerns.

- Structure heights at crossing of McNary Dam powerhouse lines. Immediately upon exiting the McNary Substation on its northeast side, the new McNary-John Day transmission line would cross over six existing high-voltage transmission lines that connect McNary Dam to the McNary Substation. In order for the McNary-John Day line to cross over the existing lines, three new structures would need to be taller than standard structures along the rest of the line. The existing lines currently have a 3/8-inch groundwire. By replacing the 3/8-inch groundwire with new 1/2-inch groundwire, overall tower heights needed to cross over the existing lines would be minimized. For the McNary John Day line to cross over 1/2-inch ground wire, tower heights of the three new structures would range from about 230 to 235 feet tall. The heights of these three structures would not be significantly different from the multiple existing high-voltage transmission structures of various heights that are already present in the vicinity of the McNary Substation. Because of these factors, the clarification of the structure heights at location is not expected to result in any significantly different or additional environmental impact from what was described in the 2002 Final EIS for the project, and visual impacts would be similar to those described in the EIS. These increased structure heights thus do not represent a significant change in the project relevant to environmental concerns.
- McNary Substation office building. The 2002 Final EIS for this project includes an alternative (Alternative A – Relocate Building) for a portion of the McNary-John Day transmission line between BPA’s McNary Substation and the Columbia River. This alternative involved relocating an existing prefabricated office building within BPA’s existing McNary Substation property to help accommodate the routing of the new transmission line. The 2002 ROD for the project selected this alternative. In early 2009, BPA considered possibly removing this office building rather than relocating it, and assigning employees using the building to a new office in the Tri-Cities area in Washington (see DOE/EIS-0332/SA-01). However, BPA has subsequently clarified that the existing McNary Substation office building would be removed and replaced with a new office building to be constructed at a different location on the McNary Substation property. This new office building would be a 40-foot by 72-foot (2,900 square feet), single story building located to the west of the McNary Substation control house, in between the existing substation access road and the enclosed substation yard. The building would be built slab-on-grade, and new water and sewer lines would be installed along the existing substation access road to serve the building. These new lines would extend to existing city water and sewer lines located about one mile west of the building site. A trench about two feet wide and four feet deep would be excavated along the

access road to install the new lines; this trench would be refilled once line installation is completed. A parking area also would be established adjacent to the new building.

These clarifications concerning the location and design of the new McNary Substation office building are not a substantial change from what was described in the 2002 Final EIS, or from the alternative selected in the 2002 ROD. While a new building would be constructed rather than simply moving and reusing the existing building, the new building would be largely the same in size and design as the existing building, and would similarly blend in with adjacent facilities. Construction of the building and associated parking lot and water and sewer lines would require some clearing of predominantly disturbed grassland comprised of a mix of native and non-native species; disturbance of these vegetation types by the project was already considered and evaluated in the 2002 Final EIS. Based on initial cultural resource surveys, construction of the building and associated facilities would not be expected to affect any cultural resources in the area. However, areas to be disturbed by construction have been incorporated into on-going Section 106 consultation for the project, and Oregon State Historic Preservation Officer concurrence will be obtained prior to starting construction. The McNary Substation office building location and design clarifications thus do not represent a significant change in the project relevant to environmental concerns.

- *Existing overhead distribution lines.* To avoid conflict and provide sufficient clearance for the McNary-John Day transmission line, portions of two existing overhead distribution lines, one owned by Umatilla Electrical Cooperative (UEC) and one by Pacific Power (PP), would be removed and rerouted underground. The existing lines consist of two and three pole wood structures located to the north and northeast of the McNary Substation, along the northern side of Old Third Street and within BPA's existing ROW. UEC's line would be placed in a 36-inch deep trench along the south side of New Third Street starting north of the substation and traveling west approximately one mile before heading north, from the intersection of, and along Brownell Road for another approximate one-half mile. Fiber optic cables on the existing lines would be replaced by placing new fiber cables in a separate trench parallel and adjacent to the undergrounded UEC line. PP's line would be placed within a 24-inch wide by 48-inch deep trench along the north side of New Third Street that would follow approximately the same route as the UEC line, but would terminate at the intersection of Third Street and Brownell Road. Associated with each line would be four to six small vaults buried no more than five feet deep so the tops of the vault sit flush with the surface. The areas that would be disturbed by undergrounding these lines were reviewed in the 2002 Final EIS. A minimal additional amount of clearing of predominantly disturbed grassland comprised of a mix of native and non-native species would be required, which would not be considered a significant increase in the amount of disturbance from what was evaluated in the 2002 Final EIS. Areas to be disturbed by construction have been incorporated into on-going Section 106 consultation for the project, and Oregon State Historic Preservation Officer concurrence will be obtained prior to starting construction. The rerouted undergrounding of the overhead distribution lines thus does not represent a significant change in the project relevant to environmental concerns.

Findings: This Supplement Analysis finds that: 1) the proposed design clarifications do not represent substantial changes to the McNary-John Day Transmission Line Project that are relevant to environmental concerns; and 2) these design clarifications 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

Katherine S. Pierce
NEPA Compliance Officer

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