

# Record of Decision for the Electrical Interconnection of the Plymouth Generating Facility October 2003

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## THE DECISION

The Bonneville Power Administration (BPA) has decided to implement the proposed action identified in the Plymouth Generating Facility (PGF) Final Environmental Impact Statement (FEIS) (DOE/EIS-0345, June 2003). The PGF, which has been proposed by Plymouth Energy, LLC (Plymouth Energy), involves construction and operation of a 307-megawatt (MW) natural gas-fired, combined-cycle power generation facility on a 44.5-acre site 2 miles west of Plymouth in Benton County, Washington. Under the proposed action, BPA will offer contract terms for interconnection of the PGF into the Federal Columbia River Transmission System (FCRTS) at BPA's proposed McNary-John Day 500-kilovolt (kV) transmission line at a point approximately 4.7 miles west of BPA's McNary Substation. BPA thus will enter into a Generation Interconnection Agreement with Plymouth Energy that provides for the interconnection of the PGF with the FCRTS and the operation of the PGF in the BPA Control Area. In addition, a Construction, Operations and Maintenance Agreement is necessary to provide for construction activities and continued operations and maintenance of facilities.

## BACKGROUND

BPA is a Federal agency that owns and operates the majority of the high-voltage electric transmission system in the Pacific Northwest. This system is known as the FCRTS. BPA has adopted an Open Access Transmission Tariff for the FCRTS, consistent with the Federal Energy Regulatory Commission's (FERC) *pro forma* open access tariff.<sup>1</sup> Under BPA's tariff, BPA offers transmission interconnection to the FCRTS to all eligible customers on a first-come, first-served basis, with this offer subject to an environmental review under the National Environmental Policy Act (NEPA).

In January 2002, Plymouth Energy submitted a transmission interconnection request to BPA for interconnection of the proposed PGF into the FCRTS. Consistent with its tariff, BPA is required to respond to this request. In considering this request, BPA prepared a joint NEPA/State Environmental Policy Act (SEPA) EIS with Benton County to evaluate the environmental effects of the proposed project, and issued the FEIS in June 2003.

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<sup>1</sup> Although BPA is not subject to FERC's jurisdiction, BPA follows the open access tariff as a matter of national policy. This course of action demonstrates BPA's commitment to non-discriminatory access to its transmission system and ensures that BPA will receive non-discriminatory access to the transmission systems of utilities that are subject to FERC's jurisdiction.

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## **PROJECT DESCRIPTION**

The PGF would be constructed on a site near the rural community of Plymouth, which is located on the Columbia River in the southern portion of Benton County, Washington. The project is in an agricultural/industrial area with neighbors that include the Williams Company compressor station and the AgriNorthwest grain facility. The generating facility would include equipment that can produce 307 nominal MW of electricity. The facility would include a natural gas-fired combustion turbine generator and a steam turbine generator. Other major equipment would include a heat recovery steam generator, condensing/cooling system, water treatment system, water storage tanks and a switchyard that would include transformers and switching equipment.

Natural gas would be supplied to the facility by an 800-foot pipeline lateral from the Williams Northwest Gas Pipeline Company Plymouth Compressor Station, which is located adjacent to the plant site.

The majority of water for plant operations and cooling would be supplied from a groundwater well whose rights have been purchased and transferred to Plymouth Energy. A small additional quantity of water to meet plant peak needs would be obtained by lease from the adjacent property owner and be supplied from existing wells. All wells that would supply water have existing water rights that have been recently reviewed and certified by the Benton County Water Conservancy Board and the Washington State Department of Ecology. Wastewater resulting from project operations would be supplied to the adjoining agricultural property, where it would be blended with existing water supplies and then used for crop irrigation. During the time of year when irrigation is not required, wastewater would be stored in a pond.

The PGF interconnection would be a 0.6-mile 500-kV transmission line that would extend from the PGF north to an interconnection point on the proposed BPA 500-kV McNary-John Day transmission line. Four to six transmission towers, approximately 100 to 140 feet in height, would be installed to support the 0.6-mile line. The BPA right-of-way corridor currently includes two lines, one operating at 230 kV (known as the McNary-Horse Heaven 230-kV transmission line) and the second at 345 kV (known as the Ross-McNary 345-kV transmission line). The 500-kV McNary-John Day transmission line would therefore be the third line in this corridor. BPA completed its NEPA process for this proposed line in November 2002.

## **ALTERNATIVES CONSIDERED**

Alternatives for interconnection were evaluated in the EIS. These alternatives included the proposed action (BPA's Preferred Alternative--the alternative chosen) and the following alternatives:

- **Alternate 230/345-kV Transmission Interconnection.** This alternative considered interconnection with BPA's McNary-Horse Heaven 230-kV line or Ross-McNary 345-kV line, which are also located in the BPA right-of-way corridor approximately 0.6 mile north of the plant site.

- **Alternate Benton PUD/BPA Transmission Interconnection.** This alternative considered interconnection to BPA's McNary Substation via a tie-in to the existing BPA McNary-Franklin 230-kV transmission line. To interconnect with the BPA system at this location, Plymouth Energy would rebuild an existing Benton Public Utility District 115-kV transmission line, adding a 230-kV circuit to the line. East of I-82 and north of the Columbia River, the new 230-kV circuit would tie into the existing BPA McNary-Franklin 230-kV line that crosses the river on existing transmission towers and terminates at the McNary Substation. This would involve building a 2.0-acre switching station at the tie-in point. Under this alternative, the McNary-Franklin line could require reconductoring, and the river crossing structures could require reinforcement or upgrades for the larger conductor.
- **No Action Alternative.** The No Action Alternative would result in the PGF not being constructed or operated, and therefore there would be no contracts for interconnection within the FCRTS. The No Action Alternative would avoid site-specific impacts such as conversion of agricultural land to industrial use, impacts to transportation, impacts to visual resources, impacts to ecological resources, and air emissions. This alternative would be the environmentally preferable alternative because it would have the least environmental impact of the alternatives considered in the EIS.

## **COMMENTS RECEIVED AFTER FEIS ISSUANCE**

The Draft EIS for the proposed project was issued in August 2002. A total of 15 comment letters were received. The FEIS, which was issued in June 2003, included responses to all substantive comments raised by these letters, as well as revisions to the EIS text as appropriate. Following the issuance of the FEIS, BPA received a comment letter from the U.S. Environmental Protection Agency (EPA). This letter was the second letter received by BPA related to BPA's proposed action for the proposed project (the first letter was EPA's comment letter on the Draft EIS).

In EPA's second comment letter, the EPA thanked BPA for clarifications it provided in the FEIS concerning the air quality analysis that was included in the EIS. However, the EPA noted that the concerns it had raised in its Draft EIS comments concerning cumulative air quality impacts remained. More specifically, the EPA is concerned that the EIS does not account for existing and reasonably foreseeable non-power generating air sources in the analysis of cumulative visibility and other air quality effects.

BPA has reviewed and considered EPA's comment letter and the concerns it raises about the cumulative air quality impact analysis contained in the FEIS. BPA believes that the FEIS contains an adequate and reasonable analysis of potential cumulative air quality impacts. As is explained in the FEIS, the assessment of potential cumulative air quality impacts is a qualitative analysis, rather than a quantitative analysis, as allowed under NEPA. Existing sources that can contribute to cumulative air quality impacts are discussed on page 3.2-18 of the EIS, and Table 3.14-1 identifies reasonably foreseeable projects (including non-power projects) that could generate air emissions. Thus, the EIS sufficiently accounts for other projects that could result in cumulative air quality impacts, and the analysis in the EIS provides a sufficient understanding of the cumulative air quality impacts for BPA's decision-makers.

While analysis of potential cumulative air quality impacts in the FEIS is qualitative, some confusion appears to have arisen due to the fact that the EIS also includes a description of an air quality modeling exercise that was conducted in 2001 for potential power projects proposed at that time. While this exercise was intended to provide a general sense of the cumulative impact of these power projects for a “snapshot in time”, it was not intended to serve as a definitive cumulative impact analysis under NEPA because of the acknowledged need to consider other air emission sources, which was beyond the scope of the 2001 modeling exercise. Accordingly, as discussed above, the FEIS includes an analysis of cumulative air quality impacts that includes all past, present, and reasonably foreseeable future actions, consistent with NEPA. Therefore, BPA believes that the EIS adequately identifies and considers cumulative air quality impacts, and that additional air quality modeling is not warranted under NEPA.

## **RATIONALE FOR DECISION**

I have decided it is in the best interest of BPA and the Pacific Northwest to offer contract terms for interconnection of the PGF into the FCRTS at BPA’s proposed McNary-John Day 500-kV transmission line at a point approximately 4.7 miles west of BPA’s McNary Substation. The selected alternative best meets the purpose and need identified for the project, which includes:

- Provide an adequate, economical, efficient and reliable power supply to the Pacific Northwest, and the electrical stability and reliability of the FCRTS;
- Consistency with BPA’s environmental and social responsibilities;
- Cost and administrative efficiency;
- Be in accordance with BPA’s Open Access Transmission Tariff;

The PGF will be expected to provide economic and reliable energy. BPA will take measures to ensure the continuing safe, reliable operation of the FCRTS. BPA contracts providing interconnection of the PGF will include terms requiring that all necessary permits be approved before the contract is implemented. BPA expects that the PGF will comply with terms and conditions of all permits issued pertaining to the facility. BPA’s contracts will also include appropriate provisions for remediation of oil or other hazardous substances associated with construction and operation of related electrical facilities in a manner consistent with applicable Federal, State, and local laws.

The selected 500-kV alternative provides, at a comparable cost, a more reliable electrical interconnection with greater operational flexibility to the project and a better use of limited river crossings. The alternate 230/345-kV interconnection was not chosen due to high costs and an inferior electrical interconnection including fault currents and thermal overloads requiring substantial equipment investment in powerhouse line crossings, breakers, and transformers at McNary Substation. This option would not provide a reliable interconnection to the FCRTS for the PGF.

The alternate Benton PUD/BPA interconnection was not chosen due to the costs and inferior electrical interconnection. Currently there are two river crossings in the existing line which this would tie into. Line upgrades and additional transformation would be required as well as a new switching station. Additionally there are high costs due to substantial equipment investment that would be required at McNary Substation.

## **MITIGATION**

All practicable means to avoid or minimize environmental harm from the alternative selected have been adopted. Specific resource mitigation measures to be implemented to avoid or minimize environmental harm are identified in Table 1-1 of the PGF FEIS. The PGF will also be constructed in accordance with permit conditions specified by regulatory agencies.

Issued in Portland, Oregon.

<u>/s/ Stephen J. Wright</u>	<u>October 14, 2003</u>
Stephen J. Wright	Date
Administrator and	
Chief Executive Officer	