

**Bonneville Power Administration**  
**BPA/Puget Power Northwest Washington Transmission Project**  
**Record of Decision**

**Background**

Starting in 1995, Bonneville Power Administration (BPA) and Puget Sound Power & Light Company (Puget Power) propose to upgrade the existing high-voltage transmission system in the Whatcom and Skagit Counties area of the State of Washington, between the towns of Custer and Sedro Woolley, including some areas within the City of Bellingham. The upgrades of the interconnected 230,000-volt (230-kV) and 115-kV systems are needed to increase the transmission capacity on a nearby U.S.-Canada 500-kV intertie by about 850 megawatts (MW). BPA and Puget Power would share equally in the 850 MW of increased transfer capacity.

BPA has prepared this Record of Decision pursuant to the process specified in the National Environmental Policy Act (NEPA), regulations of the Council on Environmental Quality (40 CFR Part 1505), and Implementing Procedures of the Department of Energy (57 FR15122, April 24, 1992). A Draft Environmental Impact Statement (DEIS) for the BPA/Puget Power Northwest Washington Transmission Project was issued in November 1993. Publication was followed by a 45-day public comment period. Open houses and public meetings were held in December 1993. Public response to the DEIS included the identification of several new transmission route alternatives in the Lake Whatcom area.

In 1994, studies by BPA and Puget Power engineers showed that recent improvements to Puget Power's 115-kV system and the addition of local generation had lessened local reliability problems. Also in 1994, BPA reorganized to respond to increased competition in the utility industry and to manage costs more effectively. Despite these system and organizational changes, BPA and Puget Power agreed that benefits of obtaining increased transfer capacity and further improved system integrity warranted the financial expenditures.

Given these changes, BPA elected to prepare a Supplemental DEIS and provide a second public review-and-comment opportunity. The Supplemental DEIS, issued in April 1995, identified rebuilding an existing 230-kV line to a double-circuit 230-kV transmission line (Option 1) as the Proposed Action. The document also examined in detail a North Shore Road alternative proposed by some members of the public. Public comments on the DEIS were responded to in the Supplemental DEIS.

In May 1995, a second set of open houses and public meetings was held to review the Supplemental DEIS. Electric and magnetic field (EMF) continued to be an issue of public concern in the meetings. The need for the project was also questioned by several individuals.

Comments on the Supplemental DEIS required only minor changes to the document. Public comments on the Supplemental DEIS did not identify any alternatives not previously considered. BPA reinitiated consultation with the U.S. Fish and Wildlife Service (USFWS) pursuant to the Endangered Species Act and amended its Biological Assessment. The USFWS has concurred with BPA's biological assessment that the project is "not likely to affect" threatened or endangered species. Puget Power requested a few factual changes on its 115-kV transmission line proposal. BPA provided updated information on the BPA/Canada Entitlement Return Environmental Impact Statement (EIS) and Endangered Species Act consultation.

Given the minor nature of corrections to the document, BPA decided to prepare a Final EIS by showing changes on insert sheets and attaching them to the Supplemental DEIS. The Final EIS insert sheets, public comments and responses, and copies of the comment letters were sent to State and Federal agencies and to concerned individuals. The Final EIS was filed with the Environmental Protection Agency on August 2, 1995; a Notice of Availability for the Final EIS was published in the *Federal Register* on August 11, 1995.

With the completion of these steps of the NEPA, BPA may now proceed with decisionmaking. BPA's decisions are detailed below.

### Decisions

BPA has decided to proceed with the Proposed Plan - Option 1, as described in the EIS and summarized below.

1. BPA will upgrade the existing high-voltage transmission system in the Whatcom and Skagit Counties area between the towns of Custer and Sedro Woolley, starting in 1995. Puget Power will upgrade its 115-kV system between its Bellingham Substation and BPA's Bellingham Substation. The upgrades of the interconnected 230-kV and 115-kV systems will increase U.S.-Canada intertie transmission capacity by about 850 MW. BPA and Puget Power will share equally in the 850 MW of increased transfer capacity.
2. In fall 1995, Puget Power will rebuild its 6.9-kilometer (km) (4.3-mile (mi.)) 115-kV transmission line between its Bellingham Substation and BPA's Bellingham Substation on Dewey Road. Poles, insulators, and conductors will be replaced. The rebuilt transmission line will still be energized at 115 kV, and will look very similar to the existing line.
3. In fall 1995, BPA will begin to build a new terminal at its Bellingham Substation to accommodate Puget Power's rebuilding of its 115-kV transmission line. The substation yard will be expanded on the south side over an area of about 15 meters (m) by 76 m. A new substation dead-end structure will be built, and a new power circuit breaker with associated bus work will be installed.

4. In summer 1996, BPA will begin to rebuild its existing single-circuit, wood pole H-frame 230-kV transmission line between Custer and Puget Power's Sedro Woolley Substation, a distance of about 61 km (38 mi). First to be rebuilt will be the portion of line between BPA's Custer and Bellingham Substations. The existing wood pole line will be torn down, and wood poles, wires, and insulators removed. A new double-circuit, lattice steel 230-kV transmission line will then be constructed within the existing right-of-way. Reconstruction of the portion of line between Bellingham Substation and Sedro Woolley Substation is expected to begin in spring 1997. Project energization is planned for fall 1997.
5. Following completion of the transmission line upgrades, BPA will use its portion of the increased intertie capacity (425 MW) to pursue one or more of the following types of power transactions:
  - Agreements with Canada to store and return increased amounts of energy;
  - Transmission wheeling agreements with Pacific Northwest utilities for power transactions with Canada;
  - Agreements with Canada that would provide increased flexibility in the operation of the Federal hydroelectric system and thermal resources in Whatcom and Skagit Counties;
  - Agreements that provide increased access to Canadian energy resources.

### **Alternatives Considered**

The following alternatives were considered in reaching these decisions. Each alternative is evaluated in detail in the EIS.

- No Action
- Intertie Use Action
- BPA Design Options
  - Option 1 - double-circuit 230-kV design
  - Option 2 - double-circuit 500-kV design, with operation at 230-kV
  - Option 3 - double-circuit 500-kV design, with operation of the rebuilt line at 500 kV and the existing 500-kV lines at 230-kV
  - Option 4 - double-circuit 500-kV design, with operation of the new line at a combination of 230-kV and 500-kV, and operation of one existing 500-kV line at 230-kV

- BPA Location Options
  - Existing right-of-way versus Segment H1
  - North Shore Road Alternative
- Puget Power Design Alternatives
  - Design Option 1
  - Design Option 2
- Puget Power Location Alternatives
  - Existing 115-kV right-of-way
  - Pipeline Alternative

### **Rationale for Decisions**

In compliance with NEPA, BPA has analyzed the environmental impacts of No Action and the Construction Action, as well as of the various design and location alternatives. BPA also considered public comments it received on the Draft EIS and the Supplemental DEIS.

The No Action alternative would continue to limit intertie access, with consequent cost and energy inefficiencies and lost opportunities for seasonal exchange and return of stored energy from Canada.

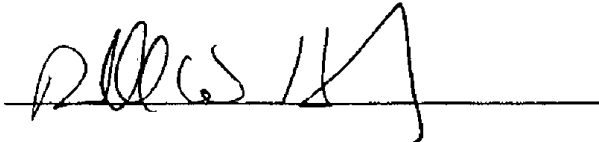
The decision to share the increased capacity with Puget Power, to build the new lines using Design Option 1, and to follow the existing line location was made in full consideration of public comments and interests. Option 1 rebuilds an existing 230-kV transmission line and requires no new right-of-way. Sharing the increased capacity with Puget Power helps avoid unnecessary duplication of transmission facilities that might otherwise occur. Puget also will share in the cost of transmission improvements, reducing BPA's capital costs.

Option 1 is considerably less expensive than other design alternatives and would have less overall environmental impact. The North Shore Road Alternative, for example, would have greater impacts on rural residential and forest land, and the area is particularly sensitive to slope failure and erosion.

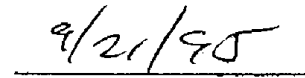
### **Considerations in the Implementation of the Decision**

BPA will design, build and operate the BPA portions of this project. Included in this decision is the implementation of mitigation measures recommended in the Final EIS (Chapter 2, Section C.3, or Chapter 4, under each resource category). Line construction will occur in two phases over the next 2 years. The first phase will occur during summer and fall 1996. The second will occur during spring, summer, and fall 1997. Construction at Bellingham Substation is separate from line construction and will occur for about one month, starting in October 1995.

Mitigation Action Plans are being prepared for each of the two phases of line construction. They will include all mitigation measures addressed in the EIS. Mitigation measures are coordinated with design and construction engineers and with maintenance personnel, and are ultimately included in the construction specifications for the project. Mitigation Action Plans will be distributed to those requesting a copy; the Plan for Phase 1 will be available in October 1995, the Plan for Phase 2 in October 1996.



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Date