

# Chapter 1

## Purpose of and Need for Action

This chapter provides descriptions of:

- Need for Action
- Purposes (Decision Factors)
- EIS History
- Decisions to be Made
- Cooperating Agencies
- Scoping and Major Issues

The *Bonneville Power Administration (BPA)*<sup>1</sup>, a federal agency, owns and operates over 15,000 miles of *transmission lines* throughout the Northwest. BPA uses its *transmission system* to market and transmit power from the federal hydropower system in the Northwest. BPA also transmits power that it purchases and markets from other generation sources in the region to adequately serve its customers, as required by statute.

BPA enters into contracts to deliver power where it is needed. These *obligations* include *long-term firm transmission agreements* with entities that generate power and with utilities that provide electricity for homes, businesses, and farms in the Northwest. BPA's customers also include large *direct service industries (DSIs)*, such as aluminum plants, and the agency provides power to regions outside of the Northwest, such as Canada and California.

This chapter explains a problem that exists in eastern Washington on BPA's transmission system. It describes conditions that have come together to create a need for action to solve the problem, and identifies objectives (purposes) to be achieved that BPA will use to evaluate possible alternative solutions.

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<sup>1</sup> Words and acronyms in bold are defined in **Chapter 8 Glossary and Acronyms**.

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## Need for Action

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BPA needs to take action to ensure that it can continue to meet its statutory and contractual obligations to deliver power to where it is needed.

BPA has a statutory obligation to ensure that there is sufficient *capacity* in its transmission system to serve its customers, and to ensure that the system is safe and reliable. Among many other requirements, the Federal Columbia River Transmission Act directs BPA to construct additional transmission lines that are necessary to integrate and transmit electric power from Federal and non-federal generating sources [16 U.S.C. §838b(a)]; and to construct additional transmission lines necessary for maintaining the electrical stability and reliability of the transmission system [§ 838b(d)]. Reliability standards are developed by the industry to minimize risks to public safety and to equipment. In addition, the Act directs BPA to construct transmission system additions required to provide interregional transmission facilities [§838b(c)].

As part of its transmission system, BPA owns and operates several transmission lines in eastern Washington that move electricity from generation sources in Montana such as Libby and Hungry Horse dams to load centers to the west (e.g., Seattle, Washington and Portland, Oregon). The system also transmits power from generation sources in northern Idaho and northeastern Washington. The portion of the system west of Spokane, Washington, that transfers power from east to west, called the “West of Hatwai” transmission path, has a total capacity of 2,800 *megawatts (MW)*. Of this capacity 2200 MW is allocated to BPA and 600 MW to Avista, an electric utility with facilities in eastern Washington and northern Idaho. The full capacity of this path historically has been used to transport firm power from east to west. BPA has the ability to use Avista’s share of 600 MW only if it is available, and the additional 600 MW would not be firm power because BPA would not be able to guarantee that the capacity would be always available.

Since the mid-1990s, the West of Hatwai transmission path has grown increasingly constrained. To date, BPA has been able to manage operation of the path through all available operating practices, including short-term remedial actions. As a result, generation was not severely curtailed and customer needs have been met while maintaining the reliability of the path. However, in early 2001, the problem was made worse when two of BPA’s large DSI customers located east of the transmission path closed their facilities. These customers were aluminum smelters with a combined load of approximately 800 MW that was served by generation sources in Montana. The closure of these smelters meant that this 800 MW now flows west across the West of Hatwai transmission path instead of serving the two DSIs. Because the path does not have the capacity to handle this excess energy, all of this energy must compete for space with other users of the path, which creates severe transmission congestion. Under these conditions, the system is at risk of *overloads* and violation of industry safety and reliability standards.

Although the capacity and reliability problems of this path exist year round, the problem is particularly acute in the spring and summer months because of the large amount of power generated by dams east of the path. During these months, spring runoff increases water flows, and reservoirs behind the dams reach high levels. While some of this water is spilled to aid migrating fish in their downstream journey, large amounts of water cannot be spilled due to potential adverse effects on those fish. This means that more water must flow through turbines at the dams, which generates more power. The amount of power that needs to move through this area during these months at times could exceed the carrying capacity of the existing transmission lines. The resulting congestion can be likened to that caused by all the interstate traffic from a six-lane freeway being funneled for 84 miles onto a narrow, two-lane state route.

Operations in summer 2001 showed that using all available operating practices to mitigate the capacity limitations of the West of Hatwai transmission path is insufficient as a long-term solution to ensure the flow of power while maintaining system reliability. The problems that occurred in 2001 showed that the risk for future generation curtailments is already too high, and that the problem must be solved on a long-term basis as soon as possible. Because of the time required for completing the environmental review and for design and construction of potential facilities, 2004 likely is the earliest possible date that a long-term solution could be implemented.

If additional capacity is not added, BPA will run a significant risk that it will not be able to continue to meet its contractual obligations to deliver power and still maintain reliability standards that minimize risks to public safety and to equipment. Action thus is needed to allow BPA to continue to fulfill its contractual obligations, as well as to comply with BPA's Congressional mandates to provide necessary interregional transmission facilities and adequate transmission capacity, and to maintain electrical system stability and reliability.

## **Purposes**

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Purposes are goals or objectives to be achieved while meeting the underlying need. The purposes identified below have been used to evaluate the reasonableness of a wide range of potential project alternatives. In addition, BPA decision-makers will consider how well the alternatives evaluated in detail in this EIS meet these purposes when making a decision among them. In this case, the alternative selected should:

- Maintain transmission system reliability to industry standards;
- Comply with BPA's statutory obligations;
- Continue to meet BPA's contractual obligations;
- Minimize environmental impacts;
- Minimize costs; and
- Allow BPA to solve its transmission capacity problem by no later than fall 2004.

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## EIS History

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BPA previously identified a problem on this part of the system in the early 1990s. At that time, BPA prepared a preliminary *Environmental Impact Statement (EIS)* and presented alternative solutions to the public, which included new, much longer transmission lines. The EIS was not completed, and the problems identified at the time were solved in other ways (see Chapter 2).

Since then, BPA has continued to examine the long-term performance of the system and has determined that it must take action as soon as possible to solve problems in the area. In developing the current set of alternatives, BPA used input from the public received during the earlier EIS process. Input was also received during the public scoping process for this EIS as well as from other outreach efforts. BPA also consulted with a technical and economic review committee, consisting of individuals from other utilities and BPA customers, who evaluate proposed transmission projects based on whether they provide the most effective solutions from a “single utility” planning concept: in other words, as though the Northwest’s electrical system were operated by only one entity. Chapter 2 discusses the actions that BPA has taken to date to solve the problem, as well as solutions currently proposed or eliminated from consideration.

This EIS (which builds on the preliminary document prepared in the mid-1990s), and its review by the public, will help refine the potential solutions. Chapter 3 identifies the environmental resources that could be affected, and discloses the potential impacts to the resources that could be caused by the alternatives identified to date.

## Decisions to be Made

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BPA is distributing the Draft EIS to the public and other agencies and entities for review and comment. BPA will consider the comments it receives, respond to them, and make any necessary changes to the proposal or impacts in a Final EIS. Decision-makers will then use the Final EIS to make the following decisions.

- BPA must decide whether or not to build a new transmission line to meet the need (see Chapter 2 for descriptions of specific proposals and alternatives).
- If the decision is to build a transmission line, BPA must select one of the alternatives described in Chapter 2, identify the factors leading to this decision, and identify which measures discussed in the EIS to mitigate construction and operational impacts have been adopted.
- If BPA decides to build a transmission line, Bureau of Reclamation (BOR), a cooperating agency (see “Cooperating Agencies” section below), must decide if the project meets the conditions of the long-standing Memorandum of Understanding with BPA to allow the crossing of BOR land and waterways.

## Cooperating Agencies

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When a project could involve more than one federal agency, those agencies often work together during the planning and decision-making process. Because BPA is proposing to take action to address problems on the West of Hatwai transmission path, BPA is the lead federal agency on this project and supervises the preparation of the EIS. The proposed project crosses land managed by the U.S. Department of Interior, Bureau of Reclamation (BOR) at Grand Coulee Dam, and the western end of the proposed line terminates at BOR's Grand Coulee Switchyard. BOR thus has agreed to cooperate in the EIS process.

## Scoping and Major Issues

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Scoping refers to a time early in the NEPA process when the public may help define the issues and concerns that should be considered in an EIS.

In scoping the EIS, BPA contacted people who lived along or near the proposed transmission line route, federal, state, and local agencies who manage lands or have other jurisdictions along the route, Indian tribes in the area, and interest groups. BPA sought and received comments in a number of ways.

On January 14, 2002, BPA published a Notice of Intent to prepare an EIS and to conduct public scoping meetings for the proposed project. In January, BPA also sent a letter to the public explaining the proposal, the environmental process, and how to participate. A comment sheet was included to encourage individuals to mail comments back to BPA. A toll-free telephone number and an e-mail address were also given to enable people to comment by phone or by e-mail. Public meetings were held in Grand Coulee, Davenport, and Spokane, Washington between January 29 and February 6, 2002.

In all, BPA received about 300 comments at the public meetings, in briefings with key stakeholders, and by telephone, mail, and e-mail. The comments focused on:

- potential impacts to farming practices (erosion, noxious weeds, distance between structures, crop damage, and construction schedule);
- *double-circuit* vs. *single-circuit* structures (removing both 115-kilovolt (kV) wood pole structures and replacing them with one steel structure; using single-circuit for the entire transmission line route);
- land use (crossing Riverside State Park, Whitworth College, and residential areas);
- noise, public health and safety including electromagnetic fields;
- visual effects; and

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- need for the transmission line and Avista's plans to expand its transmission system.

After reviewing the comments, BPA modified its proposed action so that a single-circuit line would be constructed in the Spokane area (except for a short section (less than 1 mile) through a commercial area where the right-of-way is constrained). A double-circuit line in the Spokane area (9 miles long) is included as an alternative action (see Chapter 2). In addition, BPA sent a letter to interested parties in March summarizing the comments and explaining next steps. Copies of the public mailings are included in Appendix A, **Public Involvement**.