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Public Responsibilities of the Bonneville Power Administration

August 1996

Serving the Northwest

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The Northwest has long taken a regional approach to electricity issues. Its economy has developed around low-cost hydro power. Today, federal dams on the Columbia River and its tributaries produce close to half of the region's electricity. This power is marketed by a federal agency, the Bonneville Power Administration.

The electric power industry is moving toward open competition. Consumers will soon have more choices. In light of this national trend, the governors of the four Pacific Northwest states have convened

a year-long public comprehensive review of the region's power system.

The regional review is considering, among many other things, whether and how to restructure BPA. Restructuring could affect the public responsibilities now carried out by BPA. BPA has a broad range of responsibilities to consumers, the environment, U.S. taxpayers and other governments, and to the general public of the Pacific Northwest.

This paper provides an overview of BPA's public mission today. This is not intended to be an argument for the status quo. BPA believes change is necessary and that the status quo cannot be maintained. This outline of the agency's current duties can be used to help measure the effects of new proposals. It is not so much BPA as an organization that is important, but rather the benefits produced for the Northwest by the Columbia River power system.

A fundamental question in the regional review is who will benefit from the Columbia River system as the value of this public resource grows in the next century. (See [Future Focus](#) chart.) How will this increasing value be divided among consumers, the environment, the region and the nation in coming years? How can this vast public resource — the Columbia River — continue to be managed for the common good? Who will make the decisions?

This paper outlines the way these questions have been answered in the past, answers which formed BPA's public responsibilities today.

The Columbia River Federal Power System

BPA's public mission is tied directly to the Columbia River. The Columbia River Basin spans two nations, four states and many jurisdictions, ranging from tribal lands to city, county and district governments, as well as publicly and privately owned lands.

This river system has many uses — fish and wildlife, flood control, irrigation, recreation and navigation as well as hydro power. BPA and state, tribal and other federal agencies manage this large and complex system. This partnership was designed by Congress to ensure that the Northwest gets maximum economic and environmental benefits from its river resource.

BPA's responsibilities, in some cases carried out alone and in many cases through a shared responsibility with others, reflect a complex tapestry of public values and benefits that have emerged in laws and policies governing BPA over the last half century.

1. Responsibilities to consumers

BPA's job is to encourage the widest possible use by consumers of the Northwest's federal hydroelectric power, and to fairly allocate the benefits of that power system. It must recoup all its costs through power sales, use of its transmission system and related services.

Power at cost

One of BPA's original missions was to electrify the Northwest and provide power at cost — that is, at the cost of generating and transmitting power. There are no private shareholders to whom a profit must be delivered. Power at cost was designed to stimulate growth of the region's economy, keep rates low and prevent private monopolies. If natural gas or energy prices increase in the future, BPA cannot raise

its prices to secure more profit. Its rate was designed to be a benchmark so that other private and public utilities would keep rates to consumers as low as possible.

Postage stamp rates

Another BPA mission has been to provide its energy at the same price — to city and rural consumers alike — just as a postage stamp pays for mail delivery to any U.S. location. While deregulation is designed to lower consumer bills by encouraging competition, the effects of deregulation can be irregular. Airline deregulation, for example, lowered airfares for consumers flying between major cities, but costs to fly from cities to smaller towns — if flights are available at all — remain high.

Regional hydroelectric system coordination

The Columbia River Basin covers 259,000 square miles. Hydroelectric dams and other generating plants in the region are owned by a variety of entities, both public and private. Coordinated operation allows the region's generation resources to be operated as a single system, which enhances the output and stability of the system. This inter-agency coordination, in which BPA participates, adds 1,000 to 2,000 megawatts of generation worth millions of dollars annually.

Widespread transmission access

The region's high-voltage transmission system is its electricity highway. BPA owns, operates and maintains about three-quarters of this system. BPA has designed and built a system which provides access to utilities with generation throughout the Northwest. Decisions concerning this federally owned system are subject to public review.

Regional preference

To ensure that benefits from the Columbia River hydro power system flow to the Northwest, BPA must give preference to Pacific Northwest utilities in power sales. Even with newly expanded authorities to sell power outside the region, BPA sells only power that is excess to regional needs and always offers it within the region first. The ability to sell power outside the region brings in revenues that help keep Northwest rates down.

Allocation of financial benefits

BPA is responsible for sharing the benefits of the regional hydro power system. By law, BPA has provided discounts for rural customers who are widely dispersed (low-density) and have higher costs of service. BPA also has provided discounts for irrigation loads. BPA also exchanges its lower cost hydro power with electric utilities that have higher power costs. The savings these utilities get are passed on to homes and farms in the form of lower electric bills. In the last 15 years, BPA has provided over \$2.4 billion in rate relief through these exchanges. All of these benefits are undergoing some degree of change as a result of increasing competition. BPA has eliminated its irrigation discount starting Oct. 1, 1996, and at that time will reduce its low-density discount. Exchange benefits will be reduced, but BPA will still provide exchange benefits of about \$435 million over the next five years. Also, in 1996 through 1998, BPA will provide \$12 million in assistance to low-income families in the Northwest to help insulate their homes.

Payments to bondholders

BPA has maintained a 20-year history of good credit ratings on its now \$7.3 billion obligation to private bondholders. The bonds are for nuclear plants sponsored by the Washington Public Power Supply System and other resources such as conservation and small hydro projects. Maintaining good credit lowers financing costs and thus rates. It is also central to BPA's responsibility to bond holders.

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2.Responsibilities for the Environment

BPA has both the environmental responsibilities of any federal agency and a broad regional environmental mission. The basic idea is that the region's federal power system should be clean, pay to repair its own environmental impacts and help build a sustainable energy future.

Fish mitigation

To compensate for the effects of hydro power, BPA spends \$252 million annually for more than 250 measures to help both ocean-migrating fish such as salmon and resident fish such as bull trout and sturgeon — as well as wildlife. BPA works in partnership with state and federal agencies and Indian tribes. In addition to the \$252 million, BPA invests from \$90 million to \$280 million a year — depending on water conditions and power markets — to operate the hydro system to protect endangered salmon during their migrations. A portion of this money is foregone revenues, while a portion is power purchases. Wildlife mitigation BPA also provides compensation for the effects of hydro power development on wildlife. Measures to date include purchases of more than 82,000 acres of habitat throughout the Northwest as well as easements to habitat. Again, BPA works with other agencies, tribes and local interest groups, many of whom manage the habitat that BPA purchases. BPA has set up wildlife trusts with the states of Montana and Idaho.

Energy conservation

Guided by the Northwest Power Planning Council, BPA has funded about 580 megawatts of conservation since the early 1980s. BPA is committed to meeting the megawatt targets the council has set for it and to helping the region meet its overall targets. BPA has proposed four mechanisms to help the market achieve the council's targets:

1. Expanding the marketplace for energy efficiency through BPA's Energy Services Business;
2. Removing market barriers to conservation and bringing about permanent changes in electric energy technology and consumer behavior;
3. Leveraging BPA's contributions with a voluntary system whereby Northwest utilities would develop conservation megawatts or contribute funds toward conservation and other public benefits; and
4. Making additional public dividends available when times are good.

Renewable energy

BPA has provided funds for research and development of renewable energy, and is marketing a "green power" product backed by wind and geothermal projects. To the degree that customers are willing to pay a premium for green power when it is higher than the market price for power, BPA has committed to develop these renewable projects.

Compliance with environmental statutes

As a federal agency, BPA is subject to stronger environmental review than a private entity. BPA must comply with federal environmental statutes such as the National Environmental Policy Act of 1969 and the Endangered Species Act. These statutes set high standards for federal agencies. Under NEPA, BPA must consider all environmental values and consequences before making public policy decisions, and must provide the public with opportunities to influence decisions. BPA works with states, other entities and the public on proposed transmission projects, resource acquisitions, conservation programs, power marketing initiatives and fish and wildlife projects.

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3.Responsibilities to governments & taxpayers

Like other federal agencies, BPA is part of and represents the U.S. government in its dealings with tribes, other nations, and state and local governments. But, through its mandating legislation, BPA also has unique responsibilities to the Pacific Northwest and to the nation's taxpayers.

Federal government

BPA is unusual among federal agencies in that it is self-supporting, not tax-supported. BPA raises revenues by selling products and services, generating \$2.3 billion annually. BPA borrows from the U.S. Treasury to run its business and repays loans with interest, guaranteeing a return on the taxpayers' investment. BPA has made its Treasury payment on time and in full for the last 13 years. Since 1989, BPA has repaid the Treasury more than \$5 billion. Over the next 10 years, BPA expects to pay \$8 billion in principal and interest. BPA's responsibilities... reflect a complex tapestry of public values and benefits.

Tribal governments

BPA works closely with 13 federally recognized Indian tribes on energy, environmental and cultural issues. BPA has developed a government-to-government tribal policy that sets the framework for a more sound relationship between BPA and the tribes. Northwest states BPA funds operation of the Northwest Power Planning Council, a regional entity whose members are appointed by the governors of the four Northwest states to assure a balance between state and federal interests. This is a unique federal-state relationship. BPA has provided over \$100 million to fund administration of the council since its inception in 1981. BPA works with council members and staff to ensure a close working relationship with the states. BPA is required to make decisions that are consistent with the council's power plan and fish and wildlife program.

Canada

Along with the U.S. Army Corps of Engineers, BPA administers the Columbia River Treaty of 1964, an international agreement with Canada that produces downstream benefits for flood control and power production. This and other agreements with B.C. Hydro provide additional water storage, enhanced flood control, greater operational flexibility and access to additional water for fish and other needs. The reservoirs built in Canada under the treaty doubled the storage capacity of the Columbia Basin hydro system and increased downstream firm energy production in 1968 by about 1,500 average megawatts. In addition, BPA has non-treaty storage agreements with B.C. Hydro for releases of water for fish and power, which have become increasingly important as the region faces constraints on dam operations required by the Endangered Species Act.

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4.Responsibilities to the public

Like any federal agency, BPA is responsible to the public, the Executive Branch and Congress. The Northwest Power Act of 1980 added unique regional oversight of the four Northwest governors through the Northwest Power Planning Council. BPA also holds a fundamental utility responsibility to the people — to keep the lights on.

Public decisions

The public policy decisions BPA makes affect the river, the economy and the ecosystem of the entire region. Important trade-offs are constantly being made. River operations affect fish, electricity rates, the

regional economy, other river users and operation of other resources that affect air quality. BPA must be responsive to Congress and provide extensive opportunities for public participation. BPA's budget is approved through the Administration and submitted to Congress. Its rates are reviewed for adequacy by the Federal Energy Regulatory Commission. The Northwest Power Planning Council guides BPA resource acquisitions and fish and wildlife program.

Electricity reliability

BPA, along with other regional utilities, has a major responsibility for public health and safety. BPA operates 15,000 miles of transmission lines. The interconnections of the huge federal network give the region tremendous flexibility to handle problems. In all but extreme cases, dispatchers can reroute power from damaged areas over this grid to avoid outages to consumers. If the system does fail, as it did in July 1996, service is restored quickly. BPA crews also routinely help other utilities restore their service.

Long-term perspective

As a federal enterprise, BPA must maintain a long-term perspective for the region. It has underwritten large-scale, long-term projects, such as high voltage interregional transmission lines, that will provide lasting benefits to future generations. These interties allow the region to sell surplus power to other regions and pull in power when the Northwest needs it. How can this vast public resource — the Columbia River — continue to be managed for the common good?

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Looking to the future

Historically, BPA has sought to distribute the benefits of the Columbia River Basin's hydro power system throughout the region to provide a balance of economic and environmental benefits consistent with the values of the people of the Northwest. Those values have changed over time; BPA's view of its mission has changed as well.

BPA expects to change further as a result of the regional review and national electric power deregulation. By providing an outline of its responsibilities, BPA can give the region benchmarks for gauging new proposals. This will help assure that the public responsibilities BPA now fulfills and those values Northwest citizens consider important are preserved and enhanced as the region moves into the 21st century.

Reacting to Emergencies



The complexities of balancing the Columbia River hydro power system are played out in day-to-day decisions. During emergencies, coordination of this vast system becomes most urgent. Here are two examples.

During extreme cold spells, BPA has moved swiftly to keep the lights and heat on, even when it has meant buying more expensive power later to replenish reservoirs. The deep freeze during the winter of 1989 is a dramatic example. Demand for power in the Northwest rose to record heights as temperatures plunged to record lows. Facing the threat of power blackouts, the region's utilities called on BPA to meet the extra demand. BPA worked with the Bureau of Reclamation to supply emergency power by drafting Grand Coulee's 150-mile-long reservoir as much as two feet a day. BPA helicopters went up in frigid conditions to scout the reservoir banks and ensure the unusually severe drafts (a foot of water from the reservoir is about 26 billion gallons) were not causing landslides.

In February 1996, during a major flood, BPA cooperated with the U.S. Corps of Engineers and other federal agencies to all but turn off power from key dams so flood water could be held in reservoirs. This action held back about 2 million gallons of water per second in the Columbia, kept river crests several feet lower than they would have been, and, by Corps' estimates, saved a potential of \$3.2 billion in further damages. As the dam generators were turned off, BPA spent \$5 million for 1,250 megawatts of energy — more than the power of a large nuclear plant — to keep the lights on.

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Future Focus

Footnotes:

- *High and low market forecasts are based on variable costs of resources during a period of surplus on the West Coast. After surplus expires, market forecasts are based on a combination of fixed and variable costs.*
- *High market forecast is based on Gas Research Institute (GRI) natural gas forecast for the Pacific 1 region.*

- *Low market forecast based on Putnum, Hayes & Bartlett, Inc., February 1996 low natural gas forecast for the Pacific Northwest.*
- *Debt service (in millions of dollars) is shown on the same axis as power prices (in mills -- tenths of a cent per kilowatt-hour) to illustrate the close relationship between debt service costs and BPA rates.*

A past and future look provides insight into the value of the Columbia River's power system managed by BPA.

History

BPA's wholesale power rates remain among the lowest in the nation. But the prices of alternative power sources have dropped dramatically over the past 15 years. In 1980, there was a large difference between BPA and other power sources. This benefited BPA's customers, who paid only BPA's low rates rather than the much higher cost of new resources. With changes in the utility industry, deregulation of natural gas and a temporary power surplus on the West Coast, the cost of alternative resources has declined. The lowest cost alternative has shifted from nuclear to coal and then, in the 1990s, to surplus power and gas-fired generation.

As resource costs have come down, BPA's costs have increased. In addition to costs of building and operating the transmission system and the region's federal hydro power resources, BPA now pays for fish and wildlife mitigation, energy conservation funding, payments under the Residential Exchange Program, and costs for Washington Public Power Supply System nuclear projects.

Near Term

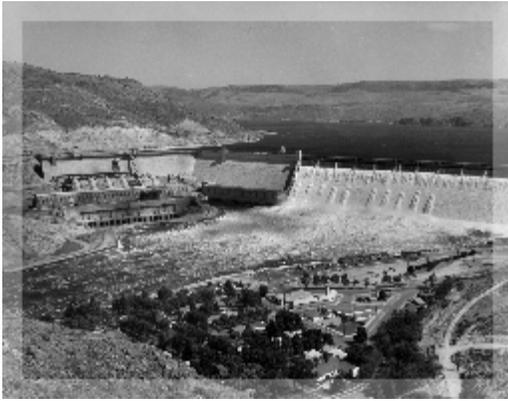
BPA is reducing its power rates on Oct. 1, 1996, and holding them at that level through 2001. Cost-cutting efforts averaging \$600 million per year have brought BPA's rates down within the range of projected market prices for the near term.

Long Term

Beyond 2001, the range of price uncertainty broadens. Power costs are expected to increase as the current West Coast surplus is consumed and suppliers build new power plants. Independent forecasts of market prices for power show a wide range. The low end could be just above BPA's rates, while the high end could be nearly twice as high, or up to \$1.5 billion a year more expensive, by 2018.

In the long term, BPA's costs are expected to decline, first as the Supply System debt is paid off, and then as borrowing to finance federal dams and transmission lines is repaid. This may increase the value of the Columbia River system relative to alternative power sources. If BPA's costs are then below market prices, the question re-emerges: How will this increasing value be divided among consumers, the environment, the region and the nation in coming years? Who will make the decisions?

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Uses of federal dams such as Grand Coulee are constantly balanced to meet competing needs for fish, recreation, power, irrigation, flood control and navigation.

For more information

For more information about BPA's responsibilities, contact the agency's public involvement office at 1-800-622-4519. To request additional copies of this publication, call 1-800-622-4520 (recorded message). For more information on the regional review, contact the Northwest Power Planning Council at 1-800-222-3355.

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