

1998  
ANNUAL REPORT

BONNEVILLE  
POWER ADMINISTRATION



*Quotes on pages 4, 8, 12 and 16: BPA Administrator Judi Johansen.*

**BONNEVILLE POWER ADMINISTRATION**

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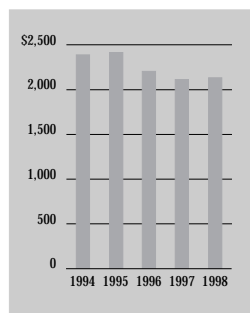
1998  
A N N U A L R E P O R T

## FINANCIAL HIGHLIGHTS

Federal Columbia River Power System  
As of and for the periods ended Sept. 30, 1998 & 1997

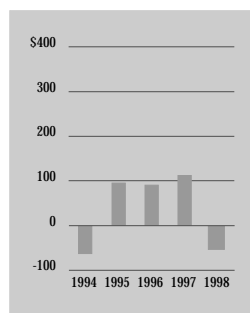
### Total Operating Revenues

(millions of dollars)



### Net Revenues (expenses)

(millions of dollars)



### Operating Results

Total operating revenues  
Total operating expenses

Net operating revenues  
Net interest expense

Net (expenses) revenues

1998  
(thousands of dollars)

1997

\$ 2,313,253  
1,985,755

\$ 2,272,037  
1,780,005

327,498  
375,952

492,032  
374,215

\$ (48,454)  
\$ 117,817

### End of Fiscal Year

Total assets  
(net of accumulated depreciation)

Total capitalization and liabilities:

Accumulated net expenses  
Federal appropriations  
Capitalization adjustment  
Long-term debt  
Nonfederal projects debt  
Other

\$16,976,667  
\$16,967,265

\$ (231,453)  
4,446,103  
2,460,900  
2,499,000  
6,949,011  
853,106

\$ (182,999)  
4,452,161  
2,525,786  
2,498,900  
7,037,405  
636,012

\$16,976,667  
\$16,967,265

Employees (staff years)

2,768

2,929

## LETTER TO THE PRESIDENT

Dear Mr. President:

When I was sworn in as the Bonneville Power Administration's 12<sup>th</sup> administrator in June 1998, I inherited a stable and well-run agency. This has given me a solid foundation to move forward with initiatives to increase BPA's value to its customers and constituents and to contribute to the economic and natural resource health of the Pacific Northwest.

Today, BPA is in sound financial condition. BPA is meeting the challenges of an evolving wholesale electricity industry. Our reserves are healthy, and we continue to meet our full obligations to U.S. taxpayers through our annual U.S. Treasury payment. That payment includes interest rates that are at current market rates and above.

BPA's successes in 1998 were more than financial. During the year, the agency worked with your administration and the region to advance several important policies, including national goals to encourage open access to transmission. In 1998, BPA voluntarily completed full administrative and nearly complete physical separation of its power and transmission functions. As a result, the agency received Federal Energy Regulatory Commission approval of its efforts toward providing open-access nondiscriminatory transmission service.

BPA also made major strides in the natural resources arena. Together with other federal agencies and the Pacific Northwest region, we developed a set of principles to guide BPA's future actions and funding for salmon and steelhead recovery in the Columbia River Basin.

We have used the current period of stable costs and revenues to plan for the future. In FY 1999, we expect to sign power sales contracts for the FY 2002–2006

period with the majority of our customers. All indications are that BPA power is a valuable commodity. In a limited presubscription offering of power contracts during 1998, customers subscribed to the full offering. Our continued attention to reducing costs and increasing efficiencies should make our power even more attractive.

Another big priority for 1999 is development of a unified plan to define BPA's fish and wildlife obligations for at least 10 years. Our aim is to bring stability to both the expectations and expenses placed on ratepayer-funded salmon and steelhead efforts while meeting our full obligations.

We also will be preparing our Transmission Business Line to support new national initiatives that are expected to call for even greater separation of power and transmission and to accelerate establishment of independent system operators or similar managers of regional transmission resources.


All of our current efforts are aimed at ensuring that our power and transmission businesses remain healthy and commercially successful so we can continue to provide and increase the public benefits — both economic and environmental — that the Pacific Northwest values. This is our bottom line.

Respectfully,



Judith A. Johansen, Administrator and Chief Executive Officer





The only thing average about the 1998 fiscal year was the volume of water flowing through the Columbia River Basin. BPA's employees, working with the other action agencies in the Federal Columbia River Power System, leveraged that average supply of raw material into a very good year.

The region noted the success. Customers are lining up to purchase as much of BPA's low-cost reliable power as they can get and, in many cases, want more. Just over a year ago, customers were looking for other sources of power and considered BPA a comparatively high-cost supplier.

Part of this remarkable change has come from market dynamics. As natural gas prices are projected to rise, BPA's hydro-based power is viewed as pollution-free, low-cost and a boon to the region's economy.

But market dynamics are not the only reason for the changed view. Over the last few years, BPA has transformed itself into a leaner, more customer-responsive agency that has been able to take advantage of the market changes.

And the future looks bright.

In June, BPA swore in its 12<sup>th</sup> administrator. Judith A. Johansen was 39 when she took over leadership of the 61-year-old agency and introduced new dynamism.

At her swearing-in ceremony, Johansen answered her own rhetorical question: "Do I have a vision? You bet I have a vision. I believe BPA is here to serve the region. Our purpose is to make sure that the lives of the region's 10 million residents are better and are lived in a healthy environment. BPA will do whatever it takes to change and adapt to make sure those two things continually happen."

*"Do I have a vision? You bet I have a vision. BPA is here to serve the region. Our purpose is to make sure that the lives of the region's 10 million residents are better..."*



S E R V I N G   T H E   R E G I O N

*Vision*

## **THE YEAR AT A GLANCE**

Revenues for FY 1998 were strong.

Early in the year, projections for the January–July runoff looked poor (86 million acre-feet versus an average of between 102 and 103 maf). Late precipitation brought the water year up to average, and both the Transmission Business Line and the Power Business Line took steps to increase the value of the available water while staying within the constraints required for salmon and steelhead recovery efforts. Strong sales into the deregulated California market helped.

BPA expects to coax even more power from the hydro system in the future because of an agreement with the U.S. Army Corps of Engineers to directly fund operations and maintenance at the Corps' 21 dams. In the past, maintenance was funded through the congressional appropriations process with BPA later reimbursing the U.S. Treasury. The new arrangement will allow speedier and more focused maintenance that will keep more generators running.

Even though net revenues for the year were negative, the agency was very pleased by its performance. A one-time adjustment to net revenues caused the negative outcome but resolved a long-standing uncertainty.

In 1995, BPA canceled a contract with the Tenaska Washington Partners II, L.P., to build a combustion turbine generation plant. Tenaska partners filed a \$1.055 billion claim in April of that year. The claim went to arbitration and, in July of this year, the three-person panel awarded Tenaska partners \$158.6 million (including prejudgment interest) for lost profits, the last unsettled portion of the dispute.

The resolution of this case removes a huge financial uncertainty. With the arbitration settled, BPA can look to a future unclouded by this large contingent liability.

## **ISSUES '98**

BPA takes seriously its charge to arrive at decisions openly and spent a large portion of FY 1998 engaging in a regional dialogue called "Issues '98." Kicked off in early June, Issues '98's goal was to provide the region with a context for BPA's major policy issues, to engage the region in a dialogue about the issues and to describe the risks and uncertainties BPA and the region must confront over the years beginning in October 2001 and running through September 2006, the next rate period.

While some called the dialogue "the 98 issues," there were only five basic categories: cost management; future fish and wildlife funding; power markets, revenues and subscription; transmission issues; and risk management.

The point was not to reach decisions (except on cost management) but to gain information BPA can use to shape its future decisions and proposals. Information was put to use immediately in shaping the subscription proposal (see page 10). From May 19 to June 26, BPA took public comment in writing as well as in 18 small-group meetings and in three large public meetings held throughout the region. In all, BPA received over 400 comments.



***Cost Management:  
The Cost Review Recommendations***

Cost cutting has been a fact of life at BPA since 1994. The agency got some help analyzing its cost-cutting opportunities when, in June 1997, two of Oregon's congressmen and the governors of the four Northwest states asked the Northwest Power Planning Council to form a panel with BPA to look at Federal Columbia River Power System costs. The Cost Review panel had as its principal members five executives with experience in large organizations that had gone through significant downsizing. It produced a final report in March 1998 that contained 13 advisory recommendations. The recommendations for BPA's Power Business Line outlined \$131 million in additional annual cost reductions and \$15 million in annual revenue enhancements beyond reductions and enhancements that BPA already was planning for the FY 2002–2006 period.

The recommendations were intended to give BPA customers and constituents confidence that Federal Columbia River Power System costs are being managed effectively; ensure that the subscription process for selling BPA power results in a high level of customer commitment to BPA;

minimize, if not entirely avoid, transitional (stranded) costs; and ensure BPA's obligations to the U.S. Treasury, third-party bondholders, and fish and wildlife recovery remain at least as secure as they currently are.

While several of the cost-cutting recommendations are outside BPA's sole control (for example, areas that require federal legislation and efficiencies in how the Corps of Engineers and the Bureau of Reclamation operate the 29 federal dams from which BPA markets power), Johansen accepted the challenge and has said BPA will work with its FCRPS partners to adopt measures to achieve savings and efficiencies of the magnitude recommended.

***Future Fish and Wildlife Funding***

Talks about BPA's spending in the next rate period for salmon and steelhead listed as threatened or endangered dominated the year. In FY 1998, the agency was in the third year of a six-year period of cost certainty on the issue. The 1996 memorandum of agreement between the Clinton administration and the Northwest congressional delegation set a budget for BPA's fish and wildlife funding through FY 2001 of \$252 million a year plus the financial impact of river operations. The result is an expected average annual financial impact of about \$416 million.

Because the dollar figure is substantial, the costs the agency may be exposed to post-2001 drew the attention of the interested parties — BPA, the tribes, the states, customers, interest groups, the administration and the rest of the region.

Through a public process, the region developed the projected costs of implementing 13 fish and wildlife recovery alternatives for the period 2002–2006 and beyond. Costs for the alternatives range from an average of \$438 million a year to an average of \$721 million. BPA has committed to meeting its responsibilities and is working with regional interests and the administration to implement these funding principles in the upcoming power rate proposal. The proposal must take into account the full range of potential costs, demonstrate a high probability of Treasury repayment, produce sufficient financial reserves by the end of the rate period (2006) if market prices fall within the expected range, minimize rate impacts on Pacific Northwest power and transmission customers, ensure ease of implementation and administration, and be flexible to respond to a variety of different fish and wildlife cost scenarios.

In August Administrator Johansen brought new energy and vision to fish issues by hiring Lorri Bodi as a senior policy advisor. Bodi was co-director of the Northwest regional office of American Rivers, a national river conservation group that focuses on fisheries, water and energy issues in Washington, Oregon and Idaho. Bodi is working with the region's interested parties to come up with a unified salmon recovery plan. In announcing Bodi's appointment, Johansen said, "I believe it's important to bring in people who challenge the way we think. She and I share an important dream: We believe it is possible to serve both the natural resources and the economic needs of the Columbia River Basin."

In March, the National Marine Fisheries Service listed several steelhead stocks (including lower Columbia River) as threatened under the

Endangered Species Act. NMFS called for new river operations, including high-spill regimes on the Columbia to help steelhead migration. And the U.S. Fish and Wildlife Service listed bull trout in the Columbia Basin as threatened. BPA is cooperating with the Corps of Engineers as it conducts a biological assessment of the effect of operations of Libby and Hungry Horse dams on these fish.

BPA continued to directly fund over 350 fish and wildlife projects in the region in addition to repaying the federal Treasury for fish and wildlife activities of other federal agencies. Just a few of BPA's efforts are mentioned below.

In attempting to answer one of the biggest questions about anadromous fish survival, BPA committed to spend about \$270,000 in 1998 and approximately \$5 million over the next five years

to fund NMFS research aimed at improving scientific understanding of the effects of the Columbia River estuary, ocean conditions and decades-long shifts in climate on salmon.

BPA also made significant contributions to wildlife mitigation. BPA provided the Confederated Tribes of the Colville (Washington) Reservation with funding to purchase and maintain 16,000 acres of land within the reservation boundary that had been in private hands. It will provide much needed low-elevation big-game wintering habitat. The purchase is mitigation for habitat lost to the reservoirs behind Grand Coulee and Chief Joseph dams. In Idaho, BPA teamed with the Rocky Mountain Elk Foundation and the Idaho Department of Fish and Game to purchase about 2,100 acres just east of Idaho Falls to add to the existing Tex Creek Wildlife Management Area as partial mitigation for habitat lost when Palisades Dam was built. And BPA provided funds through the Washington Wildlife Trust so the Confederated Tribes of the Umatilla Indian Reservation could purchase an 8,441-acre ranch in southeastern Washington to manage as fish and wildlife habitat.

*"BPA's value to the region is its public trust responsibilities. The revenues we generate should be used to fund public purposes."*



M E E T I N G P U B L I C T R U S T



### ***Power Markets, Revenues and Subscription***

During this period of financial stability, BPA is laying the groundwork for future success. In January, the agency announced the first of a series of power sales for the 2001–2006 period. By May, the agency had sold the entire 1,300 megawatts, a ceiling recommended by the governors' Transition Board. The board was appointed by the region's governors to help BPA reach the goals of the Comprehensive Review of the Northwest Energy System. Such advance sales, at prices approximating 1996 priority firm rates, might seem surprising, but both BPA and many of its customers were motivated to commit to long-term business relationships. "Not only did we sell all the power we had available at this time, but we had a significant number of prospective customers waiting in line," said Jack Robertson, BPA's deputy administrator, who was acting administrator at the time.

It is easy to see why customers want to sign now for power they think will be cheap in the future. It is also to the agency's advantage to sign contracts now. About 75 percent of BPA's power sales contracts expire by Sept. 30, 2001, and the

agency would like to make the transition to new contracts as smooth as possible.

To that end, BPA launched its subscription campaign in September 1998. Subscription is the method the Comprehensive Review proposed that BPA use in selling its power to the Northwest. The Power Subscription Strategy proposal was created after a three-year process that included the participation of a wide range of interested and affected groups and individuals. The strategy has four goals:

- Spread the benefits of the Federal Columbia River Power System as broadly as possible, with special attention given to the residential and rural customers of the region;
- Avoid rate increases through a creative and businesslike response to markets and additional aggressive cost reductions;
- Allow BPA to fulfill its fish and wildlife obligations while assuring a high probability of U.S. Treasury payment; and
- Provide market incentives for the development of conservation and renewables as part of a broader BPA leadership role in the regional effort to capture the value of these and other emerging technologies.

The subscription proposal went out for a 30-day review in the region on Sept. 18, and the final strategy took note of the region's comments.

The subscription strategy outlines the actual method of spreading the benefits of the Columbia River cost-based power to all customer classes — public power, which has preference and priority to federal power; the residential and small farm customers of investor-owned utilities, who qualify through a settlement of residential exchange rights; and the agency's direct service industry customers (primarily aluminum companies), which have been steady customers that have provided the agency with important revenues over the years.

The subscription strategy also delineates the products that will be available for sale as well as the pricing proposals for the 1999 power rate case and contract elements. Pricing will be based on BPA's costs and will be competitive in the marketplace.

BPA hopes that, by the end of the subscription period in late 1999, all 6,300 average megawatts of firm power will be subscribed under contracts of varying lengths. A successful subscription event would assure the agency of the revenues it needs to deliver the benefits the region wants and to ensure customers and ratepayers of stable rates through 2006.

### ***Transmission***

The transmission discussion in Issues '98 focused on how BPA's Transmission Business Line is aligned with national policies being set by the Federal Energy Regulatory Commission. In 1997, BPA opted to implement FERC's open-access rulemaking and standards of conduct that apply to investor-owned utilities. FERC requires that an IOU's transmission activities be functionally separate from its wholesale power merchant function and that transmission be provided in a nondiscriminatory open-access manner.

On Sept. 18, 1998, FERC substantially approved BPA's standards of conduct developed to govern interactions between its power and transmission business lines. FERC required BPA to make some

minor changes and clarifications that BPA will submit in FY 1999. To earn FERC approval, BPA had to separate several critical computer scheduling and business information systems that it had developed over the past several decades as joint business line computer systems. One such separation occurred between October 1997 and May 1998 when the scheduling computer support system was separated between the two business lines. The Transmission Business Line has secured all transmission reliability, market and customer information systems through controlled access and by physical separation. Computer files with sensitive transmission data have been moved to secured locations. Billing systems are secured from the Power Business Line. Procedures are being implemented to regularly verify the security of all of the standards of conduct safeguards implemented in the various information systems.

Issues '98 also looked at whether or how much BPA's transmission rates should voluntarily conform to the rate design and other features of the Federal Power Act, which applies primarily to investor-owned utilities. Full conformance could change regulatory requirements for BPA's transmission rates

and contracts. Some of these issues will be addressed in the 1999 power rate case and could result in cost shifts between power and transmission rates. More issues will be addressed in the transmission rate case, which is expected to take place in late 2000. Transmission rates, as with power rates, will be based on BPA's costs.

While all these large policy issues are being hammered out nationally and regionally, the Transmission Business Line continues to work to maintain system reliability and manage costs. In one testimonial to the agency's efforts, the Western Systems Coordinating Council approved operating the southern intertie at its full rating of 7,900 megawatts in the spring of FY 1998 — the first time since the West Coast outage of August 1996.

Among the steps the agency took to prevent another such outage was to install equipment that allows generators at the John Day and The Dalles dams to operate as synchronous condensers. The modification, directly funded by BPA and carried out by the Corps of Engineers, allows the dams to act as electrical "shock absorbers" when voltage on the southern intertie drops. Use of static var

compensators has more than doubled the performance of the system over the last 10 years without the need for more miles of lines.

Synchronous condensers and static var compensators are examples of BPA's using technology to boost system capacity and reliability rather than building more transmission lines. This approach has saved ratepayers millions in reduced capital projects and reduced use of the agency's borrowing authority.

But, not all the effort to maintain reliability involves high technology. Simply increasing brush clearing along rights-of-ways has reduced tree-caused outages from 42 in 1996 to two in 1998.

*“We believe it is possible to serve both the natural resources and the economic needs of the Columbia River Basin.”*

### ***Risk Management***

No business is immune to risk. With its hydro-based system, the Northwest is familiar with uncertainties caused by streamflow fluctuations, weather-driven demand and fluctuating market prices. Since the mid-1980s, BPA has been aggressively strengthening its ability to identify, measure and manage risks.

In the Issues '98 process, BPA shared its assessments of its risks for the FY 2002–2006 period. The areas of greatest uncertainty are hydro conditions, power market prices, and fish and wildlife obligations. A secondary set of uncertainties includes the separation of transmission and

generation, retail competition, regulatory change and the radical restructuring of the California market.

The agency's primary risk management tools include financial reserves included in rates and funding mechanisms such as section 4(h) (10) (C) of the Northwest Power Act, which allows BPA to take credit against its Treasury payment for approximately 27 percent\* of certain fish and wildlife expenditures that it makes each year; the section 4(h) (10) (C) credits BPA has not used in previous fiscal years; a cost recovery adjustment clause in power rates; and an emergency cost recovery mechanism (“stranded cost” recovery) in transmission rates.

The agency is evaluating additional mechanisms that include a range of contract durations, hedging, prepayment of bills and assessing state fees.

BPA is confident that, if it manages its costs and risks effectively, it can offer attractive, competitive power contracts and rates.

\*The dams are multipurpose. Approximately 27 percent of their operations are for purposes other than hydropower (flood control, transportation, recreation, and the like). Therefore, ratepayers are not responsible for this portion of the fish and wildlife obligation.



BALANCING THE ENVIRONMENT AND THE ECONOMY

*Balance*

## **Y2K**

BPA is confident that its power system will be ready for the year 2000 (Y2K).

BPA has had an agencywide Y2K program under way since 1995. Experienced engineers, technicians and information technology experts have methodically inventoried every system, performed risk assessments and developed plans to replace, upgrade or discontinue systems not Y2K ready. BPA's completion date for Y2K readiness is March 31, 1999.

BPA is routinely working with its business partners, including customers, generation suppliers and utility systems throughout the western United States and Canada. More information regarding this can be found starting on page 24.

BPA's Y2K program and project approach complies with all standards and criteria established by the Office of Management and Budget, the Department of Energy, the Securities and Exchange Commission and the North American Electric Reliability Council.

## **ENERGY EFFICIENCY**

The region values BPA's conservation programs. That message came through when the region commented on the Cost Review panel's recommendation to cut BPA's funding for conservation. The panel's final recommendations reinstated \$13 million annually that it had initially recommended cutting.

BPA-induced energy savings from FY 1982 through FY 1998 total 721 average megawatts, just about enough power for the city of Portland. The FY 1998 contribution was 29 aMW, which exceeded the planned target for the year. Most of the savings came from negotiated customer contracts that allow utilities more flexibility in their conservation programs.

Following the Cost Review panel's recommendation, BPA has extended weatherization funding for low-income families through September 1999. The extension covers program costs until the states can take on the responsibility as recommended by the Comprehensive Review. In addition, BPA introduced a rate discount for qualifying conservation and renewable resource expenditures in its subscription strategy.

Other energy-efficiency programs feature partnerships rather than payments. The agency performed many energy-efficiency services for its power customers as part of its normal business relationship. The Power Business Line offers these services to enhance power marketing deals. Services ranged from providing real-time metering at utility facilities to power quality analysis.

The emphasis on working with government-sector customers is succeeding on several fronts. BPA has been conducting energy audits with the U.S. Air Force, General Services Administration, and other federal agencies and has supported some of those agencies in retrofitting facilities with new energy-efficient lighting and space conditioning equipment. BPA has also devised an innovative way to fund government projects. BPA helped the General Services Administration refinance a \$3.9 million energy-efficiency project that reduced the agency's payments and freed up money it could invest in other projects while saving taxpayer money.



In March, the Electric Power Research Institute presented BPA with its annual End-Use Leadership Award for achievements in energy efficiency. The award recognized a software package, ASDMaster, that BPA developed to analyze motor loads to determine whether an adjustable speed drive would lead to energy savings and other benefits, and, if so, which kind of drive would be the best. ASDMaster is available from EPRI and the Department of Energy.

### **GREEN POWER AND THE BONNEVILLE ENVIRONMENTAL FOUNDATION**

Green power continues to generate a lot of interest — a large amount of which is spent on defining it and finding ways to certify that power is “green.” BPA continues to work with the Environmental Resources Trust, a nonprofit organization founded with the help of the Environmental Defense Fund, to market environmentally superior power products that include power generated to minimize excess spill during the spring fish migration, surplus hydropower used to displace thermal generation, and power produced by renewable resources such as the recently acquired share of the Foote Creek Wyoming Wind Project.

BPA also has worked with a group of regional and national environmental groups that teamed up to form the Bonneville Environmental Foundation to fund fish and wildlife mitigation measures and develop renewable resources at levels beyond BPA's normal responsibilities. The environmental groups will endorse select environmentally preferred resources that BPA will sell at a premium price to raise funds for the environmental work. Former Senator Mark Hatfield is the foundation's president. Former Northwest Power Planning Council member Angus Duncan is the foundation's first executive director.

## **POLLUTION PREVENTION AND ABATEMENT**

During the year BPA completed a site inspection report on Covington Maintenance Headquarters. The U.S. Environmental Protection Agency concluded that the work BPA had done to address hydrocarbons at the site was successful and the site requires no further action under the Comprehensive Environmental Response Compensation and Liability Act. Without that ruling EPA could have required costly additional investigations and cleanups.

BPA, in partnership with the Washington Department of Ecology and the Occidental

Chemical Corp., successfully completed consolidation of non-BPA hazardous waste off of a BPA right-of-way adjoining the Tacoma Substation. Had Occidental not accepted responsibility for the material, BPA, as owner of the property, could have been held liable for the cost of cleanup. As a result of the partnership, BPA and the region's ratepayers saved millions of dollars in cleanup costs.

Also during the year, BPA continued to focus on pollution prevention through such actions as removing and replacing equipment containing polychlorinated biphenyls (PCBs) and installing oil spill prevention measures at its facilities.

*“The Columbia River belongs to all the people of the Northwest. The river should remain forever a clean, renewable resource for the benefit of Northwest residents.”*

## **TRIBAL RELATIONSHIPS**

BPA's formal relationship with the 51 tribes in its service area is spelled out in the BPA Tribal Policy, which acknowledges BPA's recognition of tribal governments as sovereignties and establishes a framework for developing protocols for how BPA and the tribes should relate to each other.

BPA Administrator Johansen reaffirmed the agency's commitment to tribal relations and has begun visiting with the tribal governments on their reservations.

BPA funds most tribal activities to recover salmon and steelhead runs, but the agency's involvement runs much deeper than that — it includes resident fish (those that do not migrate to the ocean), wildlife and cultural resources. For instance, BPA is working with the Kootenai Tribe of Idaho to help white sturgeon spawn below Libby Dam and with the Colville and Spokane tribes to establish fisheries in Lake Roosevelt above Grand Coulee Dam to replace the salmon runs blocked by the dam.



REFLECTING THE REGION'S VALUES

*Northwest*

While BPA is engaged in hundreds of wildlife programs of all sizes, the activities that get the most attention have been large purchases of habitat for which BPA provided the funding. See the earlier “Future Fish and Wildlife Funding” section on page 7 for some details.

BPA’s Power Business Line has become increasingly involved with the region’s tribes as the electric power industry has moved toward deregulation. BPA stands ready to respond to tribal requests for information and assistance in sorting out their options in the deregulated world. The Power Business Line recently awarded the Economic Development Corp. of the Affiliated Tribes of Northwest Indians (ATNI-EDC) a \$200,000 grant and access to BPA technical expertise to help the affiliated tribes assess their economic opportunities under energy deregulation.

The tribes understand that having a policy is not enough; the real issue is whether BPA actually takes actions to integrate tribal views into its daily work. BPA is committed to improving its relationships with the tribes.

## **INTERNATIONAL ISSUES**

On April 1, a new era opened in the management of the Canadian Entitlement — the 50 percent increase in U.S. power production made possible by water releases from three Canadian dams built under the Columbia River Treaty of 1964. For the first 30 years after the increased power production began in 1968, Canada sold its entitlement (estimated at about 550 average megawatts) to a group of 41 U.S. utilities known collectively as the Columbia Storage Power Exchange. Those sales are expiring in stages. The U.S. (represented by BPA and the Corps of Engineers) and Canadian entities agreed in 1996 on procedures for returning the Canadian Entitlement power to Canada. Those procedures were implemented in April 1998.

BPA and B.C. Hydro have been working toward new agreements for the next 30 years that focus on ways to make the best use of the Canadian Entitlement power. The U.S. Department of State and the Canadian Ministry of Foreign Affairs have made substantial progress in finalizing the wording of a formal diplomatic exchange of notes that would make it possible to ink contracts to implement new ways for British Columbia to market the Canadian Entitlement in the U.S.

## **THE NORTHWEST COMMUNITY**

BPA employees are familiar faces at community events centered on water — the Wenatchee (Washington) River Salmon Festival, the Boise (Idaho) Salmon and Steelhead Days and the Cascade Locks (Oregon) Salmon Shuffle to name a few. In official and unofficial capacities, BPA employees appear in classrooms, get involved in community events and speak before civic and governmental groups.

In an era of reduced budgets and smaller staffs, BPA is working hard to reach out to the region it serves. One of the most important ways is by training others to offer such in-demand programs as Hydromania summer camps and the increasingly popular Kids in the Creek program. Utility employees, tribal members, teachers and everyday citizens now are spreading the BPA-developed curricula on watershed health throughout the region.

**BONNEVILLE POWER ADMINISTRATION**

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1998  
FINANCIAL SECTION

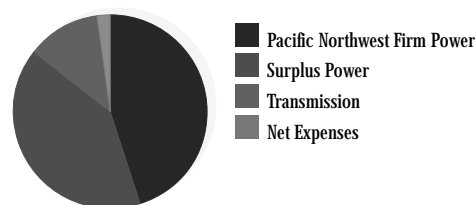
## MANAGEMENT'S DISCUSSION AND ANALYSIS

### RESULTS OF OPERATIONS

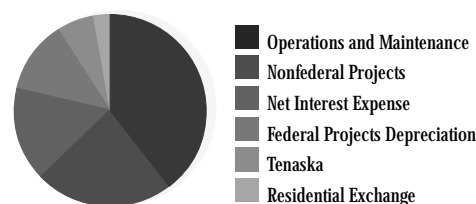
#### 1998 Compared to 1997

In 1998, Federal Columbia River Power System operating revenues increased by \$41 million over 1997 due to an increase in sales and favorable market prices for surplus and nonfirm power. Operating expenses were up from last year in large part because of \$151 million for the final settlements related to the cancellation of the Tenaska gas-fired combustion turbine. An average water year, after two years of above normal water, also contributed to the increase in operating expenses because BPA had to purchase more short-term power compared to the previous two years. In 1998, nonfederal debt service expenses increased

#### 1998 Sources of Revenue and Net Expenses



#### 1998 Disposition of Revenue



compared to 1997 because the construction fund cash for the Washington Public Power Supply System Nuclear Project 1 (WNP-1) was used to pay a portion of 1997 debt service. Total expenses in 1998 were up by \$207 million over the previous year. Total expenses exceeded revenues by \$48 million. BPA's year-end reserves, a combination of cash and deferred borrowing authority, were \$559, an increase of \$124 million over 1997.

#### 1997 Compared to 1996

Net revenues of FCRPS were \$118 million in 1997, an increase of \$22 million over 1996. BPA was able to increase its net revenues in 1997 despite a 13 percent reduction in its Priority Firm (PF) and Industrial Power (IP) rates and lower sales to public utility and direct service industrial customers under those rate schedules. This was accomplished by refinancing Washington Public Power Supply System bonds, making a variety of cost cuts throughout the agency and reselling the power freed up by lower PF and IP sales to other customers at favorable rates. Expenses were reduced considerably in 1997 not only because of cost-cutting efforts throughout the agency but also because 1996 expenses included a charge of \$115 million for a settlement with Chase Manhattan Bank related to the cancellation of the Tenaska gas-fired combustion turbine. BPA's year-end reserves, a combination of cash and deferred borrowing authority, were \$430 million in 1997, an increase of \$152 million over 1996.

### EXPENSES

In 1998, total FCRPS operating and net interest expenses rose \$207 million to \$2,362 million, an increase of 10 percent. In 1997, total FCRPS operating and net interest expenses dropped by \$178 million, or 8 percent, compared to 1996.

FCRPS operations and maintenance costs increased by \$93 million, or 11 percent, in 1998. Expenses for short-term purchased power increased by \$83 million to \$137 million over the previous year because of a decrease in streamflows. In 1997, FCRPS operations and maintenance costs decreased by \$27 million, or 3 percent, to \$845 million primarily as a result of lower operations and maintenance costs for WNP-2.

In 1998, BPA settled all remaining claims associated with terminating the construction of the Tenaska project, a gas-fired combustion turbine that was no longer needed. The developer sued BPA in 1995 for \$1.055 billion. An arbitration panel awarded the developer \$158.6 million in July 1998. BPA settled with other subcontractors and sold some of the assets at the

#### Comparative Electric Energy Sales (unaudited) (megawatt-hours)

	1998	1997	1996
Priority Firm	29,382,413	32,087,338	33,272,958
Industrial	13,849,190	12,358,725	13,327,712
Surplus & Nonfirm	44,177,886	53,827,652	52,149,483
Other	1,639,896	2,551,143	3,556,830
<b>Total</b>	<b>89,049,385</b>	<b>100,824,858</b>	<b>102,306,983</b>

## MANAGEMENT'S DISCUSSION AND ANALYSIS

site resulting in total net expenses of \$151 million associated with this project in 1998. In 1997, BPA paid expenses of \$38 million which included some of the subcontractor claims, and in 1996 expenses were \$115 million for a settlement with Chase Manhattan Bank related to the cancellation of the combustion turbine.

In 1998, debt service on nonfederal projects increased by \$81 million, or 18 percent, from \$464 million in 1997. In 1997, debt service on

nonfederal projects decreased by \$34 million, or 7 percent, to \$464 million from \$498 million in 1996. The 1997 expense was lower than both 1996 and 1998, primarily because of the use of construction fund cash to pay debt service for WNP-1.

Net residential exchange expense decreased by \$97 million to \$64 million in 1998. BPA has reached settlements with all residential exchange participants. Settlements satisfied BPA's obligation to participants

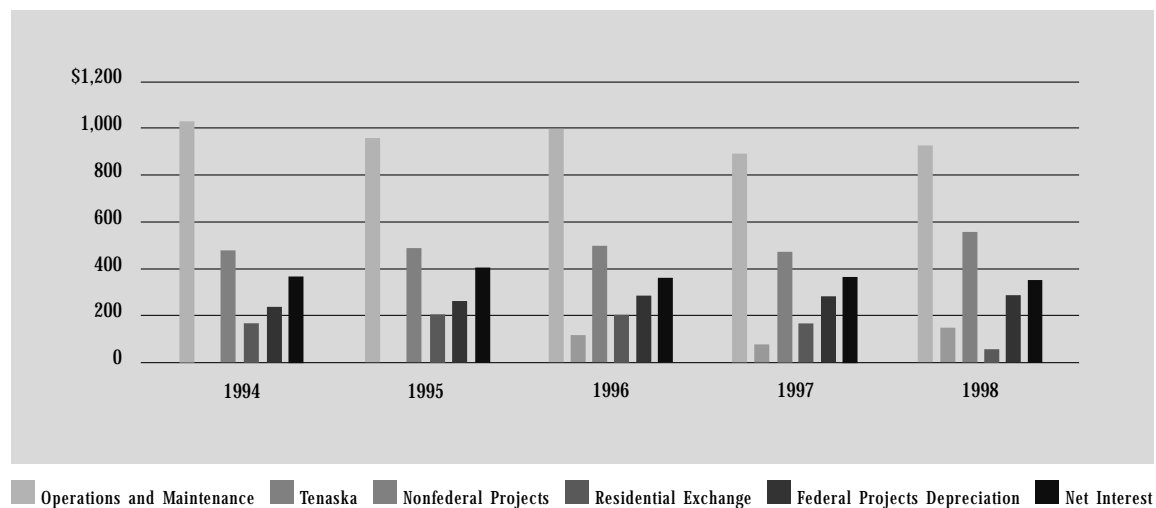
through June 30, 2001, when current residential exchange contracts expire. Net residential exchange expense decreased by \$35 million to \$161 million in 1997. The net residential exchange expense was \$196 million in 1996.

Federal projects depreciation increased by \$15 million over 1997 to \$288 million in 1998. Federal projects depreciation in 1997 decreased by \$4 million to \$273 million compared to 1996. Federal projects depreciation in 1996 was higher because BPA wrote off a portion of capitalized software costs.

Net interest expense was \$376 million for 1998 and \$374 million in both 1997 and 1996. Debt levels were mostly unchanged between 1997 and 1998. Lower interest rates reduced interest expense but were offset by lower allocations to the allowance for funds used during construction.

### Expenses by Category

(millions of dollars)



## MANAGEMENT'S DISCUSSION AND ANALYSIS

### FINANCIAL CONDITION

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In 1998, BPA's year-end reserves — cash and deferred borrowing authority — were \$559 million. BPA ended 1997 with financial reserves of \$430 million, 55 percent higher than financial reserves of \$278 million at the end of 1996.

BPA made its annual payment of \$852 million to the U.S. Treasury in 1998, making it the fifteenth consecutive year in which BPA has made its payment on time and in full. The payment consisted of \$247 million for principal, \$452 million for interest, \$48 million for bond premiums and \$105 million for operations and maintenance on the federal dams operated by the U.S. Army Corps of Engineers and the Bureau of Reclamation. In 1997, BPA repaid \$775 million to the U.S. Treasury and repaid \$801 million in 1996.

The funding plan of the administration and Congress for financing BPA's fish and wildlife obligations continues to provide stability to the largest growth area of BPA's expenses through 2001. Five-year contracts with publicly owned customers have stabilized revenues for BPA's largest customer class.

BPA ended the year in a solid financial position despite diminishing revenues from its public utility and industrial customers as they diversified their power supply. Offsetting lost revenues, BPA sold surplus and nonfirm power at higher rates.

#### Rates

In 1998, BPA's rates remained the same as the previous year because in 1997 rates were set for a five-year period. In 1997, BPA's priority firm power rates dropped by an average of 13 percent from 1996 rate levels, the most significant rate decrease in the agency's history. This rate reduction was made possible primarily through internal cost reductions and through the stabilization actions taken by Congress in BPA's fish and wildlife costs. To meet its planning targets for rates, BPA cut planned expenses for 1997–2001 by \$600 million per year. The new rates were designed to maximize BPA revenues in an increasingly competitive wholesale power market.

#### Financing

To finance capital programs such as transmission system development, conservation, and fish and wildlife enhancement, BPA is authorized to borrow up to \$3.75 billion from the U.S. Treasury. At the end of 1998, BPA's debt in this category totaled \$2.5 billion — consistent with 1997 and 1996 levels.

The U.S. Army Corps of Engineers and Bureau of Reclamation use federal appropriations for new construction and replacement investments at the dams they operate. These appropriations, like BPA's borrowings, are to be repaid to the U.S. Treasury by BPA. The total remaining to be paid at the end of 1998 was \$4.45 billion, or \$6 million less than last year. The reduction of \$2.4 billion from 1996 to 1997 was

due to the restructuring of the appropriated debt with an equitable amount of debt bearing current market rates of interest. The capitalization adjustment of \$2.5 billion will be amortized, using the effective interest method, over the life of the appropriations.

BPA owes another \$7 billion to nonfederal sources for financing three Washington Public Power Supply System nuclear projects and several smaller generation and conservation investments. BPA backs bonds issued by others in the capital markets to finance these projects.

In 1997, the U.S. Treasury approved the BPA Appropriations Refinancing Act included in the Federal Omnibus Appropriations Act signed by President Clinton in April 1996. The net effect of the refinancing act returns about \$100 million more to the U.S. Treasury in net present value than it would have received under BPA's old payment schedule. The act enhances BPA's long-term rate stability by mitigating the risk of higher interest costs that could have resulted from earlier repayment reform proposals.

Three rating agencies continued to maintain high credit ratings for BPA-backed Washington Public Power Supply System bonds in 1998. Moody's Investors Service issued a rating of Aa1, the second highest possible rating. Fitch Investors Service and Standard & Poor's maintained their AA- ratings. All three rating agencies cited BPA's strong financial position as a reason for the high ratings. They rated BPA's long-term outlook as "stable."



## MANAGEMENT'S DISCUSSION AND ANALYSIS

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BPA's success depends in part on its ability to manage financial risks. BPA is affected by changes in interest rates and by price risks associated with natural gas and electricity commodities. Flat-rate, take-or-pay power sales contracts with aluminum and publicly owned utility customers expire in 2001. These contracts substantially reduce the risk to BPA of fluctuations in sales to those customers and lessen BPA's revenue risk associated with the price of aluminum.

### Market Risk

As a result of short-term sales commitments, short-term purchase commitments and written call option contracts, BPA is exposed to market and credit risks resulting from adverse changes in commodity prices. Commodity market risk is a consequence of writing options to third parties (subject to variable supply risk), entering into fixed price sales and purchase commitments, and owning and operating generation facilities. BPA actively manages this risk on a portfolio basis to ensure compliance with BPA's risk management policies. At times, futures, swaps and options are used to alter BPA's exposure to these price fluctuations. BPA mitigates credit risk through limiting the quality of counterparties and customers to significant industry companies that are considered financially strong and establishing and following tailored credit limits for each company.

Management of the market risks associated with this portfolio of transactions is critical to the success of BPA. Risk management processes, policies and procedures have been established to monitor and control these market risks.

BPA manages market risk on a portfolio basis subject to parameters established by executive management and a risk management committee. Market risks are monitored by individuals who are separated from the group that creates and manages these risk exposures to ensure compliance with BPA's risk management policies.

BPA measures the market risk in its portfolio on a daily, weekly and monthly basis using mark to market (MTM), value at risk (VAR), Monte Carlo simulation and other methodologies. The quantification of market risk using these methods provides a consistent measure of risk across the energy market in which BPA sells and buys. The use of these methods requires a number of key assumptions including the selection of a confidence level for expected losses, the holding period for liquidation and the treatment of risks outside the methodology, including credit risk and event risk. The methods used represent an estimate of reasonably possible net losses in earnings that would be recognized on its portfolios assuming hypothetical movements in future market rates and is not necessarily indicative of actual results that may occur.

In addition to using market price risk measures, BPA performs regular scenario analyses to estimate the economic impact of a sudden change in supply. Because BPA is primarily selling surplus inventory and not trading, the tests critical to trading organizations are considered less important than regular and rigorous testing for hydro supply conditions. The results of the hydro supply scenario analysis, along with the professional judgments of experienced business and risk managers, are used in conjunction with the market risk measures and to capture additional market-related risks, including credit and event risk.

BPA faces several other uncertainties over the next few years. The deregulated electricity industry market has brought uncertainty to market prices. National and state regulatory changes may lead to further restructuring in the industry, including separating transmission and generation.

## MANAGEMENT'S DISCUSSION AND ANALYSIS

### LOOKING TO THE FUTURE

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BPA's financial position remains stable through 2001. Current power sales contracts are in place until 2001, as are funding levels for fish and wildlife. BPA continues to manage its costs and believes it is well positioned to meet its obligations through 2001 and beyond. Several key issues will lead the agency into the next millennium. Signing long-term (five years or more) power sales contracts through the subscription process is the most immediate issue because the contracts will provide BPA the revenues it needs to continue to meet its obligations. BPA expects to continue to cut costs with the goal of keeping rates below market for the new power contracts. While keeping rates below market, BPA is also committed to funding its fish and wildlife obligations.

As BPA looks to the future, the electric utility industry is poised for more changes. The Federal Energy Regulatory Commission has reformed and will continue to reform the wholesale power markets to make them more competitive. BPA has voluntarily complied with prior FERC reforms and the agency is preparing for future changes as well.

#### **Subscription**

BPA has begun the subscription process for power sales contracts that will go into effect in fiscal year 2002 and could extend five years or more. BPA expects to negotiate contracts and sign customers throughout 1999 and into the first quarter of 2000. BPA's 1999

power rate case will establish prices for the subscription power products.

BPA's goal is to keep its at-cost rates below market to be able to retain and attract customers. To meet this goal, BPA agreed to accept recommendations from an independent group of industry executives to cut costs to achieve the total effect of the Cost Review recommendations: \$166 million per year in estimated cost reductions and revenue enhancements.

#### **Fish and Wildlife**

BPA's most ambitious goal is to seek a long-term agreement that will define the obligations the federal hydro system must meet on behalf of Columbia Basin fish and wildlife. The agreement is also expected to include the actions that will be required to meet those obligations. The agreement is expected to include a financial goal to keep BPA's cost-based rates below market so they will be affordable and predictable for ratepayers. BPA has hired a leader in Northwest environmental issues to guide the agency in developing the unified fish plan.

#### **Separating Generation and Transmission**

BPA has administratively separated its power and transmission functions to voluntarily comply with the Federal Energy Regulatory Commission's order for investor-owned utilities to separate generation and transmission. It is possible that the industry is headed

for a future in which all transmission businesses will be legally separate from any power marketing functions, and that future could be relatively soon. FERC may initiate a rulemaking in 1999 that may encourage the formation of more independent system operators or separate transmission companies known as "transcos." BPA has begun to assess the various options related to separating legally its transmission function from its power business. No decision has been made, and it would require legislation to become two legally separate entities. BPA asked a regional utility association to study the possibility of transforming BPA's transmission system into the centerpiece of an independent regional transco. BPA remains committed to the principle that any such separation should not result in an increased risk to the U.S. Treasury or to bondholders of BPA-backed bonds.

#### **Y2K Readiness**

BPA has been preparing for Y2K since 1995 when it inventoried its automated business systems, identified systems critical to its operations and began to plan for replacing, upgrading or discontinuing those determined not to be Y2K ready. In 1998, BPA appointed a cross-agency Y2K team with executive-level sponsorship and hired a Chief Information Officer responsible for leading the effort to make BPA systems and equipment Y2K ready.

## MANAGEMENT'S DISCUSSION AND ANALYSIS

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The team developed a Year 2000 readiness plan with five key points: 1) Use a methodical process to find and fix Y2K problems; 2) Increase scrutiny on critical systems for transmission reliability; 3) Coordinate with entities that have significant effect on transmission; 4) Develop contingency plans for operating the transmission system; and 5) Develop comprehensive emergency and restoration plans.

BPA is reviewing all mission-critical equipment and systems for Y2K readiness including power system control and protection, communications, control centers, business systems and support systems. The plan includes thorough documentation and quality control. All testing and remediation is to be done by March 1999.

BPA's Y2K testing guidelines were adapted from the nationally accepted CANUS/Utilities Services Alliance Inc. standards. BPA's methodical testing requirements call for every system to be tested, at a minimum, for two dates: Jan. 1, 2000, and Feb. 29, 2000. Global Positioning System receivers must also be tested Aug. 21–22, 1999. More tests may be done as applicable to the specific system.

### ***Information Systems Remediation Costs***

Existing BPA computer staff, professional engineers and technicians are being redirected from other duties to conduct Y2K tests and remediation. BPA's Y2K program strategy is to engage the in-house experts who know the systems best. By using existing staff, BPA has delayed some planned IT work such as regular

maintenance and service, but BPA has not deferred any other IT upgrades due to Y2K expenditures.

BPA believes that, with the appropriate modifications, it will be able to operate its time-sensitive software programs beyond the turn of the century. The estimated cost of such modifications has been determined not to be material.

### ***Embedded Systems Testing and Remediation***

Much of the more than 2,400 pieces of equipment in BPA's system that contain embedded chips are located at remote sites throughout BPA's four-state service area and are in service 24 hours a day. Fortunately, BPA has units identical to those in the field at its testing and training facility. There, BPA's system and protection control engineers can run Y2K tests and see how the equipment will perform under various test conditions. And, they can test equipment without disrupting ongoing transmission system operations.

BPA has determined Y2K readiness in some cases simply by checking directly with the manufacturers. BPA also has access to a database from the Electric Power Research Institute that tracks Y2K test findings for off-the-shelf equipment that electric utilities commonly use.

### ***Contingency Planning***

BPA and other members of the Western Systems Coordinating Council are developing a regional contingency plan based on the work of the North American Electric Reliability Council. BPA is developing its own Y2K contingency plan based on the NERC and

WSCC Y2K models, BPA's Emergency Preparedness Guide and the BPA Restoration Plan. If computer systems fail, local control and protection (generation governors and protection relays) can provide backup.

BPA is planning to operate its system so it has more cushion on the New Year's weekend leading into the year 2000. For instance, BPA will reduce the amount of power brought in from other utility systems or sent out to other utilities. Instead, BPA will have more of its own generation on-line and more generation in reserve, ready to come on-line if needed. BPA will also increase staff, at both the Dittmer and Munro control centers as well as in the field.

More than 80 percent of BPA's power is hydro-power, which is a distinct advantage for Y2K planning and implementation. Hydro plants can be on line in minutes and stay on line longer when power system problems occur. Large thermal plants, by contrast, can take hours to start up.

BPA can also operate the power system manually using people on site.

In the worst case scenario, the region could experience significant disruptions in power service if certain systems and equipment that control electrical generation, transmission and distribution should fail. This scenario could potentially have a material impact on BPA's financial results and position. Such a scenario is highly unlikely because electrical systems and equipment typically do not fail simultaneously. BPA has multiple

## MANAGEMENT'S DISCUSSION AND ANALYSIS

### LOOKING TO THE FUTURE *(continued)*

contingency plans for individual systems and equipment that aim to first prevent disruption and if necessary rapidly restore service should a Y2K event occur.

#### ***Coordination with Suppliers and Customers***

BPA is coordinating with the U.S. Army Corps of Engineers, the Bureau of Reclamation and the Washington Public Power Supply System to assure they provide a reliable source of generation.

The Corp's Northwest Division is responsible for the generating facilities in the FCRPS. A Corps Northwest Division Oversight Team supervises the execution of the Division's Y2K plan, which includes preparation, inventory, prioritization and remediation or replacement. The team is chaired by the deputy district commander.

The team has identified four broad categories of Corps work potentially impacted by Y2K: operating projects; facilities and plant; construction projects; and information links with customers and other federal agencies. The Corps expects to have all mission-critical systems Y2K ready by Sept. 9, 1999, and the Division has multi-leveled contingency plans in place for all of these systems.

The Bureau of Reclamation has also been preparing its FRCPS operations for Y2K. Reclamation has identified all mission-critical systems that might be affected by Y2K, prioritized their remediation and is on schedule to have them Y2K compliant prior to critical

Y2K dates. Costs to repair have not been significant. The agency also has contingency plans to protect the power system from disruption should any system fail.

The Supply System has a comprehensive Y2K remediation program at its WNP-2 facility in line with the requirements of the Nuclear Regulatory Commission. NRC requires its licensees to certify their Y2K readiness by July 1, 1999. If a plant is not Y2K ready by that date, NRC requires a schedule providing that the plant will be Y2K ready before Dec. 31, 1999, or the plant will be shut down.

We are also coordinating with our customers at all major interconnection points on our system, adjacent control area transmission grids and customer substations. All BPA control centers, major substations, major generation and large utilities have dedicated

communications systems and use analog microwave (which is immune to the Y2K problems). We are working with local telephone companies in areas where BPA substations use local telephone service, and to the best of our knowledge they will be Y2K ready within the needed timeframes.

#### ***January 1, 2000, and BPA's Electric Power Operations***

BPA's goal is that homes and businesses in the Pacific Northwest will operate without disruption in their electric power service due to the Year 2000 issue. With methodical testing and remediation, thorough contingency planning and coordination with suppliers and customers, BPA is planning for continued safe and reliable operation on Jan. 1, 2000, and on other key Y2K dates.

#### **Progress Report: BPA's Y2K Readiness**

<b>Milestones</b>	<b>Target</b>	<b>Status</b>
Conduct Inventory	August 1998	Completed July 1998
Develop Y2K Testing Guidelines	August 1998	Completed August 1998
Assess Risk	September 1998	Initial risk assessment completed May 1997 Final assessment completed October 1998
Develop Test Plans	October 1998	Completed October 1998
Test Components	January 1999	On schedule
Test Systems and Implement Y2K Solutions (including re-testing)	March 1999	On schedule
Develop Contingency Plans	Ongoing	Ongoing

## PERFORMANCE MEASURES

### PUBLIC RESPONSIBILITIES

The agency's overriding goal is to provide public benefits from commercially successful businesses. The public responsibilities targets combine both elements.

During FY 1998, the Power Business Line sold 1,335 average megawatts of power to be delivered post-2001. Of that, 63 percent, or 847 aMW, went to in-region sales. The remaining 488 aMW went outside the region or to unknown delivery points. This exceeded the goal of selling at least 1,000 aMW for the post-2001 period with prices at or above BPA's costs with at least 50 percent of these sales going to in-region purchasers at cost.

BPA also met its goal of fulfilling river operation requirements (biological opinion requirements) set by the National Marine Fisheries Services for salmon and steelhead listed as threatened or endangered. The agency met biological opinion requirements for summer spill and reservoir drawdown. BPA did not meet the required winter reservoir levels, but the resultant spring flows actually exceeded the biological opinion target levels by 23 percent. Because the biological opinion targets for winter reservoir levels were set primarily to ensure adequate spring flows, the chief operating officer judged that BPA met this target.

The agency dropped the target of continuing increases in the number of adult salmon and steelhead returning to the Columbia River, resulting in continuing increases in the number of naturally spawning salmon

and steelhead. While BPA is the principal funder of the region's salmon recovery programs, it lacks the necessary degree of control in the actual selection of the specific program elements the region implements and in overall program management to realistically be held accountable for the numbers of spawning and returning salmon.

BPA did not meet its goal of having an overall constituent/tribal satisfaction index of 6.9. The combined, weighted index from the 1998 constituent and tribal government satisfaction surveys was 6.6.

The agency met its target of increasing regional awareness of BPA's stewardship role. Of the people interviewed, 77 percent correctly associated BPA with electricity, compared to 67 percent in the 1997 public awareness survey. In response to a new question, almost 80 percent said that a public agency should have overall long-term responsibility for the Columbia River. Of those, 66 percent said BPA should be a partner in that effort.

BPA met its target of having four or fewer unplanned outages at 94 percent of the points of delivery, excluding transfer points, with a final result of 94.6 percent of the points of delivery having four or fewer outages.

On a very important reliability measure, BPA was successful in avoiding any BPA-initiated California-Oregon Alternating-Current Intertie separation (loss of all three California-Oregon lines) causing loss of firm load in excess of that armed for intentional tripping as part of a safety net.

### FINANCE

BPA achieved its target of having agency net revenues of at least \$81 million in FY 1998. The adjusted net revenues for FY 1998 were \$97 million. The one-time expense for the Tenaska litigation judgment and a retroactive adjustment for hydro operations for fish didn't relate directly to BPA's operations and were excluded from this result.

All business line and corporate groups met their cost targets as shown in the table below.

#### Costs

*Fiscal Year 1998*

	Actual	Target
	<i>(millions of dollars)</i>	
Power	\$ 466*	\$ 489
Transmission	143	145
Energy Efficiency	33	37
Corporate	1,481	1,502

*\*Does not include \$111.6 for Tenaska.*

The agency also met its target of keeping total capital expenditures at no more than \$263 million. Actual capital expenses were \$222 million.

## PERFORMANCE MEASURES

### HIGH-PERFORMANCE ORGANIZATION

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BPA set a number of targets that focus on how the agency works as an organization.

BPA achieved a high rate of success on one of the most important high-performance organization measures when 87 percent of all employees were found to understand BPA's purpose and business direction and were able to link them to their work. The goal was at least 80 percent positive responses to each of three questions on the Work Environment Survey that were used to measure this target.

BPA met its target of having key business processes and systems optimize workflows and productivity across and within organizations. Billing system improvements were made, resulting in shorter billing cycles, upgraded metering systems and improved scheduling interfaces. Interbusiness line billing process and procedures were established and are now operating. The revenue recognition target was accomplished through the Revenue Process Study project. Scheduling improvements were mostly accomplished through the Scheduling Computer Project and scheduling system upgrades despite competing priorities to meet the standards of conduct revised filing. And BPA payroll and personnel software conversions were completed.

BPA met its target of having outputs defined, process managers assigned and project plans developed for an agency cost management/accounting system.

BPA also met its target of having an agency Business Information Management Strategy in place. The Strategic Information Systems Plan resulted in initiation of the Business Solutions Project and the Revenue Process Study.

BPA missed its target of having BPA managers and executives demonstrate continuous improvement in the key leadership competencies of building effective teams, motivating others, customer focus and process management.

A random survey of employees found that BPA managers met the target in two areas — process management and customer focus. Management improved but did not reach target levels in the other two areas — building effective teams and motivating others.

BPA made its target of having fewer than 2.5 recordable injuries per 100 employees. The final count was 2.1 recorded injuries per 100 employees.

### CUSTOMER SATISFACTION

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BPA met its target of having a customer satisfaction index of 7.5 with an average index of 7.4 for the two business lines, which was within the margin of error for the survey instrument. Business line improvements over 1997 included 22 percent for power, 7 percent for transmission and 13 percent for energy efficiency.

## BALANCE SHEETS

Federal Columbia River Power System  
As of Sept. 30

### ASSETS

	1998	1997
	<i>(thousands of dollars)</i>	
<b>Utility Plant</b> (Notes 1 and 3)		
Completed plant	\$10,887,884	\$10,719,093
Accumulated depreciation	<u>(3,339,794)</u>	<u>(3,110,598)</u>
	7,548,090	7,608,495
Construction work in progress	<u>507,144</u>	<u>494,165</u>
Net utility plant	<u>8,055,234</u>	<u>8,102,660</u>
<b>Nonfederal Projects</b> (Note 4)		
Conservation	60,276	63,818
Hydro	245,385	249,885
Nuclear	2,492,054	2,531,782
Terminated nuclear facilities	<u>4,151,296</u>	<u>4,191,920</u>
Total nonfederal projects	<u>6,949,011</u>	<u>7,037,405</u>
<b>Trojan Decommissioning Cost</b> (Note 6)	<u>107,284</u>	<u>93,872</u>
<b>Conservation</b> , net of accumulated amortization of \$587,694 in 1998 and \$528,040 in 1997 (Notes 1 and 2)	<u>612,992</u>	<u>658,492</u>
<b>Fish and Wildlife</b> , net of accumulated amortization of \$72,937 in 1998 and \$58,698 in 1997 (Notes 1 and 2)	<u>149,141</u>	<u>141,385</u>
<b>Current Assets</b>		
Cash	582,879	446,312
Accounts receivable	165,875	86,084
Accrued unbilled revenues	21,836	114,327
Materials and supplies, at average cost	74,707	78,793
Prepaid expenses	<u>81,590</u>	<u>102,238</u>
Total current assets	<u>926,887</u>	<u>827,754</u>
<b>Other Assets</b>	<u>176,118</u>	<u>105,697</u>
	<u>\$16,976,667</u>	<u>\$16,967,265</u>

### CAPITALIZATION AND LIABILITIES

	1998	1997
	<i>(thousands of dollars)</i>	
<b>Accumulated Net Expenses</b> (Note 1)	\$ (231,453)	(182,999)
<b>Federal Appropriations</b> (Note 3)	4,405,119	4,417,006
<b>Capitalization Adjustment</b> (Note 3)	2,460,900	2,525,786
<b>Long-Term Debt</b> (Note 2)	2,359,000	2,371,200
<b>Nonfederal Projects Debt</b> (Note 4)	6,649,905	6,849,163
<b>Trojan Decommissioning Reserve</b> (Note 6)	<u>77,254</u>	<u>73,072</u>
Total capitalization and long-term liabilities	<u>15,720,725</u>	<u>16,053,228</u>
<b>Commitments and Contingencies</b> (Notes 6 and 7)		
<b>Current Liabilities</b>		
Current portion of federal appropriations	40,984	35,155
Current portion of long-term debt	140,000	127,700
Current portion of nonfederal projects debt	299,106	188,242
Current portion of Trojan decommissioning reserve	30,030	20,800
Accounts payable and other current liabilities	<u>315,182</u>	<u>235,928</u>
Total current liabilities	<u>825,302</u>	<u>607,825</u>
<b>Deferred Credits</b> (Note 1)	<u>430,640</u>	<u>306,212</u>
	<u>\$16,976,667</u>	<u>\$16,967,265</u>

The accompanying notes are an integral part of these statements.

## STATEMENTS OF REVENUES AND EXPENSES

Federal Columbia River Power System  
For the years ended Sept. 30

	1998	1997	1996
	<i>(thousands of dollars)</i>		
<b>Operating Revenues</b>	<b>\$ 2,313,253</b>	<b>\$2,272,037</b>	<b>\$ 2,427,601</b>
<b>Operating Expenses</b>			
Operations and maintenance	937,521	844,528	871,690
Tenaska (Note 7)	151,307	37,855	115,090
Nonfederal projects (Note 4)	545,366	463,922	498,122
Residential exchange (Note 5)	63,869	161,028	196,074
Federal projects depreciation	287,692	272,672	277,083
Total operating expenses	<u>1,985,755</u>	<u>1,780,005</u>	<u>1,958,059</u>
Net operating revenues	<u>327,498</u>	<u>492,032</u>	<u>469,542</u>
<b>Interest Expense</b>			
Interest on federal investment			
Appropriated funds (Note 3)	252,517	244,425	237,716
Long-term debt (Note 2)	148,242	156,155	163,644
Allowance for funds used during construction (AFUDC)	(24,807)	(26,365)	(27,675)
Net interest expense	<u>375,952</u>	<u>374,215</u>	<u>373,685</u>
<b>Net (Expenses) Revenues</b>	<b>(48,454)</b>	<b>117,817</b>	<b>95,857</b>
Accumulated net expenses, Oct. 1	(182,999)	(275,673)	(371,530)
Irrigation assistance (Note 6)	—	(25,143)	—
Accumulated net expenses, Sept. 30	<u>\$ (231,453)</u>	<u>\$ (182,999)</u>	<u>\$ (275,673)</u>

The accompanying notes are an integral part of these statements.

## STATEMENTS OF CASH FLOWS

Federal Columbia River Power System  
For the years ended Sept. 30

	1998	1997	1996
	<i>(thousands of dollars)</i>		
<b>Cash from Operating Activities</b>			
Net (expenses) revenues	\$ (48,454)	\$ 117,817	\$ 95,857
Expenses (income) not requiring cash:			
Depreciation	213,799	201,368	209,783
Amortization of conservation and fish and wildlife	73,893	71,304	67,300
Amortization of nonfederal projects	105,227	101,865	105,428
Amortization of capitalization adjustment	(64,886)	(63,841)	—
AFUDC	(24,807)	(26,365)	(27,675)
(Increase) decrease in:			
Receivables and unbilled revenues	12,700	(409)	(40,762)
Materials and supplies	4,086	(9,383)	5,523
Prepaid expenses	20,648	47,386	35,118
Increase (decrease) in:			
Accounts payable	79,254	(10,685)	(16,027)
Other	54,007	45,702	60,410
Cash provided by operating activities	<u>425,467</u>	<u>474,759</u>	<u>494,955</u>
<b>Cash from Investment Activities</b>			
Investment in:			
Utility plant	(141,566)	(335,850)	(258,304)
Conservation	(14,154)	(20,336)	(38,726)
Fish and wildlife	(21,995)	(28,064)	(26,046)
Cash used for investment activities	<u>(177,715)</u>	<u>(384,250)</u>	<u>(323,076)</u>
<b>Cash from Borrowing and Appropriations</b>			
Increase in federal appropriations:			
Operations and maintenance	144,887	144,883	134,089
Construction	29,097	190,675	82,443
Repayment of federal appropriations:			
Operations and maintenance	(144,887)	(139,277)	(134,089)
Construction	(35,155)	(2,771)	(22,710)
Irrigation assistance	—	(25,143)	—
Increase in long-term debt	867,800	351,300	160,000
Repayment of long-term debt	(211,800)	(205,200)	(267,300)
Refinance of long-term debt	(655,900)	(103,300)	—
Payment of nonfederal debt	(105,227)	(101,865)	(105,428)
Cash provided by (used for) borrowing and appropriations	<u>(111,185)</u>	<u>109,302</u>	<u>(152,995)</u>
Increase in cash	136,567	199,811	18,884
Beginning cash balance	446,312	246,501	227,617
Ending cash balance	<u>\$582,879</u>	<u>\$446,312</u>	<u>\$246,501</u>



## STATEMENTS OF CHANGES IN CAPITALIZATION AND LONG-TERM LIABILITIES

Federal Columbia River Power System

	Accumulated Net Expenses	Federal Appropriations	Long-Term Debt	Nonfederal Project Debt	Other	Total
	(thousands of dollars — including current portions)					
<b>Balance at Sept. 30, 1995</b>	\$ (371,530)	\$ 6,788,545	\$ 2,563,400	\$ 7,194,513	\$ 105,744	\$ 16,280,672
Increase in federal appropriations:						
Operations & maintenance	—	134,089	—	—	—	134,089
Construction	—	82,443	—	—	—	82,443
Repayment of federal appropriations:						
Operations & maintenance	—	(134,089)	—	—	—	(134,089)
Construction	—	(22,710)	—	—	—	(22,710)
Increase in long-term debt	—	—	160,000	—	—	160,000
Repayment of long-term debt	—	—	(267,300)	—	—	(267,300)
Net increase in nonfederal projects debt	—	—	—	16,589	—	16,589
Repayment of nonfederal projects debt	—	—	—	(105,428)	—	(105,428)
Trojan decommissioning reserve	—	—	—	—	(14,444)	(14,444)
Net revenues	95,857	—	—	—	—	95,857
<b>Balance at Sept. 30, 1996</b>	\$ (275,673)	\$ 6,848,278	\$ 2,456,100	\$ 7,105,674	\$ 91,300	\$ 16,225,679
Increase in federal appropriations:						
Operations & maintenance	—	144,883	—	—	—	144,883
Construction	—	190,675	—	—	—	190,675
Repayment of federal appropriations:						
Operations & maintenance	—	(139,277)	—	—	—	(139,277)
Construction	—	(2,771)	—	—	—	(2,771)
Capitalization adjustment	—	(2,589,627)	—	—	2,525,786	(63,841)
Irrigation assistance	(25,143)	—	—	—	—	(25,143)
Increase in long-term debt	—	—	351,300	—	—	351,300
Repayment of long-term debt	—	—	(205,200)	—	—	(205,200)
Refinance of long-term debt	—	—	(103,300)	—	—	(103,300)
Net increase in nonfederal projects debt	—	—	—	33,596	—	33,596
Repayment of nonfederal projects debt	—	—	—	(101,865)	—	(101,865)
Trojan decommissioning reserve	—	—	—	—	2,572	2,572
Net revenues	117,817	—	—	—	—	117,817
<b>Balance at Sept. 30, 1997</b>	\$ (182,999)	\$ 4,452,161	\$ 2,498,900	\$ 7,037,405	\$ 2,619,658	\$ 16,425,125
Increase (decrease) in federal appropriations:						
Operations & maintenance	—	144,887	—	—	—	144,887
Construction	—	29,097	—	—	—	29,097
Repayment of federal appropriations:						
Operations & maintenance	—	(144,887)	—	—	—	(144,887)
Construction	—	(35,155)	—	—	—	(35,155)
Capitalization adjustment amortization	—	—	—	—	(64,886)	(64,886)
Increase in long-term debt	—	—	867,800	—	—	867,800
Repayment of long-term debt	—	—	(211,800)	—	—	(211,800)
Refinance of long-term debt	—	—	(655,900)	—	—	(655,900)
Net increase in nonfederal projects debt	—	—	—	16,833	—	16,833
Repayment of nonfederal projects debt	—	—	—	(105,227)	—	(105,227)
Trojan decommissioning reserve	—	—	—	—	13,412	13,412
Net expenses	(48,454)	—	—	—	—	(48,454)
<b>Balance at Sept. 30, 1998</b>	\$ (231,453)	\$4,446,103	\$2,499,000	\$6,949,011	\$2,568,184	\$16,230,845

The accompanying notes are an integral part of these statements.

## NOTES TO FINANCIAL STATEMENTS

### 1. SUMMARY OF GENERAL ACCOUNTING POLICIES

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#### Principles of Combination

The Federal Columbia River Power System (FCRPS) includes the accounts of the Bonneville Power Administration (BPA), which purchases, transmits and markets power, and the accounts of the Pacific Northwest generating facilities of the U.S. Army Corps of Engineers (Corps) and the Bureau of Reclamation (Reclamation) for which BPA is the power marketing agency. Each entity is separately managed and financed, but the facilities are operated as an integrated power system with the financial results combined under the FCRPS title. Costs of multipurpose Corps and Reclamation projects are assigned to specific purposes through a cost allocation process. Only the portion of total project costs allocated to power is included in these statements.

FCRPS accounts are maintained in accordance with generally accepted accounting principles and the uniform system of accounts prescribed for electric utilities by the Federal Energy Regulatory Commission (FERC). FCRPS accounting policies also reflect specific legislation and executive directives issued by U.S. government departments. (BPA is a unit of the Department of Energy; Reclamation is part of the Department of the Interior; and the Corps is part of the Department of Defense.) FCRPS properties and income are tax-exempt. All material intercompany accounts and transactions have been eliminated from the combined financial statements.

#### Management Estimates

The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

#### Regulatory Authority

BPA's rates are established in accordance with several statutory directives. Rates proposed by BPA are subjected to an extensive formal review process, after which they are established by BPA and reviewed by FERC. FERC's review is limited to three standards set out in the Northwest Power Act and a standard set by the National Energy Policy Act. FERC reviews BPA's rates for all firm power, for nonfirm energy sold within the region, and for transmission service under such statutory standards that include a requirement that these rates be sufficient to assure repayment of the federal investment in the FCRPS over a reasonable number of years after first meeting BPA's other costs.

After final FERC approval, BPA's rates may be reviewed by the United States Court of Appeals for the Ninth Circuit. Action seeking such review must be filed within 90 days of the final FERC decision. FERC and the

court of appeals may either confirm or reject a rate proposed by BPA. It is the opinion of BPA's general counsel that, if a rate were rejected, it would be remanded to BPA for reformulation. By contract, BPA has agreed that rates for the sale of power pursuant to its present contracts may not be revised on less than nine months' notice and may not be increased more than once in a 12-month period.

FERC has approved BPA's rates for all fiscal years through 2001.

Because of the regulatory environment in which BPA establishes rates, certain costs may be deferred and expensed in future periods under Statement of Financial Accounting Standards No. 71 (SFAS 71), Accounting for the Effects of Certain Types of Regulation.

In order to defer incurred costs under SFAS 71, a regulated entity must have the statutory authority to establish rates that recover all costs and rates so established must be charged to and collected from customers.

Due to increasing competitive pressures, BPA may be required to seek alternative solutions in the future to avoid raising rates to a level that is no longer competitive.

If BPA should establish market rates, SFAS 71 would no longer be applicable, and any costs deferred under that standard would be expensed in the Statement of Revenues and Expenses.

## NOTES TO FINANCIAL STATEMENTS

The SFAS 71 assets of \$5.08 billion, shown in the table below, reflect a decrease of \$68 million from the prior year. Amortization of these costs aggregating \$187 million in fiscal 1998, \$184 million in 1997 and \$184 million in fiscal 1996 is reflected in the Statements of Revenues and Expenses.

### SFAS 71 Assets

As of Sept. 30, 1998 & 1997

	1998	1997
	<i>(thousands of dollars)</i>	
Nonfederal projects		
Conservation	\$ 60,276	\$ 63,818
Terminated nuclear facilities	4,151,296	4,191,920
Trojan decommissioning cost	107,284	93,872
Conservation	612,992	658,492
Fish and wildlife	149,141	141,385
Additional retirement contributions	18,000	—
<b>Total</b>	<b>\$5,099,089</b>	<b>\$5,149,487</b>

### Revenues and Net Revenues

Operating revenues are recorded on the basis of service rendered, which includes estimated unbilled revenues. Revenues are listed by source in the following table. Unbundled power rates were in effect for fiscal 1997 and 1998. Delivered power rates were in effect prior to October 1996. Transmission revenues for

fiscal 1996 are estimates. Because BPA is a U.S. government power marketing agency, net revenues over time are committed to repayment of the U.S. government investment in the FCRPS and the payment of certain irrigation costs as discussed in Note 6.

### Operating Revenues

As of Sept. 30, 1998, 1997 & 1996

	1998	1997	1996
	<i>(thousands of dollars)</i>		
Firm Power	\$ 1,067,865	\$ 1,100,146	\$ 1,365,665
Surplus Power	955,342	895,100	764,984
Subtotal	2,023,207	1,995,246	2,130,649
Transmission	290,046	276,791	296,952
<b>Total</b>	<b>\$2,313,253</b>	<b>\$2,272,037</b>	<b>\$2,427,601</b>

### Utility Plant

Utility plant is stated at original cost. Cost includes direct labor and materials; payments to contractors; indirect charges for engineering, supervision and similar overhead items; and an allowance for funds used during construction. The costs of additions, major replacements and betterments are capitalized. Repairs and minor replacements are charged to operating expense. In accordance with FERC requirements the cost of utility plant retired, together with removal costs and less salvage, is charged to accumulated depreciation when it is removed from service.

### Allowance for Funds Used During Construction

The allowance for funds used during construction (AFUDC) constitutes interest on the funds used for utility plant under construction. AFUDC is capitalized as part of the cost of utility plant and results in a non-cash reduction of interest expense. While cash is not realized currently from this allowance, it is realized under the rate-making process over the service life of the related property through increased revenues resulting from higher plant in-service and higher depreciation expenses. AFUDC is based on the monthly construction work in progress (CWIP) balance. A portion of CWIP as stated on the balance sheets represents preliminary study and investigation costs to which AFUDC is not attributed.

AFUDC capitalization rates are stipulated in the congressional acts authorizing construction for certain generating projects (2.5 percent to 7.4 percent in 1998, 2.5 percent to 7.5 percent in 1997 and 2.5 percent to 7.62 percent in 1996). Capitalization rates for other construction approximate the cost of borrowing from the U.S. Treasury (6.625 percent in 1998, 7.13 percent in 1997 and 7.625 percent in 1996).

## NOTES TO FINANCIAL STATEMENTS

### 1. SUMMARY OF GENERAL ACCOUNTING POLICIES *(continued)*

#### Depreciation and Amortization

Depreciation of utility plant is computed on the straight-line method based on estimated service lives of the various classes of property, which average 45 years for transmission and 75 years for generation. Engineering studies in 1995 resulted in revising generation lives from 85 years reported in prior years to the current estimate of 75 years. Amortization of conservation and fish and wildlife is computed on the straight-line method based on estimated service lives, which are 20 years for conservation and 15 years for fish and wildlife.

#### Retirement Benefits

FCRPS employees belong to either the Civil Service Retirement System (CSRS) or the Federal Employees' Retirement System (FERS). FCRPS and employees contribute to the systems. Based on the statutory contribution rates, retirement benefit expense under CSRS is equivalent to 7 percent of eligible employee compensation and under FERS is variable based upon options chosen by the participant but does not exceed 24.2 percent of eligible employee compensation. Retirement benefits are payable by the U.S. Treasury and not by the FCRPS.

Beginning in fiscal 1998, and for the remainder of the rate period ending in 2001, FCRPS may contribute additional amounts as a result of an underfunded status of the CSRS plan. These amounts will be calculated based on an estimate of FCRPS employees who participate in the plan as well as an estimate of FCRPS' share of the underfunded status. These contributions will be made over a period of years as shown in the table on the right. The payments, if made, will be directly to the U.S. Treasury.

BPA paid approximately \$2.2 million to the U.S. Treasury during fiscal 1998. This amount was recorded as expense when paid. BPA has accrued for approximately \$18.1 million as of Sept. 30, 1998, which represents the estimated payments which will be made through the rate period ending in 2001. These amounts have been recorded as a SFAS 71 asset on the balance sheet in anticipation of recovery of the costs through rates. At Sept. 30, 1998, BPA has scheduled payments totaling \$108.4 million over the next five fiscal years as follows:

#### Scheduled Additional CSRS Contributions

*As of Sept. 30, 1998*

*(millions of dollars)*

1999	\$ 4.1
2000	6.0
2001	8.0
2002	55.2
2003	35.1
<b>Total</b>	<b>\$108.4</b>

BPA expects to recognize these amounts as expense in the years in which BPA has been able to reduce other costs to specifically cover these additional contributions or to the extent the costs have been specifically recovered through rate revenues. Estimated additional unscheduled contributions of approximately \$101.4 million may be made in years beyond 2003.

#### Cash

For purposes of reporting cash flows, cash includes cash in the BPA fund and unexpended appropriations of Reclamation and the Corps. Cash paid for interest was \$501 million in 1998, \$447 million in 1997 and \$386 million in 1996.

## NOTES TO FINANCIAL STATEMENTS

Non-cash transactions include changes in nonfederal projects and nonfederal projects' debt (other than amortization of nonfederal projects and payment of nonfederal projects' debt) of \$17 million in 1998, \$34 million in 1997 and \$17 million in 1996. In 1997, as discussed in Note 3, BPA refinanced federal appropriations resulting in a reduction in the amount outstanding of approximately \$2.5 billion.

### Concentration of Credit Risks

Financial instruments which potentially subject the FCRPS to concentrations of credit risk consist of available-for-sale investments held by the Supply System, BPA accounts receivable and BPA accrued unbilled revenues. The Supply System invests exclusively in U.S. Government securities and agencies. BPA's accounts receivable and accrued unbilled revenues are concentrated with customers who have purchased capacity, energy or other products and services. Generally, these customers are large and stable companies which BPA considers to be financially strong. BPA performs a financial review of new customers and establishes credit limits based on the results of that review. In limited circumstances BPA uses letters of credit or similar security mechanisms for new customers or customers with a shorter financial history. As a consequence of the above, FCRPS management considers the overall exposure due to concentration of credit risk to be limited.

### Deferred Credits

Deferred credits consist of amounts paid to BPA from participants under various AC intertie capacity agreements and load diversification fees paid to BPA by various customers. Diversification fees are payments by customers to BPA in consideration for a reduction in their power purchases from BPA. These one-time payments cover the remaining term of the customer's existing contractual agreement. Deferred AC intertie capacity agreement amounts of \$143 million will be recognized over the 45 composite-year life of the assets. Deferred diversification fees of \$56 million will be recognized over the rate period ending on Sept. 30, 2001.

### Hedging Activities

BPA policy allows the use of financial instruments such as commodity futures, options and swaps to hedge the price of electricity and reduce BPA's exposure to market fluctuations.

In a pilot program started in fiscal 1996, BPA began using financial instruments in the form of Over-the-Counter (OTC) electricity swap agreements and NYMEX futures contracts to hedge anticipated production and marketing of hydroelectric energy. Under swap agreements, BPA makes or receives payments based on the differential between a specified fixed price and an index reference price of power. Under futures contracts, BPA either sells or buys NYMEX futures contracts to hedge anticipated future electricity sales and purchases.

Recognition of gains or losses on the hedging instruments is deferred until the underlying physical transaction occurs. Swap transactions have maturities that extend out beyond one year, while futures and option transactions have maturities that are less than one year.

At Sept. 30, 1998 and 1997, outstanding notional MWhs for each type of contract were as follows:

### Notional MWhs

*As of Sept. 30, 1998 & 1997*

Derivative Type	1998	1997
Swap — BPA pays floating and receives fixed	340,000	306,400
NYMEX futures	138,368	171,488
NYMEX purchased options	66,240	—
NYMEX written options	103,040	—

The fixed swap price, the average futures prices and the strike prices for the options do not vary materially from estimated market prices at the various settlement dates.

At and for the years ended Sept. 30, 1998, 1997 and 1996, both the deferred and the realized gains and losses resulting from these transactions were not material to the consolidated FCRPS financial statements.

## NOTES TO FINANCIAL STATEMENTS

### 1. SUMMARY OF GENERAL ACCOUNTING POLICIES *(continued)*

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#### Written Call Options

During fiscal year 1998 BPA began writing put and call options for the purchase and sale of electricity at certain points in the future. BPA's intention is to fulfill all call options exercised with its estimated surplus generating capability at these future dates. The megawatt-hour quantities that BPA sells and the premiums that BPA collects for the sales of these options are priced based on a mathematical model developed by BPA. This model makes certain assumptions based on historical and other statistical data. Actual future results could vary from estimates resulting in the requirement that BPA fulfill these sales obligations with power purchases at a cost in excess of the prices stated in the contracts. As of Sept. 30, 1998, written call options totaling 4.2 million megawatt-hours were outstanding with an average strike price of \$28 per megawatt-hour. These options expire at various times through December 1999. BPA records written options on a mark-to-market basis and includes gains and losses in wheeling and other sales in the Statement of Revenues and Expenses.

BPA recognized an immaterial mark-to-market gain during fiscal 1998 as a result of the estimated position of outstanding written options.

BPA enters into short-term sales commitments to sell expected surplus generating capabilities at future dates and short-term purchase commitments to purchase power at future dates when BPA forecasts a shortage of generating capability and prices are favorable. As of Sept. 30, 1998, BPA had total short-term sales commitments of approximately 13.4 million megawatt-hours at an average price of \$19.44 per megawatt-hour expiring at various times through December 2000. BPA also had total short-term purchase commitments of approximately 1 million megawatt-hours at an average price of \$25.70 per megawatt-hour expiring at various times through September 1999. BPA enters into these contracts throughout the year to maximize its revenues on estimated surplus volumes. BPA records these sales and purchases in the month the underlying power is sold or purchased.

#### Financial Instruments

All significant financial instruments of the FCRPS were recognized in the Balance Sheet as of Sept. 30, 1998 and 1997. The carrying value reflected in the Balance Sheet approximates fair value for the FCRPS's financial assets and current liabilities. The fair values of long-term liabilities are discussed in the respective footnotes.

#### **Adoption of Statement 133**

*In June 1998, the Financial Accounting Standards Board issued Statement of Financial Accounting Standards No. 133, Accounting for Derivative Instruments and Hedging Activities. FAS 133 is effective for the fiscal year ending Sept. 30, 2000. FAS 133 requires all derivative instruments be recorded on the balance sheet at their fair value. Changes in the fair value of derivatives are recorded each period in current earnings or other comprehensive income, depending on whether a derivative is designated as part of a hedge transaction and, if it is, the type of hedge transaction. For fair-value hedge transactions in which the Federal Columbia River Power System is hedging changes in an asset's, liability's, or firm commitment's fair value, changes in the fair value of the derivative instrument will generally be offset in the income statement by changes in the hedged item's fair value. For cash-flow hedge transactions in which the Federal Columbia River Power System is hedging the variability of cash flows related to a variable-rate asset, liability, or a forecasted transaction, changes in the fair value of the derivative instrument will be reported in other comprehensive income. The gains and losses on the derivative instrument that are reported in other comprehensive income will be reclassified as earnings in the periods in which earnings are impacted by the variability of the cash flows of the hedged item. The ineffective portion of all hedges will be recognized in current-period earnings. The Federal Columbia River Power System has not yet determined the impact that the adoption of FAS 133 will have on its net revenues or balance sheet.*

## NOTES TO FINANCIAL STATEMENTS

### 2. LONG-TERM DEBT

To finance its capital programs, BPA is authorized by the Federal Columbia River Transmission System Act to issue to the U.S. Treasury up to \$3.75 billion of interest-bearing debt with terms and conditions comparable to debt issued by U.S. government corporations. A portion (\$1.25 billion) of the \$3.75 billion is reserved for conservation and renewable resource loans and grants. At Sept. 30, 1998, \$545.8 million of this reserved amount and \$1,953.2 million of other borrowings were outstanding. The average interest rate of BPA's borrowings from the U.S. Treasury exceeds the rate that could be obtained currently. As a result, the fair value of the BPA long-term debt, based upon discounting future cash flows using rates offered by the U.S. Treasury as of Sept. 30, 1998, for similar maturities exceeds carrying value by approximately \$559 million, or 22 percent. BPA's policy is to refinance debt that is callable when associated benefits exceed costs. The table on page 31 reflects the terms and amounts of long-term debt.

#### Bonds

##### Federal Columbia River Power System Long-Term Debt (a)

	First Call Date	Maturity Date	Interest Rate	Construction and Fish & Wildlife	Conservation	Cumulative Total
(thousands of dollars)						
May 1989	none	1999	8.95%	25,000	—	\$ 25,000
May 1989	none	1999	8.95%	75,000	—	100,000
August 1992	none	2000	6.60%	107,800	—	207,800
May 1997 (b)	none	2000	6.50%	50,000	—	257,800
September 1989	none	2002	8.65%	—	66,000	323,800
January 1996	none	2003	5.90%	60,000	—	383,800
January 1997	none	2004	6.80%	30,000	—	413,800
May 1997	none	2005	6.90%	80,000	—	493,800
August 1996	none	2006	7.05%	70,000	—	563,800
August 1997	none	2007	6.65%	111,300	—	675,100
February 1993	1998	2008	6.95%	20,000	—	695,100
April 1998	none	2008	6.00%	75,300	—	770,400
April 1998	none	2008	6.00%	25,000	—	795,400
August 1998	none	2008	5.75%	40,000	—	835,400
September 1998	none	2008	5.30%	—	104,300	939,700
July 1989	none	2009	8.55%	—	40,000	979,700
May 1998	none	2009	6.00%	72,700	—	1,052,400
May 1998	none	2009	6.00%	—	37,700	1,090,100
August 1995	2000	2010	7.20%	35,000	—	1,125,100
January 1996	2001	2011	6.70%	—	30,000	1,155,100
November 1996	2001	2011	6.95%	40,000	—	1,195,100
May 1998	none	2011	6.20%	40,000	—	1,235,100
August 1993	1998	2013	6.75%	—	40,000	1,275,100
January 1998	none	2013	6.10%	60,000	—	1,335,100
September 1998	none	2013	5.60%	—	52,800	1,387,900
January 1994	1999	2014	6.75%	—	50,000	1,437,900
May 1995 (b)	2000	2015	7.50%	35,000	—	1,472,900
May 1995	2000	2015	7.50%	—	85,000	1,557,900
November 1996	2001	2016	7.20%	—	40,000	1,597,900
July 1995	2000	2025	7.70%	50,000	—	1,647,900
August 1995	2000	2025	7.70%	65,000	—	1,712,900
April 1998	2008	2028	6.65%	50,000	—	1,762,900
August 1998	none	2028	5.85%	106,500	—	1,869,400
August 1998	none	2028	5.85%	112,300	—	1,981,700
January 1990	2000	2030	9.25%	50,000	—	2,031,700
May 1998	2008	2032	6.70%	98,900	—	2,130,600
August 1993	1998	2033	6.95%	110,000	—	2,240,600
October 1993	1998	2033	6.85%	108,400	—	2,349,000
October 1993	1998	2033	6.85%	50,000	—	2,399,000
January 1994	1999	2034	7.05%	50,000	—	2,449,000
May 1994	1999	2034	8.20%	50,000	—	2,499,000
				\$1,953,200	\$545,800	\$2,499,000
Less current portion						(140,000)
						\$2,359,000

(a) The weighted average interest rate was 6.8 percent on outstanding long-term debt as of Sept. 30, 1998. All construction, conservation, fish and wildlife, and Corps/Reclamation direct funding bonds are term bonds.

(b) Corps/Reclamation direct funding.

## NOTES TO FINANCIAL STATEMENTS

### 3. FEDERAL APPROPRIATIONS

The BPA Appropriations Refinancing Act, 16 U.S.C. 8381, required that the outstanding balance of the FCRPS federal appropriations, which Bonneville is obligated to set rates to recover, be reset and assigned prevailing market rates as of Sept. 30, 1996. The new principal amount of appropriations is equal to the present value of the principal and interest that would have been paid to Treasury in the absence of the act, plus \$100 million. The \$100 million was capitalized as part of the appropriations balance and will be amortized over the period of repayment using the effective interest method.

The amount of appropriations refinanced was \$6.6 billion. After refinancing, the appropriations outstanding was \$4.1 billion. The difference between the appropriated debt before and after the refinancing was recorded as a capitalization adjustment. This adjustment will be amortized over the period of repayment so that, except for the amortization of the \$100 million discussed above, interest expense is equal to that which would have been paid to the Treasury in the absence of the act.

The following table shows the term repayments on the remaining federal appropriations as of Sept. 30, 1998.

#### Federal Appropriations

*Term repayments (a)*

<i>(thousands of dollars)</i>		
1999	\$	40,984
2000		21,543
2001		66,269
2002		23,913
2003		46,687
2004+		4,246,707
<b>Total</b>	<b>\$</b>	<b>4,446,103</b>

*(a) Includes payments on historic replacements but excludes planned future replacements and irrigation assistance.*

Interest on appropriated funds for fiscal 1998 is net of \$64.9 million amortization of the capitalization adjustment. The weighted average interest rate was 7.2 in 1998 and 7.3 percent in 1997 prior to amortization of the capitalization adjustment.

For fiscal 1996, interest rates on the appropriated funds ranged from 2.5 percent to 8.5 percent. (The weighted average rate was 3.5 percent in 1996.) The rates were set by law, administrative order pursuant to law or administrative policies.

Construction and replacement of Corps and Reclamation generating facilities have historically been financed through annual federal appropriations. Annual appropriations were also made for their operation and maintenance costs, although these are normally repaid by BPA to the U.S. Treasury by the end of each fiscal year. As a result of the National Energy Policy Act of 1992 BPA has begun directly funding operation, maintenance and replacement of Corps and Reclamation generating facilities.

Federal appropriations are repaid to the U.S. Treasury within 50 and 45 years, respectively, from the time each facility is placed in service.

If, in any given year, revenues are not sufficient to cover all cash needs, including interest, any deficiency becomes an unpaid annual expense. Interest is accrued on the unpaid annual expense until paid. This interest must be paid from subsequent years' revenues before any repayment of federal appropriations can be made.



## NOTES TO FINANCIAL STATEMENTS

### 4. NONFEDERAL PROJECTS

BPA has acquired all or part of the generating capability of five nuclear power plants. The contracts to acquire the generating capability of the projects, referred to as “net-billing agreements,” require BPA to pay all or part of the annual projects’ budgets, including operating expense and debt service, whether or not the projects are completed or operating. BPA has also acquired all of the output of the Idaho Falls, Cowlitz Falls and Wasco hydro projects. BPA has agreed to fund debt service on Eugene Water and Electric Board, Emerald, City of Tacoma and Conservation and Renewable Energy System bonds issued to finance conservation programs sponsored by BPA.

BPA recognizes expenses for these projects based upon total project cash funding requirements reflected in project budgets that are adopted by BPA and the project’s owners.

Operating expense of \$180 million in fiscal 1998, \$200 million in fiscal 1997 and \$227 million in fiscal 1996 for the projects is included in operations and maintenance in the accompanying Statements of Revenues and Expenses. Following restoration of the Washington Public Power Supply System’s bond rating in late 1988, BPA and the Supply System developed a refunding plan to refinance outstanding high-interest-rate net-billed bonds. By the end of fiscal year 1998, 19 advance refunding sales had been completed.

#### **Nonfederal Projects**

*Debt repayments*

<i>(thousands of dollars)</i>	
1999	\$ 299,106
2000	307,039
2001	344,198
2002	261,635
2003	312,736
2004+	5,424,297
<b>Total</b>	<b>\$ 6,949,011</b>

In total, \$10.2 billion of refunding bonds was issued to refinance \$8.6 billion of previously outstanding bonds. Additionally, the structure of the advance refundings allowed the release of cash reserves held by the bond trustee to further reduce the project budgets for fiscal 1998, 1997 and 1996. This resulted in \$5.2 million, \$15.6 million and \$4.2 million lower project budgets for fiscal 1998, 1997 and 1996, respectively.

In summary, nonfederal project expense included in the Statement of Revenues and Expenses was reduced by \$76.6 million, \$156.5 million, and \$121.6 million for fiscal 1998, 1997 and 1996, respectively, relating to the above factors.

The fair value of all Supply System debt exceeds recorded value by \$212 million or 3 percent based on discounting the future cash flows using interest rates for which similar debt could be issued at Sept. 30, 1998. All other nonfederal projects’ debt approximates fair value as stated.

The table shows that future principal payments required for nonfederal projects total approximately \$6.9 billion.

## NOTES TO FINANCIAL STATEMENTS

### 5. RESIDENTIAL EXCHANGE

As provided for in the Pacific Northwest Electric Power Planning and Conservation Act of 1980, Section 5(c), BPA entered into residential exchange contracts with several electric utilities. These contracts result in payments to each utility, which must be passed through to its qualified residential and irrigation loads, based on the difference between each utility's average cost and BPA's priority firm power rate.

Congress passed legislation in November 1995 that required BPA to pay \$145 million in residential exchange benefits in fiscal 1997. The conference report prepared in connection with the legislation states that BPA and its customers, consistent with the Regional Review, should work together to gradually phase out the residential exchange program by Oct. 1, 2001. Termination agreements have been signed by all actively exchanging utilities except the Montana Power Co. (which receives no benefits), whereby payments will be made by BPA for settlement of the period running from fiscal 1998 through June 30, 2001. Future benefits are fixed by the termination agreements. BPA has capitalized these payments and is amortizing them to expense through the period ending June 30, 2001. Without future legislation the residential exchange program will revert to the prior methodology on July 1, 2001.

### 6. COMMITMENTS AND CONTINGENCIES

#### Irrigation Assistance

As directed by legislation, during fiscal 1997 BPA made a cash distribution of \$25 million to the U.S. Treasury for original construction costs allocated to irrigation projects of certain Pacific Northwest irrigation projects that were determined to be beyond the irrigators' ability to pay. These irrigation distributions do not specifically relate to power generation and are required to be made only if doing so does not result in an increase to power rates. Accordingly, these distributions are not considered to be regular operating costs of the power program and have been treated as distributions from accumulated net expense in the fiscal 1997 Statement of Revenues & Expenses and in the fiscal 1997 Statement of Changes in Capitalization and Long-term Liabilities. The cumulative irrigation assistance payments ultimately could total \$863 million and are scheduled to be made over the next 66 years. BPA is required by Public Law 89-448 to demonstrate that reimbursable costs of the FCRPS will be returned to the U.S. Treasury from BPA net revenues within the period prescribed by law. BPA is required to make a similar demonstration for the costs of irrigation projects which are beyond the ability of the 22 irrigation water users to repay. These requirements are met by conducting power repayment studies which produce schedules of payments at the proposed rates to demonstrate repayment of principal within the allowable repayment period.

The table below shows that future irrigation assistance distributions ultimately could total approximately \$863 million.

#### Irrigation Assistance

*Distributions*

*(thousands of dollars)*

1999	\$	—
2000		—
2001		10,103
2002		—
2003		—
2004+		852,854
<b>Total</b>		<b>\$ 862,957</b>

#### Net-Billing Agreements

BPA has agreed with the Supply System that, in the event any participant shall be unable for any reason, or shall refuse, to pay to the Supply System any amount due from such participant under its net-billing agreement for which a net-billing credit or cash payment to such participant has been provided by BPA, BPA will be obligated to pay the unpaid amount in cash directly to the Supply System, unless payment of such unpaid amount is made in a timely manner pursuant to the net-billing agreements.

## NOTES TO FINANCIAL STATEMENTS

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### **Nuclear Insurance**

BPA is a member of the Nuclear Electric Insurance Limited (NEIL), a mutual insurance company established to provide insurance coverage for nuclear power plants. The types of insurance coverage purchased from NEIL by BPA include: 1) Primary Property and Decontamination Liability Insurance; 2) Decontamination Liability Decommissioning Liability and Excess Property Insurance; and 3) Business Interruption and/or Extra Expense Insurance.

Under each insurance policy BPA could be subject to an assessment in the event that a member-insured loss exceeds reinsurance and reserves held by NEIL. The maximum assessment for the Primary Property and Decontamination Insurance policy is \$4.3 million. For the Decontamination Liability, Decommissioning Liability and Excess Property Insurance policy, the maximum assessment is \$3.5 million. For the Business Interruption and/or Extra Expense Insurance policy, the maximum assessment is \$3.5 million.

As a separate requirement, BPA is liable under the Nuclear Regulatory Commission's indemnity for public liability coverage under the Price-Anderson Act. In the event of a nuclear accident resulting in public liability losses exceeding \$200 million, BPA could be subject to a retrospective assessment of \$83.9 million limited to an annual maximum of \$10 million.

### **Decommissioning and Restoration Costs**

In March 1995, the Supply System submitted a site restoration plan to the state of Washington's Energy Facility Site Evaluation Committee (EFSEC) that complied with EFSEC's requirement to remove WNP-1 and -3 assets and restore the sites with minimal hazard to the public. EFSEC approved the Supply System's plan in June 1995. EFSEC's approval recognized that uncertainty still exists as to the exact details of the proposed plan; accordingly, EFSEC's conditional approval provided for additional reviews once the details of the plan are finalized. As part of submitting the restoration plan to EFSEC, the Supply System has obtained one outside estimate for site restoration that projected the cost of site restoration for WNP-1 at \$46 million and for WNP-3 at \$36 million. BPA is required to fund restoration of those projects. The Supply System expects to initiate a competitive bidding process before the final restoration plan is implemented. Recent Washington state legislation allows the transfer of the WNP-3 site to a county jurisdiction for redevelopment. The Supply System is working with Grays Harbor County agencies to negotiate a site transfer agreement that will reduce the cost of restoring the WNP-3 site.

The estimated obligation for restoration is reflected in the total nonfederal projects debt liabilities and nonfederal projects assets for WNP-1 and -3.

Decommissioning costs for WNP-2 are charged to operations over the operating life of the project. An external decommissioning sinking fund for costs is being funded monthly, as payments are made pursuant to the net-billing agreement, for WNP-2. The sinking fund is expected to provide for decommissioning at the end of the project's operating life in accordance with NRC requirements. Sinking fund requirements for WNP-2 are based on an estimate of decommissioning cost and assume a 40-year project life.

The estimated decommissioning sum of expenditures for WNP-2 is \$357 million (1987 dollars). Payments to the sinking fund for the years ended Sept. 30, 1998, 1997 and 1996 were approximately \$3 million per year. The sinking fund balance at Sept. 30, 1998, is \$53 million.

In January 1993, the Portland General Electric board of directors formally notified BPA of its intent to terminate the operation of the Trojan plant. PGE's rate filing in December 1997 with the Oregon Public Utility Commission included an estimated total decommissioning liability of \$424 million (in 1997 dollars). The current remaining estimate of \$416 million is based on site-specific studies less actual expenditures to date. As of Sept. 30, 1998, BPA's 30-percent share of this estimated remaining liability equals \$125 million, which has been recorded net of the

## NOTES TO FINANCIAL STATEMENTS

### 6. COMMITMENTS AND CONTINGENCIES *(continued)*

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decommissioning trust fund balance of \$18 million in the accompanying Balance Sheet. The Trojan Decommissioning Plan calls for prompt decontamination with delayed demolition of non-radiological structures. Funding requirements will be greater in the early years of decommissioning and then will decrease significantly. These greater early funding requirements have altered the decommissioning trust fund contributions for 1995, 1996 and 1997. For the period 1995 through 2000, funding for the Trojan decommissioning trust fund is being applied directly to the decommissioning expenses. Contributions to the decommissioning trust fund are made pursuant to the net-billing agreement for the plant through 2023. Once prompt decontamination is completed, funding of the trust will resume at a lower contribution level to pay for the delayed demolition. The decision to terminate the plant is not expected to result in the acceleration of debt-service payments. BPA will continue to recover its share of Trojan's costs through rates. Decommissioning costs are included in operations and maintenance expense in the Statements of Revenues and Expenses.

#### **Environmental Cleanup**

There are sites where BPA has been or may be identified as a potential responsible party. Costs associated with cleanup are not expected to be material to the FCRPS financial statements.

#### **Endangered Species Act**

Actions related to the Endangered Species Act are included in BPA's costs and recovered through current rates.

#### **Retirement Benefits**

See Note 1 for discussion of additional civil service retirement system contributions scheduled for payment through 2003.

#### **Purchase Commitments**

BPA has commitments under billing credit agreements and other alternative energy programs whereby BPA provides a cost supplement to entities that are involved in alternative energy generation projects. BPA's aggregate cost of these commitments has approximated \$19 million, \$17 million and \$9 million for fiscal 1998, 1997 and 1996, respectively. BPA's continued cost of these commitments is expected to approximate \$20 million per year over the next five years. These commitments expire at various periods over the next 20 years.

## NOTES TO FINANCIAL STATEMENTS

### 7. LITIGATION

#### Involving the Tenaska Washington Partners, II L.P.

In fiscal 1995 the Tenaska Washington Partners, II L.P. (Tenaska) and Chase Manhattan Bank (Chase) filed suit against BPA for breach of contract and lost revenues. In June 1996, BPA and Chase reached a settlement that resulted in a payment of \$115 million by BPA to Chase. In 1997, BPA paid expenses of \$38 million which included some of the subcontractor claims. In fiscal 1998 BPA settled with Tenaska for \$158.6 million. BPA has now settled with all litigants of the Tenaska suit and no further exposure exists.

#### Selected Quarterly Information (unaudited)

3 months ended

(thousands of dollars)

		Dec. 31	March 31	June 30	Sept. 30
1998	Operating revenues	\$623,740	\$644,931	\$ 466,683	\$ 577,899
	Operating expenses	415,382	447,680	432,639	690,054
	Net interest expenses	95,311	94,518	100,717	85,406
	Net revenues (expenses)	\$113,047	\$102,733	\$ (66,673)	\$(197,561)
1997	Operating revenues	\$584,099	\$660,353	\$ 479,624	\$ 547,961
	Operating expenses	433,092	416,703	452,759	477,451
	Net interest expenses	95,401	93,385	91,401	94,028
	Net revenues (expenses)	\$ 55,606	\$150,265	\$ (64,536)	\$ (23,518)
1996	Operating revenues	\$688,764	\$716,865	\$ 516,610	\$ 505,362
	Operating expenses	406,961	438,518	622,761	489,819
	Net interest expenses	100,193	98,510	88,787	86,195
	Net revenues (expenses)	\$181,610	\$179,837	\$ (194,938)	\$ (70,652)

*Note: BPA's net revenues are normally higher in the first and second quarters of the fiscal year than in the third and fourth. In fall and winter, loads grow to serve Northwest heating needs. In warmer weather, loads decline and BPA spends more in yearly maintenance.*

## SCHEDULE OF AMOUNT AND ALLOCATION OF PLANT INVESTMENT

Federal Columbia River Power System  
As of Sept. 30, 1998

### SCHEDULE A

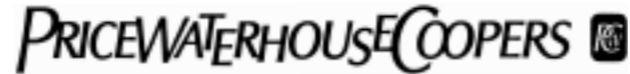
	Commercial Power			Irrigation (unaudited)			
	Total Plant	Completed Plant	Construction Work in Progress	Total Commercial Power (thousands of dollars)	Returnable from Commercial Power Revenues	Returnable from Other Sources	Total Irrigation
<b>Bonneville Power Administration</b>							
Transmission Facilities	\$ 4,924,378	\$ 4,816,247	\$ 108,131	\$ 4,924,378	\$ —	\$ —	\$ —
<b>Bureau of Reclamation</b>							
Boise	97,139	14,819	—	14,819	25,143	40,037	65,180
Columbia Basin	1,928,529	1,087,720	12,312	1,100,032	595,920	172,466	768,386
Hungry Horse	142,199	111,775	3,016	114,791	—	—	—
Minidoka-Palisades	383,000	105,029	—	105,029	16,560	61,245	77,805
Yakima	215,127	5,286	484	5,770	12,741	127,047	139,788
Total Bureau Projects	2,765,994	1,324,629	15,812	1,340,441	650,364	400,795	1,051,159
<b>Corps of Engineers</b>							
Albeni Falls	42,885	38,404	1,575	39,979	—	—	—
Bonneville	1,289,663	824,069	63,022	887,091	—	—	—
Chief Joseph	600,864	559,326	2,127	561,453	—	172	172
Cougar	62,503	20,306	2	20,308	—	3,288	3,288
Detroit-Big Cliff	68,415	41,292	622	41,914	—	5,122	5,122
Dworshak	370,323	313,522	928	314,450	—	—	—
Green Peter-Foster	90,372	49,967	107	50,074	—	6,224	6,224
Hills Creek	49,272	17,519	140	17,659	—	4,606	4,606
Ice Harbor	197,306	140,575	303	140,878	—	—	—
John Day	634,186	465,720	21,287	487,007	—	—	—
Libby	573,156	427,924	5,108	433,032	—	—	—
Little Goose	253,204	211,454	94	211,548	—	—	—
Lookout Point-Dexter	106,041	47,428	6,782	54,210	—	1,487	1,487
Lost Creek	149,628	27,074	47	27,121	—	2,180	2,180
Lower Granite	405,691	332,421	42	332,463	—	—	—
Lower Monumental	270,729	227,812	72	227,884	—	—	—
McNary	355,863	280,857	1,039	281,896	—	—	—
The Dalles	362,287	296,127	16,859	312,986	—	—	—
Lower Snake	258,700	253,355	2,866	256,221	—	—	—
Columbia River Fish Bypass	456,263	171,856	260,179	432,035	—	—	—
Total Corps Projects	6,597,351	4,747,008	383,201	5,130,209	—	23,079	23,079
Irrigation Assistance at 12 Projects having no power generation	201,179	—	—	—	157,144	44,035	201,179
Total Plant Investment	14,488,902	10,887,884	507,144	11,395,028	807,508	467,909	1,275,417
Repayment Obligation Retained by Columbia Basin Project	4,639	2,836	—	2,836	1,803	—	1,803
Investment in Teton Project (b)	79,107	—	7,269	7,269	56,573	3,681	60,254
<b>Total</b>	<b>\$14,572,648</b>	<b>\$10,890,720</b>	<b>\$514,413</b>	<b>\$11,405,133</b>	<b>\$865,884</b>	<b>\$471,590</b>	<b>\$1,337,474</b>

(a) Amount represents joint costs transferred to Bureau of Sports Fisheries and Wildlife. This is included in other assets in the accompanying balance sheets.

(b) The \$7,269,000 commercial power portion of the Teton project is included in other assets in the accompanying balance sheets. Teton amounts exclude interest totalling approximately \$2.2 million subsequent to June 1976 which was charged to expense.

<b>Non-reimbursable (unaudited)</b>						<i>Percent Returnable from Commercial Power Revenues</i>
<i>Navigation</i>	<i>Flood Control</i>	<i>Fish and Wildlife</i>	<i>Recreation</i>	<i>Other</i>		
<i>(thousands of dollars)</i>						
<b>Bonneville Power Administration</b>						
Transmission Facilities	\$ —	\$ —	\$ —	\$ —	\$ —	100.00%
<b>Bureau of Reclamation</b>						
Boise	—	17,140	—	—	—	41.14%
Columbia Basin	1,000	52,288	6,073	197	553	87.94%
Hungry Horse	—	27,408	—	—	—	80.73%
Minidoka-Palisades	—	64,697	2,562	10,483	122,424	31.75%
Yakima	—	1,639	50,404	—	17,526	8.60%
Total Bureau Projects	1,000	163,172	59,039	10,680	140,503	71.97%
<b>Corps of Engineers</b>						
Albeni Falls	168	253	—	2,485	—	93.22%
Bonneville	399,221	—	—	1,289	2,062	68.78%
Chief Joseph	—	—	4,977	5,262	29,000	93.44%
Cougar	548	38,359	—	—	—	32.49%
Detroit-Big Cliff	223	21,156	—	—	—	61.26%
Dworshak	9,703	31,386	—	14,784	—	84.91%
Green Peter-Foster	366	30,385	—	1,653	1,670	55.41%
Hills Creek	628	26,379	—	—	—	35.84%
Ice Harbor	53,419	—	—	3,009	—	71.40%
John Day	90,925	18,038	—	11,807	26,409	76.79%
Libby	—	95,803	870	12,814	30,637	75.55%
Little Goose	35,019	—	—	4,033	2,604	83.55%
Lookout Point-Dexter	744	49,089	—	511	—	51.12%
Lost Creek	—	52,856	24,281	29,585	13,605	18.13%
Lower Granite	52,638	—	—	12,748	7,842	81.95%
Lower Monumental	39,587	—	—	2,841	417	84.17%
McNary	69,180	—	—	4,787	—	79.21%
The Dalles	47,212	—	—	2,067	22	86.39%
Lower Snake	2,479	—	—	—	—	99.04%
Columbia River Fish Bypass	24,228	—	—	—	—	94.69%
Total Corps Projects	826,288	363,704	30,128	109,675	114,268	77.76%
Irrigation Assistance at 12 Projects having no power generation	—	—	—	—	—	78.11%
Total Plant Investment	827,288	526,876	89,167	120,355	254,771	84.22%
Repayment Obligation Retained by Columbia Basin Project	—	—	—	—	—	100.00%
Investment in Teton Project (b)	—	9,151	—	2,433	—	80.70%
<b>Total</b>	<b>\$ 827,288</b>	<b>\$ 536,027</b>	<b>\$ 89,167</b>	<b>\$122,788</b>	<b>\$254,771</b>	<b>84.21%</b>

## REPORT OF INDEPENDENT ACCOUNTANTS



To the Administrator of the  
Bonneville Power Administration,  
United States Department of Energy:

In our opinion, the accompanying balance sheets and the related statements of revenues and expenses, of cash flows and of changes in capitalization and long-term liabilities present fairly, in all material respects, the financial position of the Federal Columbia River Power System (FCRPS) at September 30, 1998 and 1997, and the results of its operations, cash flows and changes in its capitalization and long-term liabilities for each of the three years in the period ended September 30, 1998, in conformity with generally accepted accounting principles. These financial statements are the responsibility of FCRPS' management; our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits of these statements in accordance with generally accepted auditing standards which require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for the opinion expressed above.

Our audit was made for the purpose of forming an opinion on the basic financial statements taken as a whole. The Schedule of Amount and Allocation of Plant Investment as of September 30, 1998 (Schedule A) is presented for purposes of additional analysis and is not a required part of the basic financial statements. Such information, except for that portion marked "unaudited," on which we express no opinion, has been subjected to the auditing procedures applied in the examination of the basic financial statements and, in our opinion, is fairly stated in all material respects in relation to the basic financial statements taken as a whole.

A handwritten signature in dark ink that reads "Price Waterhouse Coopers LLP". The signature is written in a cursive, flowing style.

Portland, Oregon  
December 15, 1998



## FEDERAL REPAYMENT

### Revenue Requirement Study

The revenue requirement study demonstrates repayment of federal investment, and it reflects revenues and costs consistent with the 1996 Wholesale Power and Transmission Rate Filing. The Federal Energy Regulatory Commission granted final approval for proposed rates on April 4, 1997, for fiscal year 1998 (75 FERC 62,010).

### Repayment Demonstration

BPA is required by Public Law 89-448 to demonstrate that reimbursable costs of the FCRPS will be returned to the U.S. Treasury from BPA net revenues within the period prescribed by law. BPA is required to make a similar demonstration for the costs of irrigation projects that are beyond the ability of the 22 irrigation water users to repay. These requirements are met by conducting power repayment studies that produce schedules of payments at the proposed rates to demonstrate repayment of principal within the allowable repayment period.

Since 1985, BPA has prepared separate repayment demonstrations for generation and transmission in accordance with an order issued by the Commission on Jan. 27, 1984 (26 FERC 61,096).

### Repayment Policy

BPA's repayment policy is reflected in its revenue requirements and rate levels. This policy requires that FCRPS revenues be sufficient to:

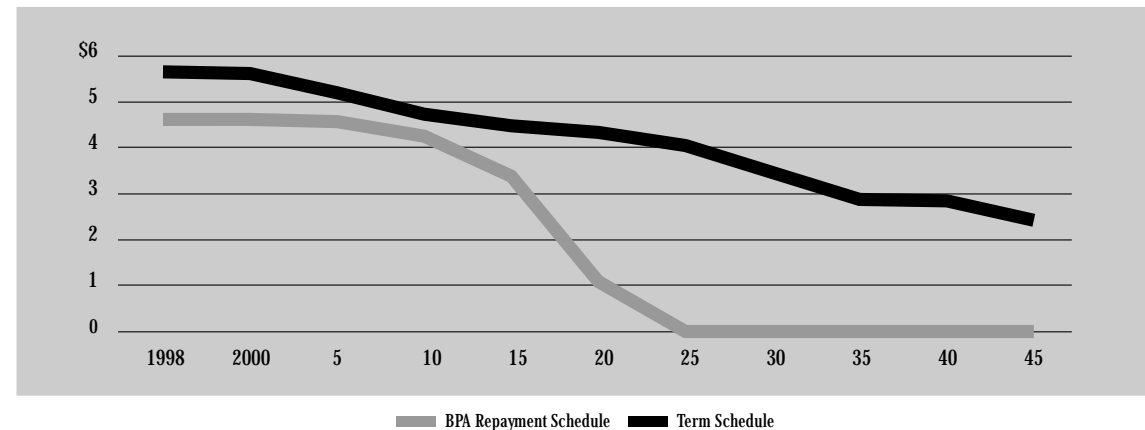
1. Pay the cost of obtaining power through purchase and exchange agreements (nonfederal projects).
2. Pay the cost of operating and maintaining the power system including payments related to the under-funded status of the CSRS plan.
3. Pay interest on and repay outstanding bonds issued to the Treasury to finance transmission system construction, conservation, and fish and wildlife projects.
4. Pay interest on the unrepaid investment in power facilities financed with appropriated funds. (Federal

hydroelectric projects are all financed with appropriated funds, as were BPA transmission facilities constructed before 1978.)

5. Pay, with interest, any outstanding deferral.
6. Repay the power investment in each federal hydroelectric project within 50 years after going into service (except for the Chandler project, which has a legislated repayment period of 66 years).
7. Repay each increment of the investment in the BPA transmission system financed with appropriated funds within the average service life of the transmission facilities (45 years).
8. Repay the investment in each replacement at a federal hydroelectric project within its service life.

### Unrepaid Federal Generation Investment *(includes future replacements)*

*(billions of dollars)*



## FEDERAL REPAYMENT

9. Repay construction costs at federal reclamation projects that are beyond the ability of the irrigators to pay and are assigned for payment from commercial power net revenues within the same period available to the water users for making payments. These periods range from 40 to 66 years, with 50 years being applicable to most of the irrigation payment assistance.

Investments bearing the highest interest rate will be repaid first, to the extent possible, while still completing repayment of each increment of investment within its prescribed repayment period.

### Repayment Obligation

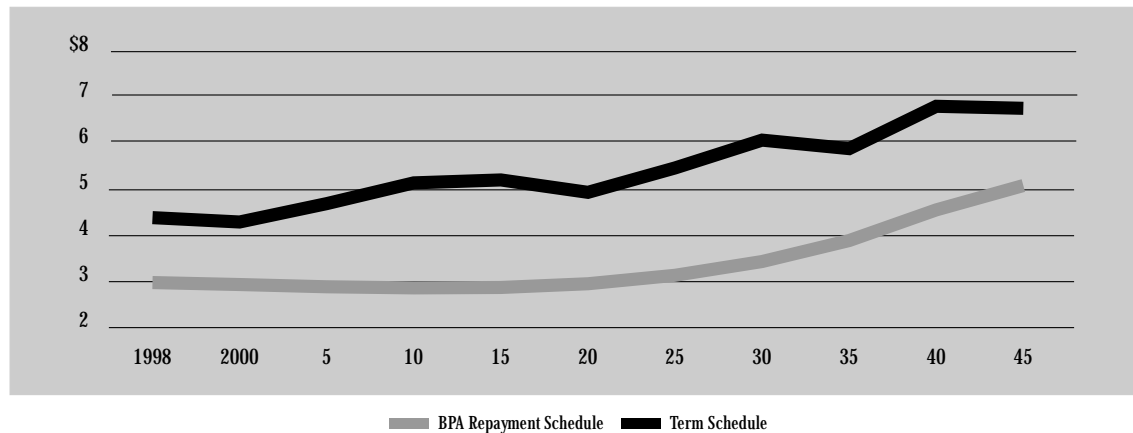
BPA's rates must be designed to collect sufficient revenues to return the reimbursable power costs of each FCRPS investment and each irrigation assistance obligation within the time prescribed by law. If existing rates are not likely to meet this requirement, BPA must reduce costs, adjust its rates, or both. However, total irrigation assistance payments cannot require an increase in the BPA power rate level. In the absence of a specific legislated period, the reimbursable power costs must be returned within 50 years from the date the

investment is capable of producing revenue or within the investment's average service life, whichever is less.

By comparing the unrepaid investment resulting from BPA's repayment schedule with the allowable unrepaid investment resulting from a "term schedule" on a year-by-year basis it is demonstrated that the federal investment is repaid within the time allowed. A term schedule represents a repayment schedule whereby each investment would be repaid in total in the year it is due.

Reporting requirements of Public Law 89-448 are met so long as the unrepaid FCRPS investment and irrigation assistance resulting from BPA's repayment schedule are less than or equal to the allowable unrepaid investment in each year. While the comparison is illustrated by graphs representing total FCRPS generation and total FCRPS transmission investment, the actual comparison is performed on an investment-by-investment basis.

### Unrepaid Federal Transmission Investment *(includes future replacements)* *(billions of dollars)*



### Repayment of FCRPS Investment

The graphs for Unrepaid Federal Generation and Transmission Investment on pages 47 and 48 illustrate that unrepaid investment resulting from BPA's generation and transmission repayment schedules is less than the allowable unrepaid investment. This demonstrates that BPA's rates are sufficient to recover all reimbursable costs of FCRPS investments on or before their due dates.

## FEDERAL REPAYMENT

The term schedule lines in the graphs show how much of the investment can remain unpaid in accordance with the repayment period for the generation and transmission components of the FCRPS. The BPA repayment schedule lines show how much of the investment remains to be repaid according to BPA's repayment schedules. In each year, BPA's repayment schedule is ahead of the term schedule.

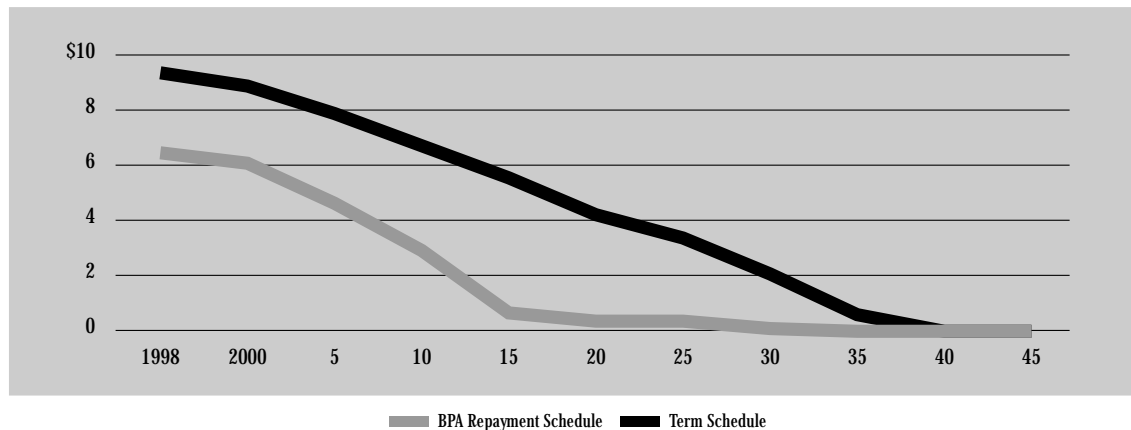
This occurs because BPA plans repayment both to comply with investment due dates and to minimize costs over the 45- or 50-year repayment period. Costs are minimized by repaying highest interest-bearing investments first, to the extent possible. Consequently, some investments are repaid before their due dates while assuring that all other investments are repaid by their due dates. These graphs include forecasts

of future system replacements necessary to maintain the existing FCRPS generation and transmission facilities.

The Unrepaid Federal Investment graph on this page displays the total planned unrepaid FCRPS investment compared to allowable total unrepaid FCRPS investment omitting future system replacements. This demonstrates that the FCRPS investment expected through fiscal year 1998 is scheduled to be returned to the U.S. Treasury within the 45- or 50-year repayment period and ahead of due dates.

If, in any given year, revenues are not sufficient to cover all cash needs, including interest, any deficiency becomes an unpaid annual expense. Interest is accrued on the unpaid annual expense until paid. This must be paid from subsequent years' revenues before any repayment of federal appropriations can be made.

**Unrepaid Federal Investment** *(excludes future replacements)*  
*(billions of dollars)*



## **BPA EXECUTIVES**

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Judi Johansen  
Administrator & Chief Executive Officer

Jack Robertson  
Deputy Administrator

Steve Hickok  
Chief Operating Officer

Harvey Spigal  
Senior Vice President, General Counsel

Steve Wright  
Senior Vice President, Corporate

Jim Curtis  
Vice President, Policy Management & Finance

Pam Marshall  
Vice President, Strategic Planning

Randy Roach  
Vice President, Deputy General Counsel

Alexandra Smith  
Vice President, Environment, Fish & Wildlife

Lynda Stelzer  
Vice President, Shared Services

### **Power Business Line**

Paul Norman  
Senior Vice President, Power Business Line

Ruth Bennett  
Vice President, Power Marketing

Greg Delwiche, acting  
Vice President, Generation Supply

Terry Esvelt  
Vice President, Energy Efficiency

### **Transmission Business Line**

Mark Maher, acting  
Senior Vice President, Transmission Business Line

Alan Courts  
Vice President, Engineering & Technical Services

Fred Johnson  
Vice President, Transmission Field Services

Chuck Meyer  
Vice President, Marketing & Sales

Marg Nelson  
Vice President, Support Services

Vickie VanZandt  
Vice President, Operations & Planning

## **BPA OFFICES**

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BPA Headquarters  
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Portland, OR 97208  
(503) 230-3000

Washington, D.C. Office  
Forrestal Bldg., Room 8G-061  
1000 Independence Ave., S.W.  
Washington, DC 20585  
(202) 586-5640

BPA Public Involvement & Information  
P.O. Box 12999  
Portland, OR 97212  
(503) 230-3478  
1-800-622-4519

### **Power Business Line's Customer Service Centers**

Bend Customer Service Center  
1011 S.W. Emkay Dr., Suite 211  
Bend, OR 97702  
(541) 318-1680

Burley Customer Service Center  
2700 Overland  
Burley, ID 83318  
(208) 678-9481

Eastern Area Customer Service Center  
707 W. Main St., Suite 500  
Spokane, WA 99201  
(509) 358-7409

Idaho Falls Customer Service Center  
1350 Lindsay Blvd.  
Idaho Falls, ID 83402  
(208) 524-8750

Missoula Customer Service Center  
800 Kensington, Suite 204  
Missoula, MT 59801  
(406) 329-3060

Seattle Customer Service Center  
1601 5th Ave., Suite 1000  
Seattle, WA 98101-1670  
(206) 216-4272

Western Area Customer Service Center  
700 N.E. Multnomah, Suite 400  
Portland, OR 97232  
(503) 230-7597

### **Transmission Business Line's Regional Offices**

Eugene Region  
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Eugene, OR 97405  
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Idaho Falls Region  
1350 Lindsay Blvd.  
Idaho Falls, ID 83402  
(208) 524-8770

Olympia Region  
5240 Trosper St. S.W.  
Olympia, WA 98512-5623  
(360) 704-1600

Redmond Region  
3655 W. Highway 126  
Redmond, OR 97756  
(541) 548-4015

Snohomish Region  
914 Ave. D  
Snohomish, WA 98290  
(360) 568-4962

Spokane Region  
707 W. Main, Suite 500  
Spokane, WA 99201-0608  
(509) 358-7358

Walla Walla Region  
1520 Kelly Place  
Walla Walla, WA 99362  
(509) 527-6238

## **BPA PROFILE**

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The Bonneville Power Administration, a federal agency under the Department of Energy, was set up to market power from 29 federal dams and one nonfederal nuclear plant in the Pacific Northwest. BPA provides low-cost electricity to the region by offering cost-based rates for its power and transmission services.

BPA's service area includes Oregon, Washington, Idaho, western Montana and small parts of Wyoming, Nevada, Utah, California and eastern Montana. BPA sells wholesale power to publicly owned and investor-owned utilities, as well as to some large industries. BPA also sells or exchanges power with utilities in Canada and other parts of the western United States.

Today, BPA fulfills its public responsibilities by operating and maintaining one of the largest and most reliable transmission systems in the United States, assuring the Northwest of an efficient, economical and reliable power supply. BPA also funds the region's efforts to protect and rebuild fish and wildlife populations in the Columbia River Basin.

BPA continues to fulfill its environmental obligations by working with others in the region to support new conservation and renewables projects.

**Bonneville Power Administration**

PO Box 3621 Portland, Oregon 97208-3621

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