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Bonneville Power Administration  
1996 Annual Report



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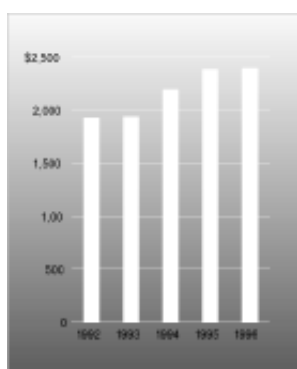
The Pacific Northwest offers a diverse economy  
and clean environment. A cornerstone  
of the Northwest way of life is low cost,  
reliable power from the mighty Columbia River.



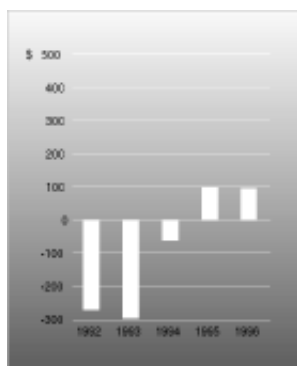
# Financial Highlights

## Federal Columbia River Power System For the years ended Sept. 30, 1996 & 1995

Total Operating Revenues  
(millions of dollars)



Net Revenues (Expenses)  
(millions of dollars)



1996                      1995  
(thousands of dollars)

	1996	1995
Operating Revenues		
Sales of electric power:		
Sales within the Northwest	\$ 1,896,047	\$ 2,049,476
Sales outside the Northwest	336,736	132,060
Wheeling and other sales	194,818	204,289
Total operating revenues	2,427,601	2,385,825
Total operating expenses	1,958,059	1,889,464
Net operating revenues	469,542	496,361
Net interest expense	373,685	397,594
Net revenues (expenses)	\$ 95,857	\$ 98,767

### End of Fiscal Year

Total Assets (Net of accumulated depreciation)	\$16,709,469	\$16,804,282
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### Total Capitalization and Liabilities:

Accumulated net expenses	\$ (275,673)	\$ (371,530)
Federal appropriations	6,848,278	6,788,545
Long-term debt	2,456,100	2,563,400
Non-federal projects debt	7,105,674	7,194,513
Other	575,090	629,354
	\$16,709,469	\$16,804,282

Employees (staff years)	3,152	3,271
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Dear Mr. President:

I am proud to submit to you the Bonneville Power Administration's Annual Report for 1996.

In the last few years, BPA has transformed itself to fulfill its public responsibilities in a competitive, deregulated electric power industry.

This year, we achieved financial stability through new and revised contracts with our publicly owned utility customers. Added to similar contracts with our industrial customers, we have secured a stable stream of core revenues through 2001.

To reach this point, BPA staff has successfully reframed its work on several fronts at once. We cut costs dramatically to support lower, competitive rates. We revamped our hydro operations to comply with increased needs for fish and wildlife protection. We adjusted our surplus power sales to fit the new hydro regimen and today's commodity power market. We voluntarily separated our transmission staff from our power supply and marketing staff. BPA now buys transmission for its own use at the same rates, terms and conditions as all other users of the grid.

In sum, we have changed BPA to meet changing public needs.

We owe great thanks to the Administration and Congress for helping to bring certainty to BPA's financial obligations. We have signed a Memorandum of Agreement with other federal agencies on stable fish and wildlife funding, as directed by the Administration and Congress. BPA is refinancing its appropriated debt at current interest rates, as called for in the 1996 Federal Omnibus Appropriations Act. This has ended more than a decade of speculation about potential changes to the terms of BPA's appropriated debt.

By putting our financial house in order, we fulfill our fiscal responsibilities to bondholders and taxpayers. Our cost-based rates reflect our duty to Northwest consumers to spread the benefits of the Northwest's federal hydropower system. The Northwest Power Act gives us special environmental obligations to protect Columbia River fish and wildlife, and to support energy conservation and renewable resources. We work closely with other federal agencies, Canada, Northwest tribes, and state and local governments to manage public resources openly, for the common good.

We are now in a position to fulfill these public duties well while the region and the nation consider how best to restructure the power industry. A stable BPA gives the region breathing room to make well-considered choices.

This year, the four Northwest governors conducted a comprehensive review of the Northwest power system. The review called for a single Northwest independent grid operator, and proposed that Northwest utilities subscribe to the federal base system on a long-term basis to assure that Columbia River assets continue to serve the region.

We support the framework of the comprehensive review conclusions. We believe it is crucial that the result maximize benefits for end-use consumers, continue the public benefits BPA now provides, produce a system flexible enough to work regardless of what happens in the future, and achieve these goals without increasing costs or risks to the taxpayer.

We look forward to an exciting future, and to continued service to the people of the Pacific Northwest.

Respectfully,

Randall W. Hardy  
Administrator & Chief Executive Officer



*T*he powerful flow of the Columbia River  
defines the Pacific Northwest.

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## A Sound Financial Footing

BPA fulfills its public responsibilities through commercial success in marketing and transmitting federal power. That's where the money comes from for fish and wildlife protection, debt service to bondholders and the U.S. Treasury, and the agency's other public obligations.

BPA met its financial targets this year. But much more important, the agency has established a stable financial framework for the balance of this century.

BPA's net revenues for fiscal year 1996 were \$96 million, just short of last year's net revenues of \$99 million. Surplus power sales were excellent due to a very wet year. Revenues from publicly owned utilities and direct service industries were down substantially, as both customer classes sought to diversify their power supply sources in an extremely competitive market.

## Customer Contracts Renewed

BPA succeeded, this year, in signing new or revised power sales contracts with its Northwest preference customers that will provide a high degree of assurance that BPA can cover its costs through 2001, and position BPA for financial success thereafter. Customers who wanted to diversify suppliers can do so within their new contracts.

The new contracts secure average annual revenues of \$986 million from preference customers and related secondary sales for the next five years. A higher proportion of these revenues is now take-or-pay, reducing risk of underrecovery. Previously negotiated five-year block sales to 10 direct-service industries went into effect at the end of 1996, similarly stabilizing revenues from that customer class at 84 percent of its traditional firm load, again under take-or-pay terms.

This renewed contractual relationship between BPA and its customers gives the Northwest a stable foundation from which to explore how best to preserve public benefits and retain the value of Northwest assets in a deregulated power industry.



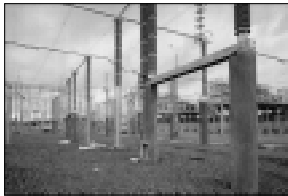
Lower BPA rates meet the competitive market and benefit Northwest consumers.



Through BPA power rates, Northwest citizens return revenues to the U.S. Treasury to pay for the region's federal power system—including fish and wildlife protection and most of the costs of the region's federal dams.



BPA power traders sell surplus hydropower on the open market and buy to meet short-term gaps in BPA's supply.



Captain Jack Substation is a key transfer point for power connections with California. Revenues from surplus power sold outside the region help fund BPA's public responsibilities within the Northwest.



BPA employs modern financial control methods. For example, in 1996 BPA began using electricity futures to hedge power price risks.

## Rates Reduced

To meet the market and retain customers, BPA reduced its average priority firm power rate by an unprecedented 13 percent, and has guaranteed that rate without adjustment for five years. The new, lower rates took effect on Oct. 1, 1996.

To meet the rate reduction target, BPA further reduced planned expenses for 1997-2001 by \$100 million per year, bringing total cost reductions since 1994 to \$600 million per year.

## Financial Reserves Recovering

BPA repaid \$801 million to the Treasury in 1996. The agency's financial reserves, seriously depleted in the early 1990s, have recovered to \$278 million. More importantly, with core revenues assured, there is a higher likelihood that reserves will continue to rebuild, increasing the certainty of BPA's annual Treasury payment.

On Aug. 23, Moody's Investors Service, a national credit rating agency, recognized BPA's financial success. It upgraded the credit rating for BPA-backed Washington Public Power Supply System bonds from Aa to Aa1, the second highest possible rating.

All told, BPA's success in 1996 has placed the agency on a sound financial footing as it enters the five-year rate period.

## Surplus Market Vital

With customer diversification, BPA's contracted firm load base is smaller, roughly 7,000 average megawatts instead of somewhat over 8,000 aMW.

In addition to energy made excess by customer diversification, dam operations required for endangered salmon have created large firm power surpluses in spring and summer.

BPA now counts on surplus energy sales for a substantial portion of its annual expected revenues.

Meanwhile, the West Coast power market is quickly becoming a commodities market. New power-trading hubs have been established at



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the California/Oregon border and at Palo Verde, Ariz. Power prices at these hubs are listed daily in the Wall Street Journal.

BPA sells much of its surplus power in this open market. The agency's firm power products and services rate schedule gives BPA needed flexibility in marketing surplus power.

The new excess federal power category established by Congress last year is expected to enhance BPA's revenues from extra-regional power sales. BPA continues to offer surplus and excess federal power first to buyers in the Northwest.

### A Year of Floods and Fish

1995-96 was a tough year for hydro system operators, one that proved the value of close interagency coordination of the Columbia River system to simultaneously meet many different public needs, especially flood control, fish protection, power and recreation.

### The Winter of Our Discomfort

The winter of 1995-96 was cold and very wet. By the end of January, BPA was selling about \$2 million a day in surplus firm and nonfirm energy to utilities in the Northwest and Southwest.

On Feb. 2, a near-record cold snap hit. BPA curtailed interruptible surplus power sales outside the region to meet Northwest loads. As the cold subsided, more wet storms loomed. BPA surplus sales resumed.

### Turn Off the Tap!

On Feb. 6, the Columbia flooded. To reduce flooding, the Bureau of Reclamation shut off flows through its huge Grand Coulee Dam almost entirely. To keep the lights on, BPA power marketers made more than 100 replacement power purchases in six hours flat. Quick interagency action kept seven feet of water out of downtown Portland, Ore., averting an even larger disaster and an estimated \$3 billion in damage.

The U.S. Army Corps of Engineers, Reclamation, BPA and Canadian cooperation reduced inflows to the lower Columbia not just in February,



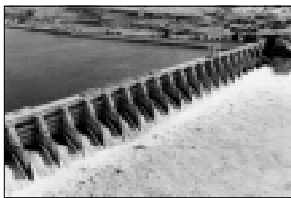
A cold, wet winter brought both revenues and challenges to the power grid.



To reduce flooding, ironically, BPA had to buy power from outside the Northwest.



BPA works with federal, state and tribal fish agencies to meet water needs for fish and wildlife.



BPA gave away power this spring to reduce dangerous levels of spill and help young fish migrate to sea safely.



A special power swap with B.C. Hydro helped boost summer tourism on Lake Koocanusa in Montana and British Columbia, while still meeting water requirements for salmon downstream.

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but throughout this wet spring. As one system operator put it, “There were actually three floods this year, but people only saw one.”

### Spilling through Spring

Hydro system operations for fish are defined by the 1995 Biological Opinion of the National Marine Fisheries Service. During the fish passage, typically mid-April through August, NMFS and other members of the fish operation Technical Management Team call for federal water releases to meet streamflow and spill targets.

All the flow targets in the mainstem Columbia were easily met this year. In April and May, streamflows and spill were so high that nitrogen levels in the water exceeded state standards. To reduce spill, BPA shifted spill to dams outside the fish passage area, sold power below market price, and actually gave away power to other utilities which could spill water at their dams instead.

Snake River flow targets were met in April-May, but there was not enough water to meet June-July targets in the Snake. Dworshak, the only major federal storage dam on the Snake, is used primarily to provide water for fish flows each spring and summer, and is refilled the rest of the year.

Reservoirs were filled in July. In August, system operators began withdrawing water consistent with the 1995 Biological Opinion. In August, BPA and B.C. Hydro completed a swap which used water from Arrow Reservoir in British Columbia to help meet fish flow requirements. This reduced summer drafts from Lake Koocanusa behind Libby Dam to six feet, rather than the 20 feet specified in the Biological Opinion, while still providing the flows required downstream. Both Canadian and American interests want Lake Koocanusa as full as possible, because it backs into Canada. Drawdowns affect resident fish, wildlife and recreation on the reservoir.

### New Dynamics in Fish Discussions

In September 1996, BPA, NMFS, the Corps, Reclamation and the U.S. Fish and Wildlife Service signed a Memorandum of Agreement to implement joint Administration-Congressional direction on BPA fish and



**N**orthwest recreation industries and the power system depend on the same renewable resource — snowpack.



The region is still searching for the best way to bring back wild salmon runs.



BPA funds hundreds of projects to protect and enhance fish and wildlife affected by the federal hydro system.



Many interests are working together to restore healthy salmonoid runs in the Columbia River Basin. Here, leaders from the Warm Springs Reservation release young steelhead into Hood River.

wildlife funding. Developed with Columbia Basin tribes and the Northwest Power Planning Council, the MOA includes a six-year funding plan of \$252 million per year for fish and wildlife program measures, plus costs of hydro operations for fish specified in NMFS and USFWS biological opinions. The MOA also establishes terms for use of an estimated \$325 million contingency fund to be drawn as credits against BPA's repayment to the Treasury. The contingency fund credits represent money BPA has already spent on fish and wildlife costs associated with the non-power uses of the region's federal dams.

The Northwest Power Planning Council has led a process to prioritize fish and wildlife measure funding under the stable fish and wildlife budget. This has created a new dynamic within the region. Fish and wildlife interests are working even more closely together to determine how to protect endangered runs most effectively.

Scientific ideas about how best to protect the runs continue to evolve. An independent scientific group, commissioned by the council and funded by BPA, has developed an alternative conceptual framework for salmon restoration it calls the "normative ecosystem," which would establish a continuum of viable habitat for salmon throughout the river system.

River governance and the ultimate solution to fish protection remain vital questions for the long-term shape of the Northwest power system. The 1995 Biological Opinion calls for resolution by 1999 of questions about river drawdowns, barging fish around the dams and other issues. The answers could affect the size and shape of the federal hydro resource. People in the Northwest treasure the salmon resource; its protection is an important public responsibility.

### Tribal Policy Established

In 1996, BPA established a policy that provides a framework for government-to-government relationships with 13 Columbia Basin tribes. The policy recognizes their tribal sovereign status and BPA's trust responsibility to those tribes. BPA is committed to working closely with the tribes on issues of mutual concern.

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## Canadian Entitlement Return Agreement Reached

Under the Columbia River Treaty of 1964, the United States and Canada share equally in increased power generated at U.S. dams due to three large Columbia River dams in Canada and Libby Dam in Montana.

Canada sold its half of the power, called the Canadian Entitlement, to a consortium of U.S. utilities for 30 years. The sale expires in stages in 1998, 1999 and 2003. After the sale ends, the Canadian Entitlement was to be delivered to Canada near Oliver, British Columbia, which would have required construction of a new transmission line. BPA and B.C. Hydro have agreed to an alternative delivery arrangement which uses existing transmission.

BPA works closely with its Canadian counterparts to coordinate the Canadian and American river reaches, and continues to find ways to extend the benefits of river system coordination.

## Fostering Energy Conservation and Renewable Resources

In the absence of a need to acquire new resources, BPA continues to support energy conservation and renewable resources through existing contracts that remain in effect for several more years. BPA increasingly seeks to partner with other Northwest entities to build truly regional conservation programs.

Northwest utilities, public interest groups and BPA have formed the Northwest Energy Efficiency Alliance, which is expected to help transform the market for low-cost, energy-efficient products and services. BPA will invest up to \$37.5 million in the alliance through 1999.

BPA's energy efficiency assistance will be conducted in partnership with the private sector and other governments and utilities on a non-profit, cost-recovery basis, and will focus on expanding the market for conservation technologies and expertise.

BPA has begun marketing new renewable resources as a Green Power product. Salem Electric has expressed interest in buying BPA's Green Power product for up to 17 percent of its load.



Canadian and U.S. cooperation extends the benefits of the Columbia River system in both countries.



Moving markets toward more energy-efficient products can save energy at very low cost.



BPA supports renewable resources such as this geothermal project, and markets them as a special Green Power product.



*T*he Northwest, once almost entirely dependent on resource extraction and agriculture, now also adds many new high-tech jobs to the U.S. economy. New industries require exceptionally reliable power.

BPA's status as a non-polluting, renewable-based utility was emphasized this year when the agency took first place in a ranking of all U.S. utilities by the Natural Resources Defense Council. NRDC ranked the 60 major U.S. power suppliers based on their carbon dioxide emissions per dollar of operating revenue. BPA, which has no fossil-fuel fired generation, ranks the cleanest.



BPA has separated its transmission and power functions.

### Separating the Grid

In 1995, the Federal Energy Regulatory Commission proposed rules that would require utilities to separate their transmission from generating functions. This direction was confirmed on April 24, 1996, in FERC's final Order 888.

BPA is voluntarily complying with FERC's directives. On Oct. 1, 1996, a new, separate, self-supporting Transmission Business Line began operation. During 1996, BPA was among the first to post available transmission capacity and rates on the Internet. Through its Web site, BPA offers comparable service and tariffs to all power marketers at the same time. BPA is in the forefront of utilities in the pace and degree of separation of its transmission and power supply functions.



Under BPA's separated functions, transmission dispatchers can change generation levels in real time if necessary to avoid outages.

In April 1996, BPA and its customers agreed to rates, terms, conditions and principles for comparable access to BPA transmission facilities. BPA transmission rates are now completely separate from power rates and fully recover the costs of the separated transmission function.

To maintain system reliability, transmission dispatchers often must adjust generation levels to keep the system in balance. This is especially true during emergencies.

### Outages Stress the Importance of System Reliability

Two major outages in the West Coast power grid this summer highlight the importance of maintaining high reliability as the industry evolves. On July 2, 1996, a power outage resulted in the loss of the alternating-current Intertie between the Northwest and California, and affected more than two million people. An Aug. 10 outage originating on the BPA system affected about seven million people in nine states.



New software programs monitor remote power system locations, sensing potential problems before trouble erupts, reducing maintenance costs and outages.



While BPA has been cutting most costs, vegetation management budgets have increased.

Aug. 10 saw very hot weather in the West, creating high demand for Northwest hydropower. Hot weather made transmission lines sag toward trees, creating flashovers to BPA lines, and rerouting power to other heavily loaded lines. McNary Dam unexpectedly tripped off. The combination sent the AC Intertie out of service. Other generators in the vicinity failed to support system voltage as expected.

As an emergency matter of public health and safety, BPA, the Corps and NMFS agreed to increase generation at The Dalles Dam near the northern end of the intertie by 700 MW. This reduced stress on the transmission system and avoided potentially life-threatening extended outages in California. It also generated power with water that would otherwise have been spilled over The Dalles Dam for fish. NMFS estimates that four to six listed chinook may have passed The Dalles during this three-day period. BPA made up for the lost spill by continuing spill past the normal closure of the fish passage season.

In response to the Aug. 10 event, BPA has made technical and institutional changes to strengthen the transmission system. It has reduced operating limits on the intertie until final studies and recommendations on voltage support are complete. It has set up new, voluntary communication procedures with Western Systems Coordinating Council utilities and cut more than 3,200 trees. BPA's vegetation management budget was raised in 1996 from \$2.5 million to \$4-\$4.5 million a year for the next three years.

BPA is implementing recommendations from the WSCC to enhance the reliability of the transmission grid. In addition, BPA has commissioned a Blue Ribbon panel of 14 industry experts to address comprehensive voltage support in the federal power system.

In October, the National Electric Reliability Council put BPA on its honor roll of utilities that achieve 95 percent or better compliance with its reliability criteria during the year. BPA's compliance was 96.8 percent.

Reliable power is a vital public service which has become even more important with the development of sensitive electronic equipment. BPA is proud of its overall reliability record, and will continually strive to improve it, especially in light of this year's outages.



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## Living on a Tight Budget

BPA employees recognize the need to provide excellent service at ever-lower costs to customers and consumers. BPA met its staff reduction target of 500 full-time employee positions as well as 500 equivalent contractors this year; further reductions are expected. The targeted voluntary separation incentive Congress gave BPA last year is proving a valuable tool in reducing staff costs humanely.

The Secretary of Energy has delegated responsibility for numerous administrative orders to BPA. These delegations are expected to save millions of dollars a year and about 40 full-time equivalent positions.

1996 saw progress on difficult actions taken in 1995. Most notably, BPA settled litigation with Chase Manhattan Bank, which had arranged financing for the canceled Tenaska combustion turbine. Chase settled with BPA for \$115 million, the amount Chase loaned to Tenaska for construction and related expenses. BPA paid this settlement out of FY 1996 revenues. The Chase settlement will directly offset any monetary award Tenaska may obtain. BPA is pursuing settlement with the Tenaska partners in arbitration.

Under the Federal Omnibus Appropriations Act of April 1996, BPA is refinancing its \$6.8 billion in outstanding repayment obligations from appropriations at the Treasury's current interest rates. This removes a major and persistent uncertainty from BPA's revenue requirements, and further stabilizes BPA's financial position. The refinancing will take effect in 1997.

BPA is instituting procedures to manage its capital borrowing to stay within the limits of its borrowing authority. It continues to minimize debt service costs through timely refinancings. In September and October 1996, BPA assisted the Washington Public Power Supply System with the refinancing of \$699 million of bonds, for a net present value savings of about \$38 million. BPA has begun to use electricity futures and other financial tools to hedge commodity price risk.

BPA has concluded a direct-funding agreement with the Bureau of Reclamation that, once approved by the Office of Management and Budget, will cut the time and red tape it takes to make needed maintenance and repairs to Reclamation hydropower projects in the



Under a new agreement, BPA will pay for Bureau of Reclamation major maintenance directly, rather than waiting for appropriations. This will help assure that revenue-producing equipment stays on line and runs efficiently.



BPA's Ross Complex was removed from the Environmental Protection Agency's Superfund list this year, after a highly effective—and cost-effective—cleanup.



The Northwest has responded quickly to the national call for power industry deregulation.



The Regional Review chartered by the four Northwest governors calls for a single regionwide independent transmission grid operator. BPA believes this will lower costs and improve power system reliability.

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Northwest. Traditionally, Reclamation sought appropriations for this work, which BPA later repaid.

BPA continues to work with the region's investor-owned utilities to come to agreement on phasing out the residential exchange by 2001, as directed by Congress. BPA has reached phase-out agreements with all publicly owned utilities in the exchange program.

Other remaining current issues include a contingency for stranded investment recovery, if necessary, as retail wheeling evolves, and post-2001 fish funding requirements.

### Conclusion

BPA is now structured to give the Northwest a reliable, stable power system for the balance of this century. It has successfully positioned itself to continue fulfilling its public responsibilities.

#### Regional Review Recognizes Value of Federal Power System

In 1996, the governors of the four Northwest states sponsored a Comprehensive Review of the region's power system, including the future of BPA. The agency supports the review's stated purpose to assure that the public benefits of the Northwest's power system are retained within the region.

The Comprehensive Review has proposed that regional subscribers contract for power from the federal system, in order of public and regional preference. BPA would sell any remaining federal firm power on the open market.

The review proposes that BPA be legally divided into separate transmission and power marketing entities. It calls for creation of a Northwest independent grid operator to improve reliability and reduce net transmission fees. Separating power from transmission can clear the way for BPA to be the Northwest integrated grid operator, should that be the region's desire.



*E*ven with the explosion of new industries from specialty coffee to computer software, the region has retained its core values — a high quality environment, high standard of liveability and active grass-roots participation in government.



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**N**orthwest companies must compete in many world markets. BPA has responded to competition and deregulation to maintain a firm foundation for the Northwest power system — to preserve the values we treasure while meeting the competitive demands of the 21st century.

## FINANCIAL SECTION

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# Management's Discussion & Analysis

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## Results of Operations

In 1996, the Federal Columbia River Power System produced net revenues of \$96 million, just short of the \$99 million brought in last year. These results reflect excellent surplus power and nonfirm energy sales due to the best water year since 1974, and a one-year, 4-percent across-the-board rate increase that was effective during 1996. At the same time, revenues from publicly owned utilities and direct-service industries were down substantially, as both customer classes sought to diversify their power supply sources in a competitive market. BPA ended the year with \$278 million in reserves — cash and deferred borrowing authority.

## Electric Energy

Megawatt-hour sales of electric energy were up 27 percent compared to those of 1995, due to high surplus and nonfirm energy sales in the fourth wettest year on record. Surplus firm power and related sales increased 247 percent compared to 1995, which was an average water year. 1995 surplus power sales in turn were 173 percent higher than those of 1994, which was a dry year. Similarly, nonfirm energy sales were up 372 percent in 1996 compared to 1995, after a 252 percent increase from 1994 to 1995.

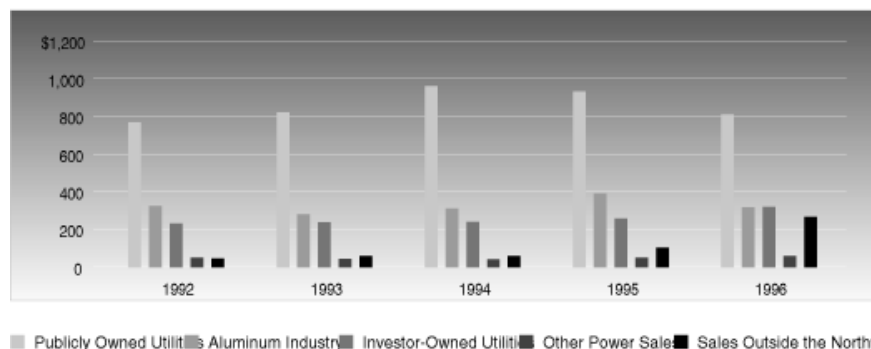
In contrast, priority firm power sales dropped 24 percent in 1996 compared to 1995, following a 6 percent decline in 1995 compared to 1994. Industrial sales were down 33 percent in 1996 and up 6 percent in 1995. Both of these 1996 declines reflect customer diversification in a newly competitive power market.

## Revenues

Total FCRPS operating revenues rose from last year by \$42 million to \$2.428 billion, an increase of 2 percent. Revenues increased less than megawatt-hour sales, due to an increase in discretionary nonfirm power sales at low rates. Vastly improved water conditions allowed BPA to make surplus power sales outside the Northwest for much of the year, and a 4 percent across-the-board rate increase was in effect for 1996 only. These factors made up for the reduced firm sales to publicly owned utilities and direct-service industrial customers, as those customer classes sought to diversify their power

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Electric Power Revenues by Customer Class  
(thousands of dollars)



suppliers in a competitive market. New and amended power sales contracts that take effect in 1997 are expected to stabilize future revenues from these customers through 2001.

1995 revenues had increased by 9 percent compared to 1994 primarily because of improved water conditions and increased revenues from aluminum companies.

Revenues by customer class are indicated in the following description and accompanying charts.

### Northwest Publicly Owned Utilities

Northwest publicly owned utilities, by far BPA's largest customer group, traditionally have accounted for about half of BPA's total revenues. They include municipalities, public utility districts and cooperatives.

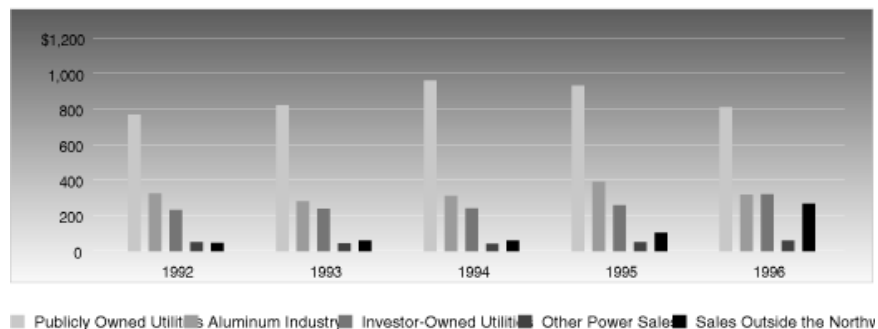
Revenues from power sales to publicly owned utilities decreased by \$152 million, or 13 percent, to \$1.017 billion. Sales were down by \$35 million in 1995. New or amended take-or-pay contracts signed in 1996 should stabilize revenues from publicly owned utilities through 2001.

### Aluminum Industry

Revenues from aluminum companies were down compared to 1995 by \$91 million, or 19 percent, to \$399 million. Revenues had increased \$99 million in 1995, primarily due to higher world-market prices for aluminum. The aluminum companies' dependence on BPA for power has decreased. Like publicly owned utility customers, the aluminum companies BPA serves sought some power supply diversification. New five-year block-sale contracts with these companies that take effect in 1997 should stabilize revenues from this customer class through 2001. The contracts are at a flat, take-or-pay rate, greatly reducing BPA's revenue exposure to swings in the world price of aluminum.

This year marks the end of BPA's variable industrial rate for its aluminum customers. The variable rate allowed aluminum plants to continue to operate during poor market conditions when they might otherwise have shut down and improved BPA's net revenues over time.

Expenses by Category  
(thousands of dollars)



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### Northwest Investor-Owned Utilities

Revenues from Northwest investor-owned utilities rose \$78 million, or 24 percent, to \$403 million, due to greater non-firm energy sales in the spot market, reflecting excellent water conditions. Revenues from this customer class had been low consistently during the extended drought of the late 1980s and early 1990s. Revenues from these customers also were up \$22 million in 1995 from 1994. Investor-owned utilities buy power from BPA to supplement their own resources.

### Other Northwest Power Sales

BPA sells directly to federal agencies such as the Department of Energy and the Navy, and to certain non-aluminum industries. Revenues from this group rose \$12 million, or 18 percent, in 1996 to \$77 million due to improved metal and chemical markets. Sales previously had increased \$11 million in 1995. Non-aluminum DSIs also have signed five-year block sale contracts effective in 1997, which should help stabilize revenues from this customer class through 2001.

### Sales Outside the Northwest

BPA had a lot of surplus energy to sell outside the Northwest this year. These sales for 1996 were nearly \$337 million, an increase of \$205 million over 1995. The increase was realized primarily because of the best water year in about twenty years. Also, power was freed up from Northwest customers who chose to buy power from suppliers other than BPA. 1995 sales were up \$56 million.

Customers outside the Northwest include both public utilities and investor-owned utilities. By law, BPA serves Northwest customers first.

### Wheeling and Other Sales

Wheeling and other revenues were \$195 million, down 5 percent from \$204 million in 1995. 1995 sales were up \$37 million.

Of this, wheeling revenues were \$147 million, up from \$130 million in 1995. Surplus power sales contributed to the increase in wheeling revenues, as BPA transmitted these sales over its high-voltage power grid. Wheeling revenues in 1994 were \$132 million.

BPA continued to receive a credit on its payment to the U.S. Treasury for the non-hydro related impacts of the region's federal dams on fish and wildlife. This year the credit totaled \$30 million, \$26 million less than BPA received in 1995.

### Expenses

Total FCRPS operating and net interest expenses rose \$45 million, or 2 percent, to \$2.332 billion in 1996. In 1995, overall expenses rose \$30 million.

FCRPS operating and maintenance costs increased by \$35 million, or 4 percent, to \$987 million in 1996. This includes a \$115-million settlement with Chase Manhattan Bank related to the cancellation of a gas-fired combustion turbine. As a result of the



settlement, BPA has assumed Chase’s position in ongoing litigation with the Tenaska partners. The Chase settlement will directly offset any monetary award Tenaska may obtain in arbitration, which is under way.

BPA continues to manage its costs by making cuts that are within its control. BPA reduced operating and maintenance costs in 1995 by \$70 million compared to 1994, primarily because of a reduction in short-term power purchases. Due to abundant water, in 1996 BPA spent only \$71 million on short-term power purchases and storage, compared to \$161 million in 1995 and \$216 million in 1994.

Debt service on non-federal projects increased by \$13 million, or 3 percent, to \$498 million, after a slightly greater increase of \$16 million in 1995. BPA had projected debt service expenses to be about \$561 million or \$63 million more than they actually were.

Federal projects depreciation rose by \$22 million, or 9 percent, to \$277 million, primarily because BPA wrote off some investments. Amortization of software costs accounts for the major increase in depreciation.

Net residential exchange expenses decreased in 1996. The residential exchange cost BPA \$196 million, about \$2 million less than in 1995. BPA is working with residential exchange participants to phase out the program by 2001, as directed by Congress.

Net interest expenses also decreased for the first time in several years. Expenses decreased by \$24 million, or 6 percent, to \$374 million. The reduction was due to a combination of factors including a reduction of outstanding bonds and lower bond “call” costs. Net interest expense increased by 6 percent in 1995.

### Financial Condition

BPA ended 1996 with financial reserves — cash and deferred borrowing authority — of \$278 million, 42 percent higher than actual reserves of \$196 million at the end of 1995. This year’s improvement primarily reflects excellent surplus sales and BPA’s continued efforts to manage its costs. In 1994, reserves were \$232 million.

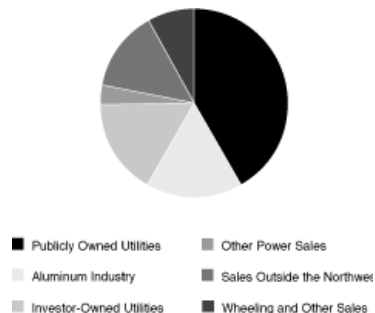
This year, BPA repaid \$801 million to the U.S. Treasury, making it the thirteenth consecutive year in which BPA has made its payment on time and in full. Of this year’s total payment, \$290 million went to the payment of principal, \$386 million went to interest and \$125 million went to operations and maintenance on the federal dams operated by the U.S. Army Corps of Engineers and the Bureau of Reclamation.

The funding plan of the Administration and Congress for financing BPA’s fish and wildlife obligations brings stability to the largest growth area of BPA’s expenses through 2001. Finally, new five-year contracts with publicly owned customers have stabilized revenue projections for BPA’s largest customer class.

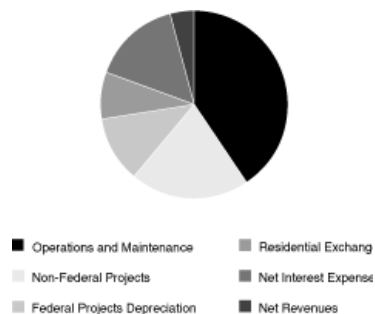
### Rates

In 1996, BPA implemented a flat 4-percent surcharge on its 1995 rates. The increase was applied to all of BPA’s adjustable power and transmission rates. This one-year surcharge allowed BPA adequate revenues to recover its costs while giving BPA additional time to redesign its rate schedules and unbundle its products and services in an effort to offer more competitive rates.

1996 Sources of Revenue  
(thousands of dollars)



1996 Disposition of Revenue and Net Revenues  
(thousands of dollars)



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In 1997, BPA's priority firm power rates drop by an average of 13 percent, the most significant rate decrease in the agency's history. This rate reduction was made possible primarily through internal cost reductions and cost stabilization actions taken by Congress, especially in regard to BPA fish costs. To meet the rate target, BPA cut planned expenses for 1997–2001 by another \$100 million per year, bringing total cost reductions for the five-year period to an average of \$600 million per year. The new rates, which will be in effect for this period, 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 1996, BPA's debt in this category totaled \$2.46 billion. This is a decrease of approximately \$107 million from 1995 because Bonneville chose to borrow less from the U.S. Treasury than it amortized during the 1996 fiscal year.

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 the year was \$6.8 billion, or \$60 million more than last year.

BPA owes another \$7.1 billion to non-federal 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.

Because of the regulatory environment in which BPA established rates, as discussed further in Note 1 to the financial statements, 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 which recover all costs and rates so established can be charged to and collected from customers.

The SFAS 71 assets reflect a decrease of \$59 million from the prior year. Amortization of these costs of \$184 million for the year ending Sept. 30, 1996, is reflected in the Statement of Revenues and Expenses. 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 which are insufficient to recover incurred costs, SFAS 71 may no longer be applicable, and any costs deferred under that standard would be expensed in the Statement of Revenues and Expenses.

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SFAS 71 Assets  
Sept. 30, 1996

Assets

(thousands of dollars)

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Non-Federal Projects	
Conservation	\$ 67,193
Delayed Construction/ Terminated Nuclear Facilities	4,241,545
Trojan Decommissioning Cost	91,300
Conservation	696,782
Fish and Wildlife	125,999
Total	\$ 5,222,819

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In April 1996, President Clinton signed the Federal Omnibus Appropriations Act that included the BPA Appropriations Refinancing Act. The net effect of the refinancing act returns about \$100 million more to the 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 and puts to rest threats of major rate impacts that would have resulted from earlier repayment reform proposals.

Moody's Investors Service has upgraded the credit rating for BPA-backed Washington Public Power Supply System bonds from Aa to Aa1, the second highest possible rating. Fitch Investors Service continues to maintain its AA-rating. Standard & Poor's has lowered its rating on bonds backed by BPA, including WPPSS and other third-party debt. The rating went from AA to AA-. The bonds had been on Credit Watch but are no longer because, "BPA's improving competitive position and financial cushion provide stability for the rating at the current level."

BPA's competitive 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. New flat-rate, take-or-pay power sales contracts with aluminum and publicly owned utility customers 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.

## Looking Forward

### Outlook Stable through 2001

BPA now has level five-year rates and negotiated power sales contracts. BPA has been reorganized into separate, self-supporting transmission and power business lines. Strict cost controls have been implemented. Costs for fish and wildlife have been stabilized through 2001. BPA has new flexibility to market power outside the region that is excess to Northwest needs. The agency is meeting the challenge of industry deregulation successfully and has positioned itself to continue fulfilling its public responsibilities.

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In short, BPA is now structured to give the Northwest a reliable, stable power system for the balance of this century. It is ready to work with the region and the nation as they restructure the power system for the 21st century.

### Separate Transmission Launched

At the beginning of fiscal year 1997, BPA completed administrative separation of its transmission system from its power business. BPA's power business line now buys BPA transmission capacity just like any other utility. The Federal Energy Regulatory Commission Order 888 provides new regulations for transmission service provided by those public utilities subject to FERC jurisdiction. While it is not subject to such FERC jurisdiction, BPA voluntarily complied with separation requirements of FERC Order 888 and demonstrated its commitment to the national principles of open and comparable transmission access.

### Comprehensive Review Sets Next Northwest Steps

On Dec. 12, 1996, the four Northwest governors received the final recommendations of a year-long Comprehensive Review of the Northwest Power System. The governors called for the review to consider how the Northwest power system could best be structured in the framework of national deregulation to achieve the benefits of competition and customer choice, while protecting public values such as providing low-cost electricity to rural areas, retaining the benefits of the FCRPS within the Northwest, providing low-income assistance, promoting energy efficiency and renewable resources, and supporting fish and wildlife protection. Participants included BPA, Northwest utilities and many related interests.

The review proposed establishment of a Northwest Independent Grid Operator to eliminate multiple wheeling tariffs among different utility control areas, and to foster power system reliability in a deregulated power market. The review proposed that BPA be separated into two entities (which would require legislation), and that the resulting transmission entity be part of the IGO. BPA also is participating in talks with other Northwest utilities who are considering possible constructs for a regional independent grid operator.

The review proposed a subscription system for long-term sale of power from the FCRPS. BPA is working with its customers, constituents and interested tribes to identify issues they believe BPA should address to implement the subscription proposal.

### National Utility Industry Restructuring Continues

Electric utility industry deregulation is expected to be high on the list of priorities for the 105th Congress. Five bills introduced in the last session of Congress are aimed at bringing full-scale competition to the electric industry by the year 2000. A sixth bill would sell all federal power marketing agencies, including BPA, to the highest bidder.

Two significant national issues are being addressed by the states: retail wheeling and stranded investment protection. Retail wheeling would give all electricity consumers, including residential, a choice of power providers. BPA will seek to recover any stranded costs associated with lost revenues due to retail access.

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## Long-term Fish and Wildlife Issues

BPA's financial commitment to fish and wildlife protection has been established through 2001. Any or all of several ongoing processes could affect the size and shape of the federal hydro resource, and/or BPA's long-term financial obligations to fish and wildlife protection.

By 1999, the National Marine Fisheries Service expects to resolve questions about river drawdowns, barging fish around the dams, and other issues in a final recovery plan for salmon runs now listed under the Endangered Species Act.

The Northwest Power Planning Council has announced that in 1997 it will reassess and possibly revise its salmon program, which BPA funds. In general, the region has not seen the improvement in salmon runs that had been expected. Recent reports by panels of scientists suggest potential new approaches that could affect the hydro resource. The current stable funding agreement for this program has resulted in closer scrutiny of program priorities.

Some resident fish and wildlife may face listing under the Endangered Species Act. Configuring river operations to benefit resident fish could mean holding water in reservoirs at times when fish managers believe anadromous fish need increased flows.

Additional ESA listings of anadromous fish are likely. However, many of the river operations already required under the 1995 Biological Opinion would also provide benefits to these other species.

The Comprehensive Review has called on the four Northwest governors to address river governance questions related to fish and wildlife in a separate forum.

## Balance Sheets

Federal Columbia River Power System  
As of Sept. 30, 1996 & 1995

### Assets

	1996	1995
	(thousands of dollars)	
Utility Plant (Notes 1 and 3)		
Completed plant	\$ 10,560,577	\$ 10,324,561
Accumulated depreciation	(3,056,092)	(2,873,226)
	7,504,485	7,451,335
Construction work in progress	437,328	414,283
Net utility plant	7,941,813	7,865,618
Non-federal Projects (Note 4)		
Conservation	67,193	70,366
Hydro	253,550	257,010
Nuclear	2,543,386	2,587,078
Delayed construction/terminated projects	4,241,545	4,280,059
Total non-federal projects	7,105,674	7,194,513
Trojan Decommissioning Cost (Note 6)	91,300	105,744
Conservation, net of accumulated amortization of \$469,414 in 1996 and \$412,366 in 1995 (Notes 1 and 2)	696,782	715,104
Fish and Wildlife, net of accumulated amortization of \$46,020 in 1996 and \$35,769 in 1995 (Notes 1 and 2)	125,999	110,204
Current Assets		
Cash	246,501	227,617
Accounts receivable	66,032	56,254
Accrued unbilled revenues	133,970	102,986
Materials and supplies, at average cost	69,410	74,933
Prepaid expenses	149,624	184,742
Total current assets	665,537	646,532
Other Assets	82,364	166,567
	\$16,709,469	\$16,804,282

The accompanying notes are an integral part of these statements.

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Capitalization and Liabilities

	1996	1995
	(thousands of dollars)	
Accumulated Net Expense (Note 1)	\$ (275,673)	\$ (371,530)
Federal Appropriations (Note 3)	6,848,278	6,788,545
Long-Term Debt (Note 2)	2,297,600	2,363,400
Non-Federal Projects Debt (Note 4)	6,937,954	7,037,448
Trojan Decommissioning Reserve (Note 6)	76,900	103,717
Total capitalization and long-term liabilities	15,885,059	15,921,580
Commitments and Contingencies (Notes 6 and 7)		
Current Liabilities		
Current portion of long-term debt	158,500	200,000
Current portion of non-federal projects debt	167,720	157,065
Current portion of Trojan decommissioning reserve	14,400	2,027
Accounts payable	231,675	245,902
Employees' accrued leave	14,938	16,738
Total current liabilities	587,233	621,732
Deferred Credits	237,177	260,970
	\$16,709,469	\$16,804,282

# Statements of Revenues & Expenses

Federal Columbia River Power System  
Sept. 30, 1996, 1995 & 1994

	1996	1995	1994
	(thousands of dollars)		
Operating Revenues			
Sales of electric power:			
Publicly owned utilities	\$ 1,017,035	\$ 1,168,661	\$ 1,203,708
Aluminum industry	399,359	490,684	391,389
Investor-owned utilities	402,962	325,233	302,881
Other regional power sales	76,691	64,898	54,253
Sales outside the Northwest	336,736	132,060	76,461
Total power sales	2,232,783	2,181,536	2,028,692
Wheeling and other sales	194,818	204,289	167,256
Total operating revenues	2,427,601	2,385,825	2,195,948
Operating Expenses			
Operations and maintenance	986,780	951,704	1,021,893
Non-federal projects (Note 4)	498,122	484,836	469,211
Residential exchange (Note 5)	196,074	198,186	159,876
Federal projects depreciation	277,083	254,738	229,354
Total operating expenses	1,958,059	1,889,464	1,880,334
Net operating revenues	469,542	496,361	315,614
Interest Expense			
Interest on federal investment:			
Appropriated funds	237,716	241,581	229,102
Long-term debt	163,644	180,215	171,902
Allowance for funds used during construction (AFUDC)	(27,675)	(24,202)	(24,729)
Net interest expense	373,685	397,594	376,275
Net revenues (expenses)	95,857	98,767	(60,661)
Accumulated net expenses, Oct. 1	(371,530)	(470,297)	(409,636)
Accumulated net expenses, Sept. 30	\$ (275,673)	\$ (371,530)	\$ (470,297)

The accompanying notes are an integral part of these statements.



# Statements of Changes in Capitalization & Long-term Liabilities

## Federal Columbia River Power System

	Accumulated Net Expenses	Federal Appropriations	Long-Term Debt	Non-Federal Project Debt	Trojan Decommissioning Reserve	Total
(thousands of dollars)						
Balance at Sept. 30, 1993	\$ (409,636)	\$ 6,867,316	\$ 2,331,873	\$ 7,144,736	\$ 108,899	\$16,043,188
Increase in federal appropriations:						
Operations & maintenance	—	133,288	—	—	—	133,288
Construction	—	94,165	—	—	—	94,165
Repayment of federal appropriations:						
Operations & maintenance	—	(133,288)	—	—	—	(133,288)
Construction	—	(137,364)	—	—	—	(137,364)
Increase in long-term debt	—	—	530,527	—	—	530,527
Repayment of long-term debt	—	—	(55,900)	—	—	(55,900)
Refinance of long-term debt	—	—	(190,000)	—	—	(190,000)
Net increase in non-federal projects debt	—	—	—	203,097	—	203,097
Repayment of non-federal projects debt	—	—	—	(88,830)	—	(88,830)
Trojan decommissioning reserve	—	—	—	—	(411)	(411)
Net expenses	(60,661)	—	—	—	—	(60,661)
Balance at Sept. 30, 1994	\$ (470,297)	\$ 6,824,117	\$ 2,616,500	\$ 7,259,003	\$ 108,488	\$16,337,811
Increase in federal appropriations:						
Operations & maintenance	—	130,934	—	—	—	130,934
Construction	—	64,682	—	—	—	64,682
Repayment of federal appropriations:						
Operations & maintenance	—	(130,934)	—	—	—	(130,934)
Construction	—	(100,254)	—	—	—	(100,254)
Increase in long-term debt	—	—	325,000	—	—	325,000
Repayment of long-term debt	—	—	(378,100)	—	—	(378,100)
Net increase in non-federal projects debt	—	—	—	28,996	—	28,996
Repayment of non-federal projects debt	—	—	—	(93,486)	—	(93,486)
Trojan decommissioning reserve	—	—	—	—	(2,744)	(2,744)
Net revenues	98,767	—	—	—	—	98,767
Balance at Sept. 30, 1995	\$ (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 non-federal projects debt	—	—	—	16,589	—	16,589
Repayment of non-federal projects debt	—	—	—	(105,428)	—	(105,428)
Trojan decommissioning reserve	—	—	—	—	(14,444)	(14,444)
Net revenues	95,857	—	—	—	—	95,857
Balance at Sept. 30, 1996	\$ (275,673)	\$ 6,848,278	\$ 2,456,100	\$ 7,105,674	\$ 91,300	\$16,225,679

The accompanying notes are an integral part of these statements.

# Statements of Cash Flows

Federal Columbia River Power System  
Sept. 30, 1996, 1995 & 1994

	1996	1995	1994
	(thousands of dollars)		
<b>Cash from Operating Activities</b>			
Net revenues (expenses)	\$ 95,857	\$ 98,767	\$ (60,661)
Expenses (income) not requiring cash:			
Depreciation	209,783	192,443	173,456
Amortization of conservation and fish and wildlife	67,300	62,295	55,898
Amortization of non-federal projects	105,428	93,486	88,830
AFUDC	(27,675)	(24,202)	(24,729)
(Increase) decrease in:			
Receivables and unbilled revenues	(40,762)	(18,392)	(39,896)
Materials and supplies	5,523	(1,127)	2,140
Prepaid expenses	35,118	(3,907)	12,222
Increase (decrease) in:			
Accounts payable	(14,227)	19,597	37,342
Employees' accrued leave	(1,800)	2,185	192
Other	60,410	136,912	(24,782)
Cash provided by operating activities	494,955	558,057	220,012
<b>Cash from Investment Activities</b>			
Investment in:			
Utility plant	(258,304)	(280,899)	(246,211)
Conservation	(38,726)	(73,507)	(113,488)
Fish and Wildlife	(26,046)	(32,486)	(20,487)
Cash used for investment activities	(323,076)	(386,892)	(380,186)
<b>Cash from Borrowing and Appropriations</b>			
Increase in federal appropriations:			
Operations and maintenance	134,089	130,934	133,288
Construction	82,443	64,682	94,165
Repayment of federal appropriations:			
Operations and maintenance	(134,089)	(130,934)	(133,288)
Construction	(22,710)	(100,254)	(137,364)
Increase in long-term debt	160,000	325,000	530,527
Repayment of long-term debt	(267,300)	(378,100)	(55,900)
Refinance of long-term debt	—	—	(190,000)
Payment of non-federal debt	(105,428)	(93,486)	(88,830)
Cash (used for) provided by borrowing and appropriations	(152,995)	(182,158)	152,598
Increase (decrease) in cash	18,884	(10,993)	(7,576)
Beginning cash balance	227,617	238,610	246,186
Ending cash balance	\$ 246,501	\$ 227,617	\$ 238,610

The accompanying notes are an integral part of these statements.

# Notes to Financial Statements

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## 1. Summary of General Accounting Policies

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 and the Bureau of 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.

### 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 month's notice and may not be increased more than once in a 12-month period.

FERC has approved BPA's rates for fiscal year 1996 which increased average rates by approximately 4 percent.

### Revenues and Net Revenues

Operating revenues are recorded on the basis of service rendered, which includes estimated unbilled revenues. 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.

### 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. 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.

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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 7.62 percent in 1996, 2.5 percent to 7.57 percent in 1995, and 2.5 percent to 7.85 percent in 1994). Capitalization rates for other construction approximate the cost of borrowing from the U.S. Treasury (7.625 percent in 1996, 7.25 percent in 1995, and 7.125 percent in 1994).

### 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. The additional depreciation was \$8.5 million. 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. Both are contributory pension plans. 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.

### 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 \$386 million in 1996, \$397 million in 1995, and \$377 million in 1994.

Non-cash transactions include changes in non-federal projects and non-federal projects debt, other than debt-service payments made by BPA, and amortizations of non-federal assets of \$17 million in 1996, \$29 million in 1995 and \$203 million in 1994. Additionally, in 1995 non-cash transactions included the establishment of a current liability of \$20 million and long-term liability of \$60 million related to accruals for terminated construction on non-federal generation projects.

### 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. Deferred AC intertie capacity agreement amounts will be recognized over the 45 composite year life of the assets. Deferred diversification fees will be recognized over five years.

### 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 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

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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. Recognition of gains or losses on the hedging instruments is deferred until the underlying physical transaction occurs. Both the swap and futures transactions have maturity dates which are less than one year.

At Sept. 30, 1996, BPA had swap agreements to exchange payments at various future dates that totaled less than 215,000 MWhs at various fixed prices. Additionally, at this same date, BPA had open NYMEX futures contracts totaling 365,792 MWhs. Combined, at Sept. 30, 1996, the fair value of these electricity hedge transactions approximated \$10 million. At and for the year ending Sept. 30, 1996, the deferred and realized amounts from these transactions were not significant in relation to the consolidated FCRPS results.

### Financial Instruments

All significant financial instruments of the FCRPS were recognized in the Balance Sheet as of Sept. 30, 1996. 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.

## **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, 1996, \$628.9 million of this reserved amount and \$1,827.2 million of other borrowings were outstanding. The average interest rate of BPA's borrowings from the U.S. Treasury exceeds the rate which 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 United States Treasury as of Sept. 30, 1996, for similar maturities exceeds carrying value by approximately \$209 million or 8.5 percent. BPA's policy is to refinance debt that is callable when associated benefits exceed costs. The table on page 36 reflects the terms and amounts of long-term debt.

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

Bond Issue Date	First Call Date	Maturity Date	Interest Rate	Construction and Fish & Wildlife	Conservation	Cumulative Total
(thousands of dollars)						
April 1992	none	1997	7.00%	\$ 50,000	\$ —	\$ 50,000
April 1992	none	1997	7.00%	28,300	—	78,300
July 1992	none	1997	5.80%	—	80,200	158,500
October 1992	none	1997	6.05%	50,000	—	208,500
May 1994	1995	1998	7.10%	—	37,700	246,200
May 1989	none	1999	8.95%	25,000	—	271,200
May 1989	none	1999	8.95%	75,000	—	346,200
August 1992	none	2000	6.60%	107,800	—	454,000
September 1989	none	2002	8.65%	—	66,000	520,000
January 1996	none	2003	5.90%	60,000	—	580,000
August 1996	none	2006	7.05%	70,000	—	650,000
July 1992	1997	2007	7.14%	—	100,000	750,000
August 1992	1997	2007	7.25%	107,700	—	857,700
February 1993	1998	2008	6.95%	20,000	—	877,700
July 1989	none	2009	8.55%	—	40,000	917,700
August 1995	2000	2010	7.20%	35,000	—	952,700
January 1996	2001	2011	6.7%	—	30,000	982,700
October 1992	1997	2012	8.05%	—	50,000	1,032,700
February 1993	1998	2013	7.40%	—	50,000	1,082,700
August 1993	1998	2013	6.75%	—	40,000	1,122,700
January 1994	1999	2014	6.75%	—	50,000	1,172,700
May 1995 (b)	2000	2015	7.50%	35,000	—	1,207,700
May 1995	2000	2015	7.50%	—	85,000	1,292,700
July 1995	2000	2025	7.70%	50,000	—	1,342,700
August 1995	2000	2025	7.70%	65,000	—	1,407,700
January 1990	2000	2030	9.25%	50,000	—	1,457,700
April 1992	1997	2032	8.80%	150,000	—	1,607,700
July 1992	1997	2032	8.13%	150,000	—	1,757,700
October 1992	1997	2032	8.35%	100,000	—	1,857,700
February 1993	1998	2033	7.80%	130,000	—	1,987,700
April 1993	1998	2033	7.50%	100,000	—	2,087,700
August 1993	1998	2033	6.95%	110,000	—	2,197,700
October 1993	1998	2033	6.85%	108,400	—	2,306,100
October 1993	1998	2033	6.85%	50,000	—	2,356,100
January 1994	1999	2034	7.05%	50,000	—	2,406,100
May 1994	1999	2034	8.20%	50,000	—	2,456,100
				\$1,827,200	\$ 628,900	\$2,456,100
Less current portion						(158,500)
						<u>\$2,297,600</u>

(a) The weighted average interest rate was 7.5 and 7.6 percent on outstanding long-term debt as of Sept. 30, 1996 and 1995, respectively. All construction, conservation, fish and wildlife and Corps/Reclamation direct funding bonds are term bonds.

(b) Corps/Reclamation direct funding.

### 3. Federal Appropriations

Construction and replacement of Corps and Reclamation generating facilities are financed through annual federal appropriations. Annual appropriations are also made for their operation and maintenance costs, although these are repaid by BPA to the U.S. Treasury by the end of each fiscal year. BPA transmission construction and operations and maintenance costs were also financed by appropriations before the Federal Columbia River Transmission System Act of 1974.

Interest rates on the appropriated funds range from 2.5 percent to 8.5 percent (the weighted average rate was 3.5 percent in 1996, 3.6 percent in 1995, and 3.5 percent in 1994). The rates are set by law, administrative order pursuant to law or administrative policies.

Federal appropriations relating to generating projects and the transmission system 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 must be paid from subsequent years' revenues before any repayment of federal appropriations can be made.

The fair value of the federal appropriations debt, based upon the rate BPA currently could obtain through borrowings from the U.S. Treasury, is below the carrying value. This is because the majority of the federal appropriations were obtained at times when lower rates were in effect.

The table above shows the term repayments on the remaining federal appropriations as of Sept. 30, 1996.

Federal Appropriations	
Term Repayments(a)	
(thousands of dollars)	
1997	\$ —
1998	37,199
1999	45,099
2000	25,292
2001	78,252
2002+	6,662,436
	<u>\$ 6,848,278</u>

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

### 4. Non-Federal 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 debt service, whether or not the projects are completed. 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 EWEB, Emerald and CARES 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 Washington Public Power Supply System (72 percent of Hanford Generating Project, 100 percent of WNP-1 & -2, 70 percent of WNP-3), Eugene Water and Electric Board (30 percent of Trojan), City of Idaho Falls, PUD No. 1 of Lewis County, Northern Wasco County People's Utility District, Conservation and Renewable Energy System, Emerald People's Utility District, and the City of Tacoma.

Operating expense for the projects is included in operations and maintenance in the accompanying Statements of Revenues and Expenses. Following restoration of the 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 1996, 13 advance refunding sales were completed.

In total \$8.9 billion of refunding bonds were issued to refinance \$7.4 billion of previously outstanding bonds. These advance refundings reduced the cash requirements pursuant to the project budgets BPA is required to pay under the net-billing agreements by \$124.1 million in fiscal 1994, \$131.5 million in 1995, and \$121.9 million in 1996 from 1989 levels. Additionally, the structure

Non-Federal Project	
Debt Repayments	
(thousands of dollars)	
1997	\$ 167,720
1998	172,992
1999	264,351
2000	284,819
2001	322,348
2002+	5,893,444
	<u>\$ 7,105,674</u>

of the advance refundings allowed the use of cash reserves held by the bond trustee to further reduce the project budgets for fiscal 1994 and 1996. This resulted in \$11.5 million and \$4.2 million lower project budgets for fiscal 1994 and 1996 respectively. Cash reserves were not available to reduce project budgets in fiscal 1995.

In summary, non-federal project expense included in the Statement of Revenues and Expenses was reduced by \$135.6 million, \$131.5 million, and \$126.1 million for fiscal 1994, 1995 and 1996, respectively, relating to the above factors. The table on page 37 shows that future principal payments required for non-federal projects total \$7.1 billion.

As discussed, BPA is required to pay a portion of the respective non-federal projects' annual budgets, including debt service, which are established by the respective asset owners. The fair value of all Supply System debt exceeds recorded value by \$167.6 million or 2.5 percent based on discounting the future cash flows using interest rates for which similar debt could be issued at Sept. 30, 1996. All other non-federal projects debt approximates fair value as stated.

## 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 allow each utility to sell to BPA its qualified residential and irrigation load at the average system cost of the utility's resources. In exchange, BPA sells to the utilities electric power for those residential and irrigation loads at BPA's priority firm power rate. Purchases and sales of electric power by BPA during fiscal years 1996, 1995 and 1994 under these contracts are shown in the table.

Residential Exchange			
	1996	1995	1994
	(thousands of dollars)		
Expense	\$1,047,439	\$1,006,910	\$ 962,498
Revenue	(851,365)	(808,724)	(802,622)
Net	\$ 196,074	\$ 198,186	\$ 159,876

## 6. Commitments and Contingencies

### Irrigation Assistance

Legislation requires that FCRPS net revenues be used to pay the U.S. Treasury for costs allocated to irrigation of certain Pacific Northwest projects that are determined to be beyond the ability of the irrigation water users to repay. The only irrigation assistance payment from power net revenues scheduled for the next five years is currently planned to be made in 1997. The cumulative irrigation assistance payments ultimately could total \$841 million. Although such costs may be paid by power ratepayers, these costs are for the benefit of the water users and are not a regular operating cost of the power program. Accordingly, these costs will be reflected in the financial statements if paid.

### 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.

### Nuclear Insurance

BPA is a member of the Nuclear Electric Insurance Limited, established to provide insurance coverage for business interruption and/or extra expense resulting from an accidental outage at a member's nuclear site, and excess property damage and decontamination



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liability. Under its business interruption and/or extra expense insurance coverage, BPA could be subject to a maximum assessment of \$4.6 million in the event of a member's replacement power loss exceeding reserves and reinsurance. Under its property and decontamination coverage, BPA could be subject to a maximum assessment of \$5.0 million in the event of a member-insured loss exceeding the reserves and reinsurance.

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 incident, BPA could be subject to a retrospective assessment of \$79.3 million for WNP-2 and \$23.8 million for Trojan limited to an annual maximum of \$10 million for WNP-2 and \$3 million for Trojan.

### 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) which 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 which 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 obligation for restoration is reflected in the total non-federal projects debt liabilities and non-federal 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 \$403 million (1987 dollars). Payments to the sinking fund for the years ended Sept. 30, 1996, 1995 and 1994 were approximately \$3 million per year. The sinking fund balance at Sept. 30, 1996 is \$38 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 November 1993 with the Oregon Public Utility Commission included an estimated decommissioning liability of \$401 million (in 1993 dollars). The estimate was revised as of Sept. 30, 1995 to \$425 million based on site-specific studies. BPA's 30-percent share of the estimated liability of \$128 million, net of the decommissioning trust fund balance of \$15.7 million and actual expenditures through Sept. 30, 1996, has been included 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 and 1996. In 1995 and the next five years, 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 and were approximately \$2 million for the year ended Sept. 30, 1994. 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.

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## Environmental Cleanup

The Ross Complex in Vancouver, Wash., was removed from the Environmental Protection Agency's Superfund list this year. 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.

## Purchase Commitments

BPA has commitments under billing credit agreements and other alternative energy programs whereby BPA provides a cost supplement to entities which are involved in alternative energy generation projects. BPA's aggregate cost of these commitments has approximated \$3 million, \$4 million and \$9 million for fiscal 1994, 1995 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 twenty years.

## 7. Litigation

### Involving the Washington Public Power Supply System (Supply System)

In fiscal 1995 litigation relating to the Washington Public Power Supply System's Washington Nuclear Plant-1 and WNP-3 was settled. The settlement amount the FCRPS was required to pay was \$53 million and was paid entirely out of excess construction disposition funds generated from the sale of bonds for WNP-3 and proceeds from asset disposals from WNP-1. Since the WPPSS has direct financial control and ownership of such funds and assets, there was no significant financial impact on the FCRPS related to the settlement of such litigation in fiscal 1995.

### 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 Bonneville for breach of contract and lost revenues. In June 1996, Bonneville and Chase reached a settlement which resulted in a payment of \$115 million by Bonneville to Chase. Currently, Bonneville and Tenaska are in binding arbitration to resolve Tenaska's suit. Bonneville believes that the factual and legal assertions by Tenaska in support of its \$1.125 billion claim are without merit. However, Bonneville believes that the arbitration could result in an award from the Tenaska case in excess of \$115 million. There are defenses available to Bonneville that could result in a lesser net award. Any monetary award, received by Tenaska, in arbitration, will be offset by the \$115 million paid by Bonneville to Chase in settlement of Chase's claim, plus interest accruing on this amount. In the event that Tenaska obtains an award in arbitration that is less than the amount Bonneville paid Chase, Tenaska will owe Bonneville the difference. Bonneville's minimum liability for this matter has been reflected in "Other Liabilities and Other Assets" on the balance sheet at Sept. 30, 1995 and the results of operations for the year ended Sept. 30, 1996.

### Other Matters

Certain other claims, suits and complaints have been filed or are pending against entities of FCRPS. In the opinion of BPA General Counsel and management for those entities, the actions are either without merit or involve amounts which are not material to the FCRPS financial statements.

Selected Quarterly Information (Unaudited)  
3 Months Ended

	Dec. 31	March 31	June 30	Sept. 30
	(thousands of dollars)			
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)
1995				
Operating revenues	\$ 639,348	\$ 624,629	\$ 560,160	\$ 561,688
Operating expenses	497,132	418,433	473,166	500,733
Net interest expenses	102,301	101,373	96,577	97,343
Net revenues (expenses)	\$ 39,915	\$ 104,823	\$ (9,583)	\$ (36,388)
1994				
Operating revenues	\$ 607,095	\$ 600,457	\$ 485,307	\$ 503,089
Operating expenses	441,972	426,441	459,638	552,283
Net interest expenses	97,450	98,773	79,761	100,291
Net revenues (expenses)	\$ 67,673	\$ 75,243	\$ (54,092)	\$ (149,485)

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.

Comparative Electric Energy Sales (Unaudited)  
(Megawatt-hours)

	1996	1995	1994
Priority Firm	33,272,958	43,499,630	46,244,514
Industrial	13,327,712	19,998,233	18,893,654
Surplus & Nonfirm	52,149,483	13,165,568	4,397,382
Other	3,556,830	3,727,204	4,570,312
	102,306,983	80,390,635	74,105,862

# Schedule of Amount and Allocation of Plant Investment

## Federal Columbia River Power System

As of Sept. 30, 1996

### Schedule A

	Commercial Power				Irrigation (unaudited)		
	Total Plant	Completed Plant	Construction Work in Progress	Total Commercial Power	Returnable from Commercial Power Revenues	Returnable from Other Sources	Total Irrigation
(thousands of dollars)							
<b>Bonneville Power Administration</b>							
Transmission Facilities	\$ 4,804,608	\$ 4,554,101	\$ 250,507	\$ 4,804,608	\$ —	\$ —	\$ —
<b>Bureau of Reclamation</b>							
Boise	109,954	12,368	1,810	14,178	23,217	41,403	64,620
Columbia Basin	1,920,977	1,090,394	15,178	1,105,572	579,356	172,318	751,674
Hungry Horse	134,009	104,190	2,459	106,649	—	—	—
Minidoka-Palisades	340,832	14,783	49,039	63,822	10,333	66,871	77,204
Yakima	203,773	5,245	410	5,655	12,631	133,503	146,134
Total Bureau Projects	2,709,545	1,226,980	68,896	1,295,876	625,537	414,095	1,039,632
<b>Corps of Engineers</b>							
Albeni Falls	41,603	37,927	1,060	38,987	—	—	—
Bonneville	1,260,638	824,182	36,213	860,395	—	—	—
Chief Joseph	598,712	558,052	1,205	559,257	—	226	226
Cougar	62,249	20,283	18	20,301	—	3,269	3,269
Detroit-Big Cliff	67,836	41,335	—	41,335	—	5,120	5,120
Dworshak	364,849	306,019	76	306,095	—	—	—
Green Peter-Foster	90,241	49,994	7	50,001	—	6,214	6,214
Hills Creek	49,046	17,521	118	17,639	—	4,576	4,576
Ice Harbor	197,159	140,452	144	140,596	—	—	—
John Day	642,185	465,744	17,721	483,465	—	—	—
Libby	569,713	427,735	2,971	430,706	—	—	—
Little Goose	253,042	211,453	31	211,484	—	—	—
Lookout Point-Dexter	104,305	47,644	4,497	52,141	—	1,497	1,497
Lost Creek	168,694	27,147	—	27,147	—	2,182	2,182
Lower Granite	405,021	331,752	53	331,805	—	—	—
Lower Monumental	297,666	227,818	36	227,854	—	—	—
McNary	356,490	282,456	336	282,792	—	—	—
The Dalles	348,852	296,304	4,608	300,912	—	—	—
Lower Snake	216,664	214,496	(2)	214,494	—	—	—
Columbia River Fish Bypass	300,643	251,182	48,833	300,015	—	—	—
Total Corps Projects	6,395,608	4,779,496	117,925	4,897,421	—	23,084	23,084
<b>Irrigation Assistance at 12 Projects</b>							
having no power generation	201,179	—	—	—	157,144	44,035	201,179
Total Plant Investment	14,110,940	10,560,577	437,328	10,997,905	782,681	481,214	1,263,895
<b>Repayment Obligation Retained</b>							
by Columbia Basin Project	4,639	2,836 (a)	—	2,836	1,803	—	1,803
Investment in Teton Project (b)	79,107	—	7,269	7,269	56,573	3,681	60,254
Total	\$ 14,194,686	\$ 10,563,413	\$ 444,597	\$ 11,008,010	\$ 841,057	\$ 484,895	\$ 1,325,952

(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.

## Schedule A (continued)

	Non-reimbursable (unaudited)					Percent Returnable from Commercial Power Revenues
	Navigation	Flood Control	Fish and Wildlife	Recreation	Other	
	(thousands of dollars)					
<b>Bonneville Power Administration</b>						
Transmission Facilities	\$ —	\$ —	\$ —	\$ —	\$ —	100.00%
<b>Bureau of Reclamation:</b>						
Boise	—	31,156	—	—	—	34.01%
Columbia Basin	1,000	56,143	5,881	154	553	87.71%
Hungry Horse	—	27,360	—	—	—	79.58%
Minidoka-Palisades	—	64,553	2,569	10,260	122,424	21.76%
Yakima	—	906	48,658	—	2,420	8.97%
Total Bureau Projects	1,000	180,118	57,108	10,414	125,397	70.91%
<b>Corps of Engineers:</b>						
Albeni Falls	184	238	—	2,194	—	93.71%
Bonneville	396,892	—	—	1,289	2,062	68.25%
Chief Joseph	—	—	—	5,252	33,977	93.41%
Cougar	545	38,134	—	—	—	32.61%
Detroit-Big Cliff	231	21,150	—	—	—	60.93%
Dworshak	9,634	34,338	—	14,782	—	83.90%
Green Peter-Foster	366	30,337	—	1,653	1,670	55.41%
Hills Creek	624	26,207	—	—	—	35.96%
Ice Harbor	53,533	—	—	3,030	—	71.31%
John Day	99,136	21,368	—	11,807	26,409	75.28%
Libby	—	97,099	870	10,401	30,637	75.60%
Little Goose	34,921	—	—	4,033	2,604	83.58%
Lookout Point-Dexter	749	49,407	—	511	—	49.99%
Lost Creek	—	52,945	24,349	30,151	31,920	16.09%
Lower Granite	52,627	—	—	12,747	7,842	81.92%
Lower Monumental	63,911	—	—	5,419	482	76.55%
McNary	68,878	—	—	4,820	—	79.33%
The Dalles	45,851	—	—	2,067	22	86.26%
Lower Snake	2,170	—	—	—	—	99.00%
Columbia River Fish Bypass	628	—	—	—	—	99.79%
Total Corps Projects	830,880	371,223	25,219	110,156	137,625	76.57%
<b>Irrigation Assistance at 12 Projects having no power generation</b>						
Total Plant Investment	831,880	551,341	82,327	120,570	263,022	83.49%
<b>Repayment Obligation Retained by Columbia Basin Project</b>						
Investment in Teton Project	—	9,151	—	2,433	—	80.70%
Total	\$ 831,880	\$ 560,492	\$ 82,327	\$ 123,003	\$ 263,022	83.48%

# Report of Independent Accountants

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

In our opinion, the accompanying balance sheets and the related statements of revenues and expenses, changes in capitalization and long-term liabilities and of cash flows present fairly, in all material respects, the financial position of the Federal Columbia River Power System (FCRPS) at September 30, 1996 and 1995, and the results of its operations, changes in capitalization and long-term liabilities and its cash flows for each of the three years in the period ended September 30, 1996, in conformity with generally accepted accounting principles. These financial statements are the responsibility of FCRPS's 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 examination 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, 1996, (Schedule A) is not a required part of the basic financial statements. The information entitled Commercial Power in Schedule A 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.

Portland, Oregon  
December 13, 1996

# Federal Repayment

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## Revenue Requirement Study

The revenue requirement study demonstrates repayment of federal investment and it reflects revenues and costs consistent with the 1995 Wholesale Power and Transmission Rate Filing. The Federal Energy Regulatory Commission granted final approval for proposed rates on April 4, 1996, for fiscal year 1996 (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 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.

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).

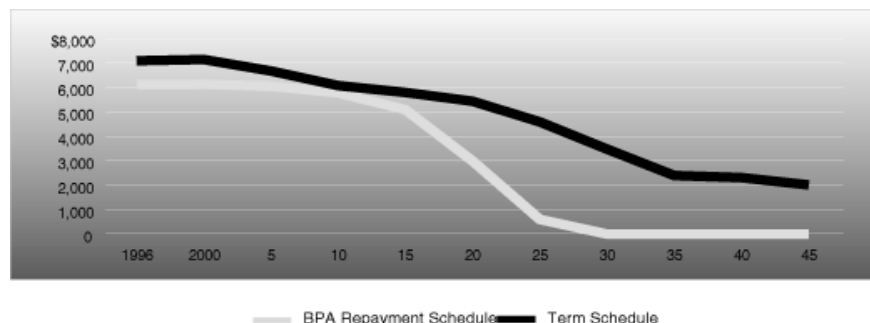
## Repayment Policy

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 (non-federal projects).
2. Pay the cost of operating and maintaining the power system.
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.

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Unrepaid Federal Generation Investment (Includes future replacements)  
(millions of dollars)



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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.
  9. Repay construction costs at federal reclamation projects which 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

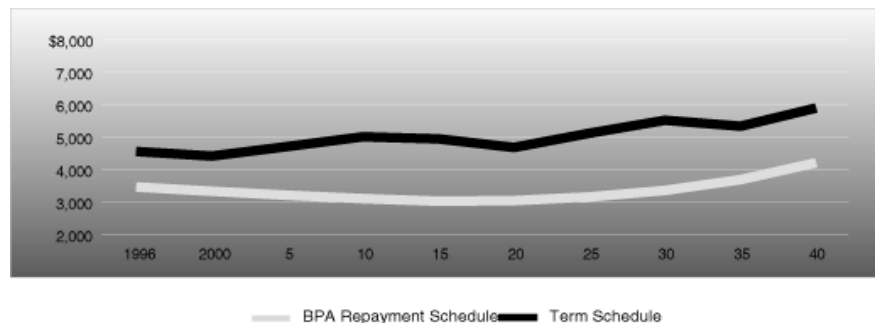
BPA's rates must be designed to collect sufficient revenues to return the reimbursable power costs of each FCRPS investment and each irrigation assistance obligation within the time prescribed by law. However, total irrigation assistance payments cannot require an increase in the BPA power rate level.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

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

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Unrepaid Federal Transmission Investment (Includes future replacements)  
(millions of dollars)





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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.

### Repayment of FCRPS Investment

The graphs for Unrepaid Federal Generation and Transmission Investment on pages 45 and 46 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.

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.

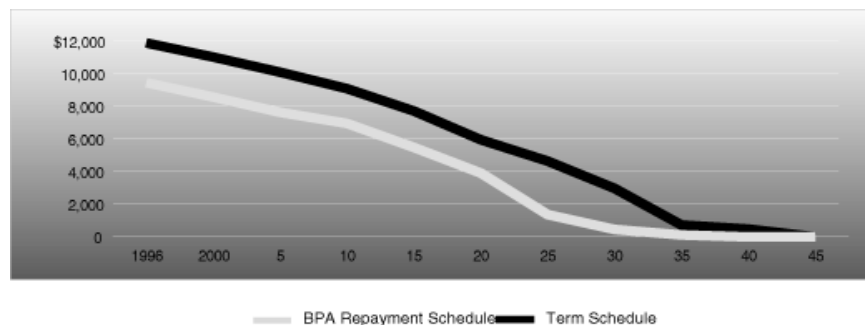
This occurs because BPA plans repayment both to comply with investment due dates and to minimize costs over the 45- or 50-year repayment period. Costs are minimized by repaying highest interest-bearing investments first, to the extent possible. Consequently some investments are repaid before their due 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 below 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 1996 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.

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Unrepaid Federal Investment (Excludes future replacements)  
(millions of dollars)



## BPA Executives

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Deputy Administrator

Sue Hickey  
Chief Operating Officer

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