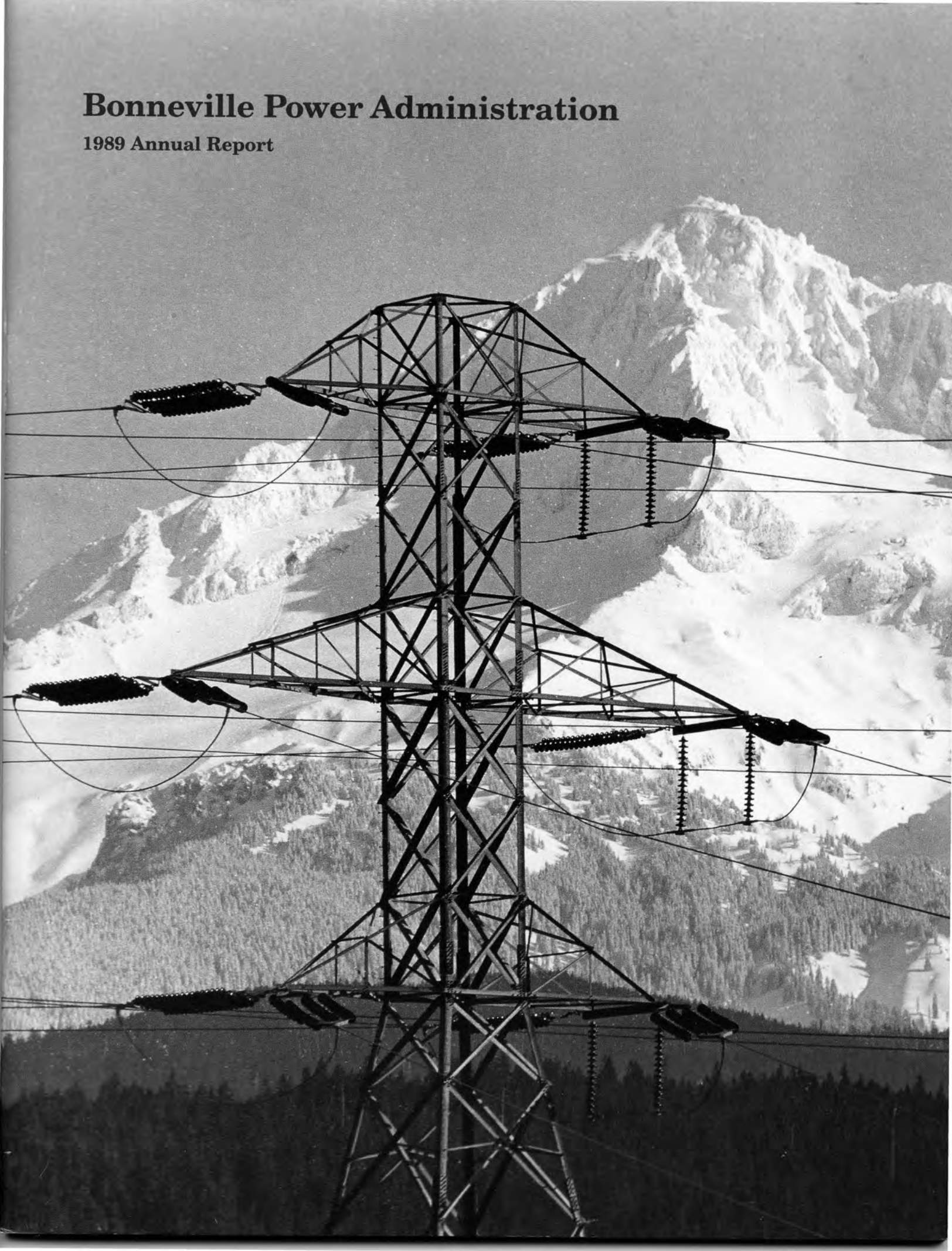
Bonneville Power Administration

1989 Annual Report



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Bonneville Power Administration
Sam Moment Aluminum Library
Portland, Oregon

Aluminum workers at Vanalco in Vancouver, Washington, aren't the only ones smiling these days. Thanks to stable BPA rates and strong markets, Northwest aluminum companies employed high numbers and set production records in 1989.

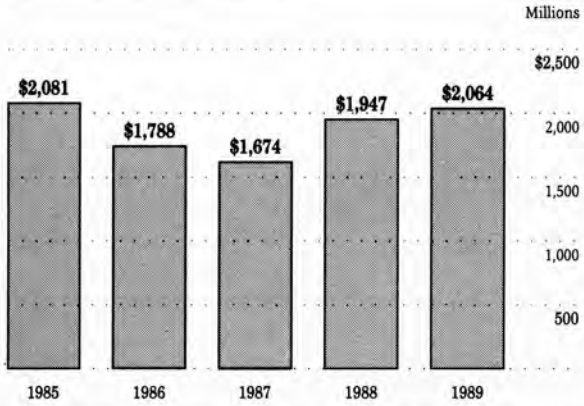
photo courtesy DSIs, Inc.

Financial Highlights

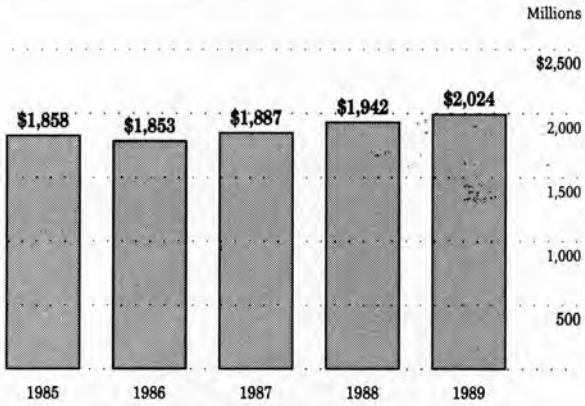
Federal Columbia River Power System
For the Years Ended September 30, 1989 and 1988

	FY 1989	FY 1988
Highlights:	(Thousands of Dollars)	
Operating Revenues:		
Sales of electric power –		
Sales within the Northwest region	$ 1,862,268	$ 1,769,851
Sales outside the Northwest region	80,979	51,559
Wheeling and other sales	120,619	125,486
Total operating revenues	2,063,866	1,946,896
Total Operating Expenses	1,670,475	1,553,084
Net operating revenues	393,391	393,812
Net Interest Expense	353,490	368,547
Litigation Settlement	–	20,000
Net Revenues	$ 39,901	$ 5,265
At end of year:		
Total Assets (Net of Accumulated Depreciation)	$14,260,965	$14,064,567
Total Capitalization and Liabilities:		
Accumulated net expenses	$ (540,857)	$ (580,758)
Federal appropriations	6,643,275	6,590,253
Treasury borrowings	1,794,499	1,792,499
Non-Federal projects debt	6,158,193	6,048,245
Other	205,855	214,328
	$14,260,965	$14,064,567
Employees (Staff Years)	3,312	3,298

Total Operating Revenues



Total Operating and Net Interest Expenses



To The Secretary

The Honorable James D. Watkins
Secretary of Energy
Washington, D.C. 20585

Dear Mr. Secretary:

1989 was a year of solid achievement for BPA. Despite a third straight year of low streamflows, our net revenues improved from $5 million in 1988 to $40 million in 1989. Our strong financial performance was a direct result of higher sales to our Northwest aluminum and utility customers, and strict cost discipline within the BPA organization.

Managing through Another Dry Year

The region's economy grew at an estimated 4.1 percent in 1989, faster than the national average. This growth created strong demand for electricity within our primary service area.

At the same time, low water again reduced our power supply. We met the power needs of our Northwest customers by restricting sales outside the region, and by buying $93 million worth of power. We also drew on California resources by converting our surplus power sales to capacity-for-energy exchanges.

With loads booming and no water to spare, revenues came almost entirely from the Northwest. When water conditions return to normal, we expect sales to California to increase.

As we approach the 1990s, the Northwest's economic outlook is good. Businesses that survived the recession of the early 1980s are more efficient, more productive, and more resilient to swings in business cycles. Economists predict the region will continue to exceed the national growth rate through 1993. A key challenge for BPA is to meet its customers' load growth and maintain stable, predictable rates.

The Key to Stability is BPA's Financial Condition

To keep rates stable over the long term, BPA must preserve its financial integrity. We must continue to make our payments to the U.S. Treasury in full and on time every year. We must pay annual expenses from annual revenues. And we must reduce fixed costs related to long-term debt.

We have been fully current with our Treasury payments since 1984. We are meeting our annual expenses with annual revenues. And this year we took a major first step toward reducing fixed costs by refinancing part of the Washington Public Power Supply System debt that is serviced by BPA.

Treasury Payments Continue on Schedule

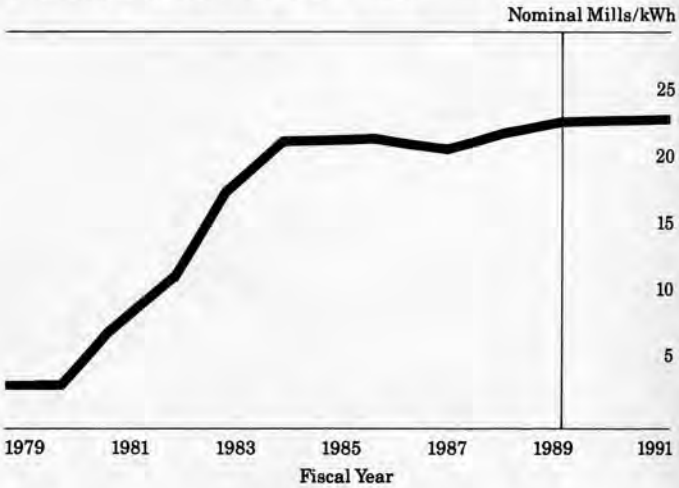
BPA paid $606 million this year on its debt to the Treasury for the Federal investment in the Columbia River power system. For the sixth year in a row, BPA has paid the Treasury more than $600 million. Interest and principal payments to date come to $6.4 billion. This includes $4.9 billion in interest and $1.5 billion in principal.

No Rate Increase

We expect our current rates to provide enough revenue to meet our obligations in fiscal 1990 and 1991. As a result, we extended our 1988-89 wholesale power rates for 2 more years.

This step was not taken lightly. Toward the end of the fiscal year, our revenue projections declined. For a time, it appeared that a rate increase might be necessary. But the final figures gave us increased confidence that we will be able to pay the Treasury in full

Priority Firm Rates 1979 - 1991



BPA electrical rates have been stable since fiscal 1984.

under existing rates. The extended rates include a revised cost recovery adjustment clause that allows us to make a short-term rate adjustment during the 1990-91 rate period if net revenues slip below zero.

With rates extended, BPA's wholesale power rates achieve a new era of stability. From 1984 to 1991, BPA's priority firm rates will have increased just 6 percent. In real terms, our rates will have declined over this period. This has contributed to the recovery and continued health of the Northwest economy.

Our rates will be reviewed again next year. Given the growing customer need for energy and transmission capacity, it may be necessary to adjust rates upward for fiscal 1992.

Restructuring Long-Term Debt: A Key Opportunity

The Washington Public Power Supply System has large amounts of high-interest debt that BPA services. BPA and the Supply System have begun a refinancing effort that takes advantage of lower interest rates.

In October 1989, the Supply System sold $721 million in bonds to refinance bonds sold to construct net-billed nuclear projects backed by BPA. This first round of refinancing capped 3 years of regional cooperative effort. Refinancing will continue. In the end, we expect to refinance $2.7 billion in bonds for WNP-1, WNP-2, and WNP-3. This is expected to reduce BPA's total debt service by about $70 to $80 million a year.

Preparing for the Growing Energy Needs of the 1990s

To accommodate the growing needs of our customers, BPA is preparing to acquire new energy resources at a faster pace. Conservation continues to be our resource of choice. Conservation and generating resource alternatives can provide an estimated 3,000 to 5,000 average megawatts to meet customers' loads at prices lower than new coal or nuclear plants.

BPA's current resource position is favorable. We do not need to acquire large amounts of resources now. If loads grow at medium rates, we will have just enough resources through the end of the century. We can and will approach resource acquisitions deliberately, buying a variety of resources in small increments. This approach will keep both costs and risks low. In the event we encounter an even higher growth pattern, we have the option of completing WNP-1 and WNP-3.

Some of our most promising resource options require regional, interregional, and international cooperation. This year, we started talks with British Columbia Hydro and Power Authority, California utilities, and Northwest utilities to increase power production through interregional agreements.

We're Ready for the Future

BPA is well-positioned to meet the challenges of the 1990s. We are progressing steadily toward our financial and resource goals, and we are holding our position as the Northwest's stable, reliable power supplier.

Bonneville will continue to undergird the region's economy with an environmentally sound, reliable, and low-cost power supply. And we will still pay our own way, bringing continued benefits to the U.S. Treasury.

Sincerely,

James J. Jura

James J. Jura
Administrator

Low, Stable Rates Fuel the Northwest

Bonneville's most important contribution to the Northwest is a reliable supply of wholesale electric power at low, stable rates.

The Northwest economy relies on electricity for a broad variety of purposes. Major Northwest industries such as metals reduction use electricity-intensive manufacturing processes. Electricity heats 46 percent of Northwest homes.

Bonneville's power marketing and supply network extends into Canada and California. As part of a healthy West Coast economy, BPA helps fuel Northwest growth. The lumber and wood products industries are setting new production records. The Boeing Co. has a backlog of orders. Aluminum smelters are operating at nearly full capacity, and they credit BPA's variable rate for part of the resurgence. BPA now supplies power to 40 percent of the nation's aluminum production capacity.

Preserving BPA's Financial Integrity

The key to stable electrical rates over the long term is for BPA to preserve its financial integrity. To that end, Bonneville has established clear financial goals:

- To make annual U.S. Treasury payments in full and on time;
- To pay annual expenses from annual revenues; and
- To reduce fixed costs, particularly those related to long-term debt.

In 1989 Bonneville met the first two goals. BPA also started work on the third, by refinancing some high-interest bonds.

Strong Revenues, Controlled Expenses

Bonneville finished the year $40 million in the black. This was a healthy improvement over last year's net revenues of $5 million, but it wasn't as good as BPA had expected. Poor water conditions and the need to buy supplemental power eroded earnings that were projected to be over $80 million in BPA's 1989 rate filing.

Revenues were $2,064 million. This was $117 million more than in 1988. Sales to aluminum companies provided $718 million, $26 million more than last year. Sales to public utilities were $884 million, an increase of $38 million over 1988. Poor water conditions limited sales outside the region to $81 million, $29 million more than last year but far short of export sales in a normal water year.

Expenses were $2,024 million, up $82 million from 1988. BPA bought $93 million worth of supplemental power to compensate for the freeze in February and for low streamflows in summer and fall. BPA continues to exercise firm cost control.

BPA paid the U.S. Treasury $606 million in 1989 on the Federal investment in the Columbia River power system. For the sixth year in a row, BPA payments to the Treasury exceeded $600 million.

Supply System Bonds Refinanced

In October 1989, the Washington Public Power Supply System sold $721 million worth of bonds to refinance nuclear projects WNP-1 and WNP-3. The proceeds will pay off high-interest bonds issued several years ago. Because BPA pays the Supply System's share of costs of those projects, the 1989 bond sale is a major step in reducing BPA's high fixed costs.

This sale alone will save BPA about $19 million in 1990, and more than $24 million annually for the following 20 years.

The successful 1989 bond sale was the result of 3 years of extraordinary regional cooperation. The total refinancing effort is expected to reduce BPA's total debt service by about $70 to $80 million a year. Most of the refinancing should be completed by 1993.

No Rate Increase

In 1989, BPA extended its power rates for 2 more years. There will be no rate adjustment for 1990. BPA has submitted a proposal to the Federal Energy Regulatory Commission to extend 1988-89 rates through fiscal 1991. FERC has granted interim approval.

While extending rates, BPA modified the cost recovery adjustment clause to allow a rise in rates if net revenues fall below zero. The revised adjustment clause lets BPA use revenues that exceed rate case projections to meet longer-term financial needs.

Northwest ratepayers — especially those on fixed incomes — benefit from low, stable electrical rates. BPA rates did not rise in 1989, and will stay flat through 1991.

Looking to the Future

Bonneville is confident that it can meet its near-term objectives and serve the economy well by extending current rates through fiscal 1991. The remaining challenge in BPA's financial strategy is to reduce fixed costs. Refinancing high-interest Supply System bonds in 1989 was a big first step in this task, which is vital to the region's and BPA's long-term interests.

Economists expect the Northwest economy to grow faster than the national average through 1993. Bonneville intends to play its role by keeping wholesale power rates stable. With the cooperation of our customers and other partners, BPA and the region will grow stronger still.

High-rise construction in downtown Seattle is one of the most visible signs of a vigorous Northwest economy. Northwest growth exceeded the national average in 1989, and is expected to stay strong for the next several years.

The Operational Year

Sales Increase

A strong Northwest economy provided most of BPA's 1989 revenues.

Sales to the aluminum companies led the way. DSI revenues rose 4 percent over last year's strong sales.

Although aluminum prices dropped from a high of $1.11 a pound to 79 cents at the end of the fiscal year, loads in 1989 were the highest ever. Regional aluminum smelters employed 7,500 workers, the most since 1984.

BPA met the power needs of a vigorous Northwest economy with new sales in 1989. For example, Ponderay Newsprint Co. opened a new pulp and paper mill in eastern Washington. The mill employs 120 and is served by Pend Oreille PUD. A modern pulping process uses a mechanical instead of a chemical process. The plant needs low electricity rates to be profitable.

Cascade Steel Rolling Mills, Inc., a customer of McMinnville Water and Light, is expanding its steel mill by 50 percent. Reliable, low-cost power from BPA was a big factor in the company's expansion.

Sure Power in Another Dry Year

While sales expanded, lingering drought conditions stretched the power supply thin. Reservoirs were low at the start of the year. And the weather in 1989 didn't do Bonneville any favors.

An Arctic cold front swept over the Pacific Northwest in early February, causing extremely low temperatures. The Federal system set new records for peak load on 2 consecutive days. The previous record had been set in 1980. On February 3 of this year, the 1-hour Federal system load peaked at 12,055 megawatts during a record 24-hour load of 260,388 megawatthours.

BPA insured its service to firm loads during "Freeze Week" by interrupting one-fourth of its delivery to regional aluminum smelters. Bonneville arranged replacement energy for them from other utilities.

The Bureau of Reclamation helped by allowing an exception to the normal limits of how much water can be drawn from reservoirs. At Grand Coulee Dam, Reclamation drafted 2 feet a day for 3 days, starting February 1.

Soon after the freeze, the weather threw the system another curve: a cool, dry June. Cold temperatures kept mountain snow in place. Much of it melted slowly and seeped into the ground or evaporated.

Complicating poor water conditions were longer-than-expected maintenance outages at the Northwest's two nuclear plants. Thermal resources contributed about 150 average megawatts less than expected this year.

The System Adjusts

To secure its power supply in 1989, BPA arranged to purchase power from several Northwest and California utilities. Bonneville bought over 3.3 million megawatthours at prices ranging from 1.2 to 3.5 cents per kilowatthour. BPA spent $93 million on power purchases during the operating year.

At the end of its operating year, reservoirs in the Coordinated System had refilled to only about 88 percent full. BPA met its commitments to irrigation and fish migration. Water releases for flood control and fish migration caused overgeneration in spring. BPA stored most excess power as water in Canadian reservoirs, and released it later to keep reservoirs up. Still, water levels at the upstream reservoirs were less than ideal for summer recreation.

Faced with deteriorating energy conditions in July, Bonneville converted some California surplus firm power sales to capacity-for-energy exchanges. The conversion was BPA's right under long-term contracts with Southern California Edison Co. and the cities of Burbank, Glendale, and Pasadena. BPA took this action even though it meant foregoing nearly $38 million in revenues. It saved 145 average MW for Northwest loads. The exchanges can revert back to power sales when BPA's supply improves.

In another step to stabilize power supplies, Bonneville signed agreements in September 1989 with 14 direct-service customers. The DSIs will be able to buy energy from BPA for their top-quartile load through December. But they could be restricted to half their service in the spring of 1990 if BPA needs the power to serve its firm loads.

Reliable power supplies at low and stable rates contributed in 1989 to plant expansion throughout the Northwest. The challenge for Bonneville is to keep finding, as we found in 1989, creative ways to keep the power flowing at the lowest possible cost.

photo courtesy The Boeing Co.

New 767s take shape at Boeing's aircraft assembly plant in Everett, Washington. The plant is served by Snohomish County Public Utility District, Bonneville's largest publicly owned utility customer.

During February's cold snap, Northwest homes, schools, hospitals, and businesses used far more electricity than usual for heating. The Bureau of Reclamation helped BPA meet the surge in power demand by drafting 2 feet of water a day for 3 days at Grand Coulee Dam.

Working With the Region to Conserve Energy

Surplus Gone

As this year's experience demonstrated, the Northwest no longer has a comfortable cushion of extra energy to call upon. Today, BPA's energy resources roughly equal the demand for electricity from its customers. Assuming "medium" load growth, forecasts predict that BPA will remain essentially in load/resource balance through the end of the century.

With the surplus gone, the time has come to plan for new resources. In a series of 1989 Programs in Perspective meetings, BPA and its customers and other partners agreed on the first steps to take. It's time to look for a variety of new resources in small increments.

Conservation is Bonneville's first choice in a mixed portfolio of potential new resources.

Conservation: The "Smart" Resource

It makes economic sense to use energy more efficiently rather than build new power plants. Conservation can be brought on in small, manageable increments. It is reliable. It's cheaper than most other power resources. BPA can free up energy for new loads at an average cost of about 1.9 cents per kilowatthour, compared to about 4 cents per kWh from a new coal-fired plant.

BPA pays for conservation programs that are carried out by utilities, state and local governments, and private contractors. The result is not just energy savings, which are significant, but also a network of agencies and contractors that are well-trained and able to put more conservation measures "on line" quickly.

Working through 113 regional utilities, BPA promotes the Super Good Cents program for new energy-efficient electrically heated homes. The number of certified Super Good Cents homes now exceeds 9,000, including 5,300 certified in 1989. This year the Super Good Cents program was expanded to include new manufactured homes.

In weatherizing existing homes, BPA works through the regional utilities. They hire local contractors to do the work. In 1989, Bonneville spent over $15 million on residential weatherization. The first purpose is to provide energy savings, but the money also creates jobs.

Making Industries Energy Efficient

BPA works with industries to help them use energy more efficiently. In 1989 Bonneville invested over $4.6 million by reducing the power rates to aluminum companies that agree to modernize their smelters. Modernization led to savings of about 65 average megawatts. The program saves electricity at a modest cost to BPA, about half a cent per kWh. It also helps Northwest smelters compete and provide jobs.

BPA contributed $900,000 toward a new $2.2 million freeze tunnel that will save more than 7 million kWh every year at the Lamb-Weston potato processing plant in Boardman, Oregon.

The new potato freezing system, completed in September, saves

School children such as these at Portland's Cherry Park Elementary School learn about conservation through Bonneville's energy education curricula program.

BPA enough electricity for 500 electrically heated homes. Lamb-Weston cuts costs. The Boardman area welcomes increased activity at the plant, which employs about 450 people.

BPA looks for ways to save energy by helping to design office buildings, schools, and factories to use less electricity. Other conservation programs show irrigators how to pump water using less energy.

The Northwest Power Planning Council and BPA promote energy-efficiency standards that are now part of the building codes of 40 local governments. If all jurisdictions adopt these codes, they could save the region as much as 375 average MW — the average output of a coal-fired plant — by the year 2010.

In 1989, BPA spent a total of $56 million on conservation programs. Since 1981, BPA has spent more than $800 million acquiring conservation. This will save about 300 average MW over 20 to 50 years. These funds also support energy-efficiency building and appliance codes that are already in place and are expected to save BPA significant additional amounts of energy by the year 2000.

Energy savings help stabilize the Northwest economy. Businesses, factories, and homes use energy more efficiently. Just as important for the long run are the lessons learned about which conservation programs work and how they could work better to save energy in the future.

Seattle's new Lighting Design Laboratory has a movable ceiling that lets designers test energy-saving lights before installing them in office buildings and apartments. BPA pays 70 percent of the lab's costs, and Seattle City Light runs it.

An Orderly Approach to Low-Cost Resources

Flexible, Cost-Effective Power Choices

While the Northwest Power Planning Council is preparing a new 20-year power plan to identify resources for the entire Pacific Northwest, Bonneville is looking ahead to meet its own customers' power needs. BPA and Council staff are coordinating their resource planning.

In 1989, BPA prepared its draft 1990 Resource Program, outlining steps BPA proposes to take to acquire new resources. BPA proposes to acquire 20 to 25 megawatts a year of conservation in 1992 and 1993. This is the first part of a target to develop 200 average MW of cost-effective conservation in 1992-97.

The Resource Program also lays out a plan to acquire generating resources for the first time since the region's power surplus became apparent in the early 1980s. The program calls for acquiring 50 average MW of small, environmentally acceptable generating resources through a competitive bidding test project.

The program outlines a partnership agreement to buy the output of three geothermal demonstration projects. And its contingency plan makes sure other low-cost resources are available in time if loads grow faster than expected.

This year BPA identified 3,000 to 5,000 average MW of power resources that may be available to BPA at prices lower than or equal to coal or nuclear plants.

While the energy surplus is gone, BPA still has about 2,600 MW of surplus capacity to sell or exchange. Capacity is the amount of power the system can produce to meet peak loads. In an exchange, Bonneville could gain 600 to 700 average MW of energy. In 1989, BPA's marketing focus shifted from sales of surplus energy to sales or exchanges of surplus capacity. BPA was negotiating several capacity sales/exchanges at the end of 1989.

Cooperation is the Key to a Low-Cost Future

Like capacity/energy exchanges, many of the best resource choices involve agreements between BPA and others in the Northwest, California, and Canada. By cooperating, the whole West Coast can seize immense new opportunities to stretch the power system toward its full potential.

Among the events in 1989 that kindled a new spirit of cooperation was a symposium in Portland called "Power for the West," sponsored by BPA, B.C. Hydro, the Council, and the League of Women Voters of Oregon. California utilities sent their representatives. Key talks centered on renewal of expiring contracts for downstream power benefits associated with the 1964 Columbia River Treaty between the United States and Canada. Other topics included the need for broader coordination of transmission throughout the West.

Soon after the "Power for the West" symposium , BPA began discussions with the Corps of Engineers, the Bureau of Reclamation, and Northwest utilities to renegotiate or extend the Coordination Agreement. This agreement expires in 2003. It coordinates the planning and operation of the Columbia River hydro system, including Columbia River Treaty projects in Canada and U.S. Federal and non-Federal dams. Renewing the agreement will lay a firm foundation for Northwest power resources in the next century.

Bonneville, Northwest utilities, and B.C. Hydro also began discussions centered on sharing of power which could be achieved by non-Treaty water storage and better coordination of Northwest and British Columbia power resources.

Balancing the Uses of the River

In working with others to meet the power needs of the Northwest economy, BPA has to keep in mind that Columbia River water provides not only power but also irrigation, navigation, fish and wildlife, and recreation. Competition for Columbia River water is increasing. In the last decade, the system's firm energy capability has decreased almost 650 average MW in order to serve non-power uses. This has a long-term cost to the power system of some $3 billion.

In 1989 BPA raised the issue that these tradeoffs and constraints must be made consciously, openly, and carefully. Each river use tends to impact other benefits. For example, it costs about $600 in lost power revenues to flush a pleasure boat or group of boats through the lock at a dam. Power revenues pay for much of the fish and wildlife programs and irrigation benefits of the Federal dams. Reducing the power production of the system may lower the revenues to pay for these and other programs. BPA will continue to work closely with the Corps and Reclamation to address this issue.

Growing demands on Columbia River water for fish migration, irrigation, recreation, and navigation have reduced the firm power supply from hydro. BPA is working with the U.S. Army Corps of Engineers and Bureau of Reclamation to address tradeoffs between power and other river uses.

The Weyerhaeuser lumber mill in Springfield, Oregon, is both a major power user and a power producer. Efficient cogeneration — burning waste materials to make steam and generate electricity — stretches the region's power supply and makes Northwest companies more competitive.

The Power Transmission Grid: A Regional Asset

Bonneville's Northwest Federal power grid includes three-quarters of the region's high-voltage transmission capacity, more than 14,700 circuit-miles of lines, and 387 substations. BPA's transmission grid is used by many utilities to wheel power to consumers from distant power plants.

Upgrading the Intertie

In April, BPA finished a 3-year project to raise the carrying capacity of the direct-current intertie line from 2,000 megawatts to 3,100 MW. The DC Intertie is operated jointly by BPA and the Los Angeles Department of Water and Power. To upgrade the line, engineers added new equipment at each terminal — one near The Dalles, Oregon, and the other near Los Angeles. The expanded DC Intertie lets BPA enter into power exchanges and sales with California utilities to make better use of each region's power resources. Northwest ratepayers can expect a net benefit of $1 billion over 30 years.

BPA also remains committed to expanding the alternating current intertie to California. The "Third AC Intertie" would increase the carrying capacity of the AC Intertie by 1,600 MW. In fiscal 1989, Bonneville proposed ground rules by which Northwest utilities could share the costs and benefits of the expanded AC Intertie. If the line is built, Northwest utilities could buy rights to schedule up to 725 MW through 2016. BPA will propose a rate for participation and will review environmental impacts of participation if there is enough interest by Northwest utilities.

Responding to New Loads

To serve the economy well, BPA's transmission system must respond quickly to new loads.

In June, Glenbrook (formerly Hanna) Nickel Co. reopened a smelter at Riddle, Oregon. Hanna had shut down 3 years ago. Transformers at Hanna Substation were in bad shape. Glenbrook was on a tight schedule to start the plant. BPA crews worked 7 days a week to install a replacement transformer and related equipment in time for Glenbrook to begin smelting as planned. The smelter now employs 220.

A similar situation arose when Echo Bay Mines decided to open a gold mine near Republic, Washington. The town welcomed the 250 to 300 jobs at the mine, which would need an on-site substation. Echo Bay wanted to be mining by October 1989, just one year after BPA was notified of their need for service. Normally it takes 3 years from planning to energization. BPA worked closely with Ferry County PUD and Echo Bay on contract revisions and environmental review. BPA designed and built a 115-kilovolt tap to connect a new Ferry County PUD line to Echo Bay's substation. The substation was energized on October 18, 1989.

Power You Can Count On

Reliable power is something the Northwest takes for granted. Outages, when they do occur, are usually brief and local. BPA kept the power flowing, for example, during the Arctic cold front that moved into the Northwest this winter. It wasn't easy.

On January 30, an insulator flashed over in the switchyard of the WNP-2 nuclear plant. The plant shut down, dropping 1,095 MW of generation. All insulators in the yard had to be cleaned or replaced before the plant was returned to service. BPA crews spent hours cleaning insulators by hand in bitter cold and wind. WNP-2 came back on February 2, in time to relieve some of the load pressure during the freeze.

On February 1, extreme low temperatures at Garrison Substation in Montana caused low gas pressure in the bypass switches for series capacitors. The switches locked out. Transfer capacity from Colstrip plant to the Puget Sound area dropped from 2,000 MW to 1,350 MW.

A maintenance crew plowed up to Garrison, which is at 5,020 feet. In temperatures as low as -37 degrees F and winds up to 40 mph, the crew tried to add gas to bypass switches. It was so cold that the gas liquified in the hoses. Gas pressure alarms and cut-outs were lowered to let the control circuits keep working down to -42 degrees F. Full use of the line resumed to the Puget Sound area, where the power was sorely needed.

Although the system and its people were tested to their limits during the freeze, both performed well. BPA's loads were served.

Setting the Standards

Less dramatic than emergency response but just as important are the steps BPA took in 1989 to better run the transmission system. BPA plans the system to serve the Northwest economy reliably at the lowest cost.

Ice on the mountain. BPA electrician Ken Ausk braves the winter deep-freeze to repair a microwave antenna at Patrick's Knob in Montana. At risk were remote control of the transmission system and generation from Libby Dam, Hungry Horse Dam, and Colstrip coal plant.

This year Bonneville formally reviewed and updated the reliability criteria and guidelines used to plan its transmission grid. Public review showed that the region generally agrees with the level of reliability BPA has provided.

The transmission system is aging, and some maintenance has been deferred over the past few years. In 1989, Bonneville began preparing a 10-year operation, maintenance, and replacement plan to reduce the backlog of work by 60 percent by 1992, and eliminate the backlog by 1996. The 10-year plan will find the cost-effective balance point between prevention and fix-it-when-it-breaks.

Fire in the hole. Ladles at Glenbrook Nickel Co. in Riddle, Oregon, pour molten nickel oxide and ferrosilicon to extract ferronickel. Electric furnaces, fueled directly by BPA, heat the ore to 3,000 degrees F. Ferronickel (half iron, half nickel) is used to produce stainless steel.

System Pays Its Own Environmental Costs

The Northwest's Gift: A Non-Polluting Power Source

Today, 80 percent of BPA's power is hydroelectric. Hydro is the Northwest's great gift. The fuel — falling water — is renewable, cheap, and non-polluting. Despite the disadvantages of hydro with respect to fish and soil erosion, the Northwest has the cleanest energy base in the world.

The 1980s alerted mankind to just how important a clean energy base is. Acid rain is taking its toll on our forests and lakes, and the "greenhouse effect" focuses attention on a possibly catastrophic global warming trend. The prime atmospheric villain is carbon dioxide. The U.S. contributes more than its share of carbon dioxide to the planet's atmosphere, and about 35 percent comes from fossil-fueled power generation.

The Federal hydro system helps the Northwest avoid burning fossil fuels, and it has displaced oil and gas-fired generation in California. BPA has shipped enough electricity south to save California about 270 million barrels of oil in the last 20 years, or 37,000 barrels a day. BPA power sales prevented about 2.7 million tons of carbon dioxide air pollution that would have resulted from burning fossil fuels.

The challenge, as BPA moves from energy surplus to load/resource balance, is to extend the Northwest's age of renewable hydropower into the future. The roster of available new resources that BPA developed in 1989 includes many clean alternatives that extend the Federal hydro system's benefits.

Offsetting the Damage to Fish and Wildlife

Under the Northwest Power Act of 1980, BPA's role in environmental matters goes beyond the normal responsibilities of an electric utility. Bonneville works with the Northwest Power Planning Council and others to protect and enhance fish and wildlife populations that were damaged by Federal dams.

BPA funds projects that are carried out by fish and wildlife agencies, tribes, universities, and others.

Bonneville works with the operators of dams to provide increased river flows and spill for fish at critical migration times. This reduces BPA's ability to generate power and recover revenue. BPA also pays part of the costs incurred by the Corps of Engineers and Bureau of Reclamation for building and maintaining fish ladders, screens, and hatcheries.

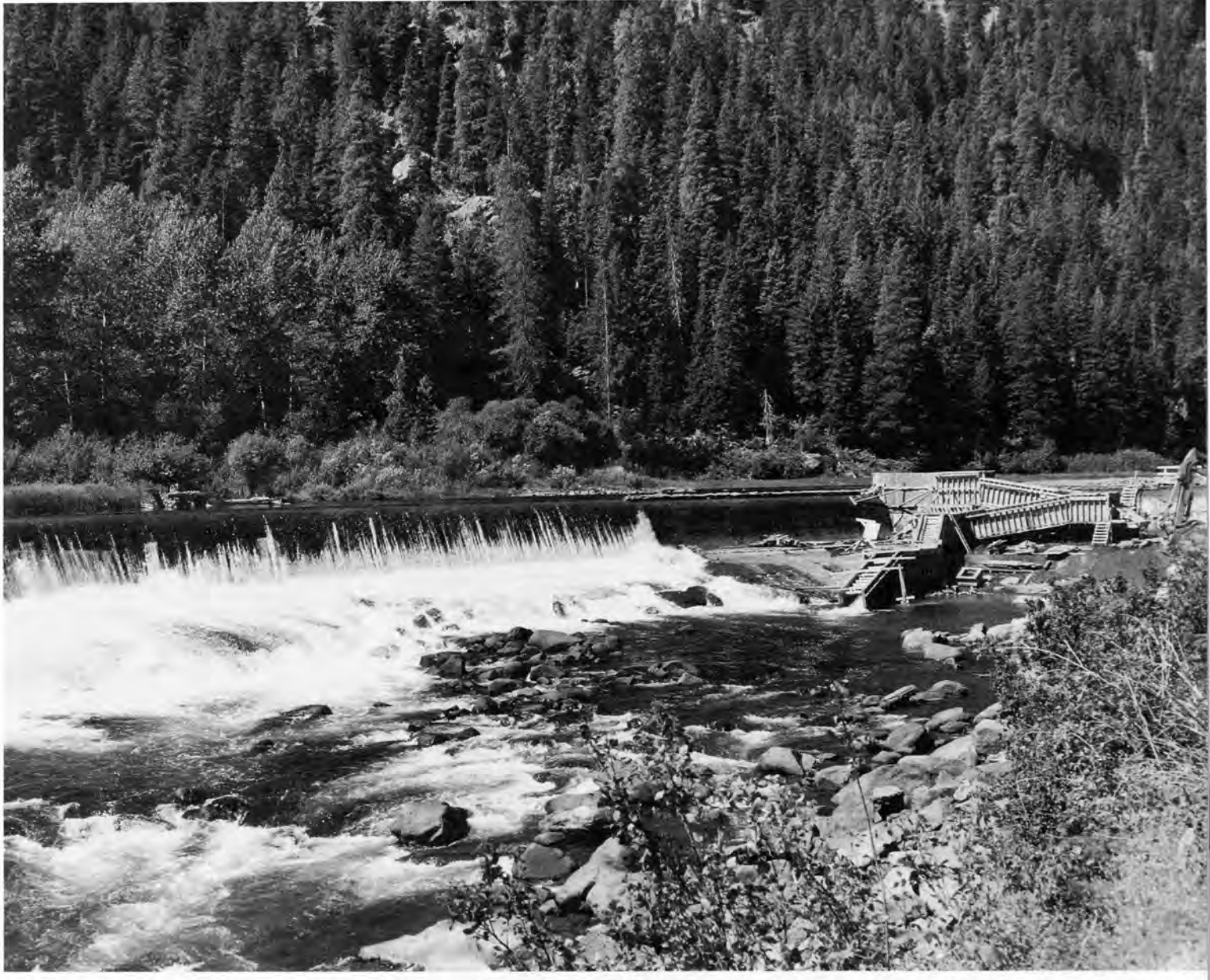
In 1989, BPA devoted over $134 million in direct expenditures and foregone revenues to fish and wildlife programs.

The Council approved the master plan for the Umatilla fish hatchery, which will cost BPA about $16 million. The hatchery will reintroduce salmon into the Umatilla, a river which saw its last real salmon runs in the early 1900s. The hatchery will produce up to 8 million smolts annually.

During 1989, three other hatcheries were in various stages of design or construction. When completed, they will help meet the Council's goal of adding 2.5 million adult salmon and steelhead to Columbia River Basin fish runs.

Biologists examine the contents of fish stomachs to get a better idea of the relationship between predators and prey among reservoir-dwelling fish. BPA-funded research projects help compensate for the effects of dams on Northwest fish and wildlife.

In April, BPA signed a 10-year agreement with 11 Northwest tribes and fish agencies to send $10 million worth of water a year over spillways at four Columbia River dams. The spill agreement is an interim step until more fish bypass systems are installed at dams to collect and carry young fish around turbines.



Tumwater Dam on the Wenatchee River was a difficult barrier for migrating sockeye, chinook, and steelhead. BPA paid for a new fish ladder, shown here under construction. Now fish pass the dam without injury on their way to upstream spawning grounds.

Cleaning Up

Like other American utilities, BPA has traces of PCBs and other contaminants in the soil at some of its substations. BPA is cleaning up this contamination.

Bonneville awarded a $700,000 contract in September, for instance, to a Seattle firm for cleanup preparations at its Ross Complex in Vancouver, Washington. BPA was already moving ahead with its study when the Environmental Protection Agency added the site at Ross to its Superfund National Priorities List.

BPA is working closely with the State of Washington, local residents, and community leaders. Work is also underway to assess contamination at nine other BPA sites where wastes were disposed in the past.

The existence of health hazards from electric and magnetic fields (E/MF) has not been established, but BPA is taking this emerging environmental issue seriously. Pending better scientific understanding of the issue, BPA's interim guideline for new transmission lines is to not increase exposure of the population to these fields where practical alternatives exist. In 1989 BPA contributed to national research on the subject, continued its own research, and informed the public. A high-voltage alternating-current transmission E/MF study, initiated in 1989, will bring $500,000 of co-funding to Northwest universities.

In all of its activities BPA means to be environmentally responsible.

A Stake in Our Own Future

BPA is a Federal agency with a Northwest focus. A good part of the annual $2 billion in revenues from Northwest ratepayers goes back into the Pacific Northwest economy.

Payroll

BPA programs and power rates undergird the region's economy. The agency itself also directly affects the Northwest economy.

For example, Bonneville's payroll is nearly $130 million per year. While payroll is only 6.5 percent of BPA's overall costs, salaries spent by BPA employees percolate through the regional economy and benefit other Northwest residents. In 1989, BPA employees had over $4.8 million in income taxes withheld for the State of Oregon, alone.

Contracts to Businesses

Bonneville paid over $162 million in 1989 for materials, construction, and support services. More than three-fourths of that went to Northwest businesses.

BPA awarded contracts in 1989 worth over $40 million to Northwest small businesses. The total included contracts worth more than $15 million to firms owned by women, minorities, or disadvantaged persons. In March BPA won the Department of Energy's Small Business Award for the second year in a row.

Northwest businesses also benefit from BPA research and development projects. BPA paid about $57,000, for example, to study the flow of steam and fuels through the Port Townsend Pulp and Paper Mill, to find ways to reduce a plant's overall use of energy.

The Port Townsend project is just one of many that help build a broad technological base for the entire region, not just for the power system. These projects employ regional architectural and engineering firms, consultants, and support personnel.

Contracts with Governments and Tribes

Northwest States, local governments, Indian tribes, and others earned more than $47 million in 1989 by working on BPA programs. Working through others, BPA is a catalyst for reaching power-related regional goals.

In September, for example, BPA dedicated a $4.5 million trout hatchery near Chief Joseph Dam in northeastern Washington. BPA paid for the hatchery, and the construction jobs were a boon to an area hard hit by the slumping timber industry. The Colville Indian Tribes operate the hatchery. BPA also funded a training program to help local tribal members qualify for hatchery jobs.

Contracts with Universities

In fiscal 1989, $2.9 million of BPA's research and development funds were spent on research done at local universities.

Oregon State University, for example, completed a BPA-funded study on adjustable speed drives for small motors. To BPA, the study meant possible energy savings at Northwest factories and office buildings. To OSU, it meant $227,000 in funding over 3 years. Contracts like this help professors maintain a competitive and up-to-date curriculum for their graduate students and give BPA information which helps maintain a stable power supply.

A Sense of Service

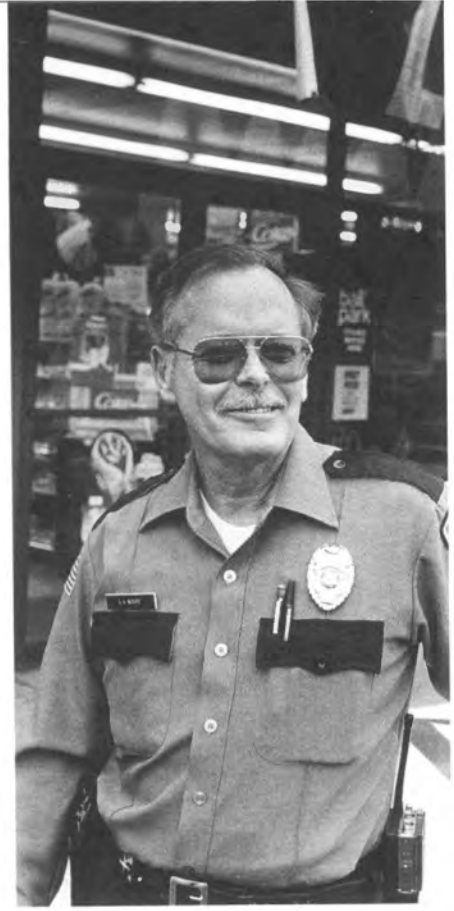
Bonneville programs contribute to Northwest community goals. Day care centers, low-income retirement homes, and rescue missions have used BPA funds to make their buildings more energy-efficient. BPA paid $3,800 to replace 100-watt incandescent bulbs with new 32-watt fluorescent ceiling lights at Seattle's Northwest Center Child Development Program. The center could not afford to make these improvements on its own. Now it saves over 25,000 kilowatthours and about $800 each year.

Individual BPA employees, as well, volunteer their services all the way from leading 4-H and scout groups to serving on state and university advisory boards.

BPA employees' sixth annual "Energizing the Community" auction, in June, generated $12,000 for the North Portland Nurse Practitioner Community Health Clinic. The money will help the clinic give pediatric health care to the diverse cultural groups in the North and Northeast Portland area. "Energizing the Community" benefits have raised over $60,000 for charitable organizations over the past 6 years.

In addition, BPA employees have contributed over $100,000 each year for the last 8 years to the Combined Federal Campaign, the Federal sector's equivalent of United Way.

Bonneville people have as big a stake as anybody in the Northwest way of life. As an organization and as citizens, BPA employees want to help make the Pacific Northwest a good place to live and work.



The uniform, the badge, and the gun are second nature by now to Gene Moore, a captain in the Olympia, Washington, reserve police force for the past 14 years. In his "other" life, Moore is a senior operator at BPA's Olympia Substation.

Mariah Taylor, "the nurse who cares," comforts 10-month-old Robin Winters at Taylor's Portland pediatric care clinic. BPA employees raised over $12,000 for the clinic, which serves families regardless of their ability to pay.

photo courtesy Dana Olsen, ***The Oregonian***

Sales Trends

BPA sells wholesale power to Northwest public and investor-owned utilities, direct-service industries, Federal agencies, and utilities outside the region. Total revenues have risen steadily over the past 3 years. There have been some sharp changes, however, in the proportion of total revenues that come from different kinds of customers.

The overall trend in recent years is that Northwest sales have increased in proportion to sales outside the region. Northwest utilities have increased their loads. Northwest aluminum companies stayed healthy. With Northwest demand up, and reservoir levels down, BPA has sold less power to California.

Northwest Publicly Owned Utilities

This category includes 39 municipalities, 27 public utility districts, and 55 cooperatives. Together they are Bonneville's largest customer group. Revenues were $884 million in 1989, up 4 percent from 1988.

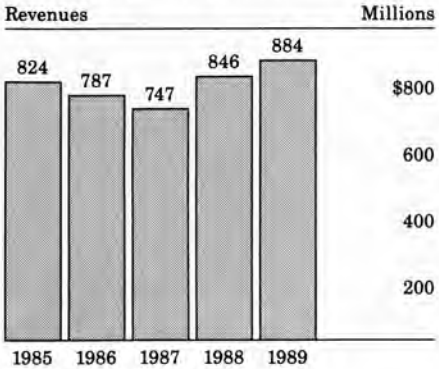
Because publicly owned utilities serve residential and small industrial loads, their consumption of BPA power is fairly stable. For the last 5 years, energy sales to this group fluctuated less than 6 percent. After 2 years of declining energy sales in 1986 and 1987, sales increased in 1988 and 1989.

Aluminum Industry

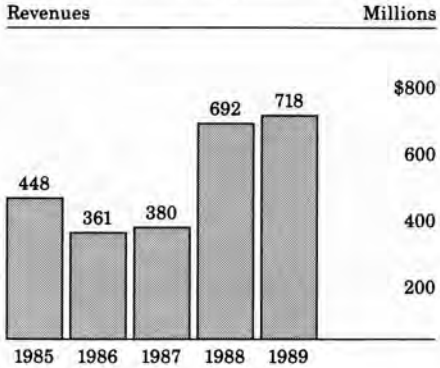
Included are eight direct-service customers. Revenues were $718 million in 1989, up 4 percent from 1988. This year's revenues were nearly double the $361 million in 1986.

Aluminum companies' energy use can change almost overnight with the price of aluminum. In 1987, BPA established the variable industrial rate to help smooth the cyclical nature of the industry. When the aluminum market was soft and prices were low, these customers were able to stay in business because their cost for electric power was low. Later, strong worldwide demand for aluminum pushed prices higher. The aluminum companies then paid BPA higher rates for electric power. BPA revenues rose dramatically as the aluminum industry recovered.

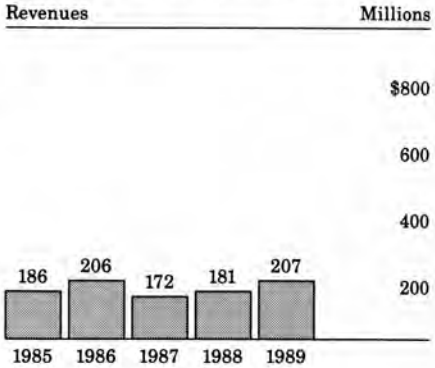
Publicly Owned Utilities



Aluminum Industry



Investor-Owned Utilities



Northwest Investor-Owned Utilities

This group is made up of nine customers. Revenues were $207 million in 1989, up 14 percent from 1988.

While revenues from investor-owned utilities have been stable over the past 5 years, sales have been up and down. During 1986, BPA had plenty of surplus power. Rates for discretionary sales were low. Investor-owned utilities nearly doubled their purchases from BPA that year, but revenues rose only slightly.

Other Northwest Power Sales

Included in this group are seven Federal agencies and nine direct-service, non-aluminum industrial customers. 1989 revenues were $53 million, up 5 percent from 1988.

Sales Outside the Northwest

BPA's customers outside the region include 11 publicly owned utilities, 4 investor-owned utilities, and 1 Federal agency. Revenues were $81 million in 1989. This was a 57 percent increase over 1988, but still far short of what BPA could expect in a normal water year.

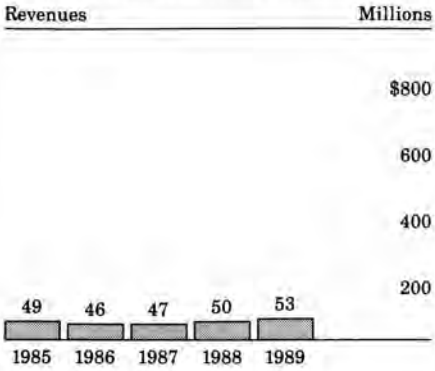
Sales of electric power to this group fluctuate with the availability of nonfirm power. Factors affecting availability include reservoir levels and demand for power in the Northwest. Recent sales were highest in 1985. Power sales to this group decreased during the subsequent years. Revenues from external sales are also affected by the price of gas and oil, which fuel alternative generation in California. The price of gas and oil dropped in 1986 and 1987. BPA lowered its prices in order to compete. The prices were higher again in 1988 and 1989 but availability remained low.

Wheeling and Other Sales

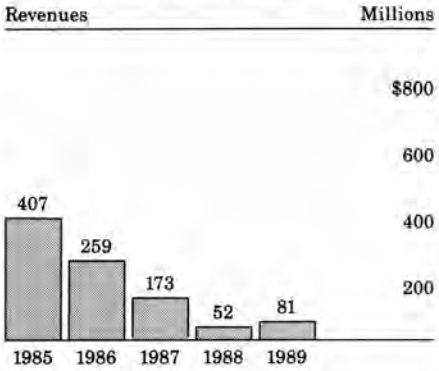
1989 revenues were $121 million, down 4 percent from 1988.

These revenues fluctuate according to how much generation is available for export outside the Northwest. During drought years, these revenues can increase because Northwest utilities import power to serve their loads.

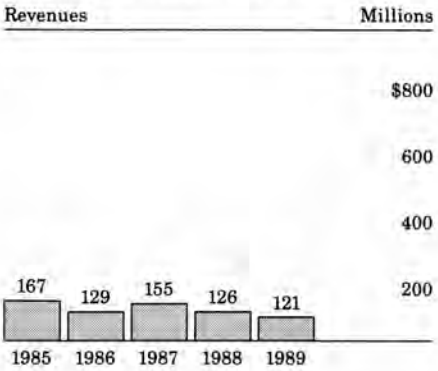
Other Northwest Power Sales



Sales Outside the Northwest

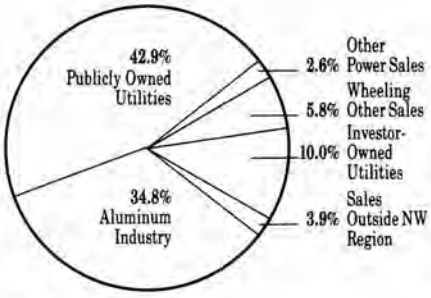


Wheeling and Other Sales

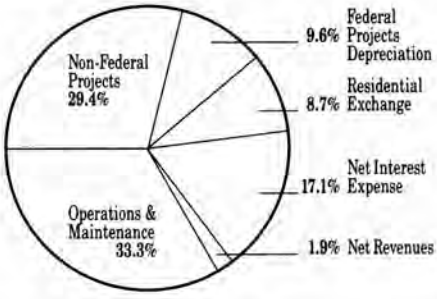


Management's Discussion and Analysis

1989 Sources of Revenue



1989 Disposition of Revenue and Net Revenues



Selected Quarterly Information (Unaudited)

Three Months Ended	December 31	March 31	June 30	September 30
		(Thousands of Dollars)		
1989				
Operating revenues	$556,958	$554,999	$499,421	$452,488
Operating expenses	369,865	445,288	406,711	448,611
Net interest expenses	96,912	86,968	86,196	83,414
Net revenues	$ 90,181	$ 22,743	$ 6,514	$ (79,537)
1988				
Operating revenues	$507,234	$544,573	$444,750	$450,339
Operating expenses	361,968	376,461	398,933	415,722
Net interest expenses	90,254	90,146	87,546	100,601
Litigation settlement	–	–	–	20,000
Net revenues	$ 55,012	$ 77,966	$ (41,729)	$ (85,984)

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 on yearly maintenance.

Results of Operations

Bonneville's revenues exceeded expenses by $40 million in 1989. This was an improvement over last year's net revenues of $5 million.

Total operating revenues increased $117 million from 1988, up 6 percent. For the third year in a row, poor water conditions restricted the amount of nonfirm sales to California. But high demand for electricity from Northwest utilities and aluminum companies more than took up the slack.

Total expenses increased $82 million from 1988, up 4 percent. Operating expenses increased $117 million, most of it due to unplanned power purchases. Net interest expenses decreased $15 million. 1988 expenses had included a one-time litigation settlement of $20 million.

Because BPA is a not-for-profit Federal power marketing agency, net revenue over time is committed to repayment of the Federal investment in the Federal Columbia River Power System.

Operating Revenues

As the Northwest economy expanded in 1989, so did BPA loads and revenues from Northwest customers. Sales to Northwest publicly owned utilities increased $38 million, up 4 percent. Sales to Northwest investor-owned utilities rose by $26 million, 14 percent.

The variable industrial rate, which BPA initiated in 1987 to help the aluminum industry through tough times, continued to pay off. The worldwide price of aluminum stayed relatively high in 1989. Northwest smelters produced at near capacity. BPA collected $26 million more from them than in 1988, a 4 percent increase. 1989 revenues were nearly double what BPA earned from the aluminum companies in 1986, before the variable rate went into effect.

Sales outside the Northwest region continued to lag, as they have for the past three years. Low water conditions and heavy Northwest demand for electricity meant that BPA had little power available to sell. Sales outside the region rose by $29 million over 1988. But this was still far short of what BPA could expect to earn from export sales in a normal water year.

Rates were unchanged from 1988 to 1989. Higher revenues reflect increased energy sales.

Operating Expenses

Operations and maintenance expenses were $687 million in 1989, up $125 million from 1988. The increase was due mainly to unplanned power purchases, $74 million more than last year. Loads surged during the February freeze, and reservoirs were low in spring and summer when BPA experienced strong demand for electricity. Another reason these expenses were up is that the operations and maintenance budget for WNP-2 increased by $19 million in 1989.

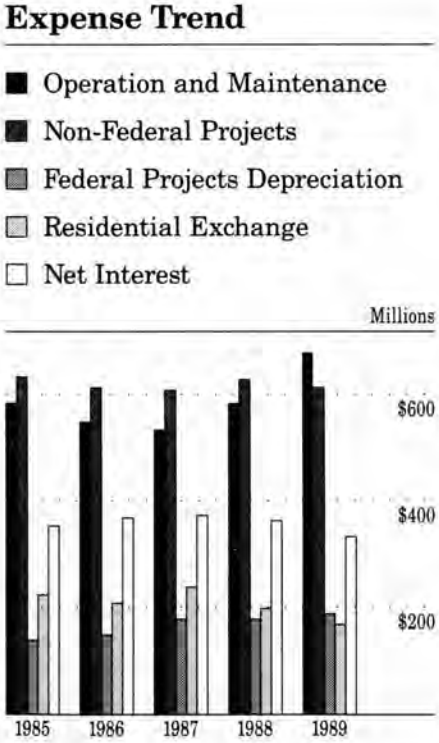
Residential energy exchange cost BPA $180 million in 1989, 7 percent less than in 1988. One reason for the decrease was the 1988 buyout of two utilities from the residential energy exchange.

Depreciation on Federal projects was an expense of $198 million, up 4 percent from 1988. Non-Federal projects debt service stayed about the same. BPA's $20 million share of the settlement on WNP securities fraud litigation (MDL-551) was a fiscal 1988 expense.

Interest Expense

The interest on Federal investment decreased by $15 million in 1989. The decreased interest on bonds reflects BPA's continuing effort to replace high-interest bonds with lower-interest bonds.

Expense Trend



Federal Repayment

Basis for Financial Reporting

BPA prepares financial statements for the FCRPS to report its financial condition as if it were a public utility.

The financial statements are independently audited by Price Waterhouse, independent accountants, in accordance with generally accepted auditing standards.

Power rates are based on the FCRPS revenue requirement study. While the financial statements show historical results, the revenue requirement study shows projected costs to be recovered from rates. The revenue requirement study considers BPA's obligation to recover costs and sets a revenue level sufficient to meet those obligations. Costs include operation and maintenance; non-Federal projects debt service; interest; and recovery of the FCRPS investment in power generation, conservation, fish and wildlife, and transmission facilities. The two sets of financial reports measure different things: historical results in the financial statements and projected obligations in the revenue requirement study.

Revenue Requirement Study

The revenue requirement study, which demonstrates repayment of Federal investment, reflects revenues and costs from the 1989 Wholesale Power and Transmission Rate Proceedings. On September 29, 1989, the Federal Energy Regulatory Commission (Commission) approved the proposed rate increases on an interim basis for the test period fiscal years 1990 and 1991.

Repayment Demonstration

BPA is required by P.L. 89-448 to demonstrate that the reimbursable costs of the FCRPS are scheduled to 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 irrigation water users to repay. These requirements are met by conducting power repayment studies which 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 January 27, 1984, (26 FERC 61,096).

Repayment Obligation

BPA's rates must be designed to collect enough revenue to return the reimbursable power costs of each FCRPS investment and each irrigation assistance obligation within the time prescribed by law. 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 take action to adjust its rates.

Whether the Federal investment is repaid within the time allowed can be shown 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. A term schedule represents a repayment schedule whereby each investment would be repaid in total in the year it was due.

The reporting requirements of P.L. 89-448 are met as long as the unrepaid FCRPS investment and irrigation assistance resulting from BPA's repayment schedule is less than or equal to the allowable unrepaid investment in each year. Although 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 illustrate that the unrepaid investment resulting from BPA's generation and transmission repayment schedules is always 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 50-year repayment period. Costs are minimized by repaying highest interest-bearing investments first, to the extent possible. This will result in some investments being repaid before their due dates, while assuring that all other investments will be repaid by their due dates.

These graphs include the costs of replacements necessary to maintain the existing FCRPS generation and transmission facilities.

The Unrepaid Federal Investment graph displays the total planned unrepaid FCRPS investment compared to allowable total unrepaid FCRPS investment omitting replacements. This shows that the FCRPS investment expected through fiscal year 1991 is scheduled to be returned to the U.S. Treasury within the 50-year repayment period and ahead of due dates.

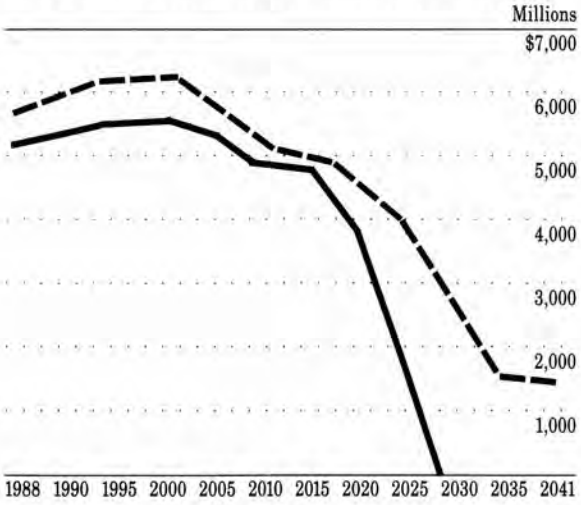
Repayment Period Federal Columbia River Power System Fiscal Year 1991

Ending September 30

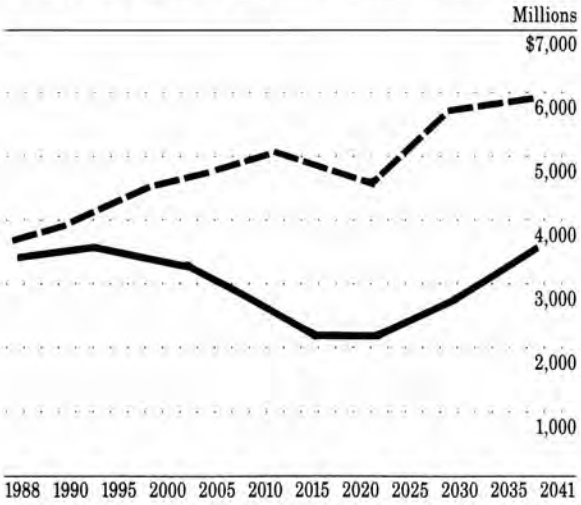
Term Schedule - - - - - -

BPA Repayment Schedule ———

Unrepaid Federal Generation Investment*



Unrepaid Federal Transmission Investment*

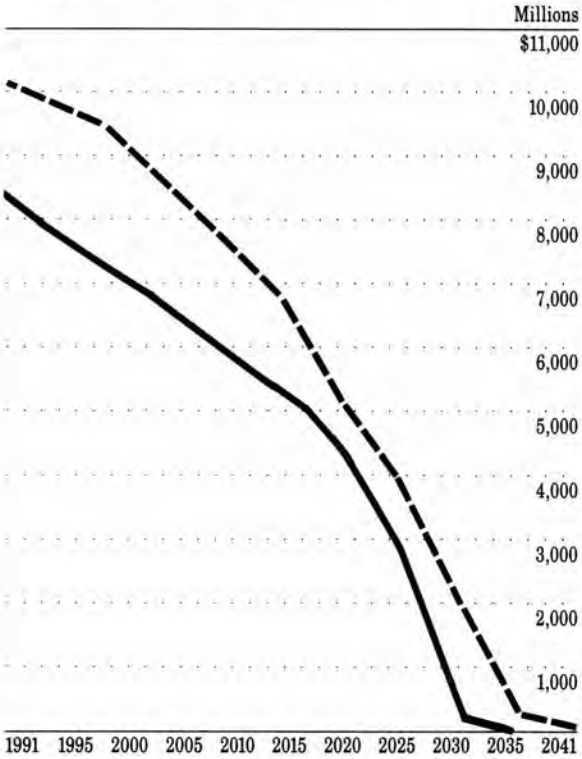


*Includes future replacements.

Repayment of Irrigation Assistance

BPA plans to meet irrigation assistance obligations in the year they are due over the next 50 years. It is Federal policy that BPA will pay irrigation assistance on or before due dates until all irrigation assistance obligations have been met.

Unrepaid Federal Investment**



**Includes generation and transmission investments through fiscal year 1991. Excludes future replacements.

Repayment Policy

BPA's repayment policy is considered in determining its revenue requirements and rate levels. This policy, based on BPA's interpretation of laws and Department of Energy regulations, 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 the outstanding revenue bonds sold to the Treasury to finance transmission system construction, conservation, and fish and wildlife projects.
4. Pay interest on the unrepaid investment in power facilities financed with appropriated funds (Federal hydroelectric projects are all financed with appropriated funds, as were BPA transmission facilities constructed before 1978.)
5. Pay, with interest, any outstanding deferral.
6. Repay the power investment in each Federal hydroelectric project within 50 years after it goes 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 which are assigned for payment from commercial power revenues, within the same period available to the water users for making payments. These periods range from 40 to 66 years with 60 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.

Federal Columbia River Power System

Statements of Revenues and Expenses

For the Years Ended September 30, 1989 and 1988

	1989	1988
	(Thousands of Dollars)	
Operating Revenues:		
Sales of electric power –		
Sales within the Northwest region –		
Publicly owned utilities	$ 884,080	$ 846,263
Aluminum industry	718,288	692,053
Investor-owned utilities	206,793	181,178
Other power sales	53,107	50,357
Sales outside the Northwest region	80,979	51,559
	1,943,247	1,821,410
Wheeling and other sales	120,619	125,486
Total operating revenues	2,063,866	1,946,896
Operating Expenses:		
Operations and maintenance	687,434	562,820
Non-Federal projects (Note 4)	605,597	607,828
Federal projects depreciation	197,832	190,198
Residential exchange (Note 5)	179,612	192,238
Total operating expenses	1,670,475	1,553,084
Net operating revenues	393,391	393,812
Interest Expense:		
Interest on Federal investment –		
Appropriated funds	223,753	214,012
Long-term debt	159,045	165,684
Allowance for funds used during construction	(29,308)	(11,149)
Net interest expense	353,490	368,547
Litigation Settlement (Note 7)	–	20,000
Net Revenues	$ 39,901	$ 5,265

The accompanying notes are an integral part of these statements.

Federal Columbia River Power System

Balance Sheets

September 30, 1989 and 1988

Assets	1989	1988
	(Thousands of Dollars)	
Utility Plant (Notes 1 and 3):		
Completed plant	$ 8,922,125	$ 8,674,908
Accumulated depreciation	(2,089,395)	(1,943,406)
	6,832,730	6,731,502
Construction work in progress	226,575	297,328
Net utility plant	7,059,305	7,028,830
Non-Federal Projects (Notes 1 and 4):		
Hanford	17,105	20,335
WNP No. 1	2,176,195	2,076,035
WNP No. 2	2,178,620	2,207,130
WNP No. 3	1,610,433	1,564,350
Trojan	122,600	125,905
Conservation	14,145	14,925
Idaho Falls	39,095	39,565
Total non-Federal projects	6,158,193	6,048,245
Conservation, net of accumulated amortization of $160,542 in 1989 and $122,829 in 1988 (Notes 1 and 2)	534,472	530,366
Fish and Wildlife, net of accumulated amortization of $4,278 in 1989 and $2,561 in 1988 (Note 1)	26,334	19,783
Current Assets:		
Cash	210,666	158,819
Accounts receivable	9,454	13,683
Accrued unbilled revenues	85,837	88,127
Materials and supplies, at average cost	38,819	35,698
Prepaid expenses	96,350	88,323
Total current assets	441,126	384,650
Other Assets	41,535	52,693
	$14,260,965	$14,064,567

Capitalization and Liabilities	1989	1988
	(Thousands of Dollars)	
Accumulated Net Expenses (Note 3)	$ (540,857)	$ (580,758)
Federal Appropriations (Note 3)	6,643,275	6,590,253
Long-Term Debt (Notes 2 and 3)	1,744,499	1,792,499
Non-Federal Projects Debt, net of current portion (Notes 1 and 4)	6,080,643	5,981,440
Commitments and Contingencies (Notes 6 and 7)		
Current Liabilities:		
Current portion of long-term debt	50,000	–
Current portion of non-Federal projects debt (Notes 1 and 4)	77,550	66,805
Accounts payable	125,180	113,542
Employees' accrued leave	12,905	11,857
Litigation settlement (Note 7)	–	20,000
Total current liabilities	265,635	212,204
Deferred Credits	67,770	68,929
	$14,260,965	$14,064,567

The accompanying notes are an integral part of these balance sheets.

Federal Columbia River Power System

Statements of Changes in Capitalization

For the Years Ended September 30, 1989 and 1988

	Accumulated Net Expenses	Federal Appropriations	Long-Term Debt	Non-Federal Projects Debt	Total Capitalization
	(Thousands of Dollars)				
Balance at September 30, 1987	$(586,023)	$6,544,336	$1,843,799	$6,110,990	$13,913,102
Increase in Federal appropriations:					
Operations and maintenance	–	90,576	–	–	90,576
Construction	–	55,452	–	–	55,452
Repayment of Federal appropriations:					
Operations and maintenance	–	(90,576)	–	–	(90,576)
Construction	–	(9,535)	–	–	(9,535)
Increase in long-term debt	–	–	323,700	–	323,700
Reduction of long-term debt:					
Repayment	–	–	(185,000)	–	(185,000)
Refinance	–	–	(190,000)	–	(190,000)
Payment of non-Federal projects debt	–	–	–	(62,745)	(62,745)
Net revenues	5,265	–	–	–	5,265
Balance at September 30, 1988	(580,758)	6,590,253	1,792,499	6,048,245	13,850,239
Increase in Federal appropriations:					
Operations and maintenance	–	97,768	–	–	97,768
Construction	–	55,219	–	–	55,219
Repayment of Federal appropriations:					
Operations and maintenance	–	(97,768)	–	–	(97,768)
Construction	–	(2,197)	–	–	(2,197)
Increase in long-term debt	–	–	272,000	–	272,000
Reduction of long-term debt:					
Repayment	–	–	(150,000)	–	(150,000)
Refinance	–	–	(120,000)	–	(120,000)
Net increase in non-Federal projects debt	–	–	–	176,528	176,528
Payment of non-Federal projects debt	–	–	–	(66,580)	(66,580)
Net revenues	39,901	–	–	–	39,901
Balance at September 30, 1989	$(540,857)	$6,643,275	$1,794,499	$6,158,193	$14,055,110

The accompanying notes are an integral part of these statements.

Federal Columbia River Power System

Statements of Cash Flows

For the Years Ended September 30, 1989 and 1988

	1989	1988
	(Thousands of Dollars)	
Cash from Operating Activities:		
Net revenues	$ 39,901	$ 5,265
Expenses not requiring cash:		
Depreciation	158,402	154,782
Amortization	39,430	35,416
Amortization of non-Federal projects	66,580	62,745
Litigation settlement	(20,000)	20,000
(Increase) decrease in:		
Receivables and unbilled revenues	6,519	(12,115)
Materials and supplies	(3,121)	(221)
Prepaid expenses	(8,027)	(16,678)
Increase (decrease) in:		
Accounts payable	11,638	(88,075)
Employees' accrued leave	1,048	397
Other	9,999	23,006
Cash provided by operating activities	302,369	184,522
Cash Used for Investment Activities:		
Investment in:		
Utility plant	(188,877)	(167,061)
Conservation	(41,819)	(54,320)
Fish and wildlife	(8,268)	(7,727)
Non-Federal projects	(176,528)	—
Cash used for investment activities	(415,492)	(229,108)
Cash from Borrowing and Appropriations:		
Increase in Federal appropriations:		
Operations and maintenance	97,768	90,576
Construction	55,219	55,452
Repayment of Federal appropriations:		
Operations and maintenance	(97,768)	(90,576)
Construction	(2,197)	(9,535)
Increase in long-term debt	272,000	323,700
Repayment of long-term debt	(150,000)	(185,000)
Refinance of long-term debt	(120,000)	(40,000)
Refinance of notes to bonds	—	(150,000)
Net increase in non-Federal projects debt	176,528	—
Payment of non-Federal projects debt	(66,580)	(62,745)
Cash from borrowing and appropriations	164,970	(68,128)
Increase (decrease) in cash	51,847	(112,714)
Beginning Cash Balance	158,819	271,533
Ending Cash Balance	$210,666	$158,819

The accompanying notes are an integral part of these statements.

Federal Columbia River Power System

Notes to Financial Statements

September 30, 1989 and 1988

1. Summary of Accounting Policies

General

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 Corps of Engineers (Corps) and the Bureau of Reclamation (Reclamation) for which BPA is the power marketing agency. Each entity is separately managed and financed, but the facilities are operated as an integrated power system with the financial results combined under the FCRPS title. Costs of multipurpose Corps and Reclamation projects are assigned to specific purposes through a cost-allocation process. Only the portion of total project costs allocated to power is included in these statements.

FCRPS accounts are maintained in accordance with generally accepted accounting principles and the uniform system of accounts prescribed for electric utilities by the Federal Energy Regulatory Commission (Commission). 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 Interior and the Corps is part of the Department of Defense). FCRPS properties and income are tax-exempt.

Regulatory Authority

FCRPS power rates must be confirmed and approved by the Commission.

Revenues

Operating revenues are recorded on the basis of service rendered.

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.

AFUDC capitalization rates are stipulated for certain generating projects (2.5% to 9.3% in 1989 and 2.5% to 8.5% in 1988). Capitalization rates for other construction approximate the cost of borrowings from the U.S. Treasury (9.8% in 1989 and 10.1% in 1988).

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 85 years for generation. 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.

Non-Federal Projects and Non-Federal Projects Debt

BPA has agreed to acquire all or part of the generating capability of five nuclear power plants and one hydro project. BPA has also agreed to fund debt service on Eugene Water & Electric Board (EWEB) bonds issued to finance conservation programs sponsored by BPA. The non-Federal projects will be amortized as such costs are scheduled to be recovered in rates.

Retirement Benefits

FCRPS employees belong to either the Civil Service Retirement System or the Federal Employees' Retirement System. FCRPS and employees contribute to the systems. Retirement benefits are payable by the U.S. Treasury and not by the FCRPS.

Net Revenues

Because BPA is a nonprofit 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.

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 $356 million in 1989 and $383 million in 1988.

Reclassifications

Certain reclassifications of prior year amounts have been made to conform to 1989 financial statement presentation.

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 September 30, 1989, $562 million of this reserved amount and $1,232 million of other borrowings were outstanding. The following table reflects the terms and amounts of long-term debt.

Issue Date	First Call Date	Maturity Date	Interest Rate	Construction	Conservation & Fish & Wildlife	Cumulative Total
				(Thousands of Dollars)		
Bonds:						
Sep 1985	none	1990	10.15%	$ –	$ 50,000	$ 50,000
Mar 1986	none	1991	7.80%	–	50,000	100,000
Jun 1987	none	1992	8.35%	100,000	–	200,000
Jun 1987	none	1992	8.35%	–	50,000	250,000
Sep 1989	none	1995	8.60%	–	66,000	316,000
Mar 1986	none	1996	8.15%	100,000	–	416,000
Mar 1986	none	1996	8.15%	–	50,000	466,000
May 1989	none	1999	8.95%	–	25,000	491,000
May 1989	none	1999	8.95%	75,000	–	566,000
Sep 1989	none	2002	8.65%	–	66,000	632,000
Apr 1987	1992	2007	9.30%	–	75,000	707,000
Apr 1988	1993	2008	9.90%	–	90,000	797,000
Jul 1989	none	2009	8.55%	–	40,000	837,000
Sep 1978	1983	2013	8.95%	50,000	–	887,000
Jun 1979	1984	2014	9.45%	28,799	–	915,799
Jul 1987	1992	2017	9.55%	95,000	–	1,010,799
Feb 1988	1993	2018	9.50%	43,700	–	1,054,499
Jun 1985	1990	2030	11.25%	100,000	–	1,154,499
Jun 1986	1991	2031	8.95%	300,000	–	1,454,499
Apr 1987	1992	2032	9.30%	100,000	–	1,554,499
Jul 1987	1992	2032	9.55%	50,000	–	1,604,499
Feb 1988	1993	2033	9.50%	150,000	–	1,754,499
Jun 1988	1993	2033	9.90%	40,000	–	1,794,499
Total				$1,232,499	$562,000	$1,794,499

The weighted average interest rate was 9.2% and 9.8% on outstanding long-term debt as of September 30, 1989 and 1988, respectively. All the construction, conservation and fish and wildlife bonds are term bonds.

3. Federal Appropriations

Construction and replacement of Corps and Reclamation generating facilities are financed by 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 construction and operations and maintenance costs were also financed by appropriations before the Federal Columbia River Transmission System Act was passed in 1974.

Interest rates on the appropriated funds range from 2.5% to 12.4% (the weighted average rate was 3.4% in 1989 and 3.3% in 1988). The rates have been set by law, administrative order pursuant to law, or administrative policies.

Federal appropriations and long-term debt relating to generating projects and the transmission system are to be repaid to the U.S. Treasury within 50 and 45 years, respectively, from the time each facility is placed in service. The cumulative amount of Federal appropriations and long-term debt repaid through September 30, 1989 exceeded the amount required to be repaid.

If, in any given year, there are not enough revenues to cover all cash needs, including interest, any deficiency becomes unpaid annual expense. Interest is accrued on unpaid annual expense until paid. This must be paid from subsequent years' revenues before any repayment of Federal appropriations and long-term debt can be made.

The following table shows the planned and term repayments of the remaining Federal appropriations ($6,643,275), long-term debt ($1,744,499) and the current portion of long-term debt ($50,000) as of September 30, 1989.

	Planned to be Repaid (a)	Term Repayments (a)
	(Thousands of Dollars)	
1990	$ 153,144	$ 50,000
1991	176,317	50,000
1992	183,209	151,408
1993	177,981	17,785
1994	185,064	16,256
1995-1999	486,747	264,498
2000-2004	406,222	412,106
2005-2009	666,423	812,193
2010-2014	640,431	650,102
2015-2019	835,535	989,550
2020-2024	1,404,133	1,060,967
2025-2029	2,425,865	2,079,472
After 2029	696,703	1,883,437
	$8,437,774	$8,437,774

(a) Excludes planned payments on future replacements.

4. Non-Federal Projects

BPA has acquired all or part of the generating capability of five nuclear power projects. 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 project budgets, including debt service, whether or not the projects are completed. BPA has also acquired all of the output of the Idaho Falls Bulb Turbine project and has agreed to fund debt service on EWEB bonds issued to finance conservation programs sponsored by BPA.

BPA expenses for these projects are calculated on the basis of total project funding requirements reflected in budgets that are adopted by BPA and the Washington Public Power Supply System (Hanford Generating Project, WNP No.'s 1–3), Eugene Water and Electric Board (Trojan, EWEB Conservation), and City of Idaho Falls (Idaho Falls Hydro). The projected payments under these agreements are shown in the following table.

Project and Percent Capability Acquired	Project Status	Megawatts Acquired		Actual 1988	Actual 1989	Projected Annual Project Costs (a) 1990	1991	1992	1993	1994
				(Thousands of Dollars)						
Hanford Generating Project (72%)	Shutdown	430	Interest (b)	$ (42)	$ 527	$ (200)	$ (500)	$ (300)	$ –	$ –
			Principal	3,165	3,230	5,100	5,600	2,100	–	–
			Preservation	(725)	(892)	1,200	1,200	1,200	1,200	1,200
				2,398	2,865	6,100	6,300	3,000	1,200	1,200
WNP No. 1 (100%)	Preserved	1,250	Interest	189,926	185,524	173,000	167,800	166,100	164,200	161,800
			Principal	18,055	18,970	23,300	24,500	25,800	27,700	29,300
			Other Net Billed	1,146	3,073	1,800	1,200	1,200	1,200	1,200
				209,127	207,567	198,100	193,500	193,100	193,100	192,300
WNP No. 2 (100%)	Operational	1,100	Interest	194,952	194,024	191,700	189,500	187,000	184,200	181,200
			Principal	26,645	28,510	30,600	32,800	35,300	38,000	41,000
			Operations	152,989	171,741	189,400	201,400	201,400	201,400	201,400
			NEIL II (c)	1,663	1,820	2,200	2,200	2,200	2,200	2,200
				376,249	396,095	413,900	425,900	425,900	425,800	425,800
WNP No. 3 (70%) (d)	Preserved	868	Interest	149,052	148,623	143,700	141,000	139,900	138,700	137,400
			Principal	10,555	11,315	13,900	14,900	16,000	17,200	18,500
			Preservation	2,519	5,403	4,200	4,300	4,300	4,300	4,300
			IOU Settlement (e)	1,603	5,342	9,000	9,000	9,000	9,000	9,000
				163,729	170,683	170,800	169,200	169,200	169,200	169,200
Trojan Nuclear Project (30%)	Operational	339	Interest	6,854	6,187	6,400	6,200	6,100	5,800	5,600
			Principal	3,155	3,305	3,500	3,700	3,800	4,100	4,300
			Operations	54,510	57,544	63,600	69,400	69,400	69,400	69,400
				64,519	67,036	73,500	79,300	79,300	79,300	79,300
EWEB Conservation	N/A	N/A	Interest	1,224	1,118	1,300	1,200	1,100	1,100	1,000
			Principal	730	780	800	900	1,000	1,000	1,100
				1,954	1,898	2,100	2,100	2,100	2,100	2,100
Idaho Falls Hydro (100%)	Operational	24	Interest	3,117	3,014	3,000	3,000	2,900	2,900	2,800
			Principal	440	470	500	500	600	600	700
			Operations	1,003	1,118	1,400	1,400	1,400	1,400	1,400
				4,560	4,602	4,900	4,900	4,900	4,900	4,900
				$822,536	$850,746	$869,400	$881,200	$877,500	$875,600	$874,800

(a) Estimates in these columns are consistent with BPA's 1989 Rate Filing adjusted for savings from the October bond refundings.
(b) When negative amount is shown, interest income on project funds exceeds interest expense.
(c) Nuclear Electric Insurance Limited II, a policy purchased by BPA to cover excess property damage and decontamination liability.
(d) Pursuant to the WNP No. 3 settlement agreement, BPA has an irrevocable offer to acquire the remaining 30% capability of the project.
(e) Includes such components as the IOU 30% of preservation costs and property taxes.

BPA's commitment under the net billing agreements extends for the life of the projects. Construction on two projects, WNP No. 1 and WNP No. 3, has been delayed indefinitely. A construction restart of WNP No. 1 and WNP No. 3 and the need for additional financing will depend on factors such as the forecasted power needs in the Pacific Northwest and the cost effectiveness of these projects compared to other resources.

Operating expense for the above projects is included in operations and maintenance in the accompanying statements of revenues and expenses. Future principal and interest payments required for non-Federal projects are $16.7 billion, of which $10.5 billion represents interest.

Following restoration of the Supply System's bond rating in late 1988, BPA and the Supply System developed a refunding plan to refinance $2.7 billion of outstanding high-interest rate net-billed bonds.

In October 1989, the first step of this plan was completed with the issuance of $721 million in bonds at 7.7 percent to advance refund $544.9 million of the outstanding WNP No. 1 and WNP No. 3 bonds. The savings realized from this sale will reduce future non-Federal projects debt service by approximately $19 million in 1990 and approximately $24 million per year for 1991 through 2010. In December 1989, a second refinancing was commenced with the offering of $831 million in bonds at 7.4 percent to advance refund an additional $574.5 million of bonds. The refinancing is expected to be completed in late December.

BPA and the Supply System are planning future bond sales and hope to have the largest portion of the overall refunding program completed by June 1992 when the majority of the high-interest WNP No. 2 bonds are first callable.

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 their residential and irrigation loads at BPA's priority firm power rates. Purchases and sales of electric power by BPA during fiscal years 1989 and 1988 under these contracts were as follows:

	1989	1988
	(Thousands of Dollars)	
Residential Exchange expense	$811,456	$953,975
Residential Exchange revenues	631,844	761,737
Net Residential Exchange expense	$179,612	$192,238

Current year expenses include approximately $26 million for terminating Clark and Snohomish County PUDs' Residential Exchange Program contracts. The Residential Exchange Program contract with the Idaho Power Company (IPC) was suspended July 31, 1988. The retroactive effective date of the suspension agreement with IPC results in a decrease of approximately $126 million in expenses and revenues.

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 first irrigation assistance payment from power revenues is planned to be made in 1997, and cumulative payments could ultimately total $813 million. Although such costs are expected to 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 are not reflected in the balance sheets.

Nuclear Insurance

BPA is a member of Nuclear Electric Insurance Limited (NEIL) established to provide insurance coverage for replacement power costs resulting from an accidental outage at a member's nuclear site, and excess property damage and decontamination liability. Under its property and decontamination coverage, BPA could be subject to a maximum assessment of $7.3 million in the event of a loss to any NEIL-insured nuclear plant.

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 $63 and $18.9 million, limited to an annual maximum of $10 and $3 million for WNP No. 2 and Trojan, respectively.

7. Litigation

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

On January 22, 1982, the Supply System stopped construction of two nuclear projects: WNP No. 4 at Hanford and WNP No. 5 at Satsop. After the termination, the Supply System defaulted on $2.25 billion of outstanding WNP Nos. 4 and 5 bonds for which FCRPS has no obligation, and delayed construction of WNP Nos. 1 and 3. The above actions of the Supply System have led to a number of lawsuits which involve BPA. In 1987 BPA was dismissed, subject to appeal, from the securities fraud litigation (MDL551). On October 31, 1988, BPA, the State of Washington, and various utility defendants entered into a settlement agreement for $236 million, of which BPA's share is $20 million. In return plaintiffs have agreed to drop their action against BPA and will indemnify for any claims brought against BPA by remaining defendants. This settlement was approved by the Ninth Circuit Court of Appeals on September 2, 1989. Accordingly, a provision for the settlement of $20 million was made in the 1988 statement of revenues and expenses. This amount was paid in fiscal year 1989.

In addition to direct claims against BPA, there are lawsuits against the Supply System which have asserted a right to execute on all the assets of the Supply System, including WNP Nos. 1, 2 and 3, to satisfy judgments related to WNP Nos. 4 and 5. The Washington Supreme Court has ruled that the utilities who loaned money to the Supply System to pay for the mothballing and termination of WNP Nos. 4 and 5 were limited to satisfying their judgment from the funds of WNP Nos. 4 and 5. Three claims for goods and services provided for WNP Nos. 4 and 5 have resulted in money damages against the Supply System; however, a Washington State court judge has ruled in one case that the judgment is only recoverable from WNP Nos. 4 and 5 funds.

In another case the Federal District Court ruled that a debt for work performed on WNP No. 5 was only payable from WNP Nos. 4 and 5 project funds. BPA will vigorously oppose any attempt of these litigants to satisfy their claims from the assets of WNP Nos. 1, 2 and 3, and in the opinion of BPA General Counsel, the likelihood of the litigants being able to satisfy their claims from the assets of WNP Nos. 1, 2 and 3 to the extent they are WNP Nos. 4 and 5 debts, is remote.

WNP Nos. 1 and 4 and WNP Nos. 3 and 5 shared certain common facilities. Chemical Bank, the WNP Nos. 4 and 5 bond trustee, has demanded certain heretofore equitably shared costs be reallocated retroactively to WNP Nos. 1 and 3. If Chemical Bank is successful, this could result in these two projects assuming additional costs of up to $1 billion, including interest. Because of the net-billing agreements discussed in Note 4, which require BPA to pay the participants' portion of the annual project costs for WNP Nos. 1, 2 and 3, BPA might be required to fund judgments against the Supply System affecting the net-billed projects. BPA General Counsel cannot predict the outcome of this matter.

Involving Rates

BPA is involved in litigation concerning various rate matters. In the opinion of BPA General Counsel, either the likelihood of success by the filing party is remote; the ultimate outcome will not have a material effect on the FCRPS financial statements; or any payments by BPA resulting from the litigation would be recovered through future rates.

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.

Federal Columbia River Power System

Schedule of Amount and Allocation of Plant Investment

September 30, 1989

Schedule A

	Commercial Power				Irrigation			Nonreimbursable					
	Total	Completed Plant	Construction Work in Progress	Total Commercial Power	Returnable From Commercial Power Revenues	Returnable From Other Sources	Total Irrigation	Navigation	Flood Control	Fish and Wildlife	Recreation	Other	Percent of Total Returnable From Commercial Power Revenues
	(Thousands of Dollars)				(Thousands of Dollars)								
Bonneville Power Administration –													
Transmission facilities	$ 3,549,273	$3,410,997	$138,276	$3,549,273	$ –	$ –	$ –	$ –	$ –	$ –	$ –	$ –	100.0%
Bureau of Reclamation –													
Boise	83,081	10,644	291	10,935	23,993	31,367	55,360	–	16,786	–	–	–	42.0%
Columbia Basin	1,764,382	1,045,701	16,070	1,061,771	552,218	88,629	640,847	1,000	55,237	4,847	154	526	91.5%
Hungry Horse	103,773	77,040	2,047	79,087	–	–	–	–	24,686	–	–	–	76.2%
Minidoka-Palisades	279,190	14,305	1,887	16,192	10,350	61,442	71,792	–	64,435	1,625	6,350	118,796	9.5%
Yakima	176,373	6,349	94	6,443	11,334	120,248	131,582	–	1,024	37,073	251	–	10.1%
Total Bureau projects	2,406,799	1,154,039	20,389	1,174,428	597,895	301,686	899,581	1,000	162,168	43,545	6,755	119,322	73.6%
Corps of Engineers –													
Albeni Falls	36,171	33,219	757	33,976	–	–	–	148	188	–	1,859	–	93.9%
Bonneville	846,388	788,084	7,182	795,266	–	–	–	47,771	–	–	1,289	2,062	94.0%
Chief Joseph	546,810	536,451	615	537,066	752	–	752	–	–	–	3,962	5,030	98.4%
Cougar	62,284	18,782	1,351	20,133	–	3,076	3,076	547	38,320	–	–	208	32.3%
Detroit-Big Cliff	67,954	41,065	309	41,374	–	5,135	5,135	231	21,214	–	–	–	60.9%
Dworshak	361,191	302,185	1,679	303,864	–	–	–	9,521	34,403	–	13,403	–	84.1%
Green Peter-Foster	90,769	50,126	18	50,144	–	5,860	5,860	367	30,487	–	1,856	2,055	55.2%
Hills Creek	49,173	17,543	28	17,571	–	4,332	4,332	628	26,370	–	–	272	35.7%
Ice Harbor	183,885	133,321	1,407	134,728	–	–	–	46,315	–	–	2,842	–	73.3%
John Day	596,010	426,070	20,592	446,662	–	–	–	90,073	21,315	–	11,551	26,409	74.9%
Libby	609,081	473,167	520	473,687	–	–	–	–	97,725	870	6,162	30,637	77.8%
Little Goose	248,369	204,949	1,781	206,730	–	–	–	34,984	–	–	4,051	2,604	83.2%
Lookout Point-Dexter	99,297	47,045	307	47,352	–	1,491	1,491	745	49,188	–	521	–	47.7%
Lost Creek	150,353	27,023	10	27,033	–	2,203	2,203	–	53,452	24,522	29,450	13,693	18.0%
Lower Granite	401,345	326,878	1,547	328,425	–	–	–	52,447	–	–	12,631	7,842	81.8%
Lower Monumental	260,369	215,713	2,177	217,890	–	–	–	39,240	–	–	2,822	417	83.7%
Lower Snake	175,697	155,069	19,001	174,070	–	–	–	1,627	–	–	–	–	99.1%
McNary	349,963	275,674	2,997	278,671	–	–	–	68,141	–	–	3,151	–	79.6%
The Dalles	337,671	284,725	5,632	290,357	–	–	–	45,193	–	–	2,099	22	86.0%
Total Corps projects	5,472,780	4,357,089	67,910	4,424,999	752	22,097	22,849	437,978	372,662	25,392	97,649	91,251	80.9%
Irrigation assistance at 12 projects having no power generation	207,236	–	–	–	149,387	57,849	207,236	–	–	–	–	–	72.1%
Total plant investment	11,636,088	8,922,125	226,575	9,148,700	748,034	381,632	1,129,666	438,978	534,830	68,937	104,404	210,573	85.1%
Repayment obligation retained by Columbia Basin project	4,639	2,836 (a)	–	2,836	1,803	–	1,803	–	–	–	–	–	100.0%
Other repayment obligation	6,747	–	30	30	6,717	–	6,717	–	–	–	–	–	100.0%
Investment in Teton project (b)	79,107	–	7,269	7,269	56,573	3,681	60,254	–	9,151	–	2,433	–	80.7%
	$11,726,581	$8,924,961	$233,874	$9,158,835	$813,127	$385,313	$1,198,440	$438,978	$543,981	$68,937	$106,837	$210,573	85.0%

(a) Amount represents joint facilities 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 totaling approximately $2.2 million subsequent to June 1976 which was charged to expense.

Report of Independent Accountants

Price Waterhouse

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

In our opinion, the accompanying balance sheet and the related statements of revenues and expenses, changes in capitalization and cash flows present fairly, in all material respects, the financial position of the Federal Columbia River Power System (FCRPS) at September 30, 1989, and the results of its operations, changes in capitalization and its cash flows for the year then ended 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 audit. We conducted our audit 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 audit provides a reasonable basis for the opinion expressed above. The financial statements of the FCRPS for the year ended September 30, 1988, were audited by other independent accountants whose report dated December 19, 1988, on those statements included an explanatory paragraph that described the pending litigation discussed in Note 7 to the financial statements.

As discussed in Note 7 to the financial statements, pending litigation related to the allocation of certain costs among Washington Public Power Supply System nuclear projects may have a significant impact on FCRPS. The ultimate outcome of the litigation cannot presently be determined. Accordingly, the accompanying financial statements do not include any adjustments which might result from the outcome of this litigation.

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, 1989, (Schedule A) is not a required part of the basic financial statements. Such information 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.

Price Waterhouse

Portland, Oregon
December 18, 1989

Generation and Sales Tables

Generation by the Principal Electric Utility Systems of the Pacific Northwest (a)

TABLE 1	1989	
	Thousands of MWH	Percent of Total
Publicly Owned:		
Federal Columbia River Power System (b)	82,200	45.6
Grant County PUD	3,250	1.8
Chelan County PUD	3,000	1.7
Seattle City Light	7,850	4.4
Douglas County PUD	750	.4
Tacoma City Light	3,650	2.0
Eugene Water & Electric Board	650	.4
Pend Oreille County PUD	450	.2
Total Publicly Owned	101,800	56.5
Investor-Owned:		
Pacific Power & Light	20,800	11.5
Idaho Power Co.	13,250	7.4
Montana Power Co.	9,800	5.4
Portland General Electric Co.	12,300	6.8
Washington Water Power Co.	8,200	4.5
Puget Sound Power & Light	14,250	7.9
Total Investor-Owned	78,600	43.5
Total Generation	180,400	100.0

(a) Generation shown is for members of the Northwest Power Pool plus Pend Oreille County PUD and the Washington Public Power Supply System. British Columbia Hydro and Power Authority, Sierra Pacific Power Co., Trans Alta Utilities, Utah Power & Light Co., and West Kootenay Power and Light, who are members of the Power Pool, are not included because their service areas are outside the Pacific Northwest.

(b) Includes: Pacific Northwest generating facilities of the Bureau of Reclamation and Corps of Engineers; Washington Public Power Supply System's nuclear plant (WNP-2) and Packwood hydro plant; the Okanogan PUD share of Wells; the municipality shares (Forest Grove, McMinnville, and Milton-Freewater) of Priest Rapids; the Snohomish PUD share of the Centralia steam plant and the Jackson hydro plant; the Federal share of the Trojan nuclear plant; the Pacific NW Generating Company's share of Boardman; the PGE-Kinzua cogeneration project; the Clark County PUD-Great Western Malting cogeneration project; the Seattle City Light and Tacoma City Light shares of Southern Columbia Basin Irrigation District hydro generation; the Seattle City Light Rocky Brook Project; and the PP & L Mid-Fork cogeneration and Whiskey Run projects.

Sales of Electric Power (FCRPS)

Revenue in Thousands of Dollars

TABLE 2	1989			
Northwest Region – Municipalities	Capacity Sales MW	Capacity Sales Revenue	Energy Sales MWH	Energy Sales Revenue
Albion, ID	8	$ 27	3,242	$ 55
Ashland, OR	329	1,137	147,065	2,495
Bandon, OR	128	440	55,838	946
Blaine, WA	108	372	51,815	872
Bonners Ferry, ID	105	364	39,134	685
Burley, ID	216	746	104,456	1,772
Canby, OR	264	910	109,225	1,861
Cascade Locks, OR	43	145	21,162	349
Centralia, WA	369	1,275	132,975	2,295
Cheney, WA	218	753	101,702	1,730
Cons. Irrig. Dist., WA	5	15	1,340	23
Coulee Dam, WA	30	104	15,291	264
Declo, ID	7	24	3,048	52
Drain, OR	59	205	29,407	496
Eatonville, WA	43	146	17,765	304
Ellensburg, WA	314	1,086	155,720	2,640
Eugene, OR	2,504	8,490	1,629,883	27,786
Fircrest, WA	98	336	42,675	730
Forest Grove, OR	308	1,010	150,849	2,561
Heyburn, OR	164	567	91,388	1,528
Idaho Falls, ID	1,082	3,741	516,648	8,788
McCleary, WA	79	276	34,732	588
McMinnville, OR	774	2,618	387,898	6,595
Milton, WA	101	348	45,131	771
Milton-Freewater, OR	155	481	73,621	1,249
Minidoka, ID	2	6	800	13
Monmouth, OR	125	434	54,465	930
Port Angeles, WA	1,155	4,026	665,105	11,304
Richland, WA	1,172	4,054	534,114	9,050
Rupert, ID	160	555	74,398	1,261
Seattle, WA	463	1,263	1,592,951	27,138
Soda Springs, ID	46	162	22,639	385
Springfield, OR	1,402	4,849	686,978	11,498
Steilacoom, WA	98	339	40,192	691
Sumas, WA	23	80	10,900	184
Tacoma, WA	3,060	10,252	2,593,811	44,204
Troy, MT	32	111	14,568	248
Vera Irrig. Dist., WA	349	1,209	155,286	2,654
WA Public Power Supply System, WA	82	282	41,862	708
Total Municipalities (39)	15,680	$53,238	10,450,079	$177,703

Sales of Electric Power (Revenue in Thousands of Dollars)

TABLE 2 Continued	1989			
	Capacity Sales		Energy Sales	
Public Utility Districts	MW	Revenue	MWH	Revenue
Benton, Co.	2,807	$ 9,714	1,341,456	$ 21,194
Central Lincoln	2,426	8,392	1,352,937	22,765
Chelan Co.	363	166	52,128	976
Clallam Co.	1,052	3,382	446,544	7,095
Clark Co.	5,502	19,104	2,819,242	47,976
Clatskanie	1,392	4,816	812,776	13,550
Columbia River	496	1,619	251,650	4,010
Cowlitz Co.	5,532	18,920	3,785,944	63,391
Douglas Co.	454	207	27,413	293
Emerald	840	2,688	364,877	5,603
Ferry Co.	147	472	71,798	1,121
Franklin Co.	1,185	4,104	574,420	9,035
Grant Co. #2	1,179	687	116,933	1,531
Grays Harbor	2,167	7,500	1,134,300	19,255
Kittitas Co.	67	197	26,799	414
Klickitat Co.	543	1,742	261,539	3,991
Lewis Co.	1,111	3,653	653,242	10,505
Mason Co. #1	121	387	51,929	823
Mason Co. #3	987	3,416	444,882	6,979
Northern Wasco Co.	430	1,489	203,079	3,442
Okanogan Co.	13	43	147,781	2,426
Pacific Co. #2	571	1,975	250,790	4,271
Skamania Co.	233	754	109,470	1,729
Snohomish Co.	8,699	30,106	4,323,034	73,819
Tillamook	714	2,328	302,014	4,829
Wahkiakum Co.	76	243	33,658	531
Whatcom Co.	257	892	163,241	2,728
Total Public Utility Districts (27)	39,364	$128,996	20,123,876	$334,282

Sales of Electric Power (Revenue in Thousands of Dollars)

TABLE 2 Continued	1989			
	Capacity Sales		Energy Sales	
Cooperatives	MW	Revenue	MWH	Revenue
Alder Mutual Light	5	$ 17	2,325	$ 38
Benton Rural Elec. Assn.	618	2,027	282,262	4,194
Big Bend Coop.	763	2,425	369,828	4,307
Blachly-Lane Coop.	302	993	133,475	2,135
Central Elec. Coop.	775	2,486	326,263	4,893
Clearwater Power Co.	326	1,045	139,379	2,195
Columbia Basin Coop.	220	704	108,716	1,563
Columbia Power Coop.	53	170	24,388	355
Columbia Rural Elec. Assn.	422	1,344	199,090	2,351

TABLE 2 Continued	1989			
Consumers Power	723	2,322	318,526	4,986
Coos-Curry Elec. Coop.	593	1,910	268,432	4,213
Douglas Elec. Coop.	286	919	124,222	1,953
East End Mutual Elec.	36	120	16,572	238
Elmhurst Mutual P&L	510	1,766	225,619	3,868
Fall River Elec. Coop.	324	1,035	143,668	2,014
Farmers Elec. Co.	9	30	3,647	62
Flathead Elec. Coop.	330	1,060	149,801	2,321
Glacier Elec. Coop.	291	937	156,486	2,440
Harney Elec. Coop.	330	1,055	182,625	2,209
Hood River Elec. Coop.	182	631	88,945	1,518
Idaho Co. L&P Coop.	70	228	32,540	513
Inland P&L	1,083	3,478	477,514	7,538
Kootenai Elec. Coop.	411	1,322	189,398	2,940
Lakeview L&P	515	1,781	249,693	4,251
Lane Elec. Coop.	538	1,758	235,202	3,778
Lincoln Elec. Coop. - MT	169	550	78,948	1,267
Lincoln Elec. Coop. - WA	199	630	97,703	1,144
Lost River Elec. Coop.	126	403	64,437	795
Lower Valley P&L	841	2,705	379,637	5,967
Midstate Elec. Coop.	501	1,610	229,819	3,414
Missoula Elec. Coop.	280	901	127,443	1,965
Nespelem Valley Elec. Coop.	79	259	36,019	535
Northern Lights	456	1,468	231,473	3,641
Ohop Mutual Light Co.	96	314	41,030	663
Okanogan County Coop.	63	206	29,121	463
Orcas P&L	296	951	129,531	2,055
Pacific NW Generating Co.	14	49	2,262	40
Parkland Light & Water	204	706	98,648	1,688
Peninsula Light Co.	871	3,013	367,986	6,308
Prairie Power Coop.	20	65	9,075	122
Raft River Elec. Coop.	356	1,132	190,407	2,084
Ravalli Elec. Coop.	184	591	82,169	1,261
Riverside Elec. Co.	30	99	13,131	195
Rural Elec. Co.	174	584	81,738	1,235
Salem Elec.	632	2,187	305,347	5,183
Salmon River Coop.	403	1,324	214,175	3,362
South Side Elec. Lines	79	257	39,446	506
Surprise Valley Elec.	227	727	108,895	1,449
Tanner Elec.	79	256	32,949	524
Umatilla Elec. Coop.	1,012	3,311	531,885	7,094
Unity P&L	145	489	69,016	1,016
Vigilante Elec. Coop.	239	763	111,834	1,502
Wasco Elec. Coop.	209	672	91,091	1,390
Wells Rural	546	1,758	327,133	5,032
West Oregon Coop.	145	466	66,297	1,079
Total Cooperatives (55)	18,390	$60,009	8,637,261	$129,852

Sales of Electric Power (Revenue in Thousands of Dollars)

TABLE 2 Continued — 1989

Aluminum Industry	Capacity Sales MW	Capacity Sales Revenue	Energy Sales MWH	Energy Sales Revenue
Alcoa	3,329	$ 16,743	2,308,542	$ 46,453
Columbia Aluminum Co.	3,209	17,105	2,318,644	49,630
Columbia Falls Aluminum Co.	3,993	21,280	2,897,846	62,041
Intalco Aluminum Co.	5,294	28,219	3,887,672	83,224
Kaiser Aluminum Co.	7,215	37,733	5,192,290	109,438
Northwest Aluminum Co.	1,888	10,062	1,357,549	29,062
Reynolds Metals Co.	7,842	41,760	5,671,125	121,268
Vanalco, Inc.	2,168	11,479	1,531,681	32,791
Total Aluminum Industry (8)	34,938	$184,381	25,165,349	$533,907

Sales of Electric Power (Revenue in Thousands of Dollars)

TABLE 2 Continued — 1989

Other Industries	Capacity Sales MW	Capacity Sales Revenue	Energy Sales MWH	Energy Sales Revenue
ACPC, Inc.	20	$ 76	10,375	$ 189
Georgia Pacific Corp.	406	1,673	290,616	5,218
Gilmore Steel	3	13	1,136	20
Glenbrook (Hanna) Nickel	114	473	62,029	1,080
Oregon Metallurgical	115	476	53,050	1,337
Pacific Carbide	–	–	(66)	(1)
Pennwalt Corporation	832	3,446	591,857	10,193
Port Townsend Paper	154	631	91,046	1,590
Stewart Elsner/Camp High Cliff	–	–	6	–
Total Other Industries (9)	1,644	$ 6,788	1,100,049	$ 19,626

Sales of Electric Power (Revenue in Thousands of Dollars)

TABLE 2 Continued — 1989

Investor-Owned Utilities	Capacity Sales MW	Capacity Sales Revenue	Energy Sales MWH	Energy Sales Revenue
Colockum Transmission Co.	397	182	24,008	290
Idaho Power Co.	–	–	202,616	1,687
Montana Power Co.	960	3,319	613,679	10,235
Pacific Power & Light Co.	15,176	51,646	1,218,238	14,380
Portland General Elec. Co.	13,392	24,152	1,333,599	25,804
Portland General Exchange	–	–	202,115	6,303
Puget Sound P&L Co.	2,466	4,002	1,943,620	44,684
Utah Power & Light Co.	–	–	250	5
Washington Water Power	1,277	3,465	856,319	16,639
Investor-Owned Utilities (9)	33,668	$86,766	6,394,444	$120,027

Sales of Electric Power (Revenue in Thousands of Dollars)

TABLE 2 Continued — 1989

Federal Agencies	Capacity Sales MW	Capacity Sales Revenue	Energy Sales MWH	Energy Sales Revenue
U. S. Department of Energy	734	$2,540	454,120	$ 7,633
U. S. Bureau of Mines	15	55	5,634	98
U. S. Air Force	87	303	43,253	725
U. S. Bureau of Reclamation	–	–	128,487	233
U. S. Bureau of Indian Affairs	473	1,636	201,261	3,206
U. S. Navy	758	2,618	417,059	7,001
U. S. Army Corps of Engineers	56	194	30,286	451
Total Federal Agencies (7)	2,123	$7,346	1,280,100	$19,347
Sales Within the NW Region (154)	**145,807**	**$527,524**	**73,151,158**	**$1,334,744**

Sales of Electric Power (Revenue in Thousands of Dollars)

TABLE 2 Continued — 1989

Sales Outside the Northwest Region	Capacity Sales MW	Capacity Sales Revenue	Energy Sales MWH	Energy Sales Revenue
Anaheim, CA – Public	–	$ –	47	$ 1
Burbank, CA – Public	291	1,373	133,492	2,595
Cominco, LTD – Investor	70	74	–	–
Glendale, CA – Public	150	691	89,453	1,682
Los Angeles, CA – Public	–	–	797,452	13,373
No. California Power Agency – Public	–	–	49,475	1,408
PG & E – Investor	–	–	1,586,112	29,975
Pasadena, CA – Public	90	415	43,339	885
Riverside, CA – Public	–	–	264	5
Sacramento, CA – Public	–	–	43,677	734
San Diego Gas & Elec. – Investor	–	–	142,295	2,414
Santa Clara, CA – Public	–	–	6,811	113
So. Cal. Edison Co. – Investor	–	–	1,064,714	21,453
State of California – Public	–	–	103,162	1,730
Turlock Irrig. Dist. – Public	–	–	21,573	340
WAPA – Federal	–	–	107,674	1,718
Sales Outside the NW Region (16)	**601**	**$2,553**	**4,189,540**	**$78,426**
Sales of Electric Power (170)	**146,408**	**$530,077**	**77,340,698**	**$1,413,170**

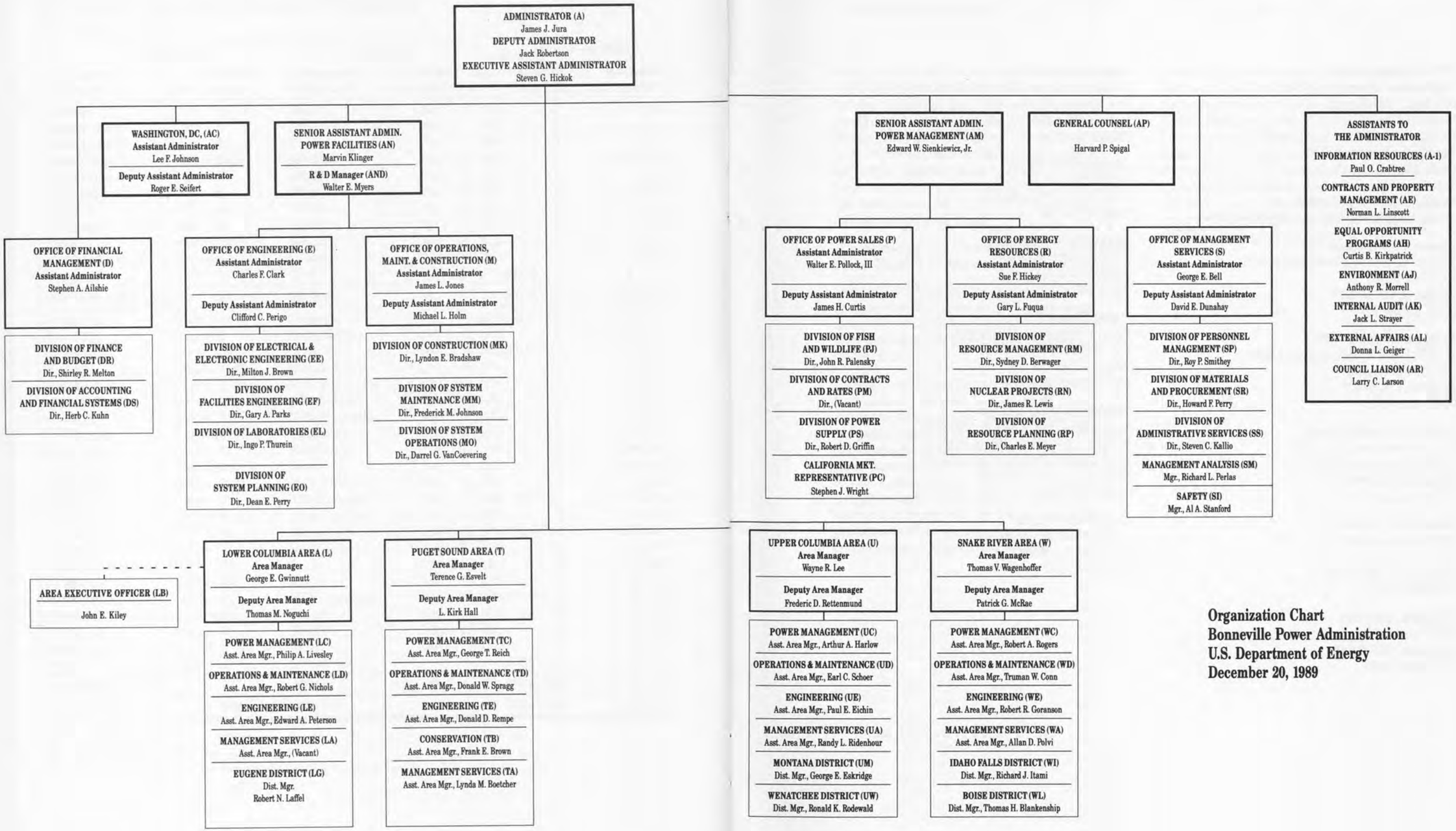
Federal Columbia River Power System

General Specifications of Projects

September 30, 1989

				Existing		Authorized-Licensed		Potential		Project Totals	
Project	State	River	Initial Date In Service	Number of Units	Nameplate Rating-kW	Number of Units	Nameplate Rating-kW	Number of Units	Nameplate Rating-kW	Number of Units	Nameplate Rating-kW
Minidoka	Idaho	Snake	May 7, 1909	7	13,400	–	–	–	–	7	13,400
Boise River Div.	Idaho	Boise	May 1912	3	1,500	–	–	–	–	3	1,500
Black Canyon	Idaho	Payette	Dec 1925	2	8,000	–	–	–	–	2	8,000
Grand Coulee	Washington	Columbia	Sep 28, 1941	27	6,180,000	–	–	6	4,200,000	33	10,380,000
Anderson Ranch	Idaho	S Fk Boise	Dec 15, 1950	2	40,000	–	–	1	13,500	3	53,500
Hungry Horse	Montana	S Fk Flathead	Oct 29, 1952	4	285,000	–	–	4	150,000	8	435,000
Chandler	Washington	Yakima	Feb 13, 1956	2	12,000	–	–	–	–	2	12,000
Palisades	Idaho	Snake	Feb 25, 1957	4	118,750	–	–	2	135,000	6	253,750
Roza	Washington	Yakima	Aug 31, 1958	1	12,950	–	–	–	–	1	12,950
Grand Coulee PG (a)	Washington	Columbia	Dec 30, 1974	6	314,000	–	–	–	–	6	314,000
Teton (b)	Idaho	Teton			–	3	30,000	–	–	3	30,000
Total Bureau of Reclamation				58	6,985,600	3	30,000	13	4,498,500	74	11,514,100
Bonneville	OR-WA	Columbia	Jun 6, 1938	18	1,092,900	3	7,600	–	–	21	1,100,500
Detroit	Oregon	North Santiam	Jul 1, 1953	2	100,000	–	–	–	–	2	100,000
McNary	OR-WA	Columbia	Nov 6, 1953	14	980,000	6	768,000(c)	–	–	20	1,748,000
Big Cliff	Oregon	North Santiam	Jun 12, 1954	1	18,000	–	–	–	–	1	18,000
Lookout Point	Oregon	M Fk Willamette	Dec 16, 1954	3	120,000	–	–	–	–	3	120,000
Albeni Falls	Idaho	Pend Oreille	Mar 25, 1955	3	42,600	–	–	–	–	3	42,600
Dexter	Oregon	M Fk Willamette	May 9, 1955	1	15,000	–	–	–	–	1	15,000
Chief Joseph	Washington	Columbia	Aug 28, 1955	27	2,457,300	–	–	6	525,000	33	2,982,300
The Dalles	OR-WA	Columbia	May 13, 1957	22	1,807,000	–	–	–	–	22	1,807,000
Ice Harbor	Washington	Snake	Dec 18, 1961	6	603,000	–	–	–	–	6	603,000
Hills Creek	Oregon	M Fk Willamette	May 2, 1962	2	30,000	–	–	–	–	2	30,000
Cougar	Oregon	S Fk McKenzie	Feb 4, 1964	2	25,000	1	35,000	–	–	3	60,000
Green Peter	Oregon	Middle Santiam	Jun 9, 1967	2	80,000	–	–	–	–	2	80,000
John Day	OR-WA	Columbia	Jul 17, 1968	16	2,160,000	4	540,000	–	–	20	2,700,000
Foster	Oregon	South Santiam	Aug 22, 1968	2	20,000	–	–	–	–	2	20,000
Lower Monumental	Washington	Snake	May 28, 1969	6	810,000	–	–	–	–	6	810,000
Little Goose	Washington	Snake	May 19, 1970	6	810,000	–	–	–	–	6	810,000
Dworshak	Idaho	N Fk Clearwater	Sep 18, 1974	3	400,000	3	660,000	–	–	6	1,060,000
Lower Granite	Washington	Snake	Apr 15, 1975	6	810,000	–	–	–	–	6	810,000
Libby	Montana	Kootenai	Aug 29, 1975	5	525,000	–	–	3	315,000	8	840,000
Lost Creek	Oregon	Rogue	Dec 1, 1975	2	49,000	–	–	–	–	2	49,000
Strube	Oregon	S Fk McKenzie		–	–	1	4,600	–	–	1	4,600
Total Corps of Engineers				149	12,954,800	18	2,015,200	9	840,000	176	15,810,000
				207	19,940,400	21	2,045,200	22	5,338,500	250	27,324,100

(a) PG-Pump Generation
(b) Teton Dam ruptured June 5, 1976.
(c) McNary Second Powerhouse estimate includes six units of 124,500 kW each.



Organization Chart
Bonneville Power Administration
U.S. Department of Energy
December 20, 1989

Administration Offices

BPA Headquarters
Public Involvement Office
905 N.E. 11th Street
Seventh Floor
P.O. Box 12999
Portland, Oregon 97212
(503) 230-3478
Toll-free lines:
Oregon — (800) 452-8429
Other Western States — (800) 547-6048

Lower Columbia Area
1500 N.E. Irving Street, Suite 243
P.O. Box 3621
Portland, OR 97208
(503) 230-4552

Eugene District Office
U.S. Federal Building, Room 206
211 E. 7th Avenue
Eugene, OR 97401
(503) 465-6952

Upper Columbia Area
U.S. Courthouse, Room 561
W. 920 Riverside Avenue
Spokane, WA 99201
(509) 353-2518

Wenatchee District
301 Yakima Street, Room 307
P.O. Box 741
Wenatchee, WA 98807
(509) 662-4377

Montana District
800 Kensington
Missoula, MT 59801
(406) 329-3060

Puget Sound Area
201 Queen Anne Avenue North, Suite 400
P.O. Box C-19030
Seattle, WA 98109-1030
(206) 442-4130

Snake River Area
101 W. Poplar
Walla Walla, WA 99362
(509) 522-6225

Idaho Falls District
1527 Hollipark Drive
Idaho Falls, ID 83401
(208) 523-2706

Boise District
Federal Building, Room 494
550 W. Fort Street – 035
Boise, ID 83724
(208) 334-9137

Washington D.C. Office
Bonneville Power Administration
Forrestal Building, Room 8G033
1000 Independence Avenue, S.W.
Washington, D.C. 20585
(202) 586-5640

California Office
1330 Broadway, Suite 415
Oakland, CA 94612
(415) 273-6111

Bonneville Power Administration – A Profile

Congress enacted the Bonneville Project Act in 1937, creating the Bonneville Power Administration to market and transmit the power produced by Bonneville Dam on the Columbia River. Since then, Congress has directed BPA to sell at wholesale the power produced at a total of 30 Federal dams in the Pacific Northwest, and to acquire conservation and generating resources sufficient to meet the needs of BPA's customer utilities.

The dams and the electrical system are known as the Federal Columbia River Power System.

Bonneville sells wholesale power to public and private utilities, rural cooperatives, large industries, and Federal agencies. BPA also sells or exchanges power with utilities in California.

BPA uses revenues from the sale of power and transmission services to recover its own expenses, to repay the Federal investment in the power system, and to pay for the resources it has acquired. BPA pays for operation and maintenance expenses at the Federal dams and at non-Federal power plants. It also pays for irrigation benefits of Federal projects allocated to power to repay, and for fish and wildlife projects which offset damage to these resources by the Federal hydropower system.

Mission Statement

BPA will work in a regional partnership to define and achieve the electric power, conservation, and fish and wildlife objectives of the Pacific Northwest. We will provide our customers a low-cost, reliable, and environmentally sound power supply and transmission system. We will do so in an open and businesslike way, responsive to citizens' concerns and to our obligations as a Federal agency. We will provide creative leadership and fulfill our responsibilities with professional excellence.

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