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Report to Congressional Requesters

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FEDERAL ELECTRIC POWER

Development of Bonneville Electricity Rates for the 1988-89 Period

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Resources, Community, and
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The Honorable George Miller
Chairman, Subcommittee on Water
and Power Resources
Committee on Interior and
Insular Affairs
House of Representatives

The Honorable Peter DeFazio
House of Representatives

In accordance with your request, this report discusses those factors that contributed to the Bonneville Power Administration's increase of power rates for the 1988-89 rate period and how Bonneville was able to limit the amount of the increase to 7.7 percent.

Copies of this report are being provided today to the Secretary of Energy; the Administrator, Bonneville Power Administration; and the Director, Office of Management and Budget. Copies will be made available to other interested parties upon request.

If you have any questions about this report, please call me at (202) 275-1441. Major contributors to this report are listed in appendix II.

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Executive Summary

Purpose

The Bonneville Power Administration (Bonneville) markets nearly half of the power used in the Pacific Northwest. In mid-1986, Bonneville's Administrator announced a possible power rate increase of up to 35 percent for the fiscal year 1988-89 period. In July 1987, the administrator formally proposed a 7.7-percent rate increase.

The Chairman, Subcommittee on Water and Power Resources, House Committee on Interior and Insular Affairs, and Representative DeFazio asked GAO to determine (1) what factors contributed to Bonneville's need for a rate increase and (2) how a possible 35-percent rate increase was reduced to 7.7 percent. GAO was also asked to obtain the views of regional entities on the process used by Bonneville to establish its rates.

Background

Bonneville, part of the Department of Energy, is self-financed by revenues received from the sale of electric power and transmission services. It markets power from 30 federal dams and other generating facilities and builds, owns, and operates 14,000 miles of high-voltage power lines.

The administrator is required to establish power rates at a level sufficient to recover all costs, including repayment with interest to the U.S. Treasury (Treasury) of about $8 billion in federal investment in power facilities.

The Pacific Northwest Electric Power Planning and Conservation Act specifies formal procedures that Bonneville is to follow when establishing, reviewing, and revising power rates. In setting rates for the 1988-89 period, Bonneville invited regional entities to informally review its 1988-89 budgets prior to initiating the formal rate-setting process.

Results in Brief

Three factors influenced Bonneville's decision to increase power rates for the 1988-89 period: growth in 1988-89 budgets, uncertainty over revenues that could be expected, and the need for greater assurance that Treasury obligations would be repaid on time. While the administrator announced the possibility of a rate increase as high as 35 percent, the administrator believed that a substantial rate increase was impractical because such an increase could lead to a significant loss of sales.

Bonneville was able to reduce the size of the 1988-89 rate increase from a possible 35 percent to 7.7 percent primarily by identifying, through informal budget reviews with its power users and others, reductions totaling nearly $865 million in its projected budgets.

Principal Findings

Conditions Influencing Rate Increases

Increasing costs and uncertainty over future revenues were the primary reasons why Bonneville first proposed a rate increase of up to 35 percent.

In March 1986, Bonneville was projecting a budget for the 1988-89 period of about $7.5 billion, an increase of about $1 billion over its 1986-87 budgets. Coupled with this projected budget increase, Bonneville was experiencing declining power sales and uncertainties over projected revenues to be received from two major customer groups—industries which are served directly by Bonneville and California utilities.

A third condition affecting the need for a rate increase was Bonneville's resolve to ensure timely repayment of Treasury obligations. Congressional committee's concern had been expressed over Bonneville not meeting its Treasury obligations in the early 1980s. Between 1984 and 1987, Bonneville met its Treasury repayment obligations.

Potential Rate Increase Lowered to 9.5 Percent

By June 1986, Bonneville officials had reviewed 1988-89 budgets and made reductions totaling $511 million. As a result, Bonneville projected the need for a rate increase of 20 percent.

In August 1986, Bonneville invited customer representatives and others to participate in further reviews of Bonneville's budget. These reviews, completed in September 1986, resulted in an additional $113 million budget reduction. On the basis of these budget reductions, Bonneville projected the need for a 13-percent rate increase.

In November 1986, some Bonneville customers, still dissatisfied with planned expenditures remaining in Bonneville's budget, requested further meetings with Bonneville. These meetings resulted in nearly $368 million in additional budget reductions. In addition, Bonneville included, for the first time in its projected costs, items designed to minimize the impacts of future revenues not meeting projected levels. These items, referred to as "risk-mitigation measures," included, in part, a mechanism to adjust rates during the rate period if revenues were over/under projected levels. According to Bonneville, these measures provide greater assurance that Treasury repayment obligations will be met in a timely manner.

The net effect of the budget reductions and the cost associated with the risk-mitigation measures ($120 million) lowered the potential rate increase to 9.5 percent.

Formal Rate-Setting Process Resulted in Final Rate Increase of 7.7 Percent

Bonneville's formal rate-setting process, carried out between November 1986 and July 1987, resulted in (1) revisions to Bonneville's sales revenue projections for its direct service industries and California customers and (2) modifications to the costs associated with its risk-mitigation measures. The combined effect of these changes was to increase revenue projections by $30 million and reduce costs by $31 million, resulting in lowering the needed rate increase from 9.5 to 7.7 percent.

Participant's Views on the Development of 1988-89 Rates

Customers and other participants GAO interviewed believed Bonneville's decision to work informally with them in reviewing Bonneville's 1988 and 1989 budgets led to a cooperative, effective process whereby significant reductions in Bonneville's projected costs were realized. However, some parties expressed concern that the formal rate-setting process was costly and complex.

Bonneville's Administrator intends that joint budget reviews with customers and the public be made a permanent feature of Bonneville's rate development process. Bonneville officials are also examining how the formal rate-setting process may be made more efficient.

Observations

Including risk-mitigation measures in Bonneville's 1988-89 rate proposal, in GAO's view, provides a mechanism for Bonneville to adjust its rates if future revenues do not meet projected levels, particularly levels projected for sales to the direct service industries and California utilities. GAO believes that Bonneville's decision to include such measures was a positive action and concurs with Bonneville that such measures provide added assurance that Bonneville's Treasury obligations will be met in a timely manner.

GAO also said that the amount of reductions made in Bonneville's 1988-89 budgets (over $860 million) after review initially by Bonneville and then by Bonneville and its customers may suggest a need for Bonneville to more closely examine its projected costs when initially preparing future budgets.

Recommendations

GAO is making no recommendations.

Agency Comments

The Department of Energy (DOE), in commenting on a draft of this report, stated that it found the report to be a reasonable description of the process that led to the rate increase for the 1988-89 period. DOE stated that while external input was useful in determining tradeoffs and service levels, the final rate proposal reflected the administrator's decisions, not those of Bonneville's customers. (See app. I.)

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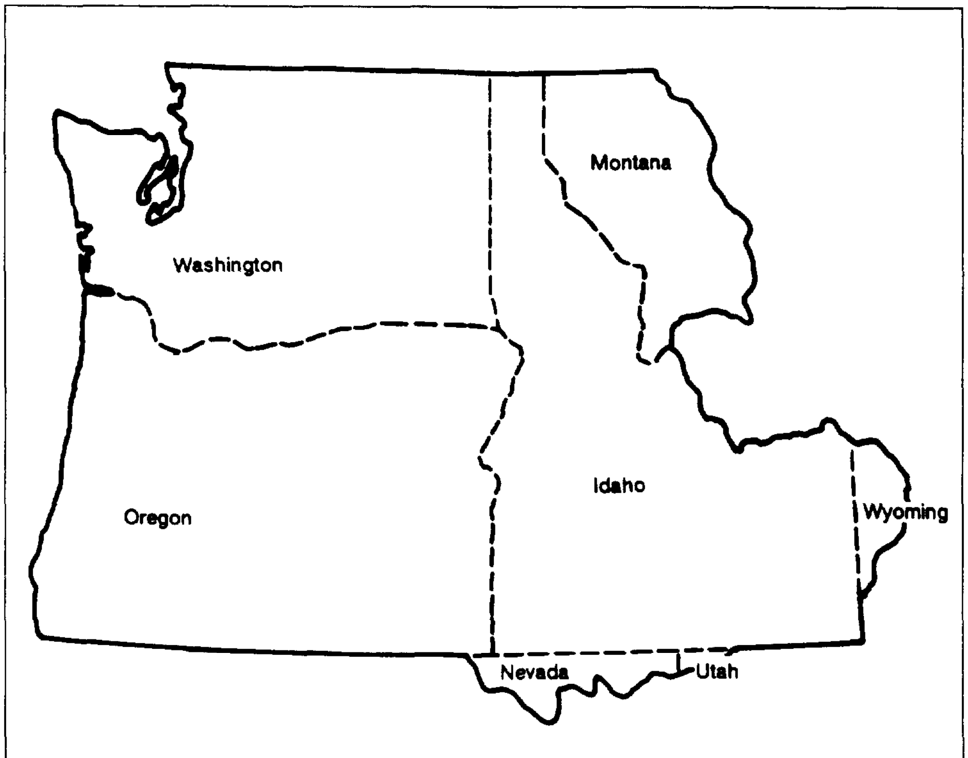
Abbreviations

BPA	Bonneville Power Administration
DSIs	direct service industries
FERC	Federal Energy Regulatory Commission
GAO	General Accounting Office
kwh	kilowatt hours

Introduction

The Bonneville Power Administration (BPA), created by the Congress in 1937, markets electric power to utilities and industries in the Pacific Northwest. BPA serves a 300,000-square-mile area that encompasses Oregon, Washington, Idaho, western Montana, and portions of several other states. (See fig. 1.1.) BPA markets electric power from 30 federal hydroelectric projects and several nonfederal hydro- and thermal-generating facilities in the region. It also operates more than 14,000 miles of electric transmission lines. In addition, BPA markets and exchanges electric power with Southwest utilities over the Pacific Northwest-Pacific Southwest Intertie,[1] and through other interconnections, with utilities in British Columbia.

Figure 1.1: Bonneville Power Administration Service Area



The Federal Columbia River Transmission System Act of 1974 placed BPA on a self-financing basis with authority to fund its operations from power sales and transmission service sales revenues and to borrow from the U.S. Treasury (Treasury).

[1] A major electricity transmission interconnection between the Pacific Northwest and California.

BPA's Administrator, subject to the Federal Energy Regulatory Commission's (FERC) approval, is authorized to establish rates for the sale and disposition of electricity and for the transmission of nonfederal power. The administrator is authorized to revise those rates as necessary. This authority is contained in four laws: the Bonneville Project Act of 1937, the Flood Control Act of 1944, the Federal Columbia River Transmission System Act of 1974, and the Pacific Northwest Electric Power Planning and Conservation Act of 1980 (the Northwest Power Act). Under these laws, the administrator is to set rates which

- encourage the widest possible diversified use of electric energy at the lowest possible rates consistent with sound business principles;
- recover the cost of producing, conserving, and transmitting electric energy, including the amortization of the capital investment over a reasonable period of time; and
- provide additional revenues as may be required to pay, when due, the principal, premium, discount, expense, and interest on obligated debts.

BPA periodically determines whether new rates are needed by comparing projections of costs with projected sales revenues. This comparison is based on BPA staff analyses which forecast energy demands, power costs, and revenues under existing rates. When forecasted revenues are significantly greater than or less than forecasted costs, the administrator has the authority to propose new rates which will bring revenues and costs into balance. Section 7 of the Northwest Power Act specifies formal procedures the BPA Administrator is to follow when establishing, reviewing, and revising rates. The administrator's proposal is then reviewed by FERC which has final approval authority for BPA's rates. Rates are generally established every 2 years for a 2-year period.

Establishing Power Rates for the 1988-89 Period

In June 1986, BPA's Administrator announced that the agency was preparing to raise its power rates for the fiscal year 1988-89 time period (1988-89 rate period). The administrator said that higher rates would be needed because the agency had experienced declining revenues. Although BPA was estimating that the rate increase could be as large as 15 to 35 percent, the administrator was concerned that a large increase would negatively affect the regional economy. He set a goal of limiting the rate increase to less than 10 percent.

Between the June 1986 announcement and July 1987, BPA and outside groups conducted informal reviews of BPA's 1988 and 1989 budgets, which were followed by the formal rate-setting process required under the Northwest Power Act. During this period, BPA made successive announcements concerning the expected level of rate increase needed for the 1988-89 time period. The announcements reflected progressively decreasing amounts for the proposed rate increase. In July 1987, the BPA Administrator decided that a power rate increase of 7.7 percent for the 1988-89 period would be appropriate.

BPA establishes power rates based on various classes of customers served and types of electricity sold. The rate primarily affected by BPA's proposed rate increase was its "priority firm rate." This is the rate charged to BPA's largest customer class (in terms of numbers of customers) and includes public utility districts, municipal utilities, and rural electric cooperatives in the Pacific Northwest. The cost of power exchanges with investor-owned utilities pursuant to BPA's Residential Exchange Program[2] is also based on the priority firm rate.

Power rates charged to certain customer groups are determined, to a large degree, by factors outside of BPA's control, and the level of such rates can significantly affect the amount of sales revenue BPA receives. For example, rates charged to aluminum companies, which account for over 90 percent of sales revenues received from direct service industries (DSIs),[3] are generally based on the world price of aluminum and, as such, can vary during a rate period. Similarly, rates charged for surplus electricity delivered to customers in California and the Southwest are largely determined by market conditions, and particularly oil and gas prices.

Objectives, Scope, and Methodology

In a June 19, 1987, letter, the Chairman of the Subcommittee on Water and Power Resources, House Committee on Interior and Insular Affairs, and Congressman DeFazio asked us to review the process BPA used in establishing its power rates for the 1988-89 rate period. In subsequent discussions with the Subcommittee's staff, we were asked to focus our review on (1) why BPA decided that a rate increase was needed and (2) how BPA was able to successively reduce the level of the proposed rate increase. We were also asked to obtain the views of BPA customers and other affected parties on the process BPA used to establish its rates.

[2]Under the Residential Exchange Program, BPA "exchanges" quantities of its lower cost power with utilities that have higher cost power. The difference in the costs of BPA power (valued at BPA's priority firm rate) and the exchanging utilities' power represents a cost to BPA that is to be recovered through power sales revenues.

[3]Direct service industries are BPA industrial customers whose electricity requirements are served directly by BPA.

To address the request, we identified conditions that were shaping BPA's initial June 1986 announcement of a rate increase and the subsequent actions that led BPA to reduce its proposed rate increase to 7.7 percent. We did not assess the appropriateness of BPA's actions nor did we evaluate the effect of its actions on BPA operations.

In carrying out our work, we interviewed BPA officials and reviewed and analyzed BPA data which supported its proposed rate increases, including specific changes BPA made in its projected revenues and costs. We also reviewed documents submitted by BPA's customers and other parties affected by the proposed rate increase.

To obtain representative views of BPA customers and other affected parties concerning BPA's rate-setting process, we interviewed an official from the Northwest Power Planning Council and officials from the following major organizations which represent BPA customers and/or which took part in BPA's 1987 rate-setting process:

- Public Power Council, Portland, Oregon: an association of 115 Northwest publicly owned utilities.
- Western Public Agencies Group, Mill Creek, Washington: an association of 18 Washington State publicly owned utilities.
- Direct Service Industries, Portland, Oregon: an organization representing aluminum and other energy-intensive industries directly served by BPA.
- Portland General Electric Company, Portland, Oregon: an investor-owned Northwest utility.
- Pacific Power and Light Company, Portland, Oregon: an investor-owned Northwest utility.
- Washington Utilities and Transportation Commission, Olympia, Washington: the state agency that regulates Washington State investor-owned utilities.
- California Energy Commission, Sacramento, California: a state agency with oversight responsibility for California's major generating facilities.

The organizations that we contacted were selected because they either (1) represented major BPA customer groups, (2) had knowledge of BPA power markets outside the Pacific Northwest, or (3) were involved in regional power-planning activities.

Our review was conducted between July and October 1987, principally at BPA headquarters in Portland, Oregon, and was conducted in accordance with generally accepted government auditing standards.

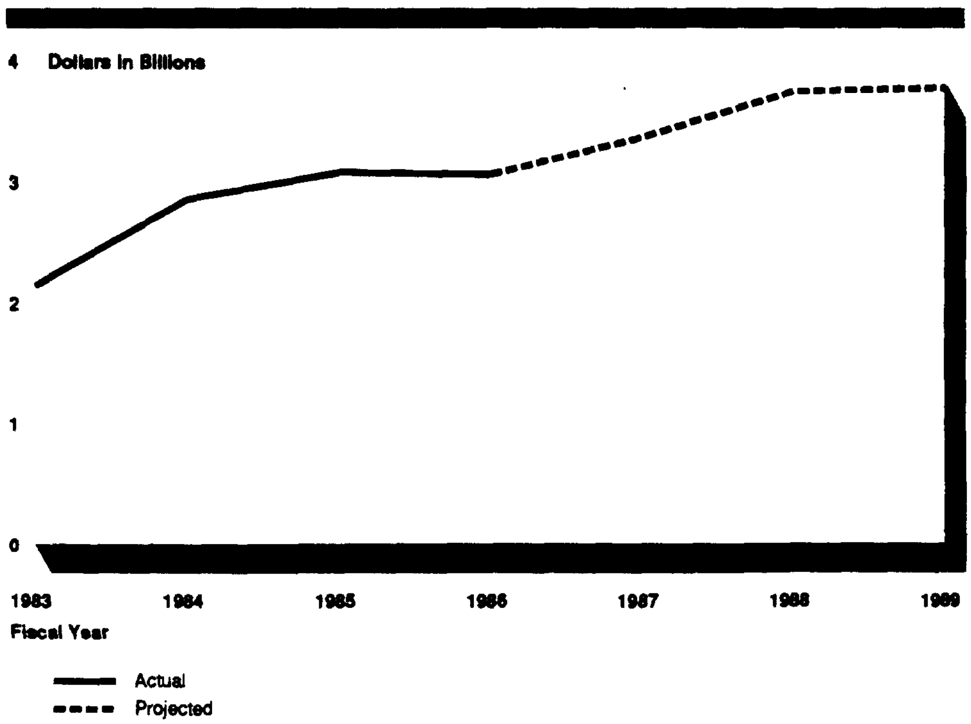
Factors Shaping BPA's Decision to Seek a Rate Increase

Three key factors influenced BPA's Administrator to propose a rate increase for the 1988-89 rate period. These factors were (1) a continuing growth in BPA's projected costs and, in particular, interest costs associated with its growing level of outstanding debt, (2) a decline in power sales in 1986 and greater uncertainty over BPA's projected future revenues, and (3) the administrator's resolve to ensure timely debt repayments to the Treasury. Because of concerns that a large rate increase would lead to reduced sales and depress the Northwest's economy, BPA officials concluded that only a limited rate increase was practical.

Continuing Growth in BPA's Costs

Between 1983 and 1986, BPA's total costs had grown by more than 40 percent. In March 1986, BPA's budget projections for the 1988-89 period showed an increase of about $1 billion over BPA's 1986-87 budgets. BPA's total costs were projected to exceed $3.7 billion in 1988 and to be slightly higher in 1989. Figure 2.1 shows BPA's costs for the 1983-89 period.

Figure 2.1: Costs for the Bonneville Power Administration, Fiscal Years 1983-89



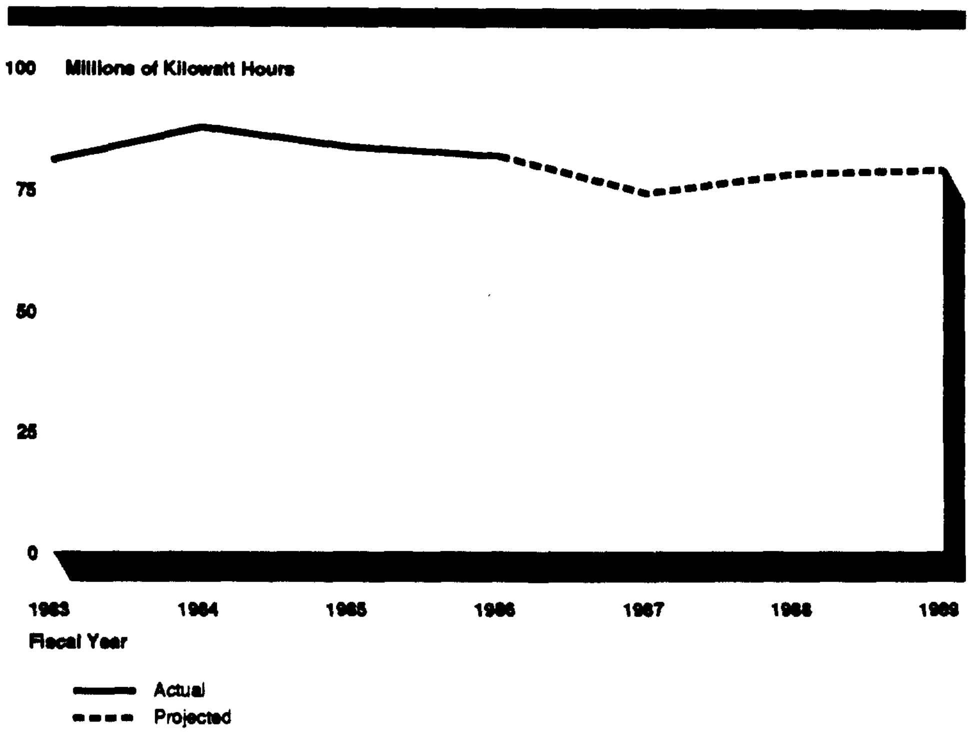
BPA's total debt outstanding had increased every year between 1975 and 1986. By the end of 1986, BPA debt was about $14 billion, $8 billion of which had been borrowed since 1976. Of the $14 billion total, $8 billion represented obligations to the Treasury and the remaining $6 billion, obligations to third parties, primarily contractual obligations associated with the costs of constructing three nuclear power plants.

BPA's growing debt resulted in increasing annual debt service obligations. Annual debt service in 1986, including interest and principal payments represented over $1 billion of BPA's $3 billion total costs. The net effect was to "fix" a greater portion of BPA's total costs, thus reducing the relative proportion of BPA's costs subject to possible reduction. This financial inflexibility, according to BPA officials and documents we reviewed, concerned BPA management and was frequently mentioned in BPA's financial analyses.

Declining Power Sales and Uncertain Future Revenues

BPA's power sales for the period 1983-86 increased between 1983 and 1984, reaching a peak level of nearly 88 billion kilowatt hours (kwh) in 1984. However, sales declined between 1984 and 1986. (See fig. 2.2.) BPA estimated its 1987 sales at less than 75 billion kwh, a decline from the 1986 level. According to BPA officials, the lower level of sales actually occurring in 1987 resulted, in part, because of low water flows through BPA's hydroelectric dams. In mid-1986, BPA sales projections for the 1988-89 period showed a limited recovery to the 78- to 79-billion kwh level.

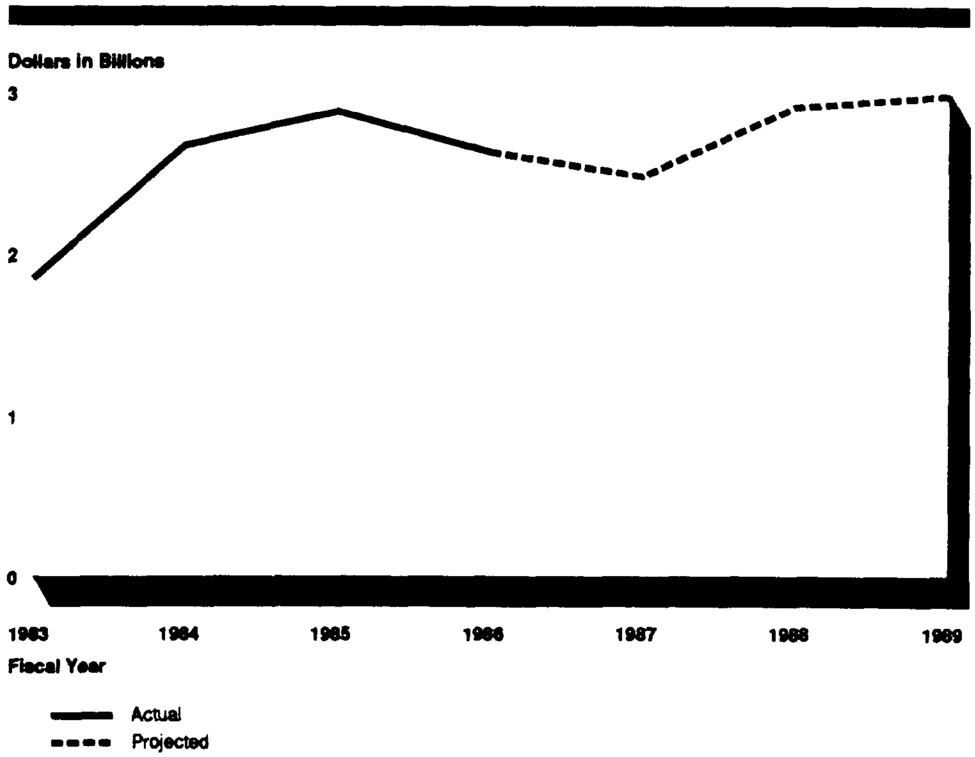
Figure 2.2: Annual Power Sales for Bonneville Power Administration, Fiscal Years 1983-89



The overall decline in BPA's power sales levels was not reflected in sales to all individual customer classes. For example, we found that sales to publicly owned utilities remained relatively stable during the 1983-86 period, averaging about 36 billion kwh annually. However, sales to the aluminum industry reached a peak of about 24 billion kwh in 1984 but then dropped by about 25 percent over the next 2 years. Similarly, sales outside the Northwest region—primarily sales to California utilities—reached a level of about 21.6 billion kwh in 1984, and from 1984 to 1986 decreased to about 15.8 billion kwh.

With respect to BPA's concern over the uncertainty of future revenues, BPA documents showed that projected shortfalls in revenues for the 1986-87 period were a major factor in explaining the need for a rate increase for the 1988-89 period. Figure 2.3 shows BPA's actual and projected total revenues between 1983 and 1989. As the figure shows, BPA's revenues peaked at about $2.9 billion in 1985 and then dropped to about $2.5 billion in 1987. In early 1986, BPA analyses showed that revenues for 1986-87 were likely to fall short of projections by some $400 million.

Figure 2.3: Revenues for Bonneville Power Administration, Fiscal Years 1983-89



BPA's 1986-87 actual revenue levels did fall short of projections. The shortfall occurred primarily in sales to California utilities and the aluminum industry. In 1986, BPA had reduced the rate it charged California utilities from about 2.7 cents per kwh to as low as 1 cent per kwh in order to remain competitive with declining oil and gas prices. The rates charged the aluminum industry also dropped as the world price of aluminum decreased in 1985. (As previously discussed, BPA rates to the aluminum industry are based on world aluminum prices.) In addition, kilowatt hour sales to the DSIs decreased by about 25 percent between 1984 and 1986 because of aluminum industry plant closures, thus further reducing the amount of revenue received.

Resolve to Meet Repayment Obligations

In the early 1980s, BPA management committed the agency to enhancing its financial integrity and meeting its debt obligations. During the period 1975-83, BPA had not made planned repayments on the principal of its outstanding debt, and between 1979 and 1983, had deferred paying to the Treasury portions of the required interest payments associated with its Treasury debt. BPA's repayment record was reviewed in congressional oversight hearings in the early 1980s, and BPA officials believed that if they could not achieve timely debt repayment, a solution to the problem would be mandated.

BPA's total revenues in 1984 and 1985 were sufficient to repay the 1979 through 1983 required interest payment deferrals. Revenues obtained in 1984, 1985, and 1986 were also sufficient to provide for BPA's annual interest repayment obligations. In 1987, however, revenues were insufficient to make its required Treasury interest payment. (BPA had projected, in late 1985, that shortfalls in 1987 revenues would cause the agency to run a loss.[1])

BPA officials told us that timely repayment of BPA's Treasury obligations was a very high priority. Accordingly, they believed a rate increase was necessary to continue BPA's improving repayment record in the 1988-89 period.

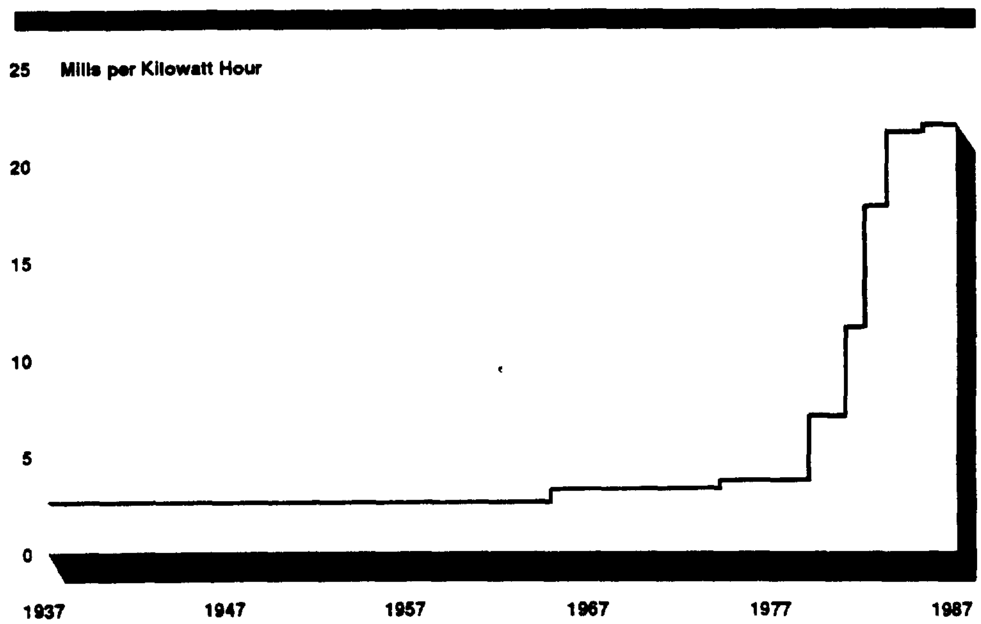
Only a Limited Increase Was Practical

BPA officials believed that a rate increase for the 1988-89 rate period had to be limited. These officials believed that a large rate increase might lead to reduced electric consumption by ratepayers or that their customers would seek other power suppliers. A BPA analysis supporting these views showed that BPA's rates for electricity, which had historically been lower than those of other suppliers in the Northwest, had reached a level near the average of other suppliers.

BPA has increased power rates several times in recent years. The most significant rate increases were made in the early 1980s. (Fig. 2.4 shows the size of BPA's rate increases and the periods covered.) According to BPA officials, rate increases in the early 1980s were needed to meet debt service obligations on about $6 billion in debts BPA had incurred to purchase power from nuclear power plants.

[1]BPA's 1987 revenues were about $200 million short of recovering costs. BPA made its Treasury repayments, in part, by exercising unused 1985 borrowing authority.

Figure 2.4: Rate Charges by Bonneville Power Administration for Electricity, 1937-87



Because its power rates had increased by more than 300 percent between 1981 and 1987, BPA management was reluctant to propose another increase in the 15- to 35-percent range estimated as necessary to support planned budget growth. While a significant rate increase seemed to be the only way for BPA to meet its financial obligations and fund rapidly growing budgets, BPA management believed that the region's economy might be hard pressed to absorb another large increase in power bills.

Observations

When BPA initially announced that it needed to increase rates for the 1988-89 period, BPA was facing (1) declining power sales below projected levels, (2) projected increases in operating costs of nearly $1 billion for the 1988-89 period, and (3) concern of congressional committees over BPA's ability to meet its repayment obligations to the Treasury. These factors suggested that a significant increase in power rates could be needed.

It appears that the key factors influencing BPA's initial announcement of a potential 15- to 35-percent rate increase were significant increases in projected operating costs coupled with the uncertainty in its projections of revenues from sales to the DSIs and the California market.

The uncertainty of projected revenues from the DSIs and the California market, as compared with projected revenues from its Northwest publicly owned utility customers, resulted, to a large degree, from BPA's more limited control over rates ultimately charged to DSI and California customers. BPA efforts to balance its projections of revenues and costs through a rate increase would, therefore, most heavily affect rates charged to its Northwest utility customers. This situation, in our view, explains BPA's concern that a large rate increase could depress the Northwest economy and thus, only a limited rate increase was practical.

Rate Proposal Lowered Through BPA Budget Reductions

Between mid-1986 and early 1987, BPA took successive steps to minimize the level of rate increase which would be needed for the 1988-89 rate period. These steps resulted in nearly $864 million in reductions from BPA's budget estimates for the 1988-89 rate period. Owing primarily to these budget reductions, BPA was able to reduce its proposed rate increase to 9.5 percent. The budget reductions were accomplished first through BPA's self-initiated reductions and then through meetings with the public and its customers. Overall, these budget reductions decreased planned BPA capital investments by almost 37 percent and operating expenses by about 7 percent for the 1988-89 period. According to BPA customer representatives and others we interviewed, the budget reviews carried out by BPA, its customers, and others worked effectively to identify ways to reduce BPA's costs and thus the level of the proposed rate increase.

Proposed Rate Increase Reduced From a Possible 35 Percent to 20 Percent

By August 1986, BPA officials had reviewed the 1988-89 budgets and made reductions totaling $511 million (about 6.8 percent), resulting in a potential rate increase of about 20 percent. BPA's budget reductions were, according to BPA officials, in areas considered discretionary. Overall, capital investments were reduced by about $183 million (25 percent), operating expenses were reduced by about $218 million (3 percent), and BPA support for its utility customers' energy conservation programs was reduced by about $110 million (about 71.1 percent), as shown in table 3.1.

Table 3.1: Budget Reductions Resulting From Initial BPA Review

Dollars in millions

	Budgets for fiscal years 1988-89		
	As of March 1986	Total cuts	As of June 1986
Operating expenses	$6,632.2	$218.4	$6,413.8
Capital investments	728.8	183.0	545.8
Third-party financing[a]	154.3	109.7	44.6
Total	**$7,515.3**	**$511.1**	**$7,004.2**

[a]BPA finances conservation investments by third parties through a program in which BPA utility customers make loans for consumer conservation projects and BPA reimburses its customers at preestablished rates and terms.

According to BPA documents, operating expense and capital investment reductions in the following program areas contributed to the above overall budget reductions.

- One hundred three million dollars was cut from operation and maintenance of generating facilities.
- Energy conservation programs were reduced by about $107 million.
- About $100 million was cut from planned expenditures for upgrading transmission lines and transmission substations.
- Twenty-nine million dollars was cut from operating and maintenance of BPA's power transmission system.
- Four other programs, including fish and wildlife protection, were reduced a total of $19 million.

The above reductions also reduced BPA's projected interest costs by $86 million because of reductions in the level of planned borrowing. Further budget reductions were accomplished by reducing BPA's projected costs associated with its utility customers conservation programs by about $110 million as shown in table 3.1.

Although BPA made planned program expenditure reductions totaling about $554 million, projected costs associated with one program, the residential exchange program, were increased by $43 million. The net effect of the above changes was a reduction in BPA's 1988-89 budgets of about $511 million. After reducing BPA's budget by $511 million, BPA officials believed that about 90 percent of BPA's budget was "fixed" by legislation or contract.

On the basis of this level of budget reduction, BPA officials believed a rate increase of 20 percent would be needed for the 1988-89 period. At this point, BPA's Administrator decided to obtain the views of regional entities on BPA's program expenditure levels and to inform the public about BPA's financial condition.

Public Meetings and Comments Led to a Proposed Rate Increase Reduction From 20 Percent to 13 Percent

In August 1986, BPA's customer representatives and other interested citizens were invited to participate in further reviews of BPA's budget. During August and September 1986, BPA made an additional reduction of $113.6 million from the 1988-89 budgets, thus reducing the proposed rate increase from about 20 percent to about 13 percent. BPA documents showed that these additional budget reductions resulted from discussions between BPA program managers, its customer representatives, and others which focused on clarifying BPA programs' objectives and on making trade-offs between program benefits and funding levels.

BPA held four public meetings across its service area to discuss program funding levels. The meetings and a concurrent written comment period started in August and ended in September to ensure the timely submission of BPA's budget to the Office of Management and Budget. During the written comment period, BPA received nearly 150 letters and telephone calls—in all, over 1,000 recommendations were submitted to BPA for its consideration. Most organizations providing comments were government agencies, regional interest groups, and utilities and industries served by BPA. Twelve individuals also commented.

As shown in table 3.2, BPA reduced its planned operating expenses by more than $49 million and reduced its planned capital investments by $64 million as a result of these public meetings and comments. These reductions represented a decrease of 12 percent in capital investments and a less than 1-percent decrease in operating expenses.

Table 3.2: Budget Reductions Resulting From Public Meetings and Comments

Dollars in millions

	Budgets for fiscal years 1988-89		
	As of June 1986	Total cuts	As of September 1986
Operating expenses	$6,413.8	$49.6	$6,364.2
Capital investments	545.8	4.0	481.8
Third-party financing	44.6	.0	44.6
Total	**$7,004.2**	**$113.6**	**$6,890.6**

The budget reductions included a $49-million decrease in construction programs and a $22-million decrease in transmission system operating expenses. Another $21 million resulted from a reduction in planned energy conservation program expenditures. Smaller reductions totaling $22 million were made in six other program areas.

Budget Work Sessions With Customers Reduced Proposed Increase From 13 Percent to 9.5 Percent

BPA concluded its effort to obtain public views on its budget in September 1986. However, some of BPA's utility and industry customers were dissatisfied with the level of planned expenditures still remaining in BPA's budget. In a November meeting, these customers told BPA management that further budget reductions were needed and requested further meetings. More specifically, these customers were dissatisfied with the level of detail that BPA managers had provided on their spending plans and with BPA's contention that its budgets could not be reduced further. Because of these concerns, BPA agreed to hold more meetings and to provide greater detail on its operations.

BPA documents we reviewed and interviews we conducted with customer representatives showed that the customers used this opportunity to scrutinize nearly every aspect of planned spending. The work sessions attended by BPA managers and customer representatives resulted in further net reductions in BPA budgets of nearly $240 million (see table 3.3.) and enabled BPA to lower its proposed rate increase from 13 to 9.5 percent.[1]

Table 3.3: Budget Reductions Resulting From BPA Work Sessions With Some Customer Representatives

Dollars in millions

	Budgets for fiscal years 1988-89		
	As of September 1986	Total cuts	As of March 1987
Operating expenses	$6,364.2	$218.9	$6,145.3
Capital investments	481.8	20.7	461.1
Third-party financing	44.6	0.0	44.6
Total	**$6,890.6**	**$239.6**	**$6,651.0**

Our review of BPA documents showed that these reductions included decreases in program areas that BPA officials had considered "fixed." As defined by BPA, "fixed" costs were legislated and contractual obligations, such as the residential exchange program and financing and interest costs, over which BPA had little or no control. BPA had also considered obligations to pay certain costs incurred by BPA's power suppliers as fixed. However, through more intense budget review sessions with some of its customers, BPA determined that some of these costs could be reduced.

Resource acquisitions was one program area where BPA decreased its planned expenditures even though BPA officials had considered such costs to be relatively fixed. BPA describes resource acquisitions as major program costs for which contractual obligations exist for acquiring resources. However, BPA, through a cooperative effort with Washington Public Power Supply System, reduced its budget in this area by $132 million, including decreases in costs for power plant operation and maintenance, and a capital expenditure for a turbine rotor replacement.

[1]Concurrent with conducting the work sessions, BPA initiated its formal rate-setting process and formally proposed a rate increase for the 1988-89 period of 13.1 percent on December 30, 1986. Following completion of the work sessions, BPA made a formal supplemental proposal to increase rates by 9.5 percent, a reduction from the 13.1 percent initially proposed. The formal rate-setting process is discussed in chapter 4.

BPA also reduced projected costs for the residential exchange program by $77 million after some investor-owned utility representatives provided more current data on their future costs of power. BPA made further reductions of about $17 million in its conservation program, and seven other budget items were reduced by a total of almost $54 million. These reductions enabled BPA to further reduce its projected borrowing needs and, consequently, its debt service costs by just over $88 million.

While BPA made a total of about $368 million in budget reductions during this period, other costs were added to its budget. One such addition was the restoration of a prior reduction of $9 million in BPA's construction budget. Another addition, treated as costs in BPA's budget, was items referred to as "risk-mitigation measures." The addition of such measures, according to BPA documents, was to provide greater assurance that BPA's Treasury repayment obligations would be met in a timely manner. This represented the first time BPA had included such measures as part of its revenue requirements.

The risk-mitigation measures, according to BPA documents, were a mechanism to minimize the adverse impacts on BPA revenues of certain conditions that could occur. For example, adverse water conditions, low oil and gas prices, low world aluminum prices, and low regional employment are conditions that could decrease either the volume of BPA sales or the rate at which sales could be made. Since BPA revenue projections were based on more favorable or normal conditions, the occurrence of the above adverse conditions would likely result in revenues below projected levels.

The following are specific measures that BPA included in its rate proposal:

- Use of 1939 Columbia River water conditions—a period of minimal water conditions—rather than average water conditions to base BPA's projections of revenues for the 1988-89 period.
- A $120-million cost, referred to as investment service coverage, which, according to BPA officials, was to give BPA added assurance that overall revenues would be sufficient to ensure the payment of Treasury obligations.
- A cost recovery adjustment mechanism which BPA could implement to adjust 1989 power rates if actual 1988 revenues were $60 million higher or lower than projected levels. BPA also limited the amount of any adjustment that could be made to 1989 power rates to not more than a 10-

percent increase, which BPA estimated would yield about $140 million in additional revenues.

The cost effect of including the risk-mitigation measures in BPA's budget was the addition of the $120-million investment service coverage.

Customer representatives who had participated in this series of budget reviews told us that BPA managers rejected customer-proposed budget reductions that they considered extreme. For example, when customers wanted to more sharply curtail energy conservation and fish and wildlife program expenditures, BPA managers held that further cuts would imperil activities mandated by the Northwest Power Act. According to one BPA official, the budget review sessions, however, made BPA managers aware that many budgeted costs once considered "fixed" could be reduced when customers and BPA managers worked together to look for additional economies.

Budget Reviews Viewed Positively by Regional Entities

Persons we interviewed generally made positive comments about the informal budget review process BPA used. According to BPA officials, customer representatives not only helped BPA establish funding priorities, but also provided BPA with more accurate planning information and identified areas in the budget where, based on their experience, budget reductions were possible. BPA's Administrator acknowledged that customer participation in the budget reviews helped identify ways to reduce BPA's expenses and thus lower BPA's proposed rate increase.

Customer representatives we interviewed were almost universal in their praise of the results of the budget reviews. The customers told us that BPA's budget-cutting exercise worked well because of its informality, its nonconfrontational nature, and the cooperativeness of BPA's program managers. Participants stressed continuance of the budget review process in future years as a positive step, especially if the process (1) remained informal, with adequate levels of time and detail, and (2) continued the close, cooperative interactions between customer representatives and BPA managers. Customer representatives suggested that BPA focus on continuing the intensive budget review process performed in the final stage, rather than the more general, informational approach which was taken at first.

BPA's Administrator intends to make joint budget reviews with customers and the public a permanent feature of BPA's rate-development process. As of October 1987, BPA officials were determining what form the budget reviews should take and who should be involved. BPA was considering a plan which calls for reviewing budgets one year and undertaking its formal rate-setting process (see chap. 4.) in the following year. Under this plan, budgets for the 1990-91 rate period would be reviewed in 1988, and the formal rate-setting would take place in 1989. Agency officials believe such a plan would help to resolve many issues concerning proposed spending levels prior to instituting BPA's formal rate-setting process.

Observations

Between mid-1986 and early 1987, BPA reduced its proposed budgets for the 1988-89 period by over $860 million. This budget reduction evolved from an initial $511 million reduction accomplished by a BPA review of its planned expenditures and then a series of budget review sessions attended by BPA officials and representatives from various regional groups. As a result of the budget reductions achieved, BPA was able to reduce its proposed rate increase for the 1988-89 period from a possible level of 35 percent to 9.5 percent.

Of particular importance during the budget review process, in our view, was BPA's inclusion of risk-mitigation measures in its rate proposal for the 1988-89 period. We believe these measures represent a positive action by BPA. They were intended to minimize the effects of uncertainty associated with projecting future sales to and associated revenue from the DSIs and California utilities. Minimizing such effects, in our view, should enhance BPA's ability to meet its Treasury obligations in a timely manner.

An examination of the appropriateness of BPA's budget reductions was beyond the scope of our work. However, the amount of reductions BPA made—over $860 million—may suggest the need for BPA to more closely examine its projected costs when preparing future budgets.

Formal Rate-Setting Process Reduced Rate Increase to 7.7 Percent

In November 1986, BPA initiated its formal rate-setting process when it announced in the Federal Register its intent to increase power rates for the 1988-89 period. On December 30, 1986, BPA formally proposed a rate increase of 13.1 percent and subsequently made a supplemental proposal of a 9.5-percent rate increase. In July 1987, BPA submitted a proposed rate increase of 7.7 percent for the 1988-89 period to FERC for approval. The proposed 7.7-percent rate increase was arrived at after BPA increased its projections of revenues for the 1988-89 period and reduced the cost associated with its risk-mitigation measures from levels supporting BPA's supplemental 9.5-percent rate increase proposal.

Parties participating in the formal rate-setting process were concerned about the cost and timeliness of the process and offered some suggestions for improvement.

Revenue Projections and Risk-Mitigation Measures Modified During Formal Rate-Setting Process

Section 7(i) of the Pacific Northwest Electric Power Planning and Conservation Act specifies a process which BPA is to follow when setting power rates. Generally, the process provides a formal opportunity for public review and comment on BPA's power rate proposal, including a hearing, prior to its submission to FERC for final approval.

During the rate-setting process, interested parties questioned certain aspects of BPA's revenue projections and risk-mitigation measures. As a result, BPA modified the revenue projections and risk-mitigation measures contained in its 9.5-percent rate increase proposal.

Revenue Projections Revised

Parties who participated in the formal rate-setting process (including interested citizens) questioned BPA's estimates of revenues expected during the 1988-89 period. In particular, questions were raised concerning BPA's expected sales revenues from the DSIs and from utilities in California. As discussed in chapter 1, projected sales revenues from these customer groups are greatly influenced by BPA projections of factors outside its control, that is, the future level of world aluminum prices and oil and gas prices.

As a result of these questions, BPA reexamined and then made the following revisions to its revenue projections:

- Revenues from DSIs were increased by $68 million, based on BPA expectations that a closed aluminum plant would reopen.

- Revenues from California utilities were decreased by $38 million, based on revised BPA estimates that showed that such utilities would have surplus power and, thus, would reduce their purchases from BPA.

The net effect of these two revisions was to increase BPA revenue estimates for the 1988-89 period by $30 million.

Risk-Mitigation Measures Modified

As discussed in chapter 3, BPA developed and included in its revenue requirements for the first time, three risk-mitigation measures. These measures were included to ensure

"... stable and predictable rates, timely payments to the U.S. Treasury, short- and long-term financial health of the agency, mitigation of cost over-recovery or under-recovery, and enhanced flexibility to respond to market conditions."

Parties to the formal rate-setting process submitted comments to BPA questioning both the risk-mitigation concept and BPA's specific mitigation measures. More specifically, they expressed concern that the risk-mitigation measures would overcompensate for BPA's assumed financial risks during the 2-year rate period. BPA officials evaluated these concerns and, as a result, made the following modifications to its risk-mitigation measures:

- The $120-million investment service coverage was reduced by about $31 million, based on the concerns expressed that the proposed level was excessive.
- The criteria for implementing the cost recovery adjustment clause when actual revenues are under projected revenues was lowered from $60 million to $45 million which, according to BPA officials, increased BPA's protection against revenue shortfalls.

BPA estimated that these modified risk-mitigation measures provide a 90-percent certainty that BPA will meet its debt repayment obligations for 1988-89.

Concerns Expressed Regarding Formal Rate-Setting Process

BPA customers we talked to who were parties to the formal rate-setting process were much less satisfied with this process than with the informal budget review sessions they attended. While some customers said BPA did a good job of identifying and presenting issues in the formal rate-setting process and believed BPA officials were more open and amenable to change than in the past, other customers voiced concerns about the expense, complexity, and lack of cooperation engendered by the formal rate-setting procedures. None of the parties to the process we interviewed believed that the rate-setting procedures which were established in the Northwest Power Act should be modified. But many of them suggested ways in which BPA could improve the way it implements those procedures.

Many customer representatives told us that BPA should not use the staff which prepares BPA's rate proposal to analyze comments and evidence received during the process. Presently, the same BPA staff members prepare the initial rate proposal, summarize interested parties' comments and criticisms of the rate proposal, and make recommendations to the BPA Administrator on disposition of the comments. This integration of duties within BPA led to customers' concerns about the fairness of the rate-setting process.

Customer representatives also questioned the cost of the formal rate-setting process and suggested that BPA might be able to reduce the number of staff involved. These customers also suggested that BPA and its customers might be able to use less expensive computer modeling when assessing comments and questions raised during the process. The representatives provided no estimates of how much could be saved by these suggestions.

BPA officials are aware that the formal rate-setting process is time-consuming and expensive. The process followed for the 1988-89 period involved more than 40 parties who raised over 140 issues needing resolution. According to BPA, preparing for and carrying out the process required (1) involvement of 28 organizational entities within BPA, (2) commitment of nearly 57 staff years of effort, and (3) about 15 months from preparation through completion.

BPA officials, however, are uncertain about how to reduce the cost and complexity of the formal rate-setting procedures. According to these officials, some technical aspects of the process are being examined for redesign, and the BPA Administrator has directed BPA staff to review the procedures. The administrator, however, is concerned that major changes might adversely affect some valuable attributes of the existing process. He observed, as an example, that shortening the process was a valid goal, but not if it seriously reduced the completeness of the record of his decision.

Comments From the Department of Energy

Note: GAO comments supplementing those in the report text appear at the end of this appendix.

Department of Energy
Washington, DC 20585

APR 26 1988

Mr. J. Dexter Peach
Assistant Controller General
Resources, Community, and
Economic Development Division
U.S. General Accounting Office
Washington, D.C. 20548

Dear Mr. Peach:

The Department of Energy (DOE) appreciates the opportunity to review and comment on the General Accounting Office (GAO) draft report entitled "Development of Bonneville Power Administration (BPA) Electricity Rates for the 1988-89 Period."

See Comment 1.

In general, we find the report to be a reasonable description of the process that leads to the rate increase for fiscal years 1988-1989. However, the report lacks clarity in distinguishing between the informal informational and budget review process that preceded the formal rate adjustment process, and the formal process itself. The entire process, both formal and informal, leading up to BPA's final proposed rate adjustment can be simply stated as:

(1) BPA estimated in the summer of 1986 that BPA would need a rate increase between 15 and 35 percent, depending largely on expected revenues from BPA's direct service industrial and California customers;

(2) During the late summer and early fall of 1986, BPA initiated an internal process to reduce budgets and program levels that reduced this rate increase estimate to approximately 20 percent;

(3) In the fall of 1986, BPA began a process that allowed external review of budget and significant reductions by the Administrator;

(4) BPA then began its formal rate adjustment process on December 30, 1986, with its initial proposal of a 13.1 percent increase in BPA's Priority Firm Power rate;

(5) BPA continued informal budget review during early stages of the rate case, resulting in more budget reductions by the Administrator;

(6) With budget reductions and addition of a risk management package, BPA revised the March 2, 1987, initial proposal with a supplemental proposal of 9.5 percent increase; and

(7) Finally, revisions made during the formal process to the revenue forecast and risk management package resulted August 1, 1987, in a final proposal of the 7.7 percent increase.

BPA made no formal proposals until its December 30, 1986, initial proposal. Estimates prior to that were just that--estimates, given the uncertainties then existing. They were not proposals, but merely benchmarks to assess progress toward a reasonable proposal.

BPA wants to clarify that, while customer (and public) input may have been very useful in determining tradeoffs and service levels that BPA would provide, the program levels included in the final rate proposal reflected the Administrator's decisions and not those of the customers.

DOE hopes that these comments will be helpful to GAO in its preparation of the final report.

Sincerely,

Lawrence F. Davenport
Assistant Secretary
Management and Administration

See Comment 2.

Enclosure:
Comments of Draft Report

The following are GAO's comments on the Department of Energy's letter dated April 26, 1988.

GAO Comments

1. We believe the report sufficiently distinguishes the two processes. Chapter 3 discusses the informal information and budget review process; chapter 4 discusses the formal rate adjustment process.

However, a footnote has been added on page 22 to further clarify the time period overlap of the two processes.

2. Comments referred to were editorial in nature. Revisions were made to the draft report, where appropriate, to address these comments.

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