Blackout at Bonneville Power

Andrew N. Kleit and Richard L. Stroup

"Practical politics consists in ignoring facts."
Henry Adams

THE BONNEVILLE POWER ADMINISTRATION, the giant federal marketer of power in the Pacific Northwest, has a history of keeping taxpayers, policy analysts, and political outsiders ignorant of the real cost of its programs. This has allowed the BPA, at taxpayer expense, to squander water power, to provide large subsidies to select customers, and to promote an expansion of nuclear power plant construction that resulted in the largest municipal default in history—the $2.25 billion default in 1983 by the Washington Pacific Power Supply System (WPPSS, commonly called "WHOOPS!"). All the while, the BPA has remained a political success story: taxpayers feed it hundreds of millions of dollars each year, which are distributed to preferred clients through a complex system of rate structures and billing arrangements.

Practical Politics

Over the years, the BPA has been steered by a coalition that includes special interest groups seeking inexpensive power, congressmen from the Northwest on key committees, and employees of the agency itself. As is typical of an "iron triangle" such as this, each party has gained by expanding the BPA's purview and power, and by keeping the costs spread thinly across the nation. Most taxpayers and consumers do not even know what has hit them.

The inefficiencies at the BPA and other similar political-bureaucratic fiefdoms are not the result of evil people scheming against the common good. Rather, they are the result of ordinary people pursuing their own self-interest in the political marketplace. Competing politicians and candidates respond to those who are able to deliver campaign contributions and votes—typically, organized and active interest groups (among whom taxpayers are notably absent). Government bureaus are generally led by individuals who believe in the overriding importance of their bureau's mission. The attitude of those in the "iron triangle" seems to be that if taxpayers and political outsiders have to be kept in the dark to achieve their lofty goals, so be it.

One effective political ploy adopted by BPA administrators has been to make BPA programs so complicated that simple comparisons with alternatives are difficult, and political clients—the recipients of big subsidies—are hard to identify. Congress has used a less subtle way to avoid policy analysis: it has simply outlawed certain analyses within the government—in effect, imposing a blackout on the executive branch. Con-

Andrew N. Kleit is a lecturer in economics at Yale University and a research associate at the Political Economy Research Center, Bozeman, Montana. Richard L. Stroup is professor of economics at Montana State University and senior associate at the Political Economy Research Center.

gress uses this method a few times each term. Usually, it takes the form of a "Niskanen law" which prohibits the expenditure of government funds to study a particular situation or policy alternative. (We have named this for William Niskanen, former member of the President's Council of Economic Advisers, who was in charge of a study targeted by such a law.)

In June 1986, the Reagan Administration proposed turning the BPA and the other power marketing administrations (there are five in all) over to the private sector. Congress reacted almost immediately by passing a Niskanen law. The Administration is now barred from even studying the privatization of the BPA and other power marketing administrations without prior congressional approval.

The BPA and Its Customers

The BPA, created by Congress during the New Deal era of the 1930s, was the product of a political climate that favored public ownership of power supplies. The new federal agency was to sell the power produced by federal dams in the Columbia Basin, notably the Grand Coulee and the Bonneville Dams. Publicly owned utilities (also known as public utility districts), were designated "preference customers" and given priority access to any power marketed by the BPA.

The BPA has two other major classes of customers: investor-owned utilities, which are privately owned, and direct-service industries, mainly aluminum companies, which buy power from the BPA without going through a utility. While the BPA's original purpose was to provide preferential power to publicly owned utilities, over the years each major class of customers has found ways to reap substantial subsidies.

Hidden Subsidies

Under the law, the BPA is supposed to be self-financing, with its costs fully offset by the proceeds from its power sales. It is not surprising, therefore, that opponents of the Administration's plan to sell the BPA argue that the agency pays its own way and is not a drain on taxpayers. But this self-sufficiency is an illusion: buyers of power (and water) from federal dams in the Northwest pay much less than the total cost, and taxpayers across the nation pick up the balance. By using some fancy accounting footwork, the BPA has been able to follow the letter of the law while disregarding its spirit.

Low-interest Loans. Until 1974, for example, Congress authorized special low-interest loans to the BPA. As of 1986, the BPA had $6.5 billion in these loans outstanding, for which it is being charged an average of 3.5 percent in interest. This compares to an average rate of 11.1 percent that the BPA is being charged on funds it has borrowed since 1974. (Since 1974 the BPA has had to borrow most of its funds from the U.S. Treasury at market interest rates.) The interest-rate subsidies received by the BPA appear nowhere in its budget.

Indefinite Payback. The BPA receives an additional off-budget subsidy from the fact that its loans do not have fixed payback periods. While the BPA has a schedule for debt repayments, it does not have to meet that schedule if its current revenues are not adequate to cover the payments after meeting current expenses. The BPA can unilaterally delay repaying its loans, allowing future customers (or, more likely, taxpayers) to subsidize the costs of current customers—those who are politically effective now. The BPA has an incentive to repay its high-interest loans and let the low-interest loans remain on the books as long as possible, thus increasing its subsidy. And that's exactly what the BPA has been doing.

The BPA's loan repayments are far below the actual cost of these loans to the government. In fact, if the BPA waits the full 50 years allowed by law to pay back its low-interest loans with a balloon payment—something it seems inclined to do—the federal government will receive, in present value terms, 14.6 cents for every dollar it has loaned. This calculation is based on an interest rate of 7.56 percent, the long-term Treasury loan rate in 1974, the last year the BPA received subsidized loans. If the present value of the BPA portfolio were calculated using an 11.1 percent interest rate (the average rate on the BPA Treasury loans as of 1986), the government would receive just 2.89 cents for every dollar loaned to the BPA.

According to estimates by Professor David Shapiro of San Jose State University, the total subsidy to the BPA for the period 1973 to 1983 amounted to about $4 billion. For 1983 alone the subsidy exceeded $600 million. Covering this shortfall would have required billing rates

at least 25 percent higher than they were. It is no wonder that congressmen from the Northwest oppose the Administration's privatization plan. Without large gains in efficiency (which we believe are possible), privatization could prove very costly to BPA customers.

While the BPA repaid some $381 million in long-term loans, a feat displayed prominently in its annual report, it went back to the Treasury for another $500 million in long-term debt.

The BPA has promised to resume paying back its loans on schedule, and indeed did so for 1985 and 1986. In the same atmosphere of fiscal restraint that produced the Gramm-Rudman-Hollings law, the BPA actually repaid some of the principal on its loans in 1986. What was, for the BPA, a remarkable event was not without its own financial sleight of hand, however. While the BPA repaid some $381 million in long-term loans, a feat displayed prominently in its annual report, it went back to the Treasury for another $500 million in long-term debt, which it noted only in the back of its annual report. Thus, even in a period of fiscal austerity, the BPA continues to increase its obligation to the Treasury.

The incentive structure facing the BPA simply does not promote fiscal responsibility. Whenever BPA revenues fall short of scheduled interest payments, administrators will have to choose between raising rates to pay off the loans or doing nothing. The first course of action would bring the political wrath of the Northwest utilities and their customers. The second course of action—inaction—would let future BPA customers and taxpayers throughout the nation pay the bill. Since the BPA has over $2 billion worth of additional authorized credit with the Treasury, inaction is a strategy the BPA can adopt without any increase in accountability to Congress for many years. Given the nature of political enterprises, it would be surprising if the BPA did not opt for the latter course of action.

Irrigation Assistance. Also excluded from the budget are irrigation assistance payments that the BPA owes to the Treasury. These funds, which totaled $790 million as of 1986, were used to aid farmers in the Northwest as part of the original political deal establishing the BPA, and they are not scheduled to be repaid until 1997. Loans for irrigation-related federal projects are treated in a special way: they are interest free, are commonly repaid over a 40-year period, and, in the majority of cases, have an additional 10-year grace period in which no payments must be made. The Treasury typically recaptures less than 10 percent of its cost in present value terms. Yet, water project supporters say, "Every dime is repaid! No subsidy is involved!"

Mortgaging the Future

The BPA also dupes the public through means other than hidden subsidies. The 1937 act authorizing the BPA specifically prohibits the BPA from owning power plants. However, this legal point did not deter a wily bureaucracy when it was intent on expansion. In the late 1960s, the BPA came up with a scheme to evade the legislative injunction.

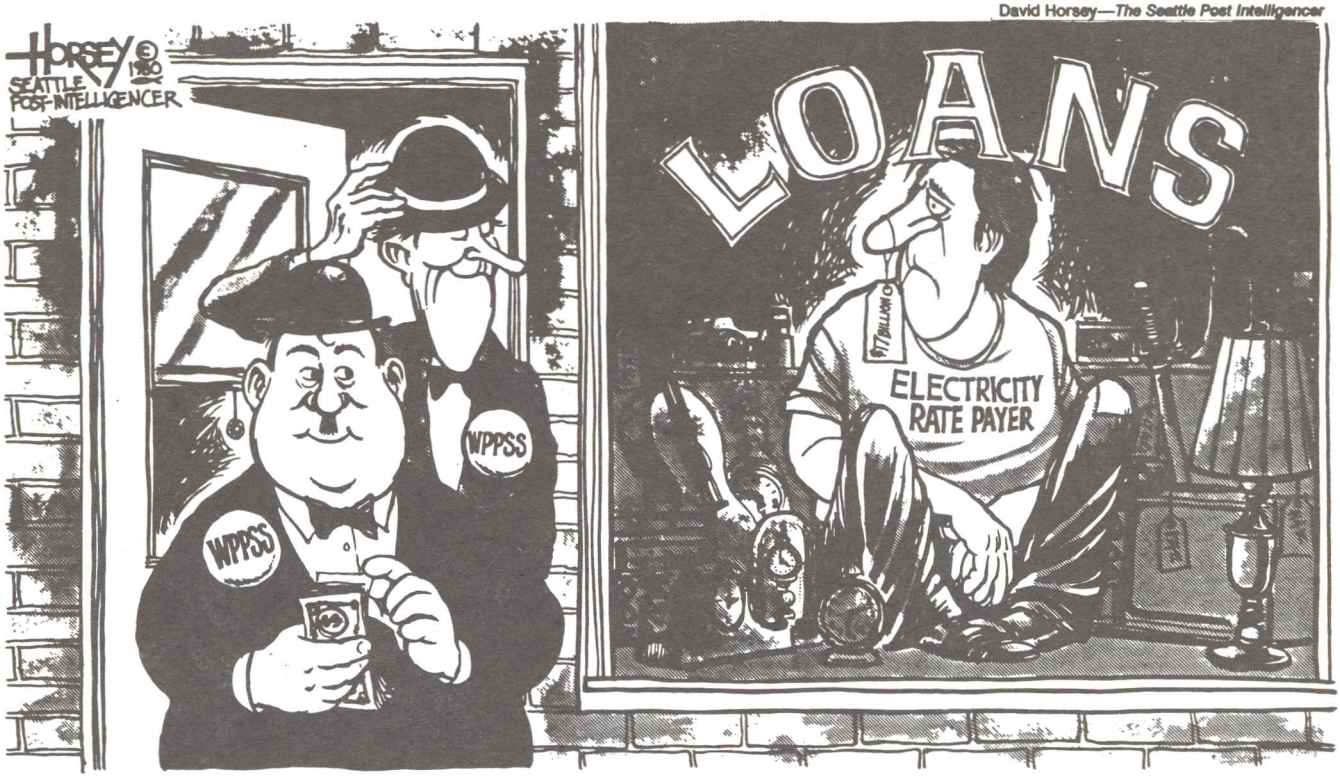
From 1946 to 1970, electricity consumption in the Northwest grew at a hefty rate, averaging 7 percent annually. Much of this growth was due to a decline in the BPA's electricity prices. In real terms, prices fell an average of 2.6 percent annually between 1950 and 1971. Price reductions on this order were not projected to continue, however, and economists warned that the rapid growth of demand would end.

BPA officials looked for ways to ensure there would be enough power, power the BPA would control no matter what Congress intended.

BPA management disregarded these warnings. Apparently, they believed in the "electricity theory of value": As long as output is growing, electricity consumption will too. They rejected the notion that as you raise the price of a good—even electricity—the quantity demanded will fall and economic growth can still continue. BPA officials looked for ways to ensure there would be enough power, power the BPA would control no matter what Congress intended.

1-2-3 WHOOPS! The BPA found a willing agent for its plans in the Washington Pacific Power

David Horsey—*The Seattle Post Intelligencer*



Supply System, a consortium of public utilities. Under BPA prodding, WPPSS agreed in 1970 to build three nuclear power plants. While WPPSS would retain legal title to the plants, the BPA would have the rights to all the power from plants 1 and 2, and 70 percent of the power from plant 3; private utilities would own the remaining 30 percent. In exchange, the BPA promised to pay for the construction and operation of plants 1 and 2, and for 70 percent of plant 3. This arrangement was attractive to the BPA not only because it got around the prohibition on BPA ownership of power plants but also because WPPSS, legally an arm of the state of Washington, could issue tax-exempt bonds at relatively low-interest rates.

After arranging for these plants to be built, the BPA then arranged for someone else to pay for them. It used its monopoly over cheap Columbia Basin power to force the vast majority of BPA customers, both public and private, to sign contracts to pay for the cost of nuclear power plants. Under these contracts, the cost of the plants is passed on to Northwest utilities and then on to the region's electricity customers. This technique is known as "net-billing."

Though net-billing got around the legal restraints on the BPA, it was an awkward way to build power plants. While the BPA had responsibility for the construction costs, it did not have the authority to make the construction decisions. That authority was in the hands of WPPSS, a body which had little experience building nuclear power plants and which apparently did little to acquire the needed expertise. Thomas J. Murray, writing in *Dun's Business Month*, notes that each plant had a different design and that at one time each plant had 45 or more contractors on site! In 1979, the BPA moved to gain a share of control in the WPPSS operation, but by then it was too late.

Unfortunately for everyone concerned, the costs of the WPPSS power plants escalated far beyond the original projections and the power turned out to be surplus. Of the three net-billed plants, only plant 2 is operational, and its power is largely exported to California at very low rates. The other two plants are mothballed, awaiting the time when their power might be in demand. The BPA is now accountable for bonds for net-billed facilities in the amount of $6 billion, and BPA customers are paying the debt service. In 1986 the bill came to $751 million, over one-third of the BPA's total revenues. In contrast, a mere 3.4 percent of the BPA's power comes from net-billed plants.

4-5 WHOOPS! In 1972 the Internal Revenue Service ruled that interest on bonds for future net-billed projects would not be tax-exempt. The IRS felt that because the BPA was footing the bill, net-billed bonds were really the obligation of a federal entity. Though interest on state obligations is tax-exempt, interest on federal obligations is not.

With the cost advantage of net-billing lost, the BPA stopped expanding its capacity this way. BPA managers were still convinced that a power shortage loomed, however, and in 1976 the BPA issued a notice of insufficiency to its customers, warning that the BPA could no longer promise to serve their requirements after 1983.

The notice of insufficiency set the stage for the BPA's next move. On April 5, 1976, in the ballroom of the Sheraton Hotel in Portland, Oregon, there was a gathering of representatives of all of the BPA's major customers. Donald P. Hodel, then the BPA administrator (subsequently Secretary of Energy and currently Secretary of the Interior) gave a speech which painted a bleak picture of ever increasing energy demand and looming shortages. Even with WPPSS plants 1, 2, and 3 on line, according to official BPA projections, the Northwest would require more electric generation capacity. Unless the utilities supported WPPSS' plan to build two more nuclear plants, the BPA could not take responsibility for supplying future needs. The utilities recognized a threat when they heard one, and 88 of them bought shares in plants 4 and 5.

The rest of the story has been well reported in the financial and the popular press. Cost overruns mounted and it became apparent that the region did not require two more nuclear power plants. In 1983, WPPSS defaulted on $2.25 billion worth of bonds leaving a legal mess that is still to be resolved. It now appears that despite its key role in the drama, the BPA will escape any legal consequences of the default. Bondholders will apparently be left holding the bag.

Recutting the Pie

Over the years, each of the BPA's major customers—publicly owned utilities (its preference customers), investor-owned utilities, and various industrial plants—have benefited from subsidized power. There was a period in the 1970s, however, when rising energy prices and looming power shortages threatened the subsidies of non-preference customers. They were quick to take action. A group of investor-owned utilities persuaded the state of Oregon to threaten to form a paper organization combining all Oregon utilities into a state-controlled corporation. As a public corporation, the entity would have been eligible for preference rates. This would have greatly diluted the value of preference power, as more customers would have been sharing the same-sized pie. With this threat hanging over the public utility districts, the investor-owned utilities and the direct-service industries were able to renegotiate their status in Washington, D.C.

The 1980 Northwest Regional Power Act, which emerged after five years of political wrangling, appeared to give something to everyone. The public utility districts got to keep their preference power, the direct-service industries were promised all the power they could use, and the investor-owned utilities got something called "the residential exchange."

Residential Exchange. The residential exchange is a clever method of lowering the price of power to investor-owned utilities. Investor-owned utilities (and a few public utility districts) are allowed to sell—usually on paper—a certain proportion of residential power to the BPA at the utility's average cost. Then the BPA turns right around and sells the power back—again on paper—to the utility at the BPA's average cost. Naturally, an investor-owned utility agrees to such a deal only if its average cost is above the BPA's. In 1985 and 1986, the BPA "bought" $1 billion worth of residential exchange power, and sold it back to the investor-owned utilities for around $800 million. In effect, the BPA has been in the business of selling 200 million five-dollar bills for $4 apiece.

In 1985 and 1986, the BPA "bought" $1 billion worth of residential exchange power, and sold it back to the investor-owned utilities for around $800 million.

An examination of the BPA's accounts shows that the residential exchange can have some interesting effects on the bills of individual utilities. For example, in fiscal year 1986, Portland (Oregon) Gas and Electric sold 6.4 million mega-

watt-hours of residential exchange electricity to the BPA for $211.4 million. Portland then bought the same residential exchange power back from the BPA for only $143.4 million, giving the utility $68 million, for nothing. Separately, Portland bought 1.1 million megawatt-hours of standard electricity from the BPA for $47.4 million. Thus, in total, the BPA paid Portland Gas & Electric $20.6 million for the privilege of supplying the utility with over one million megawatt-hours of free electricity. It is too bad the rest of us cannot also be paid to consume energy.

The BPA has been in the business of selling 200 million five-dollar bills for $4 apiece!

The residential exchange is inequitable and inefficient. If an investor-owned utility is efficiently run and has average costs that are below those of the BPA, it receives nothing in the way of a subsidy. The exchange selectively rewards high-cost power production, even that which results from incompetence. Furthermore, if an investor-owned utility wants to expand and build more high-cost (and possibly unneeded) power plants, it may go ahead and do so, knowing that the BPA will be funding part of the costs. In short, the residential exchange rewards poor management and expensive power generation.

Aluminum Foiled. The direct-service industries have not made out so well—they have to pay for hundreds of millions of dollars worth of subsidies to the high-cost investor-owned utilities. The direct-service industries agreed to pay for the residential exchange in return for the promise of unlimited power—an agreement that looked good when electricity shortages were looming. But the surplus of power in the 1980s has turned the deal sour. Direct-service industry rates rose over 300 percent from 1979 to 1985. This, together with the sagging price of aluminum, has reduced their demand for electricity.

To protect its aluminum-industry revenues and appease its direct-service industry customers, the BPA initiated a "variable price formula" for power sales. The price of electricity to the direct service industries now rises and falls with the price of aluminum. In effect, the BPA "taxes" aluminum production when consumers value it highly and subsidize aluminum when they do not. The variable rate plan effectively makes the BPA, and indeed its customers across the Northwest, silent partners in the aluminum business.

Good Economics Is Not Always Good Politics

The power marketing system in the Northwest is rife with inefficiencies. With electricity sold at multiple rates, the marginal value of electricity, and thus the incentive to conserve it, varies widely among BPA customers. Some customers are being induced to purchase so much electricity that they could reduce their consumption with very little sacrifice, while others are being driven to higher priced power from other sources. It is a system characterized by obfuscation, squabbling among beneficiaries of federal subsidies, and circumvention of the law. The need to avoid scrutiny at the BPA is so great that even sensible alternatives that would benefit all BPA customers are not seriously considered.

One of these alternatives is to allow BPA electric power to be resold among BPA customers, or even resold to utilities outside the Northwest if transmission facilities permit. Tradable property rights could be established in cheap power, and holders of such rights could use them or sell them as they wished. A market in electricity would develop to insure that electrical resources were used in the most efficient manner. The different classes of customers would maintain (or sell) their rights to subsidized power, while BPA electricity would move toward its highest valued uses. Many customers could gain and none would lose; the regional economy would benefit greatly.

BPA officials have contemplated similar plans in the past. But such plans have always died: politically, "That dog won't hunt!" Interest groups, even those with a lot to gain from being able to sell their power, are afraid to discuss the issue. Currently, it takes a good deal of study to determine just who is getting what from whom. If power could be resold at market prices, it would be apparent to all who cared to look just who was feeding at the BPA trough.

Conclusions

The story of the Bonneville Power Administration is a familiar one. Special interests—in this case, organized power users in the Northwest

and a large federal bureaucracy—have brought us a highly inefficient government program that delivers targeted benefits at a high cost to the nation's taxpayers. These costs have become so large that BPA customers have been forced to become silent partners in the aluminum industry, and BPA supporters in Congress have resorted to the use of a "Niskanen law" to forbid the consideration of private alternatives.

If the past is any indication of the future, BPA customers might do well to surrender their subsidies.

If the sorry mess brought on by the BPA were clearly understood by voters and politicians, the prospect of privately handled power might look promising. Until now, however, the situation has been largely obscured by political rhetoric and accounting complexities that make it difficult to measure the subsidies or identify exactly who is profiting at taxpayer expense.

If the past is any indication of the future, BPA customers might do well to surrender their subsidies. Putting the BPA in the private sector would protect its customers from another shock to their electricity bills. Given the agency's incentives and its demonstrated propensity to waste the natural cost advantages of electricity in the Northwest, it is likely to be just a matter of time before the BPA embarks on another Whoops-like debacle. ■

Selected Readings

Bonneville Power Administration. *1986 Financial Summary* (Publication No. DOE/BP-794). Washington: Department of Energy, April 1987.

Cooper, Peter D. "The Bonneville Power Administration: The Worst Mess by a Dam Site." Washington: The Cato Institute, February 6, 1986.

Copulos, Milton R. "Cutting the Deficit by Selling Federal Power Marketing Administrations" (Backgrounder No. 485). Washington: The Heritage Foundation, February 12, 1986.

Shapiro, David. *Power in the Pacific Northwest.* Washington: The Cato Institute (forthcoming).

Jack Ohman—*The Oregonian*