Chapter 52

The West Coast Energy Crisis

In March 2000, the Northwest Power Planning Council issued the results of a study on electrical power loads and resources in the Pacific Northwest. The study confirmed what Bonneville Power Administration analysts had expected – there was a supply deficit and a need for the region to add 3,000 megawatts of power generation or import capability by 2003. That's what Stephen R. Oliver, the BPA's vice president of bulk marketing and transmission services, told the U.S. Senate's Energy and Natural Resources Subcommittee on Energy Research, Development, Production and Regulation during an Oct. 5, 2000 hearing on Pacific Northwest electricity prices. [1]

But by then it was too late – the de-regulated wholesale power market was in crisis up and down the West Coast. The Pacific Northwest had experienced shortages or threats of shortages since the 1950s, and drought was again one of the causes, but this shortage was different – both in geographical size and in long-term impacts. The 3,000-megawatt deficit cited by Oliver just happened to be the amount of power consumed by the Pacific Northwest aluminum industry at its height. The 2000-2001 West Coast Energy Crisis drove up wholesale power prices by factors of 10 or 20 times. By summer 2001, all 10 aluminum smelters in the Pacific Northwest were either shut down or running at very limited capacity. Two companies, Alcoa and Golden Northwest, proposed building their own natural gas-fired power plants and sharing the output with the BPA, but discussions broke down over construction costs and power pricing. "Ultimately, the aluminum companies simply no longer could compete," the Northwest Power and Conservation Council concluded in their website's history. [2]

The region's first aluminum plant, on the Columbia River at Vancouver, Wash., began producing aluminum by 1940 when the BPA sold power at about $5 per megawatt-hour. The price charged to direct-service industries like aluminum smelters increased to about $5.50 per megawatt-hour the next year before dropping to about $4 per megawatt-hour by 1942, as the nation geared up for World War II. Grand Coulee Dam came online during the war, as four more regional smelters fired up to supply the aluminum needed to make military aircraft. The cost of BPA-supplied power remained about the same until 1979, when the price dramatically increased, reaching about $23 per megawatt-hour by 1984. Prices climbed again in 1992, reaching about $27 per megawatt-hour, before dropping slightly to about $24.50 per megawatt-hour in 1997 through 2000. At that point, as a de-regulated power market in California spiraled out of control and made demands on Pacific Northwest power supplies, wholesale power prices in the

Pacific Northwest began to dramatically rise and fall. The Mid-Columbia daily spot price began to climb erratically in May 2000, reaching a spike of $500 per megawatt-hour in late June 2000. After several more spikes, the Mid-Columbia price dropped to under $100 per megawatt-hour in November 2000. Prices then skyrocketed, reaching $1,000 by the end of December 2000. Prices fell dramatically to about $150 per megawatt-hour by late January 2001 and then spiked about half a dozen times between $360 and $480 from February through June 2001. Prices finally stabilized around $30 to 40 per megawatt-hour from September 2001 through August 2002. [3] During this time, aluminum plant managers insisted that $30 per megawatt-hour was the break-even price for them.

A history of shortages

The Bonneville Power Administration had faced regional power shortages in the 1950s that typically resulted from drought or extreme winter cold. The shortages were of short duration and were handled by having aluminum smelters curtail surplus or interruptible power supplies, according to John Harrison's history on the BPA website. The aluminum plants had been a boon for the BPA from 1940 through 1960, providing a steady and predictable demand for the federal system's excess power and providing much needed revenue to pay off the system's hydroelectric dams on the Columbia River. But by the 1960s, power managers recognized that a regionwide coordinated effort was needed to meet future power needs. In 1966, facing strained power sources in the Pacific Northwest, the BPA and 109 of its customers formed the Joint Power Planning Council to find ways to meet the region's growing demand. In 1968, the council recommended spending $15 billion over 20 years on the Hydro-Thermal Power Program, which included building new thermal power plants, mostly nuclear, new dams and new transmission lines. The cost of the plan increased to $17.9 billion by 1969. About $6.1 billion was to come from the U.S. government, with the rest coming from participating utilities. Coal-fired power plants in Washington and Wyoming and the Trojan Nuclear Plant north of Portland were built, but many other plants were never constructed, including three nuclear plants in Washington that left a debt of $6.2 billion in 2003. [4]

By the 1980s, projected power shortages in the Pacific Northwest led many power market experts to believe the end of the regional aluminum industry was in sight, according to Robert Gavin's 2002 account in the Wall Street Journal. The BPA had provided regional smelters with escape clauses that would allow the plants to close, and some did. But a recession and overbuilding of power generation resulted in a power surplus by the mid-1980s. Smelters then renegotiated new long-term power contracts tied to the global price of aluminum, allowing them to operate profitably when metal prices were low. [5] The BPA was also saddled with expensive fish conservation goals

included in the 1980 Pacific Northwest Electric Power Planning and Conservation Act. Between 1981 and 2005, more than $8 billion went into implementing fish and wildlife programs. More than half of that total cost came from lost hydropower generation as dams spilled water for fish, according to Harrison. The Northwest Power Act also called for the BPA to spend money supporting energy conservation and renewable power sources. The added costs from these two programs eventually made the BPA less competitive with other power suppliers, especially as deregulation took place in the 1990s. [6]

By the mid-1990s, persistent power surpluses drove wholesale open-market prices below BPA rates and some smelters used their escape clause to purchase cheaper private power. The threat of smelters canceling BPA contracts altogether, leaving the BPA with unsold power, led to the BPA cutting wholesale power rates by 15%. New contracts signed in the mid-1990s included an even better escape clause – the right to sell unused power, which was put to good use by those smelters which had that contract provision during the 2000-2001 West Coast Energy Crisis. [7] As aluminum companies left the BPA for lower wholesale power prices on the open market in the mid-1990s, the amount of power supplied by the BPA to the Pacific Northwest smelters fell by about 40%. By 2001, BPA-supplied power to aluminum smelters had declined by about 60%, from about 3,000 megawatts to 1,425. Meanwhile, the global aluminum industry had become more competitive as new smelters came on line with cheaper labor and lower power costs. [8]

A September 1996 report prepared for American Rivers, Trout Unlimited and the Oregon Natural Resources Defense Council argued that the BPA was still threatened by the same “death spiral” that threatened the agency in the mid-1980s. The report cited three reasons – higher generation and transmission system costs added to the cost of paying for failed nuclear power plants in the 1980s; lower-cost alternative power sources that could compete with the BPA, such as natural gas; and structural changes in the electrical power industry, including newer, more flexible technologies that could replace large, centralized power systems. The report also argued that the Pacific Northwest aluminum industry would receive nearly $1.1 billion in subsidies over the next five years, while additional subsidies would go to farmers for irrigation and to shipping interests for navigation around the federal hydroelectric dams. The report argued that the BPA was unfairly blaming salmon-protection measures for its financial problems. The report noted that the BPA faced huge debts left behind by the Washington Public Power Supply System for unfinished nuclear power plants because the agency had agreed to be the debtor of last resort if the projects failed. [9]

The September 1996 report for the three environmental groups noted that if an electrical utility raised its rates too high or too quickly, demand would suddenly drop, compounding the BPA's revenue problem. The report also claimed subsidies to Pacific Northwest aluminum companies explained why the smelters were built in the region – an area that was far from bauxite supplies. The relationship between the BPA and the aluminum plants made sense in the 1940s and 1950s when commercial and industrial development was still taking place in the Pacific Northwest, the report said, but by the 1960s aluminum demand was soaring worldwide and no more cheap power was available in the Pacific Northwest. As a result, aluminum smelters increasingly were built elsewhere in the world, closer to bauxite supplies and power sources. It was a myth that the aluminum industry provided stability to the Pacific Northwest power grid, the report claimed – that had not been true for 30 years. It was also a myth that the regional smelters provided revenue stability to the BPA, as potlines or whole plants had been shut down repeatedly over the decades. The report claimed that the Columbia Falls Aluminum Co. would have needed to pay $2.6 billion more between 1980 and 1994 if the company had bought power from the BPA at the same rates charged by the Montana Power Co. The report also said it was a myth that the aluminum industry was important to the Pacific Northwest economy – U.S. production as a percentage of global production had declined from 30% in 1980 to 19% in 1993; the entire Pacific Northwest aluminum industry employed only 5,500 workers, or about 0.2% of the region's jobs; and regional smelters used 15% of the energy to employ only 0.2% of its workers. [10]

The Intertie

An essential factor that enabled the 2000-2001 West Coast Energy Crisis was a system of high-voltage transmission lines connecting California utilities to the BPA's power grid. The concept of linking the BPA to population centers in the Pacific Southwest was first developed by the Bureau of Reclamation following a severe power shortage in 1949. The idea of building a 230-kilovolt Intertie between the BPA system and the Central Valley Project in California was considered feasible, and the Federal Power Commission's 1959 economic study supported the Intertie idea. [11] By then, the Pacific Gas and Electric Co., a California-based utility, had proposed construction of a 230-kilovolt transmission line linking the BPA with the company's system in California. The Senate's Interior and Insular Affairs Committee reacted to the proposal with a request to the Interior Secretary that the pending legislation be deferred until assurances for regional preference could be established. [12] The June 4, 1944, Hungry Horse Act that authorized construction of a concrete high dam in Montana's Flathead Valley included a regional preference clause. The act stated that all power generated by the dam must be sold for use in the state of Montana, and an equal amount of power generated by downstream dams that took advantage of water stored behind the Hungry Horse Dam

must be sent back to Montana for use within the state. [13] More important on a regional scale was the preference clause in the 1937 Bonneville Project Act, which had created the BPA.

On Feb. 12, 1959, Sen. Clair Engle of California wrote a letter to the Senate subcommittee which was investigating a proposal to build a Pacific Northwest-Pacific Southwest Intertie. In the immediate short term, the subcommittee was looking into possible contracts between the BPA and Pacific Gas & Electric, which served customers in central and northern California. Engle had initiated the request for the hearings and was in support of the Intertie. “A transmission Intertie between the Northwest and California has great potential for both areas, and for both public and private agencies,” he wrote. “Because of the defense implications of such an Intertie, its vital relationship to the maintenance of current low power rates in the Northwest, and its importance to the California water program, I regard the problem as one of national concern.” Engle also expressed concern about power wasted in federal dams and the BPA’s financial problems. “Billions of kilowatt-hours of valuable energy are being wasted at Columbia River power plants,” he wrote. “Ridiculous as it may seem, the Bonneville Power Administration at the same time is going deeper in debt, or falling further behind on repayment. To raise Bonneville rates is not the answer.” [14]

Assistant Secretary of the Interior Fred G. Aandahl also wrote to the Senate subcommittee. Aandahl supported construction of the Intertie in his April 7, 1959, letter, noting that the BPA’s direct-service industry customers were operating at only 73% of capacity and were not interested in purchasing additional firm power on a short-term basis. “We recognize that the recent decline in purchases of secondary power by industries has adversely affected the BPA financial picture,” Aandahl wrote. “We also recognize that if we could develop additional markets for this secondary energy and for our large summertime seasonal power, the financial situation of the BPA could be substantially improved.” [15]

Interior Secretary Fred A. Seaton wrote to the Senate subcommittee on June 28, 1960, to clarify how the Bonneville Project Act’s preference clause should be interpreted. Seaton addressed concerns raised during a June 15 hearing that sales of power generated in the Pacific Northwest to Pacific Gas & Electric might extend the BPA’s market area to the disadvantage of Pacific Northwest customers. “Pacific Gas & Electric Co. is, of course, not a preference customer,” Seaton wrote. “It is, therefore, not entitled to the protection of the preference clause. It follows that withdrawal of power from Pacific Gas & Electric Co. would leave the company without any right to its restoration.” Seaton said it was possible that power could be purchased by one of the BPA’s preference customers for resale in California, but “the mere fact that

nonpreference customers are purchasing power for use in California does not establish any entitlement in California to continued deliveries." Seaton went on to point out that he was unaware of any plans by preference customers in California to build transmission lines linked to the BPA system. [16]

In 1961, President John Kennedy told Congress that he had directed Interior Secretary Stewart Udall to develop plans for linking power systems that were under his direction in order to develop a national power pool. Udall appointed a special task force on March 10 headed by the BPA administrator to make a comprehensive study of the Intertie proposal. The task force was to include in its study "legal safeguards to protect regional priority to electricity generated within the respective regions" while integrating power supplies in Canada, the Pacific Northwest and the Pacific Southwest. By 1961, newly-appointed BPA Administrator Charles F. Luce had faced three consecutive years of annual operations deficits. The problem was blamed on delays in completing new generating plants, the lack of a market in the Pacific Northwest for surplus secondary power, higher project costs due to rising construction costs, and the shortage of economical hydroelectric sites. Luce saw three solutions in the near future: 1) the U.S.-Canadian Columbia River Treaty, which would increase generating capacity throughout the year; 2) the proposed Pacific Northwest-Pacific Southwest Intertie, which would provide markets for surplus secondary power; and 3) the New Production Reactor at the Hanford Atomic Works in Washington, which supplied 800 megawatts of steady and reliable power beginning in the early 1960s. [17]

By the time Luce issued the BPA's 25th annual report in January 1962, Congress had budgeted $300,000 to continue studies on the proposed Pacific Northwest-Pacific Southwest Intertie. Luce noted in his report that in each of the BPA's deficit years, the combined value of unsold firm power, secondary energy and peaking capacity was nearly twice the value of the corresponding deficit, totaling nearly $30 million annually. "There has not been… a sufficient market within the Northwest to absorb all the short-term firm power, secondary energy and peaking capacity the Bonneville system can produce," Luce said. "It is clear that we will have to look outside the region to find markets for the system's total power capability." Sens. Warren G. Magnuson and Henry M. Jackson of Washington insisted on protective legislation before supporting a bill funding construction of the Intertie. A bill introduced in Congress in early 1962 stated that "the sale, delivery and exchange of electric energy generated at… federal hydroelectric plants in the Pacific Northwest for use outside the Pacific Northwest shall be limited to surplus energy and surplus peaking capacity." Peaking capacity referred to the ability of a power-generating system to produce large quantities of power for brief periods of time to meet peak loads. Peak loads in the Pacific Southwest occurred during the summer months and included air conditioning and irrigation loads. Peak loads in the

Pacific Northwest occurred in winter months, mainly for heating. Secondary energy referred to power that could be generated when streamflows were higher than critical, but which could not be guaranteed for delivery over long periods of time. [18]

The Montana preference

Montanans were keeping an eye on the Intertie plan and its possible impact on the state's water resources. On April 3, 1959, Gov. J. Hugo Aronson also wrote to the Senate subcommittee investigating Pacific Gas & Electric's request for a regional power grid Intertie. Aronson was not opposed to making limited sales of surplus power to the Californian utility on an interruptible basis, but he voiced strong objections to the construction of an Intertie between the Central Valley Project in California and the federal hydroelectric dam at The Dalles, Ore. Aronson pointed out that the Bonneville Project Act created a preference for public utilities and cooperatives within the Columbia River basin, which included portions of western Montana. "Building a federal inter-tie into California would mean that the preference clause of the Bonneville Act would be extended to similar groups in California," Aronson said. "Without the interconnection, preference customers would be limited to the Columbia Basin where the electricity is generated. This seems only right and logical. The result of such an Intertie would be to have less power available to both preference and other customers in the Columbia Basin area, including Montana. This would also mean that such power as is now sold to Montana industries might well be drained off into California when any of the present contracts terminate." [19]

Aronson was well aware of the size of California's economy and the threat it posed to Montana's potential growth. "Your subcommittee must also recognize that California already has the largest load centers in the west," he told the subcommittee. "If any of the Bonneville prime power should ever be committed to preference or other customers in California, it would be impossible to pull it back when needed in Montana or any other Columbia Basin State. All this would certainly be a boon to California. However, Montana and other Pacific Northwest states would be sacrificing future development potentialities in order to further California's already large industrial establishment… Approval of this scheme would hurt Montana both now and in the future. Industrial development would be stymied. Valuable resources would be lost. Both labor and industry would be losers, as would the entire economy of Montana." [20]
Aandahl addressed some of Aronson's concerns while testifying before the Senate subcommittee on May 5, 1960. When asked about existing contracts or arrangements between the BPA and customers or companies in Montana, Aandahl referred to the act authorizing construction of the Hungry Horse Dam. Aandahl pointed out that the act provided that "portions of the power from Hungry Horse are designated for sale in

Montana" but beyond that provision, "we are marketing quite an appreciable amount of secondary power outside of the marketing area." [21]

By November 1961, as regional preference became an issue during public debate over the proposed Libby Dam, James Murphy, a Kalispell attorney and Republican National Committeeman, replied to an editorial in the Hungry Horse News about hydroelectric power in Montana's history. Murphy believed no legal protection existed in federal law that safeguarded hydroelectric power generated from waters in Montana from being used outside the state, contrary to statements made by the newspaper's publisher, Mel Ruder. Murphy claimed to have long been a champion of Montana water rights and was worried about what would happen in the case of the proposed Libby Dam. He cited the history of dams across the state, including Cabinet Gorge, Yellowtail, Noxon Rapids, Canyon Ferry and Fort Peck. In the case of the Hungry Horse Dam, Murphy claimed that the Anaconda Company had made a "shaky arrangement" in the 1950s in order to hold onto the power from the dam for their proposed aluminum plant near Columbia Falls. Murphy argued that power received by the Anaconda aluminum plant was by contract with the BPA and could be cut off completely at the expiration of the contract. [22]

Murphy described how the Intertie would work during a Jan. 11, 1962 meeting of the Columbia Falls Lions Club. The BPA proposed to take advantage of power peaking in the Pacific Northwest during winter and in California during summer, so power could be transmitted both ways. Murphy said he opposed the plan on the grounds that it would diminish the economic advantage the Pacific Northwest had with cheap hydroelectric power. He also felt there was a danger California utilities would end up having preference over industrial users in the Pacific Northwest. [23] Flathead Electric Cooperative General Manager J.M. Garrison weighed in on the debate in a Dec. 15, 1961 letter to the Hungry Horse News. Garrison pointed out that although no reservation of power had been stipulated in any private license, the "fact is pretty generally understood by everyone that has studied the situation." Garrison referred to a recent talk by Montana Power Co. President Jack Corette who said, "West of the divide the government operates Hungry Horse Dam, which by legislation and administrative practice has a geographical preference for Montana. Under this geographical preference 206,000 kilowatts of Hungry Horse power is reserved for use within the state." [24]

The matter gained traction in 1963 and 1964 when Congress passed the Regional Preference Act, which regulated how the BPA sold power to California or other southwestern states. Under the act, the BPA could not sell power directly to these areas without reserving the right to recall energy on 60 days notice. The resulting uncertainty of supply made California utilities unwilling to buy BPA power under those conditions. The act did not apply to private or public utilities with coal or nuclear plants. The act was

limited to surplus energy – power that otherwise would be wasted because of the lack of a market in the Pacific Northwest. [25] The matter was still unsettled 20 years later. The BPA began to conduct hearings on a proposed plan to circumvent the Regional Preference Act on Sept. 27, 1985. In the proposed arrangement, called the "firm-displacement concept," the BPA would be authorized to sell firm power to Pacific Northwest utilities that could in turn sell the power out of the region. Overall, the BPA would increase revenues without raising rates by selling more power to Pacific Northwest utilities. The BPA would also benefit by creating long-term rate stability by signing 20-year contracts with the public utilities. The proposal arose in 1982 when it became evident the BPA possessed an overcapacity of power. The BPA had enough surplus firm power to supply a city the size of Seattle from 1985 through 1990 and enough power to meet peak demands for the next 20 years. [26]

Support for construction of the Pacific Northwest-Pacific Southwest Intertie began to build in the early 1960s. On April 16, 1963, Sen. Lee Metcalf spoke to a capacity crowd at Frenchy's Chinese Gardens in Whitefish about the Intertie proposal. Metcalf pointed out that $13 million worth of unused waterpower spilling over Columbia River dams could be put to use generating power for California, and thermal-generated power from California could be sent back to the Pacific Northwest. Metcalf suggested that the Intertie would help the BPA keep power prices down, which was important to Montana's aluminum industry. [27] On Aug. 14, 1964, Congress provided $42 million to initiate construction of the Intertie. One week later, a second bill passed in Congress providing a regional preference to power transmitted on the Intertie. [28] In March 1967, the Western Systems Coordinating Council was formed to help in planning the Intertie. The voluntary council was made up of 45 member utilities and 13 affiliate members from 13 different Western states and British Columbia. Once the Intertie was operating, the Joint Intertie Scheduling Office was formed to control day-to-day operations. [29]

Big plans for power

The Intertie was the single largest transmission project undertaken in the U.S. up to 1978. The Intertie linked the Federal Columbia River Power System to utilities in California and the Southwest with three major transmission lines – two 500-kilovolt AC power lines, each with a capacity of more than 1,000 megawatts, and an 800-kilovolt DC line with a capacity of 1,440 megawatts. The first AC line was energized in January 1968, the second AC line was energized in May 1968, and the DC line was energized in May 1970. The purpose of the Intertie was to sell surplus power from the Pacific Northwest – power generated by water that would otherwise have spilled over the dams. Between April 1968 and September 1976, more than 80 million megawatt-hours of power was transmitted over the Intertie to the Southwest, including surplus Pacific Northwest

power and Canadian Entitlement energy. The Intertie was also intended to transmit summertime peaking capacity power to the Southwest, and conversely to transmit off-peaking Southwest energy back to the Pacific Northwest. During times of low streamflow in the Pacific Northwest, the Southwest was able to provide about 320 megawatts of firm energy to the Pacific Northwest over the Intertie. [30] The direct current line was expanded from 2,000 megawatts to 3,100 megawatts in April 1989. [31] By December 1999, the Intertie included an AC line with a capacity of 4,800 megawatts and a DC line with a capacity of 2,900 megawatts. [32]

BPA Administrator H.R. Richmond and Interior Secretary Stewart Udall continued to warn about regional power shortages in the BPA's 1967 annual report. The BPA had assumed a leadership role in organizing regionwide planning for the 15,000 to 16,000 megawatts of thermal generation that the Pacific Northwest would need in the next 20 years, the report said. The goal was to facilitate planning for a smooth and economic transition from the all-hydro era to an era of combined hydro and thermal power. The report cited four achievements – the BPA's rates continued to meet repayment schedules to the U.S. Treasury, the first portion of the Intertie had been energized, three treaties had been signed with Canada for new water storage projects, and the 800-megawatt Hanford Plant, the largest nuclear power plant in the world, had gone into full operation in 1967. But still power shortages were expected. [33]

According to the BPA's 20-year Advance Program, firm energy loads were expected to double, reaching 30,000 megawatts by the mid-1980s, the annual report stated. To meet that forecasted demand, the non-federal utilities saw a need to construct 15 large thermal-generating plants and to add 5,000 megawatts to hydro plants, along with all the required transmission facilities. The federal role of providing transmission lines, peaking capacity and supplying surplus hydro power could cost an investment of $14.3 billion, the report stated. "Perhaps the most disturbing disclosure resulting from load resource studies is the finding that on the basis of presently assured resources, BPA will be unable to meet fully the power requirements projected for the Northwest's electro-processing industries," the annual report stated, referring to the aluminum industry. "It is estimated that the Northwest will have to turn away over the next 20 years, seven out of every 10 potential new electro-process industries due to an insufficiency of firm, low-cost power." [34]

Richmond and Interior Secretary Walter Hickel described 1969 as "one of the most eventful periods in Bonneville's history" in their annual report for 1969. The Nixon administration had approved the joint Hydro-Thermal Power Program for the Pacific Northwest, and Congress had approved the fiscal year 1970 Public Works Appropriations Bill to help fund the program, which required the cooperation of 108

participating utilities and the BPA. The program's two objectives were to allow timely and orderly development of an adequate and reliable power supply for the Pacific Northwest at the lowest practical cost, and to meet future power requirements while protecting the environment. Several large thermal power plants were already under construction, including a coal-fired plant in Washington, a nuclear plant in Oregon and a coal-fired plant in Wyoming, while four new hydro dams were under construction by the Army Corps of Engineers and the Bureau of Reclamation, and additional generators were being installed at four existing hydro dams. Still, power shortage problems existed. Unusually high power demands in December 1968 through January 1969 caused by unusually low temperatures coincided with a temporary power outage at the Hanford nuclear plant and delays in new federal generator installations. The BPA had imported 700 megawatts into the region and curtailed as much as 400 megawatts of interruptible industrial loads during peak periods. Then in early September 1969, record-low stream flows caused a shortage of hydropower, and exports of power on the Pacific Northwest-Pacific Southwest Intertie were stopped. [35]

Finally, heavy rains in the last two weeks of September 1969 improved the situation. "We are approaching a serious power supply situation in the Pacific Northwest over the next five years," the annual report stated. "Repeated delays in generator unit installation schedules at key federal hydro projects in the region will result in utility loads outstripping resources during the years 1970-1975." The report anticipated a deficit of 1,154 megawatts at its height in 1973-1974. "The situation is even more alarming than suggested by the table," the report stated, because it made some assumptions about future resource availability. Problems with construction of new power plants in California, for example, could mean 790 megawatts that could not be sent over the Intertie during winter months in 1974. "Much of this bleak short-run outlook stems from the very long lead time required for construction of hydroelectric projects and large modern steam plants," the report stated. The Nixon administration's approval of the Northwest Hydro-Thermal Power Program, however, "brightens the prospects for meeting regional loads after 1975," the report stated. [36]

Natural causes other than drought also caused problems over the years. The Intertie faced a major setback in January 1994 when a severe earthquake in Los Angeles demolished a large substation and knocked out one of the four transmission lines linking the BPA to Southern California. The Intertie was expected to be out of service for nearly a year. The quake knocked out power to the BPA's Pacific Northwest power grid for about 30 minutes. The long-term effects of the earthquake for the BPA included additional costs for repairs and the lack of flexibility in transmitting power back and forth from the southwest to the northwest. [37]

Deregulation concerns

The cause of the 2000-2001 West Coast Energy Crisis cannot be pinned down to a simple list of factors. The Intertie did not cause the crisis – it enabled a crisis in California to impact the Pacific Northwest, a thousand miles away. Likewise, federal deregulation of wholesale power markets did not cause the crisis – it enabled some power-generating companies to take advantage of power utility companies that were trapped in a system governed by poorly planned legislation. The movement toward deregulation of the nation's electrical power markets began in 1978 when Congress passed the Public Utility Regulatory Policies Act, which was followed by the Energy Policy Act of 1992. [38] The goal of the Energy Policy Act was to create a competitive playing field for wholesale power suppliers. The act gave the Federal Energy Regulatory Commission authority over private transmission lines to prevent owners of the lines from favoring transmission of their own power. According to Deputy BPA Administrator Stephen Hickok, writing in November 2002, deregulation of interstate transmission lines worked, as non-utility power marketers and brokers stepped in to link energy buyers and sellers. But at the same time, states held jurisdiction over retail markets, and regulation of the retail markets froze potential investment in new power plants across much of the West, Hickok said. [39] The shrinking margin between power supply and power demand, a new deregulated market that acted in real-time fashion like the stock market, and the fact that building new power plants could take years were also key factors explaining the origin of the energy crisis.

By 1996, governors in the four Pacific Northwest states had grown concerned about past regional power planning and the new deregulated power market. Montana Gov. Marc Racicot joined the governors of Idaho, Washington and Oregon in kicking off a comprehensive review of the Pacific Northwest's electrical power system on Jan. 4, 1996. The governors were concerned that power in the region had once been cheap and abundant, but the expensive legacies of unfinished nuclear power plants started in the 1970s and the high cost of current fish and wildlife mitigation projects threatened to drive up power prices. Deregulation was restructuring the power market nationwide, and that put the BPA in the position of being competitive or failing. The governors planned to work with the Northwest Power Planning Council to recommend possible changes in ownership of and responsibility for the federal dams and transmission systems, as well as how fish and wildlife programs should be run. [40] The governors appointed 20 people to serve on a steering committee representing utilities, government entities and environmental organizations to address the increasingly competitive electrical power marketplace. The committee recommended that the BPA avoid the volatile marketplace by selling its power through long-term subscriptions. As

market prices dropped in the late 1990s, however, some customers left the BPA, and the BPA implemented internal cost-reduction measures. [41]

In their final report on Dec. 12, 1996, the governors' steering committee noted the gains to be made by the transition to a deregulated market, including lower prices and broader choices for consumers. It also mentioned risks. "Merely declaring that a market should become competitive will not necessarily achieve the full benefits of competition or ensure that they will be broadly shared," the report said. "It is entirely possible to have deregulation without true competition." The committee was also concerned that "the reliability of the region's power supply could be compromised if care is not taken to ensure that competitive pressures do not override the incentives for reliable operation." In the Pacific Northwest, the transition to a deregulated market was made more complicated by the presence of the BPA, which supplied about 40% of the region's power and controlled more than half the region's transmission lines. The BPA benefited from its marketing of primarily cheap hydropower, but it was hampered by high fixed costs, including past investments in failed nuclear plants and costs for fish recovery. The committee wanted to know the federal government's proper role in a competitive market. [42]

The governors' steering committee "recognized that the electricity industry is changing, whether the region likes it or not," according to the BPA in its 2002 supplemental power-rate record of decision. The region's success would depend on establishing some type of consensus, but a return to the historical industry structure was not an option. The committee noted that most people didn't recognize this fact. Out of the committee's final report came a proposal for a mechanism to accomplish its goals – a subscription system for purchasing specified amounts of power at cost with incentives for customers to take longer-term subscriptions. First preference for subscriptions would be regional customers in a specified order – public-utility districts and rural cooperatives, then direct-service industries, then residential and small-farm customers of investor-owned utilities that were part of the Residential Exchange Program. Second preference after all of these would be non-regional customers. The subscription system was premised on the goals of spreading the benefits of the federal generating resources, avoiding rate increases through a creative and businesslike approach, allowing the BPA to meet its fish and wildlife obligations, and providing market incentives for alternative energy and conservation. [43] According to the steering committee's recommendations, direct-service customers in the Pacific Northwest, like aluminum smelters, would have a higher preference than any customers in California.

A record of decision adopting the subscription strategy was published in December 1998 after a public review by the BPA. By that time, open-market power prices were creeping

upward, and many of the BPA's regional customers wanted more of the BPA's cheaper federal power – including the aluminum companies. An important goal of the subscription strategy was to combine the benefits of federal power with a corresponding measure of the risks. As the power system adapted to a deregulated market, the BPA did not want to be caught holding power that was not sold. It was estimated that a total of 6,300 average megawatts of firm power would be available to the subscription program. Once the needs of public agency and investor-owned utility customers had been met, the direct-service industry customers would be free to contract for the remaining firm power. DSI customers, however, were critical of this plan. They argued that long-term customers should be offered firm power during the same contract window as other customers. Reynolds Metals Co. was wary of the proposal and argued that the contracting system put the BPA in the position of either selling power to DSI customers or to the open market, with the latter offering more revenue. Kaiser Aluminum argued that DSI contracts would combine interruptible power risks with market risks – a double whammy. [44]

On the other hand, Reynolds pointed out in criticism of the subscription strategy, if DSI prices fell low enough, the public might perceive DSI contracts as a subsidy to aluminum producers. If the BPA was short on power, DSI customers argued, then the BPA system should be "augmented" by purchasing power from outside the BPA system. DSI customers also argued that the load requirements of investor-owned utility customers had been exaggerated, which determined the limitations of the contracting window. Having to wait until all other power customers finished signing power contracts created an unacceptable planning uncertainty to DSI customers, Reynolds argued. DSI customers pointed out that investor-owned utility customers might sell BPA power outside the region, since they were privately held companies with the profits of their shareholders to maintain. This would violate two principles – regional preference and the reselling of federally-generated power. Public agency customers joined the DSI customers in arguing that any investor-owned utility power resources freed up by BPA sales should not be sold outside the Pacific Northwest. On the other hand, limiting sales of BPA power to within the Pacific Northwest raised an anti-trust issue as a restraint of interstate commerce and trade. [45]

The BPA responded to these criticisms of the subscription strategy by pointing to the Congressional mandate in the 1980 Northwest Power Act. Simply put, direct-service industry customers did not have a statutory right to power – the BPA was allowed to sell power to DSI customers if power was available. The BPA noted that once initial 20-year power contracts made with DSI customers ran out, the BPA was not required to continue providing power to them. In passing the Northwest Power Act, Congress had anticipated future changes in the world and provided more flexibility to the BPA for

managing its power system. In any event, the BPA expected to be able to meet the needs of all its DSI customers, the agency said in its response. With regard to the sale of power outside the region, the BPA pointed out that the 1980 Northwest Power Act and the Regional Preference Act required the BPA make a determination about whether the sale of power to a customer would lead to an overall increase in power requirements for the Pacific Northwest, which would violate its mandate to conserve power and distribute power equitably in the region. If the BPA determined that a sale would cause a problem, the BPA could exclude that customer. In 1994, the BPA had adopted an interpretation of a section of the Northwest Power Act and a section of the Regional Preference Act as part of its policy with regard to the sale of power outside the region by privately-held power companies. In summary, the BPA stated that sales outside the region would be made only after all the regional customers' needs were met. Regarding prices for power sold to DSI customers, the BPA pointed out that it was limited by the Northwest Power Act, which provided that the rate for DSI customers should be based on wholesale prices to public agencies and cooperatives throughout the system, with downward adjustments made to account for interruptible power and curtailments. [46]

Lured by the open market

Market prices for wholesale power in the Pacific Northwest were dropping in 1994, and conventional wisdom was that deregulation was likely to deliver consistently lower wholesale prices. By 1995, many BPA customers opted to reduce their BPA power purchases and look to the open market. The Pacific Northwest's direct-service industries reduced their take from the BPA by about 800 megawatts. Public utilities followed suit in 1996, reducing their take by about 1,000 megawatts. [47] When Energy Secretary Hazel O'Leary initially balked at granting the DSIs' request to exit from their BPA contracts, the aluminum companies turned to their Pacific Northwest congressional representatives to apply pressure. O'Leary relented during a meeting called by Sen. Mark O. Hatfield of Oregon, agreeing to new contracts through September 2001 that cut BPA power sales to the aluminum companies by 40%. The episode was a major blow to BPA Administrator Randy Hardy, proving the BPA's vulnerability to political pressure in Washington, D.C. [48]

In an attempt to lure customers back, the BPA proposed a general wholesale rate reduction to its direct-service industrial customers in July 1995, including a 12.5% reduction for five-year contracts to $22.60 per megawatt-hour. The BPA gave its DSI customers until September to decide if they wanted to remain BPA customers. By mid-August, four aluminum companies had already arranged to purchase part of their power from outside the BPA, and the BPA lost 185 megawatts of sales amounting to $30 million in annual revenues. If the DSI customers turned to other sources of power, the BPA knew it could be forced to sell excess power on the spot market. Typically, the DSI

customers provided one-fourth of the BPA's $2 billion in annual revenues. DSI customers also provided important power stability reserves – power that could be interrupted in emergencies and which was sold at a cheaper price. [49]

By mid-September 1995, the BPA was concerned that it might lose substantial business from its DSI customers, and a public meeting was scheduled. [50] On Sept. 28, six direct-service industry customers signed agreements with the BPA amounting to 1,500 megawatts of power. By Nov. 6, three more companies signed agreements, and the total reached 2,100 megawatts worth $495 million in annual revenues to the BPA. The new agreements provided power at a fixed rate of $22.60 per megawatt-hour. DSI customers signing on included CFAC, Intalco, Northwest Aluminum and Reynolds. DSI customers signing on in October and November included CFAC and Kaiser. The Energy Department required the DSI customers put at least 80% of their current firm power load on the BPA for the next five years to qualify for the special five-year block sale. This special sale exempted the DSI customers from "stranded investment cost recovery charges," charges that would protect the BPA should too many customers leave the system for cheaper power in the recently deregulated power market. [51]

By 1996, several aluminum smelters in the Pacific Northwest, including CFAC, were buying a portion of their power supply from the open market, either with spot purchases or fixed contracts, with prices on the open market running around $16 to $17 per megawatt-hour. [52] The BPA had supplied nearly all the power needs of the Pacific Northwest's aluminum smelters up to 1996, but that had fallen to 60%. Contracts between the BPA and the smelters for 1996 to 2001 were structured as "take or pay," meaning the aluminum companies took financial ownership of a specific quantity of power at a specific price. The companies had flexibility regarding when to use the power over the five-year period. In one type of contract, a company paid the BPA $5 per megawatt-hour for power not used by the smelter. The BPA modified this option as the 2000-2001 West Coast Energy Crisis worsened. In another contract, the BPA was paid the difference between the forward contract price and the market price, so if the market price was higher, the smelters got the difference. In 1996, the BPA was concerned their contract price of $24 per megawatt-hour might be higher than market prices, but nobody anticipated the dramatic market changes of the West Coast Energy Crisis starting in fall 2000. [53]

By August 1998, the BPA's power was in high demand, its rates were competitive, and the agency had cut $600 million in costs. Analysts forecasted rising prices for open market private power. Deregulation in the electrical market was changing the way the BPA conducted business. In 1998, the BPA supplied about 40% of the power in the Pacific Northwest and paid $800 million per year to the U.S. Treasury for principal and

interest on the cost of building the federal power generating system. The BPA also paid out $400 million per year for costs at non-federal power plants and $300 million per year for salmon recovery efforts. [54] Politics played a role as open-market prices increased and aluminum companies sought to increase their take of BPA power. The subscription process had bolstered the BPA's tie to investor-owned utilities under their legal claim to power in the 1980 Northwest Power Act, and the BPA was committed under the subscription process to providing 1,000 megawatts of power to the investor-owned utilities. As open-market power prices began to move upward, public utilities and investor-owned utilities asked for a greater share of BPA power. In response, the BPA suggested limiting aluminum companies to as little as 500 megawatts – about one-sixth of their total load at full capacity. The aluminum companies regarded the suggestion as a violation of the 1980 Northwest Power Act, but rather than go to court, the aluminum companies opted to take their case to Energy Secretary Bill Richardson. [55]

Labor also played a political role. At an April 8, 1999 meeting, Steelworkers President George Becker successfully persuaded Richardson to find a way for the BPA to provide enough power to the aluminum companies to prevent the loss of thousands of jobs. Several weeks later, the BPA came out with a plan to provide 1,500 megawatts to the regional aluminum smelters by buying the power on the open market and blending the higher-cost private power with low-cost federal power. The subscription process closed in fall 2000, two years after it started. By that time, deregulation problems in California had sparked the West Coast Energy Crisis. Fearing the rapidly rising power costs, public utility customers in the Pacific Northwest signed up for 2,300 megawatts from the BPA. Adding that new demand with the additional demand from investor-owned utilities and aluminum companies, the BPA was faced with providing 11,000 megawatts with only 8,000 megawatts of federal power from 29 hydroelectric dams and one nuclear reactor. [56] On Aug. 13, 1999, the BPA published its proposed wholesale power rate adjustments for 2002 in the Federal Register as required by the Northwest Power Act. The wholesale power market had dramatically changed since 1996, the last time the BPA had set rates, the BPA said. Market competitiveness had increased, as anticipated by the BPA, and external factors needed to be taken into account, such as environmental concerns and deregulation. While BPA's rates were higher the open market's in 1996, the situation had reversed three years later – BPA customers wished to purchase more power than the Federal Columbia River Power System could produce. [57]

The Californians

The West Coast Energy Crisis began in California and then spread to the Pacific Northwest on the Intertie's transmission lines. On Sept. 23, 1996, Gov. Pete Wilson signed California Assembly Bill 1890, which deregulated the state's investor-owned

utilities, opening up the state's $23 billion power market and promising a 20% reduction in power costs for residential and small business customers by 2002. The bill created an Electricity Oversight Board, an Independent System Operator and the California Power Exchange. Three utilities dominated 80% of the California power market at the time – Pacific Gas & Electric in northern and central California; Southern California Edison in southern California, and San Diego Gas & Electric. The three utilities were vertically integrated, with generating facilities, transmission equipment and a customer base. [58] Under the terms of the new deregulation law, California's private utilities were forced to sell their oil- and gas-fired power plants and allowed to keep their nuclear and hydroelectric plants, but the power generated from those plants had to be sold on the state power exchange. [59]

On March 31, 1998, the three utilities handed over control of their power to the Independent System Operator, which was created by the state government to direct and control the California power grid. During the four-year transition period, the three utilities were required to buy and sell all their power through the state power exchange, which conducted several daily auctions and determined the market clearing price. Other market participants, such as independent power generators and municipal utilities, had the option of buying and selling power through the state power exchange or directly to and from customers. Natural gas had become the primary fuel for generating power in California during the 1990s because of its relatively low cost, as a replacement for oil in order to reduce air pollution, and to fill in for hydroelectric plants during times of drought. [60]

During the first year of the state power exchange's operation, day-ahead market power prices averaged $24 per megawatt-hour and prices ran below $30 about 80% of the time. In the day-ahead market, the state power exchange constructed aggregate supply and demand curves to determine the market clearing price – at the point where supply equaled demand – and which became the single cost for power throughout California during that energy delivery hour. [61] Prior to deregulation, public utilities were allowed to pass on the cost of capital investments to their customers, sometimes at inflated levels to their captive customers. After deregulation, the utilities were forced to sell many of their power plants and buy power from a state-sanctioned wholesale market, a market thought to be large enough to offer low power rates to consumers. [62] Rates to customers were to remain capped until 2002 while the power plants exchanged hands. In 1999, San Diego Gas & Electric became the first California utility to fully deregulate, allowing it to lift its price caps. Within a year, customers' bills tripled as high wholesale prices were passed on to consumers. [63]

When he signed the bill, Gov. Wilson said deregulation would lower rates, spur competition and improve service "so no one literally is left in the dark." Speaking five years later, Wilson claimed he knew at the time that the bill was flawed but "thought it was imperative to get California launched on deregulation." Wilson explained that at the time, Southern California Edison, Pacific Gas & Electric and San Diego Gas & Electric were not particularly interested in deregulation until they saw it as a way to be compensated sooner for stranded costs, including nuclear power plants and other noncompetitive investments. Wilson said the bill's most obvious flaw was the cap on rates utilities could charge their customers – the utilities could not pass on the higher power costs they faced during the crisis. Between summer 2000 and May 2001, the cap caused the utilities to run up nearly $14 billion in debt. Additional problems were blamed for the power crisis. In 1998, the California Energy Commission predicted power shortages as early as 1999 or 2000. Power consumption in California increased 9.2% between 1996 and 2000, compared to only 5.5% between 1992 and 1996, according to the Energy Commission. Power prices were bound to increase even if the power market had not collapsed following deregulation, according to the California Public Utility Commission. An increase in power prices would have taken effect because of extreme weather conditions, limited power development, increases in natural gas prices, and increases in costs for pollution-control equipment at generating plants. In a May 2001 report, the state auditor agreed with the Public Utility Commission but added that deregulation made it easier for generators to withhold power to get higher prices. [64]

Montana also deregulated its power industry, but the impacts were different. The Pacific Northwest aluminum plants, including CFAC, did not rely on Montana generating plants for power. Gov. Marc Racicot signed Senate Bill 390 into law in 1997, and the bill's plan went into effect in July 1998. Nationwide, deregulation came after lobbyists in the $220 billion electrical power industry intensively lobbied Congress for deregulation. In Montana, Sen. Fred Thomas was a staunch supporter of Senate Bill 390 – he claimed it could work if the market was given enough time to develop and if environmental regulations could be "streamlined" to allow for faster construction of new power plants. Montanans had benefited from the sixth-cheapest power rates in the nation for many years. Much of the state's power had come from Montana Power Co. since 1912, but in November 1998 the company sold 13 of its generating plants for $998 million to PP&L Global, a Pennsylvania power utility company. PP&L Global agreed to honor Montana Power's government-regulated contracts to Montana homeowners until July 2002, at which time Montana consumers would have to shop for power on the open market. PP&L Global had no legal or contractual obligation to sell power at any price to Montanans after July 2002. [65]

Montana's deregulation bill helped Montana Power Co. sell its generating and distributing assets so it could get into another business, a point the company's executives denied. Goldman Sachs & Co. began advising Montana Power Co. executives about deregulation in the middle 1990s, including how they could sell the hydroelectric dams and coal-fired generating plants that provided cheap power to Montanans, according to Charles S. Johnson's 2004 account in the Missoulian. A lawsuit filed against Goldman Sachs & Co. by creditors claimed Montana Power Co. executives who were resistant to the idea were "overcome by the greed of the potential for Montana Power to become a high-flying telecommunications company" – Touch America. Soon after the deregulation bill was signed into law, Montana Power Co. announced it would sell its dams and coal-fired plants, which took place in the next three years. Both Montana Power Co.'s successor, Touch America, and the company that bought Montana Power Co.'s distribution system, NorthWestern Corp., filed for bankruptcy in 2003. The bankruptcy wiped out the lifetime savings of thousands of shareholders, including many employees. [66]

Former Montana state senator and Public Service Commission board member Ken Toole looked back at deregulation in Montana in a March 2017 opinion piece. Toole noted that Sen. Fred Thomas had promised legislators and the public, "There has not been an industry that has been deregulated or restructured where the prices have not gone down." Despite opposition from consumer groups, senior citizens, conservation organizations, organized labor and Democratic legislative leadership, Thomas shepherded the electric deregulation bill through the Montana Legislature, according to Toole. "The bill passed and was signed by Gov. Marc Racicot," Toole wrote. "Montana began an economic experiment which turned out to be the biggest financial disaster in our history." Toole noted that as power rates increased in Montana, "even politicians began to agree electric deregulation had been a huge mistake. We began to rebuild the kind of regulated company Montana Power had been in the old days." NorthWestern Energy was able to acquire generating facilities again and try to rebuild its business after bankruptcy. "It's easy to think the deregulation mess was a simple matter of corporate greed and incompetence," Toole wrote. "And it's true there was plenty of that. But, with rare exceptions, the political leaders of the state had very little to gain. They supported the bill because they were true believers." [67]

As the West Coast Energy Crisis moved north in 2000 and 2001, and open market prices increased by 10 to 20 times normal, many of the BPA's former customers returned. The BPA found itself oversubscribed by 3,000 megawatts and quickly spent its cash reserves purchasing market power. In 2001 alone, BPA spent nearly $3 billion buying power for its customers. [68] Helping all this power flow south on the Intertie was a power surplus across the West. With good streamflows in the early years of federal deregulation, the

BPA sent as much as 7,500 megawatts south to California for summertime air conditioning and irrigation. The normal swing from average to drought or average to surplus streamflows was 6,500 megawatts. Meanwhile, demand for wholesale power across the West grew 20% from 1992 to 2001 while power generation grew less than 5%, and supply-demand margins shrank to all-time lows. [69]

A convergence of forces

During the first two years of deregulation, with operation of the California Power Exchange and the Independent System Operator, there was little market volatility and prices averaged in the mid-$20 per megawatt range, the BPA's Stephen Oliver told the Senate's Energy and Natural Resources Subcommittee in October 2000. The Pacific Northwest as a region, including non-federal facilities, relied on hydroelectric power for about 70% of its needs, and there was abundant water supply in 1996, 1997 and 1999, but runoff in 2000 came too early in spring, meaning water was not available in reservoirs during peak summer loads. The most significant challenge facing the BPA was a shortage of power generation when the region's demand was growing, Oliver said. The volatility of the Pacific Northwest power market was a combination of extreme summer temperatures, major plant outages, reduced output from the hydroelectric system and all-time high natural gas prices. Gas prices climbed in 2000 from the 1995 price of $1 per million BTUs to $5. Demand from California also influenced the Pacific Northwest market in summer 2000. The Pacific Northwest and California were connected with a 7,900 megawatt Intertie, Oliver said, and "the Pacific Northwest is significantly influenced by the market structure in California." On top of that, the Federal Columbia River Power System produced 10% less power in 2000 than it did in 1995 because of the need to spill water over dams for fish programs. [70]

In May 2000, the BPA thought they were "wrapping up" a two-year process of developing power-sales contracts when external events stepped in. Rates in the BPA's proposal to the Federal Energy Regulatory Commission averaged about $22 per megawatt-hour for preference power, roughly the same as for 1997 to 2001, and the BPA expected to earn about $414 million in net revenues in 2002 to 2006. "As we filed our rates, our world was changing," an April 2003 BPA report stated. "May 2000 was the beginning of the 2000-2001 West Coast Energy Crisis and marked the transition from a period of low wholesale power prices, minimal concern on the West Coast in general for adequacy of supply and minimal spending on electric infrastructure to a period of skyrocketing power prices, blackouts in California, fear of blackouts throughout the West Coast, and a renewed focus on electric infrastructure and adequacy of supply." [71] By May 22, California's power reserves dropped below 5%, and the California Independent System Operator declared the first of thirty Stage 2 alerts. On June 15,

rolling blackouts took place in San Francisco as a result of power shortages caused when several power plants in northern California went off line for maintenance. [72]

By early summer 2000, power prices in the Pacific Northwest became unstable, with long-term prices reaching $30 per megawatt-hour and spot prices reaching an astronomical $1,000 per megawatt-hour. Several Pacific Northwest aluminum companies heavily dependent on the open market were forced to either close down or severely curtail production. Vanalco cut production by 80% and laid off 450 workers at its Vancouver smelter. Kaiser cut production by 128,000 tons per year and laid off 400 hourly workers at its smelters in Spokane and Tacoma. Alcoa closed the former Reynolds smelter in Troutdale and eliminated 525 jobs. [73] By June, wholesale electric power prices in the Pacific Northwest averaged $180 per megawatt-hour and reached as high as $1,100 during peak hours. The June price averaged over the previous three years had been only $16 per megawatt-hour. [74]

The California market drove the Pacific Northwest market that summer, Oliver told the Senate subcommittee. The BPA sold 489,000 megawatt-hours of power to the California Power Exchange and the Independent System Operator markets in June, July and August, but this amounted to only 1% or less of the California market. Ordinarily, Pacific Northwest peak loads came in winter and California's came in summer, but when the 1,200-megawatt Columbia Generating Station, the only commercial nuclear power plant in the Pacific Northwest, went off line due to an accidental shutdown during summer 2000, power from California temporarily flowed to the Pacific Northwest, Oliver told the Senate subcommittee. [75] Among the many reasons given for the volatile Pacific Northwest power market in June were generators that were offline due to planned or unplanned maintenance, generators that were offline because of fish preservation efforts, reduced power generation because of late runoff filling the reservoirs, and a heat wave in the Southwest that led to a spike in demand for air conditioning. Alcoa and Vanalco sued the BPA for selling power at higher rates in order to subsidize power expenses outside the Pacific Northwest. On top of all that, aluminum producers faced higher alumina prices. [76]

The Columbia Falls Aluminum Co. smelter had a solid supply of power through September 2001, with the exception of 150 megawatts needed for February and March 2001. According to Jim Stromberg, CFAC's power broker, price forecasts for power for those two months suggested that CFAC might pay 25% to 30% higher than previously anticipated. As the impacts of the West Coast Energy Crisis were felt in the Pacific Northwest in June 2000, CFAC General Manager Larry Tate urged workers to "keep our wits about us, concentrate on in-plant issues we can control that keep us competitive, and put all efforts to secure competitive power prices." CFAC management had shared

their concerns about higher power costs with the BPA, Gov. Marc Racicot, the Northwest Power Council, and staff for Sens. Conrad Burns and Max Baucus of Montana and Sens. Slade Gorton of Washington and Gordon Smith of Oregon. Aluminum Workers Trades Council President Terry Smith urged workers to write to their federal and state representatives "to alert them to the seriousness of the power issue and the threat to jobs in the area." [77] CFAC experimented with "peak shaving" in anticipation of high power costs beginning in October 2001, when the company's BPA power contracts would end. Peak shaving was a strategy in which aluminum plants varied their potline load to use less power at peak times of the day when power costs were the highest. Beginning at 3 p.m. on June 28, CFAC dropped each of the smelter's five potlines for one hour for a total of five hours. The strategy called for prewarming the reduction pots to lessen the process impact. [78]

By July 2000, market prices for long-term power contracts were edging above $30 per megawatt-hour, with spot prices reaching as high as $1,000. According to Jim Stromberg, aluminum smelters could not operate profitably if power costs rose much over $30 to $40 per megawatt-hour for five-year industrial contracts. CFAC produced about 1 million pounds of aluminum per day using 345 megawatts of continuous power, amounting to about 3 million megawatt-hours per year. An increase of $1 per megawatt-hour would result in more than $3 million per year in increased power bills. In earlier years, when electrical power was regulated, prices would have stayed around $20 per megawatt-hour despite the sudden high demand from residential customers in California and the Southwest needing air conditioning. The high power costs were not expected to hurt the CFAC plant in 2000, but the plant did not have secure power arranged for 20% of its needs starting in February 2001. Worse still, the company had no power contracts at all by October 2001. Stromberg told local media he felt sure the BPA would provide at least 50% of the plant's needs at that time. [79]

Stromberg emphasized that a power shortage did not exist in the Pacific Northwest – the problem was a shortage of low-cost power. Stromberg pointed out that the BPA was now selling power at a profit to California, outside the region it was mandated to serve. He also pointed out that the BPA would be flush with cash reserves of at least $1 billion by 2006, the end of the next five-year contract. The BPA had previously announced that it would decrease the amount of "at-cost power" it would provide to aluminum smelters by 25% when the existing five-year power contracts ended in October 2001. BPA Spokesman Ed Mosey told media that the BPA administration did not feel a legal obligation existed to supply the region's aluminum plants with cheap power after 2001. Instead, the BPA administration felt that cheaper power should be provided to residential customers. The BPA planned on holding public meetings later in 2000 to address these issues, Mosey said. Industrial customers affected by the high price of

power included the Vanalco smelter, which reduced production by 80%; Kaiser's Mead smelter in Spokane, which intended to lay off 400 workers; and Alcoa, which announced it would close its Troutdale smelter and eliminate 525 workers. The BPA noted that paper mills and chemical plants across the Pacific Northwest also were shutting down because of higher power costs. In Montana, the copper mine in Butte operated by Montana Resources Inc. shut down after facing a 20-fold increase in power costs. [80]

Montana's industry leaders met with Gov. Racicot and Sen. Baucus on July 5, 2000, to discuss the unusually high cost of electrical power. Most of the industrial leaders were mystified by the sudden surge in prices, which had reached 400% in cases. Stromberg suggested a lack of competition in the wholesale power market was driving up prices, which was further complicated by high demand caused by hot weather in California and the Southwest, and by drought conditions and power plant problems. Most industrial leaders, however, could not pinpoint an explanation. At one point it was suggested that lumber mills and aluminum smelters might be curtailing production in order to drive up market prices for their products. Gov. Racicot acknowledged that some producers might be exercising "opportunism," but he didn't believe that was a common practice. [81]

Survival strategies

On Aug. 28, 2000, CFAC Potlines Superintendent Steve Knight explained to employees that the plant was operating with power purchased on a long-term contract from the BPA. It was common for the company to use about 4 megawatts more power than the amount purchased from the BPA, and this additional power was purchased on the open market. At other times the company used less power than it purchased from the BPA, and CFAC sold that excess power on the open market. Normally, the purchase and sale balanced out over a long period of time, but with the current unprecedented high power prices, reaching well over $100 per megawatt-hour, the company was facing losses, Knight said. The 4 additional megawatts of power amounted to the power consumed by about eight reduction pots, and company management decided to quickly reduce load by dropping four pots. Pots that were cut out on the normal rebuild schedule would not be put back in service. Another power-saving alternative was to run the pots at lower voltages – by reducing the average voltage at each pot by 0.06 volts, the plant could operate at full capacity without purchasing additional power on the open market, Knight said. This could be accomplished by reducing set-point voltages in control panels, cleaning up muck in the pots, optimizing metal levels in the pots, and decreasing the frequency of anode effects – and putting out anode effects more quickly. [82]

By September 2000, CFAC workers were talking about a power deal offered by the BPA at $23.50 per megawatt-hour that included a "good corporate citizenship" clause the

company opposed. Energy Secretary Bill Richardson had announced on April 7, 2000, that he would seek public comment on a proposal by the Steelworkers union to require all aluminum plants meet corporate citizenship standards in order to receive preferential power rates. The Steelworkers' proposal, which arose from its 18-month labor dispute with Kaiser in Spokane, tied good citizenship to environmental, labor and safety practices. Larry Tate and Terry Smith wrote a joint letter to the BPA expressing concern about the practical application of the proposal. The BPA had already reduced the amount of electricity it would guarantee aluminum plants amid forecasts of future shortages. [83] In an informal conversation on Sept. 13, CFAC Maintenance Manager John Hoerner confirmed that the BPA had proposed a five-year contract for 50% of CFAC's power needs at $23.50 per megawatt for power and $2.50 per megawatt for transmission for a total of $26. The remaining 50% of the company's power needs would have to come from the private sector, but that could be arranged, he said. The BPA proposal was meant as an "opener" for renewed negotiations and would likely include a provision for the BPA to raise rates a few years down the line, Hoerner said. He noted that aluminum plants in the Pacific Northwest could not operate profitably at $30 per megawatt or higher. [84]

On Sept. 21, 2000, CFAC announced plans to shut down Potline 2 and lay off some workers in the future on a seniority basis. This marked the third time the plant shut down a potline because of high power prices. Power prices had climbed to 10 times what CFAC expected to pay. CFAC at the time got about half its power from the BPA and half from the open market. Stromberg blamed the high cost of power on a shortage of generating plants. "It's a classic supply and demand imbalance," he told local media. "The power infrastructure in the Northwest is in dire need of repair." CFAC was expected to begin negotiations with the BPA in the next few weeks for a new five-year power contract. Stromberg said the plant needed to purchase power at about $26 per megawatt-hour. The BPA also wanted to put a "good corporate citizenship" clause in the contract that Stromberg criticized as poorly worded. He said the clause could jeopardize a power contract if a worker or anyone else complained about CFAC for safety or environmental reasons. [85]

The next day, a notice announcing the shut-down of Potline 2 hung in the hourly men's change house at the CFAC plant. For the rest of the day, employees were summoned to the Safety Conference Room to listen to Hoerner, Tate and Stromberg explain why the curtailment was necessary. The company had developed a strategy that called for selling power for one potline now in the fourth quarter of 2000 and using that money to buy power for the months of February and March 2001, when the plant would be faced with either reducing capacity by two potlines or purchasing very expensive power on the open market. The company was currently purchasing power from the BPA at $22 per

megawatt-hour, and a possible future contract with the BPA beginning in October 2001 would cost $26, according to Hoerner, or $28, according to Stromberg. The plant would cease to make money at $30. The company was reluctant to sign the contract because it could be renegotiated at a later time by the BPA and because it contained a "good corporate citizenship" clause forced on the BPA by the Energy Department. The clause would give the BPA enormous and arbitrary power to deny energy or to raise rates to aluminum plants for reasons including labor relations or environmental compliance, they told the workers. [86]

Stromberg said power marketers were buying power far in advance at prices that did not seem to make much sense. Some unusual circumstances had helped create the abnormal power prices, including heat waves in the Southwest and forest fires in Montana that took out the power line to Colstrip, he said, but overall the power market volatility was driven by the deregulated market in California. Stromberg said he felt the deregulated power market was young and needed to settle down, but that could take years. The workers were also told that the company was offering a variety of ways to deal with the layoffs. Production workers could face a layoff before Jan. 1, 2001, and those who voluntarily left early could receive six weeks pay and full medical coverage through Jan. 1, 2001. Layoffs in the maintenance department were possible after the first of the year, Hoerner said. Maintenance workers who had been through earlier layoffs said a labor reduction typically correlated with a curtailment, so a 20% cutback in capacity translated into a 20% layoff of production and maintenance workers. Layoffs would follow seniority, but for maintenance workers the question was whether layoffs would follow craft or department. The plant as a whole was already running at low manpower levels, and many workers were skeptical that the layoffs would match the curtailment. In the meantime, Tate said, Potline 2 would be offline by midnight on Sept. 29. Low seniority production workers who elected to stay on through the rest of the year 2000 would work on increasing energy efficiency of the plant's 600 reduction pots by cleaning riser bars and anode buss surfaces, among other tasks. [87]

According to a press release announcing the curtailment, annual production would be reduced by 33,000 tons per year. CFAC had sold power back to the BPA at 15 times historical levels since early summer 2000. A strategy to even out power consumption over the next year and a half was behind the decision – the goal was to achieve 16 months of stability in exchange for 12 months of uncertainty. It would be uneconomical under existing conditions to purchase power in the open market for February and March 2001, so CFAC would be forced to idle two and a half potlines during those two months. The cost of restarting those potlines also would not be economical. The company's solution was to drop Potline 2 ahead of time and sell the unused power from their open-market power provider, PacifiCorp, to raise money to secure power for February and

March. With stability achieved at four potlines, the company could focus on improving operations while hoping the power market would stabilize. No employees would be laid off until Jan. 1, 2001, the press release said. Instead, they would be put to work on special projects that would improve productivity at the plant, such as voltage-drop data collection, improving connections between riser bars and anode busses, cleaning flexes and cleaning cathodes. A voluntary leave of absence would be made available in the fourth quarter for a limited number of production workers based on seniority, with six weeks of pay and a continuation of health coverage. For the long-term, the company would need to develop strategies for operating a four-potline plant in terms of materials, labor, operating supplies, maintenance materials, pot rebuilding and administrative costs. [88]

Sept. 28, 2000, was a busy day at CFAC for meetings, rumors and plans for layoffs. Tapping crews continued to drain the pots in Potrooms 3 and 4 in preparation for the curtailment. Thirty-foot long temporary holding pens were constructed in the North Crane Transfer Bay area using T-bar ingots, and tapping trucks dumped molten bath into the pens for several days. Electrical Superintendent Bill Brittenham called together all the electricians in the plant to discuss the pending layoff. The meeting was rancorous because the electricians were already upset about being left at Grade 10 when the general mechanics were raised to Grade 11. Brittenham struggled to make sure each electrician understood the seriousness of the curtailment – it was unlike any previous layoff in the plant's history, he said. Since maintenance crews were already drastically trimmed down, the size of the layoff was still unknown, but working on the assumption that a 20% curtailment meant a 20% cut in maintenance personnel, Brittenham named six electricians who were destined to be laid off by Dec. 31. The six electricians would be transferred to work on special projects in the meantime while the rest of the electricians kept the plant running at reduced manpower as an experiment. The results of the test would help determine the final size of the cut. The four foremen running the general mechanics crews put together a similar arrangement. [89]

A general communication meeting was held at 10 a.m. with Michael Armbruster of Glencore present to deliver the owner's view on the curtailment. Armbruster said Glencore was committed to keeping the plant running for the long haul and vowed to spend several million dollars on capital projects in 2001. There was no solution yet to the electrical power problem, Armbruster said. Industry rumors had the smelters at Goldendale and The Dalles shutting down potlines soon. The only plants in the Pacific Northwest doing well were Alcoa's plants at Longview, Ferndale and Wenatchee. Tate said the six-week severance pay package for voluntary layoffs was only offered to production workers because maintenance workers were needed for special energy-efficiency projects until the layoff was put into effect on Dec. 31. So far, 16 workers had

taken the offer. The severance package was offered by seniority only, so the older and more senior workers had the best shot at it. Potline Manager Steve Timmons explained the process of shutting down Potline 2 – a smooth metal pad would be made in each cathode after all the bath and excess metal was removed, and the anode would then be lowered to rest on the pad after it had cooled. Stromberg described the power market problems, emphasizing the politics that he said controlled the BPA, particularly with respect to fish restoration costs, the prospect of dam removals and the difficulties in building new power-generating facilities. Stromberg said a person might like Vice President Gore and might vote for him for President, but Gore was bad for the Pacific Northwest aluminum industry. Stromberg pointed out that with a Democratic administration in Washington, D.C., it was up to Sen. Baucus, a Democrat, to come to CFAC's aid in dealing with BPA power problems. [90]

Jessie Reynolds, with the third-highest seniority at CFAC, opted to retire on Sept. 29, 2000, after 39 years at the aluminum plant. Two other employees had more seniority at the time – Loyal Chubb with 44 years and Burl Sargeant with 41 years. Reynolds had held various potline jobs over the years and had been fixing basement flue ducts for the environmental department over the past few years. Reynolds said he decided to take the early retirement offer because of the company's decision to shut down a potline. He was scheduled to retire in two weeks, but by leaving one week earlier he was eligible for the six weeks of severance pay being offered to potline employees. He planned to combine that with nine weeks of accumulated vacation time, including several holidays, and he was still eligible for the $2,500 bonus check paid out in early December. Altogether, Reynolds was told he would take home about $12,000 when he exited the plant on Sept. 29. This was an example of good timing – employees who had retired in the past few months didn't benefit from the voluntary leave of absence. Also scheduled for retirement on Sept. 29 was Mark Eisenzimer, an ironworker in the machine shops with more than 32 years at the plant. Since he was a maintenance worker, he wasn't eligible for the six-week severance package Reynolds received.[91]]

By early October, rumors ran rampant among the workers at the CFAC plant as it shut down Potline 2 and prepared to lay off workers. Among the many unusual stories were those concerning workers who lost their seniority when they changed jobs. In accordance with the most recent labor contract, employees would be laid off by department seniority, not plant seniority. In the case of Jim Schrage, he was facing a lay off because he had only two years as a carpenter. His 31 years at the plant would not help him. [92] According to the minutes for an Oct. 30 managers meeting, Tate stated that a power contract had been signed with the BPA and that Glencore representatives would be at the plant on Nov. 13 and 14. CFAC Environmental Manager Steve Wright

noted that six firms had expressed interest in developing a power-generating plant for the CFAC smelter. [93]

Alternative energy

The idea of building a new power plant to keep CFAC operating became a rallying point for local politicians as the energy crisis intensified during 2000. On Oct. 5, the Flathead County Commissioners unanimously approved a request from the Flathead County Port Authority to apply for a $20,000 Montana state grant to study the feasibility of building a new electrical power-generating facility to help CFAC. The study was estimated to cost $100,000, and the remaining $80,000 would come from CFAC, the Port Authority and the federal Economic Development Administration. According to the grant application, every job lost at CFAC would cost 1.5 indirect jobs in the surrounding communities. “The problems in the energy field have arisen because our consumptive society continues to consume, without producing new plants to keep up with demand,” Commissioner Dale Williams said. Other businesses hurt by instability in the power market included Flathead Electric Cooperative and its industrial customers. According to Co-op General Manager William McConkey, the Co-op spent $200,000 on a power-plant feasibility study about nine years earlier. A gas-fired turbine could be ordered from Westinghouse, but it would not be available until 2003. With further study and regulatory approval, the earliest a power plant could be in operation would be 2005. The Co-op’s plan suggested building a power plant in Eureka, north of Whitefish. Building a gas-fired power plant cost about $800 per kilowatt, meaning a plant sufficient to meet the needs of CFAC and the Co-op could cost $190 million. According to McConkey, the financing was possible but natural gas prices were unpredictable. [94]

On Nov. 20, 2000, the Columbia Falls City Council approved providing $2,500 toward the $100,000 needed for a study of the economic feasibility of building a power plant in the Flathead Valley. CFAC had promised $10,000, the state of Montana had promised $20,000, and the city of Kalispell had promised $5,000. Funds from the federal Economic Development Agency were tied up in Congress. R.W. Beck Engineering of Seattle had been hired to conduct the study. According to the Flathead County Port Authority chairman, CFAC provided 585 jobs that averaged $55,000 per year in wages and benefits, and 242 of the workers lived in Columbia Falls. That same day, the Whitefish City Council evenly split on a vote to provide $2,500 for the same study, and since the mayor was absent the vote failed. About 80 CFAC employees lived in Whitefish. Whitefish City Councilor Sarah Fitzgerald argued that the request was unfair to Whitefish residents, and that Columbia Falls should pay $5,000 instead of $2,500. She provided data showing that the average annual income in Whitefish was $15,000 while in Columbia Falls it was $30,000. Other city councilors wondered why CFAC employees

would not chip in $20 apiece to fund the entire study. Whitefish City Councilor Kim Fleming opposed the idea of making Whitefish a lobbyist for a private business. “CFAC made a bad decision to pull out and go the cheap route,” Fleming said. “They’re private people asking someone else to help with their financial situation.” [95]

The U.S. Department of Commerce’s Economic Development Administration awarded a $40,000 grant to the Flathead County Economic Development Authority for the feasibility study on Feb. 22, 2001. [96] R.W. Beck Engineering issued a final needs assessment report in May 2001. By then, the Flathead County Economic Development Authority was trying to locate 125 megawatts of power to help CFAC, whether it involved building a power plant in the valley or finding a good deal in the open market. The R.W. Beck Engineering report said no technology currently existed for a generating plant with low enough capital investment or production costs to meet CFAC’s needs. “In fact, any solution is going to be extremely difficult to determine or it would have already been seized by the seasoned power experts at CFAC and at the local utility, the Flathead Electric Cooperative,” the report stated. The report described the rippling wave of power problems coming out of California as a “perfect storm.” The economic analysis portion of the report was derived from the November 2000 “Montana State Aluminum Industry Economic Impact Study” conducted by Dick Conway & Associates. [97]

Oversold power

Meanwhile, the Bonneville Power Administration was developing its own strategies. By October 2000, after completing the process of signing new power sales contracts with its customers, the BPA found it had oversold its federal power supply by about 3,300 megawatts. The outcome resulted from two decisions by the BPA – first not to limit public utilities’ requests for BPA power, and second agreeing to sell 1,500 megawatts to the direct-service industries, mostly aluminum smelters. The latter decision came in response to the DSIs’ “fervent argument that to do otherwise would devastate many communities,” a 2003 BPA report stated. “The DSIs made this argument strongly and effectively – both in the Northwest and at the national level. At the same time, we believed we could accommodate them without significantly raising rates.” The BPA was confident it could handle the extra load by purchasing power on the open market for about $28 per megawatt-hour, but skyrocketing open-market power prices convinced them otherwise. “Against the backdrop of the West Coast Energy Crisis, increased load placed on us and extremely high and volatile market prices, we asked the Federal Energy Regulatory Commission to stay the review of our rate filing while we conducted a supplemental rate case to reflect the new situation,” the report said. [98]

California congressmen responded by asking Energy Secretary Bill Richardson to stop the BPA from signing new power contracts with utilities and industry until Congress had

a chance to review them. They noted that California customers paid about $210 per megawatt-hour for power from the BPA while Pacific Northwest customers paid about $20. Such a price disparity made sense long ago to protect Pacific Northwest customers but not in an unregulated market, they said. Two East Coast congressmen called for an audit of the BPA's "profiteering sales into the tight California electricity market." They claimed that "a few lucky corporations and favored utilities in the Pacific Northwest" benefited from the BPA's power at the expense of California ratepayers and U.S. taxpayers "which created and subsidize BPA." The Pacific Northwest's eight U.S. senators rallied in support of the BPA, saying the contracts were needed to keep the region's economy sound and to help the BPA make its U.S. Treasury payments. They blamed California's problems on its "flawed experiment" in electricity deregulation. BPA Spokesman Ed Mosey said the BPA provided about 1% of California's power, and the higher rates were the result of California's state-run open market system. [99]

Power shortages by summer 2000 caused the California power marketing system to begin to break down, as the state utilities were forced to increasingly buy power on the spot market. That power ran as high as $200 per megawatt-hour by November 2000. At the end of three months in a volatile market, the two main California utilities had run up $6 billion in debt. Some blamed the utilities themselves. Southern California Edison, for example, had fought a 10-year long battle against the California public utilities commission, which had wanted SoCalEd to build more power generating plants. Later it was discovered that SoCalEd had spent $90 million fighting the plan to build more power plants and billed its customers for that money. As the colder winter season approached in November 2000, power shortages were made worse when power generating plants were taken off line for maintenance work. According to Mark Shutt of Clark Public Utilities in Clark County, Wash., power generating plants in California were not being run when they needed to be. "They were calling alerts down there last week when they had huge generating plants off line," Shutt explained. "Some of that was planned maintenance, but not all of it… There's just some things going on down there that don't make any sense." [100]

Looking into the near future, about 770 megawatts would be available to the Pacific Northwest by summer 2001, the BPA's Stephen Oliver told the Senate's Energy and Natural Resources Subcommittee in October 2000. Another 1,300 megawatts was expected to be on line by fall 2002, but that new supply would not be enough to handle deficits forecasted for 2002 through 2003. Conservation measures, voluntary curtailments and other efforts to reduce energy consumption would be necessary to address the shortfall then. Oliver explained that a two to three year time lag existed between the time the market indicated a need and the moment new power generating facilities could be brought on line. He also expressed concerns that the move toward

gas-fired turbine generators for new power was misguided because of insufficient gas supply and pipeline infrastructure. The BPA was vulnerable to further market volatility because it was committed to selling more firm power over the next five years than the Federal Columbia River Power System was capable of producing, forcing the BPA to turn to the marketplace to purchase additional power for its customers. The commitments were made in order to spread the benefits of cheaper federal power across the region. [101]

By November 2000, CFAC had signed a five-year power contract with the BPA for 50% of the aluminum plant's power needs. With a total load equal to about 20% of the total load for the state of Montana, CFAC had been a strong backer of deregulation and had turned to the open market back when power sold for only $16 per megawatt-hour. [102] Five of the region's aluminum companies signed new five-year power contracts with the BPA – Alcoa, Kaiser, Vanalco, CFAC and Golden Northwest. The 10 smelters consumed 3,000 megawatts of power at full production, but the new BPA contracts provided only 1,486 megawatts. The power was to be sold at $23.50 per megawatt-hour plus a delivery charge of $3 per megawatt-hour from Oct. 1, 2001 through Sept. 30, 2006. The initial base power rate was 20% higher than under the previous contract. According to a BPA spokesman, some of the aluminum companies were considering a contract with a variable rate based on world aluminum prices. A spokesman from Kaiser stated that the new contract provided the company with enough power to fully operate the Trentwood rolling mill near Spokane, but only enough power to operate 40% of its 273,000 ton-per-year smelter capacity. The Kaiser spokesman also noted that BPA's contract price was about 30% higher than the world average for competing aluminum smelters and the BPA contract used less favorable language. The BPA had 8,800 megawatts of power available from federal resources, including hydroelectric dams on the Columbia River and 1,250 megawatts from the Columbia Generating Station nuclear plant owned by Energy Northwest. The BPA planned to purchase another 3,186 megawatts from the open market, and it anticipated paying more than $40 per megawatt-hour for that additional power. The BPA already had some contracts for power from the open market. [103]

CFAC personnel continued to work on ways to keep the smelter operating, including lowering reduction pot voltages to save power usage. The company's goal was to achieve an average voltage per pot of 4.85 volts. Recently the plant's average pot voltage increased by 0.03 volts, which translated into $3,440 per day, $104,000 per month or $1.25 million per year, CFAC Technician Shawn Wang told workers in a Nov. 20, 2000, newsletter. Two main problems affecting pot voltages were the number and duration of random anode effects and the manipulation of pot voltages by staff to correct mucking problems in the pot bottoms. [104] On Dec. 6, CFAC announced plans to

immediately begin shutting down 1 1/2 potlines to reduce the plant's load to 50% of capacity. CFAC General Manager Steve Knight also noted that the company's earlier plans to lay off 83 hourly employees by Jan. 1, 2001, had changed – there would be no forced layoffs at the plant before June 30, 2001. Furthermore, employees laid off after June 30 would be covered by CFAC's health insurance and be eligible for 26 weeks of unemployment compensation, providing some economic security through all of 2001. Voluntary leaves and early retirement packages were also being discussed. By the end of 2001, Knight said, the CFAC workforce might be cut in half, eliminating about 290 jobs. [105]

Three of the region's smelters closed in 2000 and three others, including CFAC, were going to 50% of capacity, CFAC said in its Dec. 6 announcement. The latest price estimates for the new BPA contract were for $29.70 per megawatt-hour, but if the BPA executed a cost-recovery clause in the new contract, the price could rise as high as $34.80 per megawatt-hour. "We can't operate at those prices and remain profitable," Knight said. CFAC planned to sell about 100 megawatts from the idled potlines and use the money to subsidize the plant's operation. Jim Stromberg said he'd never seen such volatile prices in his 30 years in the business – projected prices ran as high as $100 per megawatt-hour for 2001. The fundamental cause of the problem was a sharp imbalance between supply and demand, he said. Demand for power in large cities was increasing at a remarkable rate. According to one report, Seattle alone would need another 700 megawatts by 2001 to meet the demands for new Internet service providers – about twice the power used by CFAC at 100% capacity, Stromberg noted. To make matters worse, weather forecasters were predicting colder winter temperatures and water levels in river basins were low. The Northwest Power Planning Council had forecasted a 24% chance of power problems during the 2000-2001 winter season. "All of that is pushing prices up," Stromberg said. "We desperately need new generation. The power system is very fragile – it won't take a lot to push it over." [106]

Selling power

CFAC completed shutting down 1 1/2 potlines by Dec. 11, bringing the total curtailment since September 2000 to 50%. The company had initially planned to complete the shut down process on Dec. 16, but the BPA requested an earlier load reduction to help prevent regional brownouts in California caused by severe cold and power shortages. The load reduction at CFAC freed up enough power for 75,000 homes. Current price estimates for a five-year 171-megawatt BPA contract hovered at around $30 per megawatt-hour, with just enough power to run half the smelter. To compensate for those higher prices, CFAC planned to sell 100 megawatts from its idled pots, raising perhaps $75 million. Terry Smith said union members understood the company was in a

survival situation and supported their action. “It’s another sad day in Montana,” he said. “These are good-paying jobs being lost.” CFAC’s payroll totaled around $31 million per year, and businessmen and community leaders anticipated a serious economic impact to the Flathead Valley from the plant layoffs. [107] Four days later, CFAC issued layoff notices to hourly employees with two options. Workers could earn eight months pay provided they worked three months during the eight-month period ending Aug. 31, or they could earn six months pay through June 30 by working through Jan. 12. In either case, the employees would continue to have the same health insurance benefits through Dec. 31. [108]

Joe Puryer, an electrician at the aluminum plant with five children, expected to be laid off on Jan. 12, but as an electrician he considered himself luckier than others as he could find a new job more easily. He planned to attend classes in preparation for obtaining a journeyman’s electrician license. Puryer’s wife Charlye said she had contacted the International Brotherhood of Electrical Workers about the classes and was surprised by the genuine help and support the union had offered. On the other hand, they felt abandoned by both CFAC and the government, Joe said. Instead of moving in search of new work, he and the family intended to stay in the Flathead Valley. Joe said he would return to work at CFAC if possible, and said that was the reason he didn’t sign a severance package. “I don’t know how to put this nicely,” he said. “There is a big suckfest going on there to see who can keep their job. The union only protects you to a certain degree.” The couple explained how the future layoff impacted their family budget. “Each of the kids gets exactly two presents this year,” Charlye said. “My husband is making some of the kids’ presents because we can’t afford to buy them like the rest of the country.” [109]

Joe said he initially felt CFAC had been a good employer, but with the company selling power back to the BPA and laying off workers, his opinion had changed. “From a business standpoint, I can see them trying to make a little money, but they’re hurting the little guy,” he said. “Before, they said they aren’t power brokers. Well, here they are a little later… If they aren’t in this game for power, then why don’t they want the power prices to fall? Here they can quit producing aluminum and get into the power producing game. The problem is everybody loses their jobs.” The fact that CFAC was owned by Glencore, a Swiss company, didn’t help locals any, he noted. Joe also wanted to know how the situation arose in the first place. “Is it because the government is making all the money?” he asked. “Our tax money put in the dams. They are bought and paid for. How does this stuff just suddenly sneak up on the Northwest?” [110] The CFAC curtailment to 50% was the No. 1 news story for 2000 in the Hungry Horse News. The second leading story was mill closures and layoffs in the local timber industry. Both the American

Timber mill in Olney and the Pyramid Mountain Lumber mill in Seeley Lake were closing for good, leaving about 265 workers unemployed. [111]

California power regulators were also working on strategies to deal with the out-of-control power market they had created. On Sept. 7, 2000, a plan was approved to cap power rates for San Diego customers for three years. The Independent System Operator declared the first Stage 3 alert as the state's power reserves dipped below 1.5% on Dec. 7. Conservation efforts narrowly averted rolling blackouts. On Dec. 15, the Federal Energy Regulatory Commission approved a flexible price cap plan with a provision allowing power generators to charge utilities more if they could prove the price hike was warranted. Southern California Edison sued FERC on Dec. 26, alleging the commission failed to ensure that wholesale power prices were reasonable. [112] Meanwhile in the Pacific Northwest, power consumption by the region's aluminum plants fell from a range of 2,500 to 3,000 megawatts to about zero, a savings of about 22,000 gigawatt-hours per year. This was about twice the energy saved in California, where the energy crisis began. [113]

Additional conservation efforts were made in California on Dec. 8, as Arctic weather swept across the nation threatening to cause rolling blackouts. Power use in California through 2000 had increased by 7%, but growth in power supplies had been nearly static. As cold weather compounded the shortage, air-quality regulators allowed several generating facilities to resume operation after they had been shut down for reaching pollution limits. Hundreds of companies in the state voluntarily cut consumption, and federal energy regulators lifted price caps on wholesale power after power grid managers made an emergency request for help. Symbolic and political measures included shutting off Christmas light displays at commercial and public facilities. The power shortage in California also meant that power could not be sent north on the Intertie to the Pacific Northwest, and the Northwest Power Planning Council was forced to issue a Stage 2 alert. [114]

On Dec. 10, Kaiser began to shut down the remaining 90,000 tons of capacity at its Mead smelter near Spokane. The company had shut down its 73,000 ton-per-year smelter in Tacoma in June and reduced capacity at Mead from 200,000 tons to 90,000 on Nov. 20. Kaiser planned to keep its Pacific Northwest plants closed until its new BPA contract began on Oct. 1, 2001, at which time the Mead plant might reopen. The new five-year contract would only provide 40% of the power the company needed. For the remaining 10 months of the existing contract, Kaiser planned to continue selling its power back to the BPA. The company had already sold its December 2000 power for $52 million. [115] Power prices in the deregulated market continued to skyrocket. In early December, power in Washington State sold for $5,000 per megawatt-hour, but by Dec.

12 it had dropped to around $1,000 per megawatt-hour. George Sladoje of the California Power Exchange commented on the volatile market. “Here we may have from day to day a thousand percent difference in price from the previous day, or indeed, the previous hour,” he said. [116]

Under the terms of its 1996 contract, Kaiser was allowed to sell power it purchased for $22 per megawatt-hour back to the BPA at more than $500. The aluminum company made $52 million selling its power for December and, assuming conditions remained the same, the company could make as much as $500 million by Oct. 1, 2001, when the remaining 10 months of the 1996 contract expired. The Steelworkers accused Kaiser of “unjustifiable profiteering” by laying off 400 workers at its Mead plant. The cost to the company of paying 70% of the hourly workers’ wages for the month of December amounted to only $15 million – far less than the $52 million it made from selling unused power. In response to the union’s criticism, the BPA agreed to begin discussions with Kaiser, particularly regarding how the company used the money to improve the Mead smelter’s viability. Tom Carrier, an energy economist and member of the Northwest Power Planning Council, blamed deregulation for the impact of Kaiser’s strategy on the local community. “I do see this as an unintended consequence of restructuring in the wholesale and retail markets,” he said. “When the country and California embarked on this deregulation experiment, I think they thought it would mean lower prices and greater supplies, when the result has been exactly the opposite.” [117]

The federal government saw the West Coast Energy Crisis from a larger nationwide perspective – perhaps as something that had to be weathered by perseverance for the nation’s greater good. On Dec. 13, 2000, Energy Secretary Bill Richardson ordered two large Pacific Northwest power-generating associations to continue sending power to California to prevent a Stage 3 power emergency. The power crisis in California grew acute when a dozen power suppliers demanded cash payments before selling additional power to California utilities. By mid-December 2000, both Pacific Gas & Electric and Southern California Edison were near bankruptcy. The latter utility reported $3.5 billion in losses as a result of high power prices caused by deregulation. [118]

The Federal Energy Regulatory Commission issued orders intended to calm the volatile California power market on Dec. 15 – the state’s private utilities would be allowed to keep power they produced and sell it on the open market, and a soft cap of $150 per megawatt-hour was placed on wholesale power prices. The FERC solution drew criticism immediately, despite its attempts to defend the principal of deregulation. Gov. Gray Davis accused the commissioners of acting “to ensure unconscionable profits for the pirate generators and power brokers who are gouging California consumers and businesses.” Consumer advocates argued that the real solution was to re-regulate the

power market by setting a firmer cap on prices. Utilities argued that the commission should have ordered power sellers to refund the utilities for the sky-high power prices of the past year. Roger Petersen, the CEO of Pacific Power & Light, pointed out that power from its Montana-based dams was being sent to California under Richardson's orders, and that was causing the state's reservoirs to drain even further at a time of water shortages, posing potential problems in 2001. "This is an emergency Band-Aid for the situation in the West," Petersen said. "Californians have no desire to build the new (generation) capacity the high prices tell you is needed in the West." [119]

Economic impacts

As winter approached in the Pacific Northwest, the BPA estimated the regional grid was 3,000 megawatts short of reliability in meeting historic 38,000-megawatt winter-peaking loads, with a one-in-four chance of losing the lights. Compounding the situation was drought resulting in the second lowest streamflows in recorded history, eliminating an estimated 6,000 megawatts from what the region's hydropower system could deliver in February, and a lack of power from California. Ordinarily California sent surplus power north for wintertime heating, but with large numbers of California power generators "out of service for a host of reasons on any given day," California began blacking out under loads of less than 34,000 megawatts despite a generating capacity of 50,000 megawatts, BPA Deputy Administrator Stephen G. Hickok explained in 2002. "Never before had we seen anything like this," he said. The BPA was able to keep the lights on in the Pacific Northwest by shutting down about 3,000 megawatts of industrial load, particularly the region's aluminum smelters, but prices "were at times more than 10-fold higher than anything we had ever experienced before," Hickok said. "Several Northwest industries that pressured their serving utilities and the state public utility commissions several years ago to let them buy power on the wholesale spot market went out of business." [120]

Meanwhile in the Flathead, the local electrical cooperative faced a similar problem after it left the BPA and went to the open market in the late 1990s. Flathead Electric Cooperative General Manager Warren McConkey warned customers about the situation as power prices sky-rocketed in mid-December 2000. The Co-op had signed an eight-year power supply contract with PacifiCorp in 1998 with a fixed rate for the first three years and a variable rate tied to the Mid-Columbia Index for the remaining five years. The initial rate of $23.85 per megawatt-hour was good up to Sept. 30, 2001, but after that the rate could climb as high as $100. The Mid-Columbia Index price in early December had ranged from $190 to $260 per megawatt-hour. PacifiCorp supplied a little more than one-third of the Co-op's power requirements, and the looming rate hike could drive up costs for Co-op customers, McConkey said. [121] Prices weren't going down

anytime soon. From Jan. 22 through 26, 2001, the price of non-firm power on the Mid-Columbia index ran from $290 to $500 per megawatt-hour for peak or heavy demand and $240 to $260 for off-peak or light demand. [122]

The loss of aluminum production by Pacific Northwest smelters had little impact on global markets, a fact that many locals probably weren't aware of. Aluminum prices at the London Metal Exchange rose 4% during the first week of December 2000 as a result of cutbacks in the Pacific Northwest aluminum industry, but traders believed demand was not strong enough and the price escalation was short-lived. [123] The crisis did spur a number of economic studies about the impacts of aluminum industry closures on the Pacific Northwest economy. On Dec. 12, the Policy Assessment Corporation issued a study for the BPA based on a variety of economic models. The study concluded that impacts at the county level could be significant, but the impacts at the state and regional level would be minor. The initial loss of aluminum plant jobs would cause real estate prices and local wages to drop, which would make the area near a smelter more attractive to new businesses. This conclusion, although counter-intuitive, was backed by the evidence from the loss of the timber industry in much of the Pacific Northwest economy during the 1980s and 1990s. "The aluminum smelting industry appears to be an industry almost separate from the rest of the Pacific Northwest," the study said. "The aluminum ingots are a world-commodity, and it appears that the mills and downstream industry are relatively unaffected by the loss of the smelters." [124]

Over a 20-year period, the underlying regional economy could see a 0.02% change, which was considered "almost within the noise limits of the economic behavior," the Policy Assessment Corporation study said. On the other hand, the 3,000 average megawatt-hours of energy consumed by the regional aluminum industry represented a significant positive impact to the regional economy. Once the aluminum smelters were closed, that electrical power would be available for other industries, the study noted. The study estimated average electrical power costs could decrease by 5.4%. A total of 6,069 direct jobs would be lost if the aluminum industry completely shut down. Montana accounted for only 5% of those jobs, but since the population of Montana was much lower, the impact would be much higher. Indirect jobs would also be affected. At the regional level, the Policy Assessment Corporation estimated the multiplier effect at 2.9 in the year 2001, dropping to 2.3 as the economy adjusted and recovered. [125]

Montana could see a loss in direct and indirect employment of 0.40% in the year 2001, adjusting down to 0.31% by 2020, the study stated. The study assumed that workers who lost jobs at aluminum smelters would either leave the area or eventually find some kind of employment nearby. Many of those who would leave the area would also take children and future children with them. The study showed a 0.08% drop in Montana's

population in 2001, increasing to a 0.37% fall by 2020 because of lost future children. Montana's gross product could decrease by 0.84% in 2001, adjusting down to 0.67% by 2002, and the state's personal income could drop by 0.36% in 2001, adjusting down to 0.32% by 2020. Because Montana had the lowest gross product among the four states in the Pacific Northwest region, its loss of gross product per capita was the highest at 0.76%, but it would recover half that loss by 2020, the Policy Assessment Corporation study said. [126]

In some cases, the impacts at the county level could be higher than at the state level, especially with the closure of the CFAC plant in Flathead County, the Policy Assessment Corporation study said. According to the models, population reduction in 2001 could be 0.75% for Flathead County, with an increase in unemployment by 3.58%, a loss of 8% of the county's gross product and a drop in total personal income by 0.06%. Transfer payments, especially from Social Security for retired people, would cushion personal income impacts, the study said. Flathead County's per capita gross product in 1992 dollars could fall by $1,842 in 2001, adjusting to a drop of $853 by 2020. Flathead County's per capita personal income in 1992 dollars could fall by $523 in 2001, adjusting down to $292 by 2020. The study also suggested that freeing up the 3,500 average megawatt-hours of power used by the aluminum industry for use by the rest of the regional economy would spur the economy. This forecast, however, was predicated on three assumptions: 1) that recent increases in natural gas prices would not be permanent; 2) that electrical power producers would not take advantage of market conditions to bid up prices; and 3) there would not be a drought in 2001 or the next few years. Even in that best-case scenario, the Policy Assessment Corporation study concluded, the Pacific Northwest economy had only bought a temporary window of breathing room before the supply-demand crisis would reoccur. The study also noted that the region's power planners maintained an "historical 'tradition' of under-building" when it came to supplying power. [127]

Windfall profits

The impacts of the West Coast Energy Crisis ranged from the suffering of workers and their families from layoffs to the nuisance of temporary power outages for some residential customers. Moral outrage was aimed at two parties – power-generating companies accused of taking advantage of the crisis, and aluminum companies who sold their power back to the BPA at inflated market prices. On Dec. 10, 2000, Kaiser announced that it would net $52 million by selling 191 megawatts to the BPA through the end of December, but the sale came from the complete closure of the company's Mead smelter. This marked the first time the smelter had been completely closed since 1946. Kaiser sold its December power for $500 per megawatt-hour – power it had

originally contracted for at only $22.50 per megawatt-hour. Kaiser agreed to pay 70% of the wages for the 400 workers who were laid off and said it planned to reopen the Mead smelter on Oct. 1, 2001, when its new BPA contract began. [128]

Kaiser, which had posted a loss of $54.1 million for 1999, netted $88 million from the energy sales to the BPA. Energy Secretary Bill Richardson strongly criticized Kaiser's power sales to the BPA, and he asked the BPA to block the deal. "I am concerned that this is coming at the expense of employees that will be out of work and may not be fully compensated," Richardson said. A Kaiser spokesperson defended the sales, saying, "Our existing BPA contract explicitly provides the company the right to sell power… (and the contract is) crystal clear (about this right)." The spokesperson explained the risks the company took in its 1996 contract. The aluminum business was a "cyclical industry where we have ups and downs," the spokesperson said. "In a down market, we'd have to pay BPA for the power even if we weren't using it. In the current contract, we took some risk to have the opportunity to sell power." Under the 1996 contract, aluminum producers in the Pacific Northwest were allowed to sell unused power back to the BPA. The BPA would return to the companies all profits minus BPA's brokering costs. The smelters were required to use the profits to reduce their future power bills and to mitigate employee benefit costs. [129]

Rep. George Nethercutt of Washington criticized Richardson's involvement in the controversy. "He shouldn't be injecting himself into this contractual relationship," Nethercutt said. The BPA had already requested that Kaiser explain its plans for the millions of dollars it earned since June 2000 by selling unused power from its aluminum smelters in Tacoma and Spokane. Kaiser Vice President Pete Forsyth said he was unaware of any contractual requirement between Kaiser and the BPA to use money earned from power resales to build new generating facilities, as Golden Northwest planned to do in Goldendale, or to reinvest the money in its aluminum plants, and he said Kaiser was not prepared to deliver a plan anytime soon. Forsyth defended Kaiser's contractual right to continue selling unused electrical power back to the BPA, citing its 1996 BPA power contract. Forsyth also pointed out that both CFAC and Golden Northwest had similar contracts with the BPA. Kaiser spokesperson Susan Ashe added, "I think it's in their court in terms of principles and guidelines." BPA Spokesman Ed Mosey noted that despite the high price, "We're actually getting a better deal buying our power back from Kaiser. How bizarre is that?" Mosey added that with widespread public criticism of Kaiser's sales, and with Richardson's involvement, BPA lawyers were looking for ways to stop further power sales by all Pacific Northwest aluminum companies. [130]

Kaiser made an agreement with the BPA on Dec. 15 about how it would use its windfall profits from BPA power sales in November 2000 through January 2001. Kaiser agreed to pay laid off workers 100% of their wages for those three months instead of 70% as previously stated. After Feb. 1, 2001, workers would receive 70% of wages but would continue to receive all medical benefits through the curtailment period. Forsyth said the company would continue to purchase 50 megawatts from the BPA to operate its rolling and rod mills in Tacoma and Trentwood. The two mills would use aluminum purchased from other sources. Beginning Oct. 1, 2001, Kaiser would operate under a new five-year BPA contract that would eliminate Kaiser's right to sell power back to the BPA. Under the new contract, Kaiser's excess power after Oct. 1, 2001, would be brokered by the BPA. [131] By mid-January, as it became evident that high energy prices might spell the end of Kaiser's Tacoma smelter, the Port of Tacoma and the Puyallup Indian Tribe expressed interest in acquiring the 120-acre site. Both parties were interested in making the site a container-cargo or car-importing shipping facility. [132]

The Kaiser-BPA controversy reignited on Feb. 1 when the BPA said Kaiser could lose its right to resell its BPA-supplied power on the open market unless the company agreed to share millions of dollars from the sale with BPA ratepayers. The BPA declared an impasse had been reached in its hardball negotiations with Kaiser and said it would begin to subtract any profits the company collected over the next eight months from power reserved in the five-year contract. The BPA contracted to sell power to Kaiser at $22 per megawatt-hour, but it was worth from $200 to $500 on the open market, and the BPA was forced to buy power on the open market for its customers to make up for a 1,000 megawatt shortfall. "I think it's safe to say that the industry has never run this way before," BPA spokesman Ed Mosey said. A Kaiser spokeswoman said the company was willing to share some of the profits with the BPA, but it wasn't sure how much. In the meantime, Kaiser rejected Steelworker demands that laid-off union workers continue to receive full wages while the Mead plant was shut down. [133]

On Feb. 3, a Kaiser official denied the company was at an impasse with the BPA. Forsyth said Kaiser offered to give the BPA one-third of the profits from remarketing the power, but he pointed out that Kaiser had no contractual obligation to do so. Mosey said Kaiser stood to make as much as $500 million remarketing the power through Oct. 1. Mosey said it could cost the BPA an additional $160 million to buy power on the open market for Kaiser's Pacific Northwest aluminum plants, but Forsyth claimed Kaiser was banking some of its profits to help pay the higher rates anticipated from the BPA in a future contract. [134] On Feb. 11, Forsyth said he had not seen a BPA letter accusing the company of being stingy with money it made from remarketing BPA-supplied power. BPA officials said Kaiser was only willing to share with ratepayers $10 million out of the estimated $300 million the company might earn from remarketing the power, and that the

company had rejected BPA proposals. Forsyth said the company had made a good-faith effort to negotiate and would resume talks. The BPA said it had managed to convince CFAC and Golden Northwest to share 24% to 30% of their remarketing revenues. Forsyth said Kaiser was not making windfall profits because it had higher fixed costs than CFAC and Golden Northwest. The BPA had threatened to reduce or cut off Kaiser's power supply after the current power supply contract ended on Sept. 30. Forsyth said rate increases by the BPA would make it impossible for Kaiser to resume operations in the Pacific Northwest. [135]

The BPA's relationship with Golden Northwest went more smoothly. The company had earned $400 million by remarketing BPA power it had contracted to buy for its smelters at The Dalles and Goldendale. In early January 2001, the BPA explained that according to an agreement with the company, about 20% to 25% of the money Golden Northwest had earned would go back to the BPA to help ratepayers, and another $100 million would be spent building a new gas-fired turbine generating plant. Some of the money would provide paychecks for laid-off workers and for projects that would make the company's plants more competitive. BPA Administrator Stephen Wright called the agreement a positive outcome for ratepayers given the fact that Golden Northwest had the right to re-market its power under its existing contracts. [136]

By February, the Goldendale smelter was down to 10% of capacity with only 230 of the plant's normal 720-person work force not slated for lay off. The impact on the local economy was devastating, with Goldendale's timber mills closed, agricultural prices down and unemployment possibly rising to 30% once the aluminum workers were laid off. City, county, state and company officials hoped a new 248-megawatt gas-fired turbine generating plant could save the plant, but legislative approval of state tax breaks and a favorable purchase contract for natural gas was needed. There were also environmental concerns, and local groups were challenging the permitting process. [137] Golden Northwest's smelters were completely off line by June 2001 when the company announced they would stay off line through March 2002 in order to provide power to the region during the energy crisis. The company joined smelters in Ferndale, Wenatchee, Longview and Columbia Falls in announcing a long-term shut down, leaving only Kaiser with no long-term shut-down plans announced as it continued to bicker with the BPA. About 500 workers were employed at the smelters in The Dalles and Goldendale, and Golden Northwest had plans to build a 24-megawatt wind-generator facility and a 700-megawatt gas-fired turbine plant near Goldendale with BPA support. [138]

Alcoa wholly owned the smelter in Wenatchee and held a part ownership in the Intalco smelter in Ferndale. It had sold its Vancouver smelter in 1987, and it was no longer

operating. On Jan. 6, 2001, Alcoa announced it would curtail production at the Wenatchee and Ferndale smelters by 151,000 tons per year so Alcoa could sell about 150 megawatts of its power to the BPA. Alcoa said it would not lay off any workers at the two plants. The Wenatchee plant, which employed 645 workers, would cut production back to 80,000 tons per year. [139] By early February, workers at Wenatchee discussed future plans as layoffs for 150 hourly and 35 salaried employees loomed in June. One worker said he'd been laid off three times in 23 years, each time with only 72-hour notice. The longest layoff was 15 months in 1982 to 1983. Anger was directed at California, which was blamed for creating the West Coast Energy Crisis that caused the shut down. [140]

In early January 2001, it was reported that the Ferndale smelter might reduce production by 67% to reshape its power purchases from the BPA. The 272,000 ton-per-year smelter was 61% owned by Alcoa, 32% by Mitsui and 7% by YKK of Japan. The plant had long-term power contracts with the BPA and the British Columbia Power Exchange that expired in September 2001. Under the terms of its BPA contract, Intalco could not sell its power in the open market. Instead, Intalco hoped to spread power it would have used in January and February over a period extending through April, while also providing the BPA with power during the winter months. [141] On May 16, 2001, Intalco announced it had struck a deal with the BPA to remain shut down for two more years, idling 930 workers in the plant's first closure in 35 years. The BPA would pay Intalco $50 million to $70 million per year to cover affected workers' wages, salaries and benefits for the two years in addition to $1.75 million per year for local taxes. The deal would save the BPA about $600 million for 400 megawatts the agency would have had to buy on the open market to serve the aluminum plant. Alcoa management said workers would spend the next two years cleaning out pots and making them ready for restarting as well as keeping other equipment in good shape. A representative of the International Association of Machinists and Aerospace Workers said the union would have preferred that the plant stayed running, but it approved the deal. [142]

In early January 2001, McCook Metals, an affiliate of Michigan Avenue Partners, was considering power problems in the Pacific Northwest while it contemplated the future of its newly acquired aluminum smelter in Longview. [143] Alcoa, which had acquired the Longview smelter in its merger with Reynolds, completed the sale of the smelter to Michigan Avenue Partners for $140 million in February – in the midst of the energy crisis. The plant employed about 900 workers at that time. [144] McCook Metals Chairman Michael Lynch promptly shut down the smelter and earned $226 million from reselling the 420 megawatts in BPA power the smelter didn't use during the energy crisis. [145] On March 1, McCook Metals signed an agreement with the BPA to free up a portion of the contracted power over a 16-month period. The BPA would pay less than half the market

price for the power because McCook did not have a remarketing clause in its BPA power contract. McCook planned to use the money to secure financing for significant innovations at the plant. McCook was also contracting with Enron to build a 500-megawatt gas-fired turbine plant to meet all the smelter's future needs. Once that power plant was operating, McCook agreed it would not make claims on federal power after 2006. McCook was the second largest aluminum plate manufacturer in the U.S. and produced specialty products for aerospace and defense industries. [146]

The West Coast Energy Crisis and the windfall profits earned by some aluminum companies drew public wrath and the attention of regional politicians. On Feb. 8, 2001, BPA Acting Administrator Stephen Wright contacted Rep. Peter DeFazio of Oregon to warn him about potential 300% rate hikes and a BPA plan to buy out all of its direct-service industry customers' long-term power contracts. Critics of the buyout plan pointed out that portions of the Pacific Northwest economy could be left in disarray, including places where aluminum smelters and irrigators might choose to shut down operations, leaving rural areas with high unemployment and removing the region's historical economic advantage – low cost power. The power shortage in California was the BPA's immediate concern, but there were larger long-term concerns. When the direct-service industry customers' new contracts became active in fall 2001, the BPA could expect to have a 3,000 megawatt deficit – about 30% of the BPA's total load. If the BPA was forced to buy expensive power on the open market to meet that demand and then was unable to meet its annual U.S. Treasury payment, Congress might strip the region of its legal right to the BPA's power. [147] The Flathead was one of those communities concerned about the economic impact of losing its 45-year-old aluminum plant to a shut-down.

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