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U.S. DEPARTMENT OF THE INTERIOR

BONNEVILLE POWER

FEDERAL BUILDING, 1002 N.E. HOLLADAY

ADMINISTRATION

BONNEVILLE POWER ADMINISTRATION'S 25th ANNIVERSARY--PART VI

(This is the sixth in a series of articles on Bonneville Power Administration's first 25 years in the Pacific Northwest. The next will look ahead 25 years.)

BONNEVILLE ACT BORN IN CONFLICT

Senators McNary and Steiwer of Oregon Introduce First Legislation to Market Bonneville Power

"The power issue when vigorously handled in the public interest means abundant and cheaper current for American industry, reduced rates and increased use to millions of urban and rural homes, and preservation of our water resources in coordination with flood control, reclamation and irrigation. The American people have a vital stake in the proper handling of this issue."

President Franklin D. Roosevelt's words, spoken at Portland, Oregon, on September 22, 1932, clearly enunciated the basic principles of the Bonneville Act, which he signed into law, August 20, 1937, less than five years later.

Bitter controversy puncuated the hearings and much of the Senate and Kouse debate during the birth of the Bonneville Act. A militant minority

advocated sale of power at bus bar to private utilities for distribution over existing systems, and to large industries adjacent to the dam. They predicted that sale of power would never recover the investment if the federal government were to construct transmission facilities. Power from Bonneville dam would be a "drug on the market" unless new sources of use were found, opponents said.

Minor conflicts arose over the authority of the Administrator, antimonopoly language, and relationship to the Corps of Engineers. However, all questions were resolved in favor of policies calling for the widest possible distribution of the power, preference for public bodies, antimonopoly restrictions and repayment of the power investment.

Senators Charles L. McNary and Frederick K. Steiwer of Oregon introduced the first bill relating to marketing and selling of power to be generated at Bonneville dam on July 29, 1935, two years before completion of the dam. The President endorsed the bill as necessary to proper development of the project. The bill, as in others that followed in both houses embodied the broad principles of wide distribution to the general public and repayment of the government's investment, but none was acted upon.

It was not until opening of the 75th Congress with completion of Bonneville dam approaching, that Congress took action to create an organization for marketing and selling power to be produced at Bonneville dam. The President on January 18, 1937, appointed a committee on National Power Policy and requested that it submit, as its first assignment, recommendations for administration of Bonneville dam power.

The House Committee on Rivers and Harbors opened hearings on March 9, 1937, on a number of House bills including those introduced by Congressman Martin F. Smith of Washington, Nan Wood Honeyman, Walter M. Pierce and

James W. Mott of Oregon. After considering the bills referred to it, the committee formulated a new bill incorporating the desirable features of all the bills. This bill, HR 7642, was introduced by the Committee Chairman, Joseph Mansfield, Texas, on June 23, 1937, reported out on June 24, debated on July 23 and 26, and passed July 26 with one amendment and without a record vote.

Meanwhile, in the Senate, S. 2092 was introduced on April 5, 1937, by Senators Homer T. Bone of Washington, for himself, Lewis B. Schwellenbach of Washington, McNary and Steiwer of Oregon. The recommendations of the National Power Policy Committee were closely followed and hearings held before the Senate Committee on Commerce June 29, 1937. When the House bill was announced on the Senate calendar for August 6, Senator McNary obtained unanimous consent to strike out all after the enacting clause and insert the language of the Senate bill. The bill was debated, amended and passed on August 9. A Mouse-Senate Conference Committee quickly worked out differences between the two bills and the conference bill was agreed to in the House on August 11, and in the Senate on August 12. The President approved the Act August 20, 1937.

The Bonneville Act directs the Administrator to:

- 1. Sell at wholesale the electric energy from Bonneville dam to public bodies and cooperatives and to private agencies and persons, but not to individual consumers.
- 2. Construct, operate and maintain transmission lines and substations.
- 3. Interconnect the Bonneville Project with other federal projects and publicly owned power systems.
- 4. Encourage the widest possible use of all the electric energy that can be generated and marketed and prevent monopolization thereof by limited groups.

These provisions of the Act now apply to sale of power from all 20 the designated U. S. Columbia river dams.

President Roosevelt by Executive Order of August 26, 1940, made Bonneville Power Administration the marketing agency for power to be generated at Crand Coulee dam and for coordinating the electrical facilities of the two projects.

Subsequent legislation and Departmental orders clarified administrative responsibilities, designated BPA as the marketing agency for 18 additional federal multipurpose projects now completed or under construction on the Columbia river and authorized purchase of supplemental power from steam plants.

All the underlying principles of the original Bonneville Act still are in full force and have become the deep roots of "Power for Progress."



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ADMINISTRATION

BONNEVILLE POWER ADMINISTRATION'S 25th ANNIVERSARY--PART VII

(This is the seventh and last in a series of articles observing Bonneville Power Administration's 25th Anniversary.)

BPA LOOKS AHEAD TO NEXT 25 YEARS

Quarter Century of Rapid Population Growth, Technological Power Advances and Industry Forecast

The next 25 years of Bonneville Power Administration's history will see an era of Pacific Northwest development that beggars description. BPA economists, resource planners and engineers agree that the next quarter century will be one of rapid population growth, leap-frogging technological advances in generation and transmission of electric energy, and solid industrial growth.

Here is a forecast of a few of the "things to come."

The Pacific Northwest 25 years from now will have a population of about 10,000,000 people, nearly double the present figure of 5,500,000. It will require about 3,600,000 jobs in manufacturing and service industries or nearly double the present gainfully employed to sustain a dynamic economy.

Electric energy to power the predicted industrial growth and to meet the rapidly increasing commercial and residential use will require three times the present resources. Peak loads are expected to increase from the present 11,000,000 kilowatts to over 33,000,000 kilowatts by 1987.

A staggering capital investment will be required. Conservative estimates indicate expenditures of over \$1,000,000 a day in new dam and generation projects will be required to put 22,000,000 kilowatts of power on the line in the next 25 years. Average farm and residential use approaching 25,000 kilowatt hours annually will double the family investment in electric appliances. Every new job in an electroprocess industry will be backed by a plant investment in excess of \$30,000.

Where will the new generation come from to meet the pyramiding power demands of the next quarter century?

Long-range Bonneville Power Administration resource projections show that new feasible hydroelectric projects, providing there is a "breakthrough" in the problem of fish passage, will supply the bulk of Pacific Northwest energy requirements during the next two decades. By 1975 thermal power will assume the dominant role in supplying new energy as modern steam technology coupled with atomic energy makes these plants competitive with remaining undeveloped hydroelectric sites.

The Douglas County PUD Wells project, recently licensed for construction by the Federal Power Commission, will be the last major U.S. dam on the Columbia river with the possible exception of the Ben Franklin project near Richland. Further northwest hydro development will be forced to tap the middle reaches of the Snake river and the Montana tributaries of the Columbia river.

Early development in the Snake river basin could include Little Goose, Lower Granite, Bruces Eddy, and either Mountain Sheep or Nez Perce.

Knowles on the Flathead river and Libby on the Kootenai river are the most important potential Montana projects.

Canadian storage projects hold the key to the largest single block of new hydroelectric power for the Pacific Northwest. Power accruing to the U.S. from proposed Canadian storage and Libby dam in Montana, together with installation of added generating facilities at downstream U.S. plants, could add about 2,000,000 kilowatts of prime power within the next decade.

A Kittitas and Grant County PUD plan for a 500,000 kilowatt coal-fueled thermal plant at mine mouth in the Roslyn-Cle Elum area may be the first in development of giant fuel fired power plants in the region. Other significant coal deposits in Washington include the Centralia, Newcastle, Black Diamond, Landsburg and Wilkeson fields. Low grade coal deposits in Coos county, Oregon, are under consideration by a private utility in combination with a small hydro plant.

Even thermal plants fired by gas or oil piped into the Pacific Northwest or coal from Montana and Wyoming are in prospect until atomic plants become competitive with other fuel sources.

Dramatic progress in the technology of extra high voltage power transmission, both direct and alternating current, could add millions of kilowatts to Pacific Northwest power resources within the next quarter century. International and inter-regional high voltage transmission lines could pool the generating capabilities of Alaska and Canada with the Columbia, Missouri and Colorado river basins, and the Pacific Southwest.

Hydraulic and electrical coordination would make possible the fullest utilization of each area's power resources. Differences in time zones, stream flows, reservoir seasons, and peak loads would make it theoretically possible

an idling generator in Alaska to be sped up to meet a peak load in St.

Louis, Missouri. Possibilities for around-the-clock utilization of all power

cources would be limited only by the transmission capabilities of inter
ties and operating complexities.

Many intangibles cloud the long-range power supply picture for the pacific Northwest.

When will the Canadian Treaty be ratified or will it be modified before firal agreement is consummated?

How soon will controversies be settled where there are two or more licensing requests for the same dam project?

Can a satisfactory solution be found to pass runs of anadromous fish over high dams or maintain these runs by alternate means?

What is the feasibility of "pumped storage" utilizing off-peak power to run pumps to fill supplemental reservoirs and reuse the water during peak load periods?

Will the scientists who have brought the atomic and space age to America make a major breakthrough in direct conversion of heat into electric energy, create electricity with bacteria or harness the unlimited energy of the sun?

The next 25 years will go far toward answering these questions. How well and how quickly they are resolved will determine the future of the Pacific Northwest in terms of "Power for Progress."



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ADMENISTRATION

ANNIVERSARY SHORTS

Bonneville Power Administration is 25 years old on August 20, 1962, and today serves an area of about 220,000 square miles with a population of over 5,000,000 people.

Bonneville Power Administration as the power marketing agency for U. S. Columbia River multipurpose dams has supplied the energy sinews for unparalleled economic growth and development in the Pacific Northwest during the past quarter century.

Bonneville Power Administration during the past 25 years has become the nation's largest hydroelectric utility operation, and one of the largest in the world.

Bonneville Power Administration, established only 25 years ago, now markets nearly 60 percent of all power generated in Oregon, Washington, northern Idaho and Montana west of the Continental Divide.

More

Bonneville Power Administration celebrates its 25th Anniversary as the marketing agency for power from 20 federal multipurpose projects (15 already built) on the Columbia River and its tributaries, with an ultimate installed generating capacity of 8,379,000 kilowatts by 1968. This is the largest concentration of hydroelectric power in any single river basin of the world.

Bonneville Power Administration's transmission system, starting with completion of a four-mile line from Bonneville dam to the City of Cascade Locks in July 1938, today has an 8,600 circuit mile high voltage transmission grid and 215 substations serving the Pacific Northwest. If laid out in a continuous line, BPA's transmission system would circle the continental boundaries of the entire United States.

Bonneville Power Administration in its 25th year serves 14 great electroprocess industries with 18 plants which represent an investment of well over one-third of a billion dollars. These industries contribute nearly \$400,000 to the region's economy each day of the year, represent direct employment of more than 15,000 workers, annual payrolls of more than \$80,000,000, and contribute between \$5,000,000 and \$7,000,000 in state and local taxes. They provide indirect employment for another 30,000 Northwest citizens whose paychecks total \$160,000,000.

Bonneville Power Administration on its 25th birthday has a plant investment in the Pacific Northwest of over half a billion dollars, employs 2,300 workers, and has an annual payroll of over \$16,000,000.

Bonneville Power Administration's low cost power, made available through public and private agencies, has led to electrification of more than 99 percent of the region's farms in less than 25 years.

Bonneville Power Administration during the last two and a half decades has made possible the electrification of sawmills, paper, plywood and composition plants and wood fabrication industries that provide jobs for two out of every five workers gainfully employed in Pacific Northwest manufacturing.

Bonneville Power Administration's first 25 years has created in the Pacific Northwest approximately 4,000 permanent jobs for every 100,000 kilowatts of power it has marketed to electroprocess industries, including employment in local product fabrication and services.

Bonneville Power Administration's 25th birthday celebrates the role abundant low cost power has played in the unprecedented expansion of the Pacific Northwest frozen food industry, which accounts for over half the berries, one third of the vegetables and one fourth of the frozen fruit pack of the U.S.

Bonneville Power Administration on its 25th anniversary is the largest utility in the Northwest power pool and makes its regional high voltage grid available for the largest coordinated and integrated power operation in the world.

Bonneville Power Administration, since it was established 25 years ago, has marketed over 387 billion kilowatt-hours of electricity, enough to supply present loads of Seattle, the Pacific Northwest's largest city, for 95 years.

Bonneville Power Administration, only a quarter of a century old, has returned gross power revenues to the U. S. Treasury of over \$875,000,000. This has served to pay all cost of BPA operations and maintenance, interest on the federal investment in Northwest power facilities and the scheduled repayments on the federal government's capital investment in the Northwest's transmission system and power facilities, as well as substantial payments to irrigation projects.

Bonneville Power Administration, a power-age pioneer, in a brief 25 years has secured world recognition for technological engineering advances in power transmission fields, including extra-high transmission voltages, light steel towers, automatic circuit breakers, transformer improvements, electronic data processing, and operating economies.



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RELEASE ON RECEIPT

THIS MAP shows eight proposals to build all or parts of an intertie that would connect the Pacific Northwest and Pacific Southwest. Transmission lines would carry surplus secondary power from the federal system in the Northwest where no market exists for this secondary power because it cannot be guaranteed for delivery day in and day out. In the Southwest steam plants used to generate electricity would be shut down when the surplus, lower-cost Northwest power is available. Because the Southwest's peak power load comes in the summer and the Northwest's peak load in winter, the savings in generating plant costs would more than equal the cost of the intertie. In addition, the intertie would net Bonneville Power Administration between \$6 and \$15 million a year and thus would help to maintain the lowest possible electric rates in the Northwest. The surplus power would be available whenever Northwest rivers are above minimum flows and if not used would waste into the sea.

PACIFIC NORTHWEST-SOUTHWEST INTERTIE PROPOSALS

