UNITED STATES
DEPARTMENT OF THE INTERIOR
BONNEVILLE POWER ADMINISTRATION
WALLA WALLA AREA OFFICE
P.O. BOX 1021
WALLA WALLA, WASHINGTON

April 10, 1963

Attached are two press releases that may be of interest to you. One release shows the contribution the Pacific Northwest aluminum industry has made to the region. The other release includes a map showing the various proposals to construct all or parts of an extra-high voltage transmission intertie that would connect the Pacific Northwest and Pacific Southwest.

Sincerely yours,

Harold M. Cantrell

Harold M. Cantrell
Area Manager

2 Attachments

P. O. BOX 3537, PORTLAND 8, OREGON
BELMONT 4-3361
U. S. DEPARTMENT OF THE INTERIOR
BONNEVILLE POWER ADMINISTRATION
FEDERAL BUILDING, 1002 N. E. HOLLADAY

News

Release to Thursday p.m.s
April 11, 1963

Bonneville Power Administrator Charles F. Luce today said the Pacific Northwest aluminum industry increased its contribution to the economy of the region in 1962.

Figures supplied by the five aluminum companies to BPA, which provides the bulk of their power needs, showed a direct economic contribution to the region's economy of $136,489,800 in 1962, up from $124,348,900 in 1961.

Luce said the companies reported Northwest production totaling 573,000 tons of primary aluminum or 27.05 per cent of the nation's total.

Average annual employment in the Northwest aluminum industry was 7371, up from 7205 in 1961. Salaries and wages amounted to $54,221,800.

Freight charges (rail and truck) paid by the Northwest plants totaled $27,699,000.

Materials, supplies and services purchased in the Northwest came to $27,606,900.

Electric power to run the plants cost $21,154,900.

State and local government taxes totaled $5,807,400.

Not considered in the report as direct contribution to the region's economy were $4,969,100 in net plant additions made during 1961. Capital expenditures of this nature were mostly to modernize plants or add new phases of manufacture, as has been true of other plant additions reported through the years.

Joint operating statistics were reported to the Bonneville Power Administration by the following five companies: Aluminum Company of America, Vancouver and Wenatchee, Washington; Anaconda Aluminum Company, Columbia Falls,

Montana; Harvey Aluminum (Incorporated), The Dalles, Oregon; Kaiser Aluminum & Chemical Corporation, Spokane and Tacoma, Washington; and Reynolds Metals Company, Troutdale, Oregon and Longview, Washington.

Tabulation

	1962	1961
Average annual employment	7371	7205
Salaries and wages	$ 54,221,800	$ 51,018,600
Freight (rail and truck)	$ 27,699,000	$ 24,692,500
Electric power purchased	$ 21,154,900	$ 21,121,300
Northwest purchases of materials, supplies, services	$ 27,606,700	$ 22,240,100
Taxes (local and state)	$ 5,807,400	$ 5,276,400
Net primary ingot production, tons	573,000	520,100
Processed beyond primary ingot stage, tons	238,990	240,400
Net additions during the year	$ 4,969,100	$ 2,251,000

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KILOWATTS ACROSS THE BORDER -- I

BY CHARLES F. LUCE
Bonneville Power Administrator

(FIRST IN A SERIES)

1964 is the year of decision for the Columbia River Treaty with Canada. October 1 is the deadline. A lot of important things have to be accomplished before then.

At stake for the United States is vital flood control on the Columbia and Kootenai Rivers, and more than 2 million kilowatts of firm power, not counting 1.4 million kilowatts American purchasers would buy from Canada.

That's equivalent to four Bonneville dams, or a new Grand Coulee Dam.

For Canada, too, the stakes are high: flood control on the Kootenay, and 4 million kilowatts of cheap power.

The Columbia, rising in the Rocky Mountains of British Columbia, does not run evenly to the sea. Sometimes it runs low and limits power production. Sometimes it runs high and more water pours over the United States dams than can be used for power generation. When it runs very high, it overflows its banks, and destroys lives and property.

By the Treaty, Canada would agree to build three storage dams... Mica, Arrow Lakes, and Duncan. These dams would level the flow of the Columbia and enable 11 main stem downstream U. S. dams -- six Federal and five PUD -- to produce extra dependable power -- 2.8 million kilowatts. The same storage would prevent major floods on the lower Columbia.

The Treaty also would permit the Corps of Engineers to build Libby Dam in Montana on the Kootenai River, an important tributary of the Columbia.

More More

KILOWATTS -- FIRST OF SERIES

Like the three Canadian dams, Libby would provide important downstream power and flood control benefits. Libby would back water 42 miles into Canada. It cannot be built without a Treaty.

The Treaty provides that Canada gets half the extra dependable kilowatts generated at U. S. dams by reason of her storage dams; the owners of the dams in the U. S. get the other half. Canada also gets $64.4 million cash in advance for flood control benefits in the U. S. As an extra dividend for Canada, the Mica project will generate about 2,000,000 kilowatts at site, and will make economic the development of three additional Canadian dams downstream from Mica: the Downie Creek, Revelstoke Canyon, and Murphy Creek projects, capable together of producing about 2 million kilowatts.

Canada has decided to sell, for a period of 30 years, her half of Treaty power generated in the United States, provided she can get a lump sum payment of $254,400,000 for it. Otherwise, Canada says, no Treaty. British Columbia seeks this advance payment for use in the construction of the three storage dams.

The basic Treaty was signed 3 years ago, and quickly ratified by the U. S. Senate. The Canadian Parliament has not yet ratified it. In the meantime, Canada and the U. S. have negotiated important clarifications and supplemental agreements to the Treaty.

A Canadian-American exchange of notes announced January 22 by President Johnson and Prime Minister Pearson brings the Treaty closer than ever to reality.

But much work remains to be done.

KILOWATTS -- FIRST OF SERIES

The exchange of notes stipulated that Canada will not start to build her three storage dams until she has sold her share of Treaty power to a United States purchaser for $254.4 million payable in full on October 1, 1964.

Within seven short months, then, the following must be accomplished:

1. The Canadian Parliament must review and approve the Treaty and all related notes and agreements.

2. BPA and the three PUDs (Grant, Chelan, and Douglas) which own downstream dams in the United States must agree by contract on precisely the amount of Canadian downstream power benefits that can be credited to each of the downstream dams for a period of 30 years.

3. American purchasers must be found willing and able to raise $254.4 million for prepayment to Canada for her share of Treaty power for a thirty-year term.

4. A long-term coordination agreement must be reached among Bonneville and the public and private utilities of the Northwest to guarantee that maximum use will be made of Canadian storage.

On February 6 we started what likely will be a long series of meetings with the public and private utilities of the Northwest to negotiate terms of the various contracts.

The stakes are high. The time is short.

(TOMORROW: Problems of finding an American purchaser.)

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KILOWATTS ACROSS THE BORDER -- II

BY CHARLES F. LUCE
Bonneville Power Administrator

(SECOND IN A SERIES)

Who is going to raise the $254.4 million to buy Canada's share of Columbia River Treaty power for 30 years?

If somebody doesn't buy it on those terms, the Treaty falls.

Canada's share is 1.4 million kilowatts initially. This is half the extra power to be produced at federal and PUD downstream U. S. dams as a result of three storage dams Canada is to build under the Treaty.

The U. S. share is the other 1.4 million kw of downstream power benefits, plus some 650,000 kw to be produced at site and downstream from Libby Dam in Montana, which the Treaty permits us to build.

The supplemental agreements to the Treaty call for a single purchaser in the U. S. to buy Canada's entire share, in one big chunk, for a 30 year period.

The single purchaser would in turn sell the Canadian share (in whatever amounts desired) to the public and private utilities of the Northwest and, perhaps to some utilities outside the Northwest.

BPA has advised all its customers, public and private, that each will be given a chance to buy some of the Canadian share, although at a price somewhat higher than BPA rates.

The price the U. S. and Canada agreed upon for Canada's share is equivalent in the United States to 3.75 mills per kilowatt hour at 60 per cent load factor. This is comparable to the unit price for alternative new sources of

More More

power. The unit price for the recently-completed Chelan PUD Rocky Reach dam, for example, is 3.4 mills at 52 per cent load factor, and for the federal Little Goose dam now under construction 3.6 mills at 35 per cent load factor.

This single purchaser probably will be a non-profit organization composed of Northwest public and private utilities that have an interest in five PUD projects affected by Canadian storage.

The terms for sale of Canada's share were negotiated in close cooperation with representatives of Northwest utilities.

If we are unable to work out the necessary contractual arrangements with these utilities, we may as a last resort go to Congress and ask for funds for BPA to buy all or part of Canada's share.

Finding a prospective purchaser for a block of power this size is not easy. California purchasers can't be relied upon because, after all, we don't yet have an intertie. Also, adding the cost of 1000 miles of transmission to the price of Canadian power makes it less attractive.

Grant, Chelan, and Douglas PUDs have proposed to sponsor the non-profit corporation. It would have no capital stock. There would be 11 to 14 members, representing the three PUDs, five other municipal corporations, and three to six private utilities. Its bonds, like PUD bonds, would have tax-exempt status.

This corporation would not own dams, generators or transmission lines. All it would own are contracts with British Columbia Hydro for the purchase of Canada's share of Treaty power and with various public and private utilities in the Northwest and perhaps outside the Northwest for resale of Canada's share.

KILOWATTS -- SECOND OF SERIES

The utilities proposing to form the non-profit corporation likely would buy quantities of the Canadian share, themselves, but they would have no prior right over other utilities to buy any portion of it.

On the basis of revenues guaranteed by these contracts, the corporation would sell the necessary amount of bonds. Once the bond issue is paid off, the corporation would be liquidated and any remaining assets would be distributed equally among the three PUDs.

BPA would play an important role by entering contracts with the U. S. purchasers guaranteeing them an amount of power equivalent to the Canadian share they have paid for.

Then, in the unlikely event that B. C. Hydro failed to perform as required under the Treaty, the U. S. Government would be reimbursed in cash or power by the Canadian national government.

BPA also will agree to wheel the Canadian power from the various PUD and federal dams where it is generated to the purchasers' load centers, for a transmission charge to be agreed upon.

Without arrangements such as this, or Congressional appropriations for BPA to buy Canada's share, the Treaty would probably fail. The whole region would lose, perhaps irretrievably, great power and flood control benefits.

So there is great pressure to work out the necessary contracts. I think we will succeed.

(TOMORROW: The tough negotiations that got us this far.)

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KILOWATTS ACROSS THE BORDER - III

BY CHARLES F. LUCE

Bonneville Power Administrator

(THIRD IN A SERIES)

What do you do when you and the men on the opposite side of the bargaining table are more than $25 million apart on price?

That's the situation that confronted those of us on the American and Canadian negotiating teams during the final 24 hours of bargaining on the Columbia River Treaty.

Canada wanted to sell her share of Treaty power in the United States for 30 years, and we were trying to agree on the price at which it would be offered to prospective purchasers.

Both sides had the choice of giving up and breaking off negotiations, or sharpening their pencils.

The latter course was chosen. The Treaty was too important to both countries for us to give up easily. We finally reached agreement at $254.4 million. That was on January 13, 1964, only a few weeks ago.

It had taken nearly 16 years for Canada and the United States to agree on the basic Treaty in 1960. Essentially, the Treaty required Canada to build three storage dams and permitted the U. S. to build Libby Dam in Montana, which backs water 42 miles into Canada. It called for dividing equally the power benefits at dams in the United States and for payments to Canada for flood control benefits in the U. S.

Prime Minister Diefenbaker and President Eisenhower signed the Treaty three years ago January 17 in an atmosphere of optimism and good neighborliness.

More More

The U. S. Senate quickly ratified it. The Canadian Parliament was expected to follow suit.

But in the past three years the Treaty got stuck on dead-center in Canada.

The main problem, but not the only one, was a difference between the Canadian national government and the British Columbia provincial government over disposition of Canada's share of downstream power entitlement.

The national government preferred that British Columbia take delivery of Canada's share for use largely in Canada, as contemplated in the Treaty.

The provincial government wanted to sell Canada's share in the United States on long-term contracts, an option permitted by the Treaty, and use the proceeds in the construction of the three storage dams in Canada.

Meanwhile, B. C. started construction of the 2,000,000 kilowatt Peace River project in northern British Columbia, a project large enough in itself to supply the province's power needs for many years.

After more than two years of discussions, and two national elections, the national and provincial governments agreed last summer that Canada's share would be sold in the U. S. on long-term contracts. But the new Pearson government insisted upon refinement and clarification of the Treaty.

These factors led to a new round of negotiations -- in Ottawa last August 1-2, in Washington last September 6-7, and in Ottawa again December 9-11, December 19-20 and January 12-13.

It was relatively easy to agree on the clarifications of the Treaty. They related mainly to operations of Canadian and U. S. dams in such manner as to produce maximum benefits for Canada consistent with the downstream flood control and power benefits in the U. S. for which Canada is being paid -- points

we regard as implicit in the Treaty.

We also agreed on the dates by which Canada will complete her three storage dams -- 1968, 1969 and 1973.

The tougher problem was to reach agreement on related documents setting forth the terms under which Canada's share of power would be sold in the U. S. and paid for in advance by October 1, 1964.

For price we finally settled on a formula of $5.50 per kilowatt-year for peaking capacity plus 2.7 mills per kilowatt-hour for energy. In U. S. dollars, and at U. S. interest rates, this is equivalent to 3.75 mills per kilowatt-hour at 60 per cent load factor. Such a price is comparable to the cost in the United States of power from alternative sources.

We think a fair bargain was struck.

At the January 22 ceremony at the White House the protocol and agreement on terms of sale were signed by the secretaries of state for Canada and the United States. They also signed an exchange of notes whereby:

1. The government of the United States pledged its best efforts to arrange for the sale of Canada's share in accordance with the agreements; and

2. The government of Canada pledged to use its best efforts to do everything necessary and preliminary to ratification as quickly as possible.

That's where we stand now, with that October 1 deadline for cash on the barrelhead to Canada looming closer every day.

(TOMORROW: Treaty surplus problems and the California Intertie)

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KILOWATTS ACROSS THE BORDER - IV

BY CHARLES F. LUCE

Bonneville Power Administrator

(LAST IN A SERIES)

The Columbia River Treaty could cause Bonneville Power Administration a temporary headache.

Because Canada has insisted on selling her half of downstream benefits to U. S. purchasers, the Treaty projects will throw on the market 3.5 million kilowatts of firm power in the short space of five years -- from about 1968 to 1973.

If our markets cannot absorb this power readily, BPA has a headache -- but not a chronic one.

In the long run, of course, we'll need every last kilowatt of Treaty power, and then some.

A few doubters view the possibility of a temporary surplus with alarm and ask if we shouldn't scrap the Treaty and go it alone in further developing the Columbia.

Most people in the Northwest, we believe, take a different view. They see this as a challenge. As we did once before in the early 1940's, we can turn it to our advantage by selling the surplus to promote industrial growth.

Further, we expect to be able to sell some of the surplus in California over an intertie.

The temporary surplus will come about because 13 U. S. projects -- including Federal and non-Federal -- are scheduled for completion between 1968

More More

and 1973, the same time span during which the three Canadian storage projects will start putting power on the line.

The U. S. projects had been scheduled partly because of uncertainties over the Treaty and partly because many of them are multi-purpose projects which must be completed at early dates for other benefits as well as power.

The temporary surplus of firm power could range as high as 13.5 billion kilowatt hours in 1969-70 -- about 13 per cent more than the predicted requirements of the region in that year. Within five years, or less, the surplus should disappear.

For the first time since World War II BPA will be able, with Treaty power, to say "yes" to requests for industrial power in large amounts.

In recent years we have had to say "no" when industries that require a lot of power asked us for firm power contracts. Industries that could have been located here have gone abroad to other countries.

The Northwest once had 52 per cent of the U. S. basic aluminum capacity. Now we have 29 per cent. Not since 1957 has a completely new aluminum plant been built in the region.

So, far from despairing over a predicted surplus, we see it as a cause for hope, as an opportunity for a strong industrial development program, as a spur to new industries, new jobs, new profits and new payrolls.

If new industrial loads do not develop rapidly enough, we here expect to be able to sell some or all of the temporary surplus outside the region.

The need to make economic use of our present surpluses of secondary power and peaking capacity makes the intertie highly desirable.

The possibility of having to dispose also of some firm Treaty power for several years makes the intertie not just highly desirable, but imperative.

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(END OF SERIES)

U. S. Department of the Interior
Bonneville Power Administration
Portland, Oregon

FOR IMMEDIATE RELEASE
1:00 P. M., PDT, June 25, 1964

Bonneville Power Administrator Charles F. Luce said today the Pacific Northwest-Pacific Southwest intertie plan recommended to Congress by the Secretary of the Interior will help keep BPA rates lower for 50 years.

"We still may need a small rate increase a year from now," Luce said, "but the interties will save us from a rate increase that otherwise could have hurt the region's economy."

Luce served as chairman of the Interior Department's negotiating team for the intertie.

He said the intertie not only would enable BPA to sell its substantial amounts of surplus secondary power and peaking capacity now going to waste, but would add 700,000 kilowatts of firm power to the BPA supply at a time Northwest customers need it. He said this is equivalent to 1½ Bonneville dams.

The 700,000 kilowatts of additional firm power will result from transmission north of off-peak electricity produced in California and Arizona steam plants when Northwest streamflows are low.

More

Luce said the intertie also would help bring to a successful conclusion the Treaty with Canada for Joint Development of the Columbia River.

This, he said, is because California public and private utilities will buy Canada's share of Treaty power during periods when it would be surplus to Northwest needs.

Canada has decided that as a condition for ratifying the Treaty her share of Treaty power must be sold in advance in the United States for a period of 30 years. Northwest public and private utilities are planning to buy this power. Finding a temporary market for it in California, Luce said, will make it easier to complete the transaction.

Luce expressed optimism that the recommended plan for construction of the intertie facilities by a combination of public and private power and the Federal Government will pave the way for final passage of S. 1007. This is the bill to give Northwest customers first call on Federal power produced in this region and to assure that only surplus power will be exported.

The bill has passed both the House and Senate but the House added an amendment, known as the Westland Amendment, which the Senate has refused to accept. All attempts to reach a compromise on the amendment have failed. The amendment would require special authorization for construction by the Federal Government of any intertie lines outside the Northwest.

Luce said joint construction of the intertie facilities is a better solution to the needs of both the Pacific Northwest and Pacific Southwest than all-Federal construction would be.

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He pointed out that each of the several non-Federal proposals for construction of parts of the intertie lines included in the plan will result in transmission costs to the Government and other users as low as or lower than possible through all-Federal construction.

Luce gave a big share of the credit for this result to Northwest industries and public and private utilities which supported BPA in its long struggle to achieve an intertie that would produce maximum net revenues for BPA and thus the greatest benefits to the region.

He particularly noted the role of Northwest Intertie, Inc., in helping keep rates lower for its own members and all BPA customers. Northwest Intertie is a nonprofit organization formed by 26 cooperatives from the western states, mainly Oregon.

Luce pointed out that the intertie line Northwest Intertie fought hardest for, the direct current line from The Dalles to Hoover Dam, became part of the recommended intertie "package." He said Northwest Intertie's proposal was one of the best alternatives to Federal construction.

Luce said the two d-c lines in the "package" would "do more to advance the art of long-distance transmission in this country than any development in the last 20 or 30 years." He said construction of these lines would enable the United States to assume world leadership in this important new technique for low-cost transportation of electric energy.

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P.O. BOX 3621, PORTLAND, OREGON 97208
TELEPHONE 234-3361
U.S. DEPARTMENT OF THE INTERIOR
BONNEVILLE POWER ADMINISTRATION
FEDERAL BUILDING, 1002 N.E. HOLLADAY

News

Release on Receipt

September 29, 1964

Wanted: Bigger extension cords for a region with six million people and 27 federal dams.

This is the way a housewife might describe Bonneville Power Administration's program to build a new main grid.

It will be the nation's largest 500,000-volt grid and it will overlay the present transmission network, the backbone of the Northwest Power Pool.

BPA is constructing the first 300 miles of the grid. Congress has approved another 525 miles. These figures do not include lines that will be built in the Northwest as part of the Northwest-Southwest Intertie.

The new 500,000-volt grid will move more power to market at a lower cost per kilowatt.

As compared with 230,000-volt lines--those you are used to seeing--the new 500,000-volt lines will require much less right-of-way to transmit the same amount of power.

BPA's system now consists mostly of 230,000=volt lines. They require a right-of-way 125 feet wide for a line with a capacity of 250,000 kilowatts.

A 500,000-volt line with four times the capacity--a million kilowatts--requires a right-of-way only 150 feet wide. The higher voltages conserve land for other uses, such as growing timber.

The 500-kilovolt construction now underway includes a 70-mile line from Arlington to Blaine, a 110-mile line from The Dalles to Portland, and a 120-mile line from the vicinity of Wanapum Dam to Kent, near Seattle.

Towers are up on a 49-mile section from Portland to Sandy and a 23-mile section from The Dalles to Parkdale. Half of the towers are up between Arlington and Blaine, and erection has started on a 33-mile section at the east end of the line from Wanapum Dam to Kent.

Towers for the 500,000-volt lines are larger. They average about 85 feet tall and 67 feet wide at the top. Towers for a 230,000-volt line average about 73 feet tall and 45 feet wide.

The easiest way to tell one from another is by the length of the insulator strings. A 500,000-volt string is nearly twice as long--12 feet six inches. A 230,000-volt string is about six feet 9 inches long.

Congress recently appropriated $11,800,000 to start construction of the additional 520 miles of 500-kv lines. The total cost of these lines is estimated at $81.3 million. Another $3.9 million was appropriated for a major 500-kv switching station to be built near John Day Dam.

The added mileage of 500-kv construction includes a 138-mile line from John Day Dam to Lower Monumental Dam on the Snake River, a 57-mile line from Lower Monumental to Hanford, a 21-mile line from John Day Dam to The Dalles, a 169-mile line from John Day Dam to Marcola in southwest Oregon, a second 120-mile line from Wanapum to Kent, and the switching station near John Day Dam.

Large blocks of power are scheduled to come on the grid in 1967 and 1968, mostly from John Day and Lower Monumental Dams.

BPA will need about 1,600 miles of 500-kv lines in operation by 1973. This compares with a total of 3,352 miles of 500-kv lines which the nation's private utilities last January reported they plan to build by 1973.

The proposed line to southern Idaho and the intertie with the Southwest are not included in either the BPA or private company figures.

BPA operates one of the world's largest networks of high voltage transmission lines--9,000 circuit miles. It transmits power an average distance of 150 miles. The BPA service area stretches 475 miles from north to south and 550 miles from east to west. The area includes Oregon, Washington, Idaho and western Montana.

In the Northwest most of the generating facilities lie east of a mountain range--the Cascades. Most of the electricity is consumed in the population centers west of the mountains. Transmission lines cross the heavily timbered and rugged slopes of the Cascades. Suitable transmission routes are rather limited.

Power from 21 federal dams flows over BPA lines to private and public utilities, large electroprocess industries and to federal agencies. BPA also transmits over its lines power owned by various Northwest utilities. Six more federal dams are being built.
