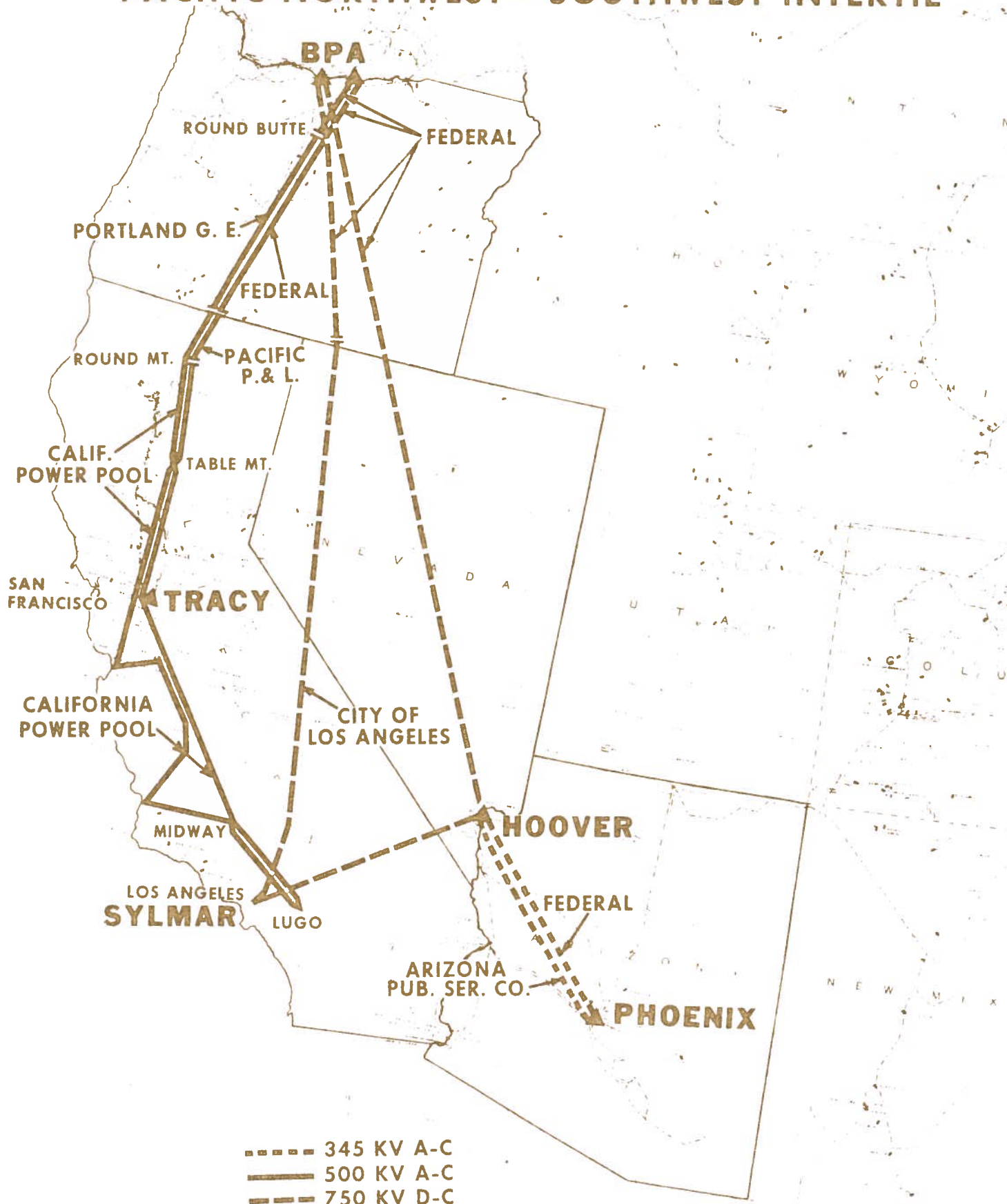


RECOMMENDED PLAN PACIFIC NORTHWEST—SOUTHWEST INTERTIE



★ news release

Wood - 343-3873

FACT SHEET: PACIFIC NORTHWEST-PACIFIC SOUTHWEST INTERTIDE

"...I have directed the Secretary of the Interior to develop plans for the early interconnections of areas served by that Department's (power) marketing agencies..."

On March 10, 1961, Secretary Udall appointed a special task force composed of representatives of the staff of Assistant Secretary Kenneth Holum, the Bureau of Reclamation, and chaired by the Bonneville Power Administration. The task force's assignment was to initiate studies to implement the President's instructions. Secretary Udall asked the task force to consider the following items, among others in their study:

"Regional interties should be built only when it can be demonstrated that they are mutually advantageous to economic growth and conservation of energy in both regions proposed to be interconnected."

"Legal safeguards, including legislative and contractual proposals, must be developed to assure that each region will have permanent priority to electric power and energy now or hereafter generated on its rivers and streams. Among other safeguards should be a delineation of regional power marketing areas."

"The possibility of integrating Canadian power supplies with the Pacific Northwest and the Pacific Southwest should be fully explored, and the plans of the British Columbia power agencies ascertained in this regard."

"The economic feasibility of any proposed intertie should be evaluated on a self-liquidating basis."

Economic and Engineering Studies

The Department of the Interior task force reported to Secretary Udall in December 1961, following a careful economic and engineering study. The task force recommended that an extra-high-voltage interconnection between the Pacific Northwest and the Pacific Southwest should be constructed "at the earliest practicable time" and that heavy emphasis should be placed on the "exciting promise" of new techniques of long-distance direct current transmission.

The task force also stressed that:

"It would be in the national interest and in the interest of electric consumers of both regions that all electric utilities participate fully in using such interconnections...The greatest value of an intertie between the Pacific Northwest and the Southwest will be obtained if all companies, municipalities, and government agencies participate in its use."

The task force did not specifically recommend a construction program and reported that an intertie could be built and operated by the Federal Government; by a non-Federal public agency of agencies; or by Federal-public-private entities.

On Capitol Hill

In January 1962, the Budget Message of the President contained a request for funds for the design of an extra-high-voltage interconnection between the Pacific Northwest and Pacific Southwest, and the Congress provided \$300,000 for continuing studies.

Secretary Udall in April 1962 submitted proposed legislation to Congress to assure Pacific Northwest customers first call on hydroelectric power produced in the Northwest with reciprocal assurances to customers in other regions.

Action on this legislation was not completed in the 87th Congress, and new legislation was reintroduced in the present 88th Congress. This proposed bill, S. 1007, has passed both the House of Representatives and the Senate--but in differing versions which have not yet been resolved in conference committee.

While S. 1007 was under consideration, the Congress in November 1963 appropriated \$7 million to initiate construction of the Intertie, subject to enactment of S. 1007 or similar legislation. Congress also instructed Secretary Udall that:

"...construction shall not begin unless the Secretary of the Interior finds, after good faith negotiations with utilities and other entities interested in constructing any portion of the lines involved, that their proposals would not result in benefits to the Federal Government equal to those to be derived from Federal construction."

Following the Congressional Mandate

In March 1964, Assistant Secretary Holum established criteria, including a proposed Federal yardstick intertie system, for the evaluation of proposals from those who had indicated an interest in construction of all or part of the intertie facilities.

At the same time, Secretary Udall appointed a Departmental negotiating team composed of Charles F. Luce, Bonneville Power Administrator, chairman; Emil V. Lindseth, associate chief engineer, Bureau of Reclamation; and Morgan D. Dubrow, assistant and chief engineering advisor to Assistant Secretary Holum. The team's assignment was to evaluate proposals and make recommendations to Assistant Secretary Holum and Secretary Udall. Mr. Holum announced:

"We are anxious to make all necessary information available to organizations wishing to submit proposals. The team will be available immediately to explain the criteria and exchange technical information."

Since its formation, the negotiating team met with all interested parties and conducted negotiations leading to the recommendations approved by Secretary Udall.

In transmitting his report to Congress, Secretary Udall said that "we strongly believe that the intertie plan herein recommended provides a basis for resolving the differences" between the House and Senate versions of S. 1007.

The Intertie Proposal

The Pacific Northwest-Pacific Southwest Intertie proposal will consist of four extra-high-voltage transmission lines to be built by public and private utilities and the Federal Government—one of the methods proposed by the 1961 task force.

Together with three shorter lines and existing transmission facilities, the Intertie will complete an electric energy transmission system far surpassing that foreseen by BPA engineers nearly 30 years ago. In fact, the Intertie is the most imaginative electric transmission system conceived by any group of engineers throughout the world.

Two long-distance 750,000 volt direct current lines (the first in the United States and the longest in the world), two long-distance 500,000 volt alternating current lines, a shorter 750,000 volt d-c tieline, and two 345,000 volt a-c lines will interconnect the major Federal, public, and private electric systems in eleven Western States. They are:

Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming.

Secretary Udall has said that the Intertie, as finally recommended by the Department of the Interior, "would fully protect the interests of the Federal Government's preference customers in the Pacific Northwest and the Pacific Southwest and that the Intertie shall provide maximum benefits to the Federal Government through interconnections of the Department's hydroelectric systems in the three regions."

Assurance for Preference Customers

In the eleven States, the power marketing agencies of the Department of the Interior serve 251 non-Federal rural cooperatives and other local publicly owned electric utilities. These groups have been given first preference by Congress to purchase low-cost electric power generated at Federal hydroelectric dams.

These 251 preference customers and the State of California are assured two-thirds of the transmission capacity of the Pacific Northwest-Pacific Southwest Intertie.

Direct dollar benefits can be ascribed to 174 rural cooperatives and other non-Federal public agencies. In addition, 77 rural cooperatives and other local public agencies are assured of an increased supply of low-cost power to meet their needs—electricity which otherwise would have to be obtained from other sources at higher costs.

Local Public Agencies With Direct Dollar Benefits

<u>State</u>	<u>Rural Cooperatives</u>	<u>Other Public Agencies</u>
Arizona	9	23
California	4	32
Idaho	17	8
Montana	4	-
Nevada	1	3
Oregon	17	14
Washington	<u>11</u>	<u>31</u>
	63	111

Local Public Agencies to Receive Increased Power Supply

<u>State</u>	<u>Rural Cooperatives</u>	<u>Other Public Agencies</u>
Arizona	-	1
Colorado	2	18
New Mexico	2	5
Utah	5	37
Wyoming	<u>1</u>	<u>6</u>
	10	67

In summary, 63 rural cooperatives share the dollar benefits of the Intertie and 10 additional rural cooperatives are assured of an increased supply of low-cost power; 111 publicly owned local utilities share in dollar benefits, while 67 others gain access to additional supplies of low-cost power.

The Pacific Northwest-Pacific Southwest Intertie, as approved by Secretary Udall, results in more benefits to more public agencies in more States than any other single intertie proposal submitted to the Department of the Interior.

Conserving Energy Resources

In the Pacific Northwest, water which otherwise could be put through generators to create low-cost power is spilled into the Pacific Ocean in the summer for lack of markets. However, in the winter, power demand can soar one million kilowatts in eight hours.

Conversely, in the Pacific Southwest, power demand in the summer can increase by one million kilowatts in a few hours--taxing steam plants which principally burn natural gas, a high-value nonrenewable natural resource. Yet, in the winter, these plants are not operated at full capacity and lay partially idle.

In both instances, there is waste in natural resources and capital investment.

In the Pacific Northwest, the Intertie will increase Bonneville Power Administration's net revenues by as much as \$20 million annually and by \$11 to \$12 million on the average over 50 years--thus helping to keep BPA's rates lower than otherwise possible.

By opening California markets for Canadian power which will be sold in the United States under the recently ratified Columbia River Treaty, the Intertie also prevents the displacement of about \$55 million in BPA power sales.

Starting in 1967, electric power generated by the Bureau of Reclamation will be needed for pumping plants for irrigation, municipal and industrial water supply in California. Without the Intertie, preference customers now using this power would face a dwindling supply of electricity which could only be replaced at much higher costs.

The Intertie will permit the exchange of electricity in both regions and increase the power supply in the Upper Colorado River basin area.

The Intertie will provide a practical pattern for effective and efficient utilization of our country's power resources, as envisioned in the Federal Power Commission's National Power Survey.

Benefits of the Intertie

To the people of the Pacific Northwest, the Pacific Southwest, the Upper Colorado River Basin, and the Nation, the Intertie means:

- More efficient use of the power resources of the Nation.
- Extension of extra-high voltage direct current transmission technology, thereby placing America in a position of world leadership.
- Creation of the most efficient interconnection electrical system in the world.
- Assurance of low-cost electric power for preference customers in eleven States.
- International development of the water resources of the United States and Canada.
- Dramatic demonstration of the largest, single cooperative effort in history by Federal, public, and private agencies.
- Creation of new jobs and new manufacturing opportunities during construction and the continuing beneficial effect of low-cost power in one of the fastest growing areas of America.

Participants in the Intertie

The substantial existing Federal investment in multipurpose dams and transmission lines in the Pacific Northwest and the Pacific Southwest make the Federal Government a logical participant--as well as the public and private utilities which serve the people of the eleven-State area.

Of the proposals to construct all or portions of the Intertie, seven of the twelve non-Federal agencies interested in participating will share in construction, financing, and operation of the lines.

As instructed by Congress, Secretary Udall compared their proposals with all-Federal construction and found that the benefits to the national interest presented by these agencies were equal to or greater than those which could be derived from all-Federal construction. Participants in the Intertie are:

Federal

The Bonneville Power Administration
The Bureau of Reclamation

Public Power

The City of Los Angeles

Private Power

Pacific Power and Light Company
Portland General Electric Company
Pacific Gas and Electric Company
Southern California Edison Company
San Diego Gas and Electric Company
The Arizona Public Service ~~Corporation~~ *Company*

Two public agencies--Northwest Intertie and the Salt River Project--preferred Federal construction of sections of the line. They proposed to build these sections in the event the Federal Government did not. The portions considered by these two groups will be Federal lines.

The lines proposed to be constructed by Harvey Aluminum Company and International Utilities, Inc., will be constructed by the Federal Government and the City of Los Angeles to assure firm construction schedules, reduce the cost of delivered electric power, and reduce the over-all financial obligations of the Federal Government.

Construction Schedule

The four great intertie lines be timed for completion of construction as follows:

(1) A 750,000-volt direct current line of 1,350,000 kw capacity from The Dalles, Oregon, via Nevada to Sylmar Substation near Los Angeles, and a 345,000-volt alternating current line of about 400,000 kw capacity from Hoover Dam to Phoenix, Arizona, to be completed in 1968. The Oregon portion of the d-c line would be built by the Bonneville Power Administration and the Nevada-California portion by the city of Los Angeles. The Hoover-Phoenix 345 kv line would be built by the Bureau of Reclamation, which would also "re-bus" Hoover Dam to make possible the interconnection of the Hoover-Phoenix line with existing circuits between Los Angeles and Hoover Dam.

(2) A 500,000-volt alternating current line of about 1,000,000 kw capacity from John Day Dam on the Columbia River via the Central Valley to Vincent Substation near Los Angeles, to be completed in 1967. The Oregon portion would be built by the Bonneville Power Administration, a 50-mile section from the Oregon border to Round Mountain, California, by the Pacific Power and Light Company, and the balance of the line in California by the California Power Pool, consisting of the Pacific Gas and Electric Company, Southern California Edison Company and the San Diego Gas and Electric Company.

(3) A 750,000-volt direct current line of 1,350,000 kw capacity from The Dalles, Oregon, through Nevada to Hoover Dam, connected from Hoover to Sylmar Substation by a 750,000-volt direct current line and from Hoover to Phoenix by a second 345,000-volt a-c line for completion by 1971. We are recommending that the city of Los Angeles and the Southern California Edison Company be asked for proposals to tie this Hoover d-c terminal with the Los Angeles-Sylmar d-c terminal; and that the proposal of the Arizona Public Service Company to build the second 345 kv a-c line from Hoover Dam to Phoenix be accepted, also for completion in 1971. To assure adequate loading of the proposed Federal d-c line from The Dalles to Hoover Dam and financial feasibility of the line, we would propose to negotiate long term wheeling contracts with prospective users of the line by the end of the present calendar year. If the Congress desires that the Department of the Interior call for non-Federal proposals to build this line, as it did in the case of the lines to California, we can see no objection to such a procedure.

(4) A 500,000-volt a-c line of 1,000,000 kw capacity from John Day Dam to Table Mountain in the Central Valley, where it would connect with a 500,000-volt a-c line to be constructed in any event from Table Mountain to Los Angeles by the California Power Pool. The portion from Table Mountain north probably would be scheduled for completion in 1968. The portion from Table Mountain to the Oregon border would be built by the Pacific Gas and Electric Company, from the Oregon border to Round Butte Dam, Oregon, by the Portland General Electric Company, and from Round Butte to John Day by the Bonneville Power Administration.

Allocation of Intertie Transmission Capacity

What Public Power Gets:

In California, 1,800,000 kilowatts of transmission capacity at Federal cost or less, as follows: Los Angeles, Pasadena, Burbank, and Glendale, 650,000 kw; Sacramento Municipal Utility District, up to 400,000 kw; State of California, 500,000 kw; and Bureau of Reclamation, 450,000 kw (for smaller preference customers).

What Private Power Gets:

In California, 1,300,000 kw of transmission capacity, of which 300,000-600,000 kw is at Los Angeles cost (not more than Federal cost), and balance is at private companies' own costs (substantially higher than Federal costs).

In Arizona, Nevada, and Colorado Basin, 900,000 kw of transmission capacity at Federal cost, as follows:
Colorado River Commission of Nevada 200,000 kw; Nevada co-ops 60,000 kw; Salt River Project, 300,000 kw; Arizona Power Authority, 25,000 kw; miscellaneous Arizona preference agencies, 135,000 kw; and Colorado River Storage Project (Colorado, Wyoming, Utah and New Mexico), 200,000 kw.

What Public Power Gets:

In Pacific Northwest, 3,900,000 kw of transmission capacity at Federal costs. Capacity would be used primarily by Bonneville Power Administration to market \$20,000,000 or more of hydro power now being wasted (help keep public power rates down). Other preference agencies could also use this capacity to sell surpluses, for example, Seattle City Light, Tacoma City Light, Chelan County Public Utility District, etc.

In Arizona, Nevada, and Colorado Basin, 400,000 kw of transmission capacity at Federal costs.

What Private Power Gets:

In Pacific Northwest, 450,000 kw of transmission capacity at private companies' own cost, plus use of BPA lines at Federal costs in proportion to their share of regional power surpluses.

Advantages of Direct Current Transmission

Extra-high-voltage transmission systems are just what the name implies-- systems to carry energy at higher voltages than the present 230-kilovolt systems. Ordinary high-voltage transmission systems are usually considered in terms of 69 kilovolts to 230 kilovolts.

It is not economical to transport electrical energy long distances on low-voltage circuits because of line losses which result from conductor resistance and other characteristics common to the movement of electricity. For example: In the case of steam-generated electricity, it usually has been more economical to transport fuel to the load center, even at considerable expense, before converting it into electricity than to have the generating station at the fuel source and rely on transmission lines to carry the energy as electrical power.

However, the higher the voltage of the transmission line, the less the line loss per unit of power transmitted. High-voltage systems, designed for direct current, show an even higher efficiency than those carrying alternating current.

Extra-high-voltage transmission circuits are much more expensive because they require higher towers, larger insulators, and heavier conductors, but when their greater capacity can be utilized efficiently, the total transmission cost per kilowatt is less than by using several circuits of lower voltage to move the same amount of power.

Thus, extra-high-voltage transmission systems are economically feasible to transmit large blocks of power long distances from remote plants or for inter-connection of large systems where there must be a means of moving large quantities of power back and forth as the needs arise. Direct current is especially suitable for high-voltage, long-distance transmission of large quantities of electricity.

High-voltage direct-current transmission originated in France in the first decade of the 20th Century when a system of 125,000 volts was placed in operation and eventually extended 125 miles.

Not much happened in the development of direct-current transmission technology until the middle 1930's when a German engineer developed the grid-controlled high-voltage rectifier. Also, in 1936, a 17-mile direct current line was constructed in New York.

The practicality of high-voltage direct current transmission on a modest scale thus was demonstrated even before World War II. In 1939, J. D. Ross, first Bonneville Power Administrator, published an article on direct current transmission which, in its day, sounded like a dream. He said that power could be moved economically from the Columbia River as far as Chicago and New York by means of direct current.

Ross said, "The possibility of this new technique of power transmission staggers the imagination. Transmission of 1,000-2,000 miles becomes a comparatively simple problem."

Ross was far ahead of his time. However, Government engineers, notably those of the Bonneville Power Administration and the Bureau of Reclamation, have watched with interest the development of direct current transmission in other nations--and Bonneville initiated a direct current research effort in 1962, one of the ~~first~~ ^{most} significant research programs in the United States in many years.

^{Electrical} Swedish engineers were the first to develop practical techniques and necessary equipment for successful d-c operation and installed the first commercial d-c transmission link in 1954. In 1961, direct-current transmission interconnected the grid systems of England and France.

In 1950, the Russians placed a 70-mile experimental direct current line into operation linking Moscow and Kishira. Today, a 300-mile 800,000 volt direct current line--currently the longest in the world--is reportedly operating between Volgograd to Donbass.

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Other interest in direct current interconnections have been shown by Sweden and Germany--and by Italy and Yugoslavia. Equipment contracts have been let for a 400-mile direct-current line between the North and South Island of New Zealand to be placed in operation by 1965.

Summary

The Pacific Northwest-Pacific Southwest Intertie is one of the biggest steps forward this Nation has ever taken in the practical application of extra-high-voltage transmission and makes possible one of the finest interconnected electric systems in the world--placing America in an undisputed position of world leadership in direct current transmission.

The Intertie will interconnect the largest hydro system in America, the largest municipally owned system, one of the largest privately owned electric utility groups and two major Bureau of Reclamation hydro-electric systems.

The Intertie would consist of four long-distance lines and three inter-connecting shorter lines to be constructed and financed jointly by public and private utilities and the Federal Government. The Federal investment would be \$280 million out of a total investment of \$697 million.

The Intertie--an essential element in implementing the Columbia River treaty between Canada and the United States--puts water to work which is now wasted in the Pacific Northwest, permits both regions to make the most efficient use of existing and future thermal and hydro generating facilities of both regions, and results in sizable savings in capital investment by all participants and beneficiaries.

Over a fifty-year amortization period, the Pacific Northwest-Pacific Southwest Intertie will produce benefits of at least \$2.6 billion of which two-thirds will accrue to preference customers. Benefits exceed the cost of the facilities by a ratio of 2.5 to 1, and joint construction will result in benefits of \$540 million more than all Federal construction.

Geographically, direct benefits will be divided as follows: the Pacific Northwest, \$1 billion; California, \$869 million; and Arizona-Nevada, \$725 million.

The sharing of costs and resources by Intertie participants is dramatic evidence of the ability of public, private, and Federal power to work together to assure abundant supplies of low-cost power. The multiplicity of ownership and operation provides built-in protection against monopoly by any participant.

The Pacific Northwest-Pacific Southwest Intertie is engineeringly sound, economically advantageous to the Nation and consistent with the traditional American pattern of diverse ownership of electric power facilities.

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Hart - 343-4306

INTERIOR SUPPORTS BILLS TO INCREASE INDIAN ADULT VOCATIONAL TRAINING FUNDS

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Hart - 343-4306

INTERIOR ASKS \$35 MILLION BOOST IN CREDIT FUND FOR INDIANS

Under a bill proposed by the Department, authorization for the program would be boosted from \$27 million to \$62 million and the Bureau would be permitted to make grants of not more than 20 percent of the borrowed amount in connection with the loans under certain circumstances.

Present loan funds of the Bureau of Indian Affairs are inadequate to meet the needs of financing Indian economic enterprises, the Department said. Although Indians received an estimated \$103 million of financing from sources serving other citizens in 1964 the total of unfulfilled commitments and pending applications for Bureau loans is nearly \$42 million greater than the available cash balance, the Department reported.

The grant feature of the proposed legislation is intended to help borrowers, including both Indian organizations and individual Indians, during initial loan periods and times of emergency. In many cases, a grant may make the difference between success and failure of an Indian enterprise financed from the fund, the Department said, explaining that grants would not be made in connection with all loans, but only in cases of clearly justifiable need.

P.N. 65001-65

UNITED STATES DEPARTMENT of the INTERIOR

★ news release

OFFICE OF THE SECRETARY

Hart - 343-4306

For Release JUNE 18, 1965

INTERIOR ASKS FOR \$15 MILLION FUND TO GUARANTEE AND INSURE PRIVATE LOANS TO INDIANS AND INDIAN ORGANIZATIONS

Seeking to encourage broader private financing of economic development on Indian reservations, the Department of the Interior has asked Congress for authority to establish an Indians' Loan Guaranty and Insurance Fund of \$15 million under administration of the Bureau of Indian Affairs. It would be used to guarantee or insure loans made by private lenders either to Indian organizations or to individuals of one-quarter or more Indian blood.

The Department believes that such a fund would multiply by several times the amount of financing from private sources presently available to American Indians.

Under the proposal, the Secretary of the Interior would be authorized to guarantee up to 80 percent of any loan made to an Indian organization, or to an individual Indian of one-quarter or more degree of Indian blood. In lieu of such guaranty, the Secretary would be authorized to insure loans against losses up to 15 percent of the aggregate of the loans made by one lender. The Department anticipates that the loan guaranty provision would be used in financing the larger tribal enterprises and industries on a loan-by-loan basis, while the insurance provision would be administered through institutional lenders and used mainly in financing of individual Indians and smaller tribal enterprises.

Under the proposed bill, the guaranties on insurance would be provided only to applicants unable to obtain financing from customary sources on reasonable terms. The maturity period of loans qualifying under the program would be limited to 30 years. Loans by Federal agencies would be precluded from guaranty or insurance protection.

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Hart - 343-4306

INTERIOR DEPARTMENT RECOMMENDS ENACTMENT OF LEGISLATION TO PERMIT
NINETY-NINE-YEAR LEASING OF INDIAN LAND AT PYRAMID LAKE, NEVADA

The basic Act of 1955 authorized leases of Indian lands for public, religious, educational, recreational, residential, or business purposes for terms not to exceed 25 years, with an option to renew for one additional term of not more than 25 years.

Several potential investors have been negotiating with the Pyramid Lake Indians to develop the area, but a major obstacle to firm agreement has been the limitations on leasing periods, the Department said. In addition, existing leasing restrictions, which would be overcome in the proposed legislation, have hampered new housing development because of National Housing Act and Federal Savings and Loan Association stipulations that mortgage insurance be made available only if a leasehold is not less than 50 years.

P.N. 65404-65

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Ulsamer - 343-4306

INTERIOR RECOMMENDS BILL TO DISTRIBUTE JUDGMENT FUNDS TO OMAHA TRIBE OF NEBRASKA

The award, by the Indian Claims Commission, represents additional compensation for lands in what is now western Iowa and the northwestern Missouri to which the Omahas and other Tribes owned recognized title when the United States made treaties with them in 1825 and 1830.

As recommended, the bill would authorize the Secretary of the Interior to make a per capita distribution up to a maximum of \$270 to each enrolled member of the Omaha Tribe of Nebraska. This would include those whose names appear on the tribal roll prepared September 14, 1951 when a previous award was made, plus the names of all children of at least one-quarter degree Omaha Indian blood born since that date.

Present tribal membership is about 2,600, with slightly more than half the members under twenty-one years of age. Per capita payments to tribal members who are minors are to be deposited in a bank account for educational purposes.

The tribal council has proposed several programs for using the balance of the award not distributed per capita. These include a tribal land purchase and land use plan, and an educational program.

The sum of \$150,000 will be withheld from disbursement of the award pending settlement of a conflicting claim of the Yankton Sioux Tribe.

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P.N. 67416-65