



BRITISH COLUMBIA
HYDRO AND POWER
AUTHORITY

TWELFTH ANNUAL REPORT
Year ended 31 March 1974



The front cover features an embossed outline of the new type of transmission pole used by B.C. Hydro in some areas to alleviate the visual impact of powerlines. The tubular steel poles have a graceful, slender design which helps them blend with their surroundings.

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THE GOVERNMENT OF
THE PROVINCE OF BRITISH COLUMBIA

MINISTER OF LANDS, FORESTS AND WATER RESOURCES

VICTORIA
BRITISH COLUMBIA
CANADA

19 June 1974

The Honourable Walter S. Owen, Q.C., LL.D.,
Lieutenant-Governor of the Province of British Columbia.

MAY IT PLEASE YOUR HONOUR:

The undersigned has the honour to present the Annual
Report of British Columbia Hydro and Power Authority for the year
ended 31 March 1974.

Robert Williams
R.A. Williams

BRITISH COLUMBIA HYDRO AND POWER AUTHORITY

Head Office: 970 Burrard Street, Vancouver, British Columbia, Canada, V6Z 1Y3

DIRECTORS AND OFFICERS

DAVID CASS-BEGGS *Chairman*

THE HONOURABLE JAMES G. LORIMER

JOHN H. STEEDE

THE HONOURABLE ROBERT A. WILLIAMS

JAMES W. WILSON

GEOFFREY G. WOODWARD *Secretary*

ELIZABETH B. FULWELL *Assistant Secretary*

J. NORMAN OLSEN *General Manager (Effective 1 April 1974)*

AUDITORS BANKERS REGISTRARS

PRICE WATERHOUSE & CO.

CANADIAN IMPERIAL BANK OF COMMERCE

Securities issued by British Columbia Hydro and Power Authority:

Canadian issues: B.C. HYDRO

United States issues: THE CANADIAN BANK OF COMMERCE TRUST COMPANY, New York

Securities issued by the former British Columbia Electric Company Limited:

Callable Bonds: MONTREAL TRUST COMPANY

First Mortgage Bonds: MONTREAL TRUST COMPANY

Debentures: THE ROYAL TRUST COMPANY

Securities issued by the former British Columbia Power Commission:

B.C. HYDRO

THE BUSINESS OF B.C. HYDRO AND THE AREAS SERVED

Electric Service

Generation and transmission of electricity.

Distribution of electricity throughout areas of British Columbia containing more than 90% of the population of the Province.

Gas Service

Distribution of natural gas in Greater Vancouver and the Fraser Valley.

Distribution of liquid petroleum gas-air in Greater Victoria.

Passenger Transportation Service

Urban bus service in Greater Vancouver and Greater Victoria.

Interurban bus service in Greater Vancouver, in the Fraser Valley, between Vancouver and Victoria and between Vancouver and Nanaimo.

Rail Freight Service

Rail freight operations in Greater Vancouver and the Fraser Valley.

BRITISH COLUMBIA HYDRO AND POWER AUTHORITY

OFFICE OF THE CHAIRMAN

970 BURRARD STREET

VANCOUVER, B. C.
V6Z 1Y3

18 June 1974

The Honourable R.A. Williams,
Minister of Lands, Forests, and Water Resources,
Parliament Buildings,
Victoria, British Columbia.

Dear Sir:

I have pleasure in presenting the Annual Report of British Columbia Hydro and Power Authority for the year ended 31 March 1974.

The past year has been one of carefully planned change in the administration of B.C. Hydro, and in a national and indeed world setting, it has been one of adjustment to outside changes.

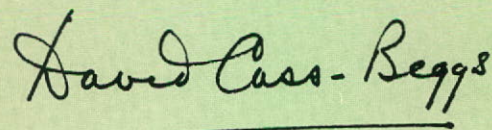
The organizational structure has been modified to distribute authority and responsibility more widely through the appointment of a General Manager and four Assistant General Managers, and at the same time a measure of decentralization has been achieved by combining the diverse functions performed in the field under regional managers responsible for all aspects of electrical operations within their regions.

Changing attitudes toward the use of energy coupled with the curtailment of oil supplies from middle eastern sources, continued inflation and high interest rates demonstrated the need for a critical review of the program and practices of B.C. Hydro. While adjustments to the changing situation will necessarily be spread over a considerable time, immediate action was taken by the appointment of an internal Task Force to review the electric power program and the policies and assumptions upon which it is based. Sales promotional activity has been replaced by programs promoting the wise and efficient use of energy, and significant new activity in the form of public consultation and discussion has been introduced in relation to project planning and environmental matters.

Relationships within the staff of B.C. Hydro have followed a more relaxed pattern, and constructive negotiations with the various trade unions have resulted in satisfactory agreements incorporating wage advances in keeping with the general trend. Recognition has been accorded to a new organization representing the management and professional and supervisory personnel who have not hitherto been covered by other industrial organizations.

The Board wishes to record their appreciation of the loyal and effective work of the employees during the year.

Respectfully submitted,



Chairman.

THE YEAR IN BRIEF

- Gross revenues for the year were \$376,224,069, exceeding expenses by \$14,280,787.
- Kilowatt-hours of electricity sold in British Columbia increased 10.7% over the previous year. A record one-hour demand occurred in January 1974.
- Therms of gas sold increased 9.6% over the previous year.
- The number of passengers carried by the urban transportation services continued to show improvement, increasing 11.4% over the previous year.
- Expenditures on new plant amounted to \$332,306,762 compared with \$230,200,847 for the previous year.
- In November 1973, the purchase price of natural gas was increased substantially. In March 1974, rates to our customers were increased to partially recover the added costs.

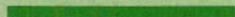



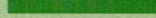

B.C. HYDRO'S REVENUE DOLLAR

for the year ended 31 March 1974

WHERE THE REVENUE CAME FROM

ELECTRIC	71¢	
GAS	16¢	
PASSENGER TRANSPORTATION	8¢	
RAIL FREIGHT	3¢	
MISCELLANEOUS	2¢	

HOW THE REVENUE WAS USED

EMPLOYMENT COSTS	24¢	
MATERIALS AND SERVICES	20¢	
GRANTS, SCHOOL TAXES, ETC.	7¢	
INTEREST ON DEBT*	29¢	
DEPRECIATION	16¢	
RETAINED IN THE BUSINESS	4¢	

*less interest charged to construction.

ANNUAL REPORT OF BRITISH COLUMBIA HYDRO AND POWER AUTHORITY

for the year ended 31 March 1974

RESULTS OF OPERATIONS

Gross revenues for the year ended 31 March 1974 amounted to \$376,224,069, an increase of \$41,302,470 or 12.3% over the previous year.

Net income, after providing for all expenses, was \$14,280,787 compared with \$21,192,058 for the previous year. An amount of \$5,000,000 was appropriated from net income and added to the Reserve for Stabilization of Rates; the balance of net income was added to earnings employed in the business, and the corresponding funds were used for plant renewals and expansion to meet load growth.

The following table shows the principal sources of revenue and how this revenue was used:

	Year Ended 31 March 1974	Year Ended 31 March 1973
Where the revenue came from:		
Sale of electricity	\$267,972,911	\$235,027,227
Sale of gas	60,734,507	55,255,293
Passenger transportation	27,727,847	25,065,651
Rail freight operations	12,071,983	10,786,652
Interest on temporary investments	4,122,010	5,460,647
Miscellaneous	3,594,811	3,326,129
	<u>\$376,224,069</u>	<u>\$334,921,599</u>
How the revenue was used:		
Salaries, wages and employee benefits	\$ 88,455,245	\$ 72,678,672
Materials and services	76,028,080	52,996,482
Grants, school taxes, etc.	25,039,270	22,186,345
Interest on debt, less interest on projects under construction	110,740,440	108,146,799
Depreciation of plant	61,680,247	57,721,243
Retained in the business	14,280,787	21,192,058
	<u>\$376,224,069</u>	<u>\$334,921,599</u>

ELECTRIC SERVICE

Sales of Electricity

The rate of growth in requirements for electricity continued at a high level during the year. Sales of kilowatt-hours of electricity in British Columbia by B.C. Hydro increased 10.7% over the previous year. Gross revenues from the electric service were \$267,972,911, up 14.0% from the previous year.

B.C. Hydro was serving 801,268 customers with electricity at 31 March 1974, an increase of 36,348 during the year. Average annual consumption per residential customer rose from 7,365 kwh to 7,694 kwh, an increase of 4.5%.

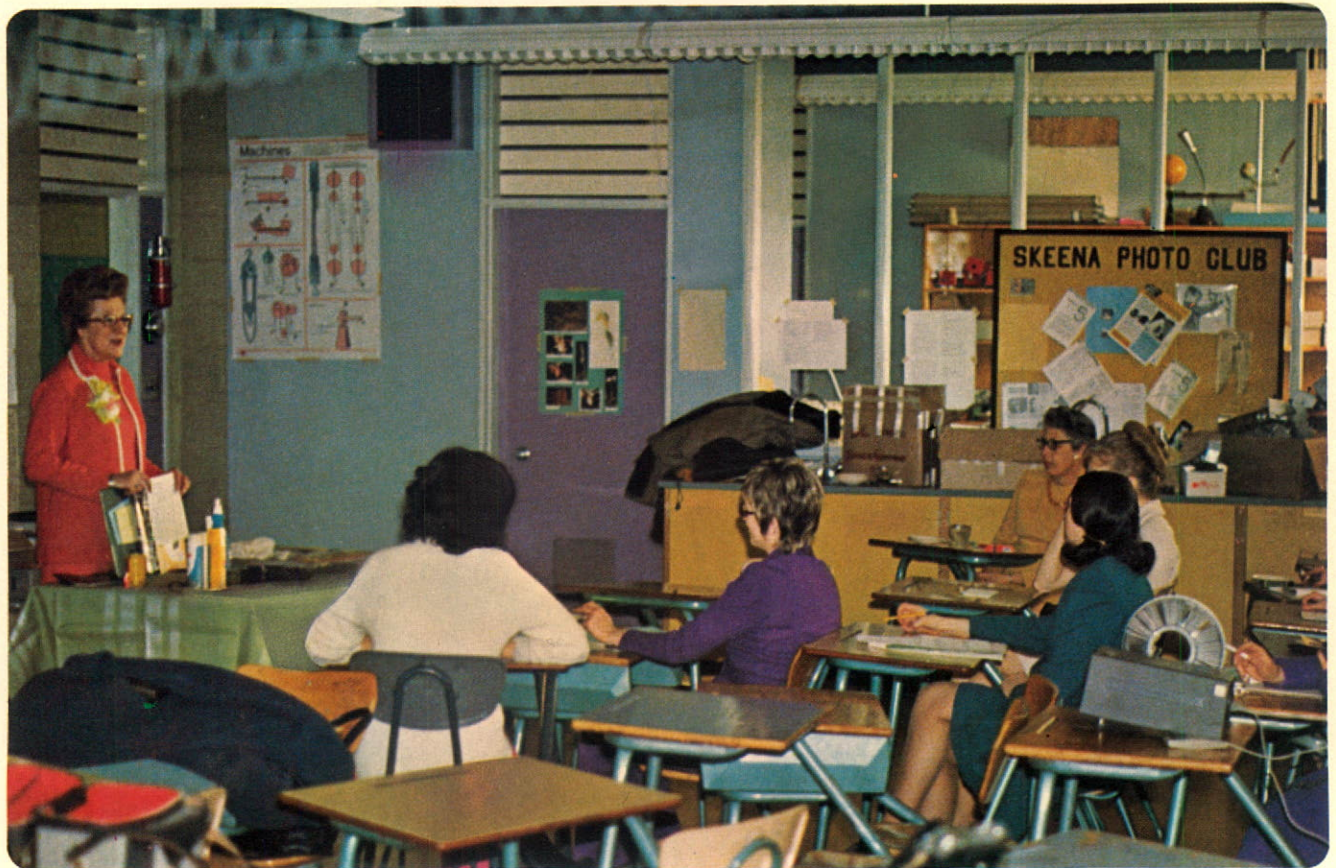
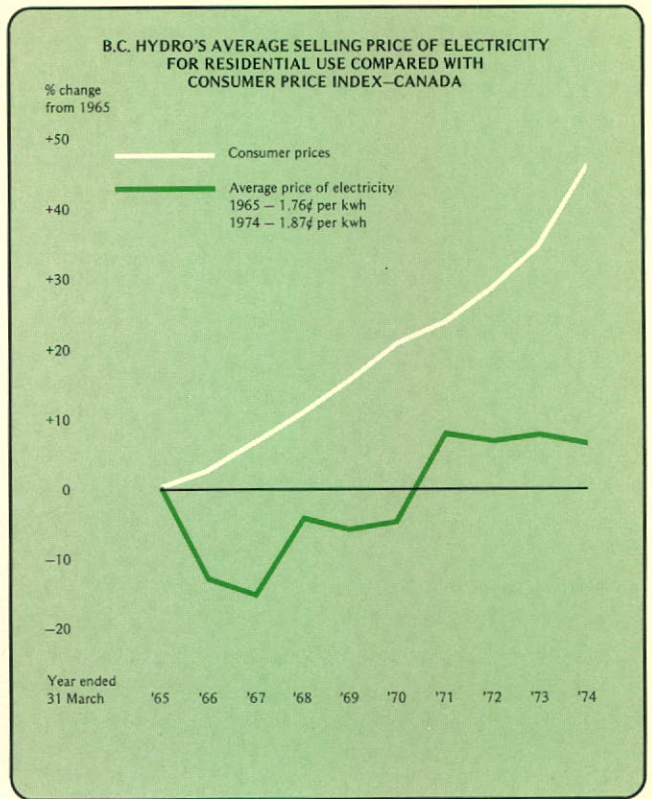
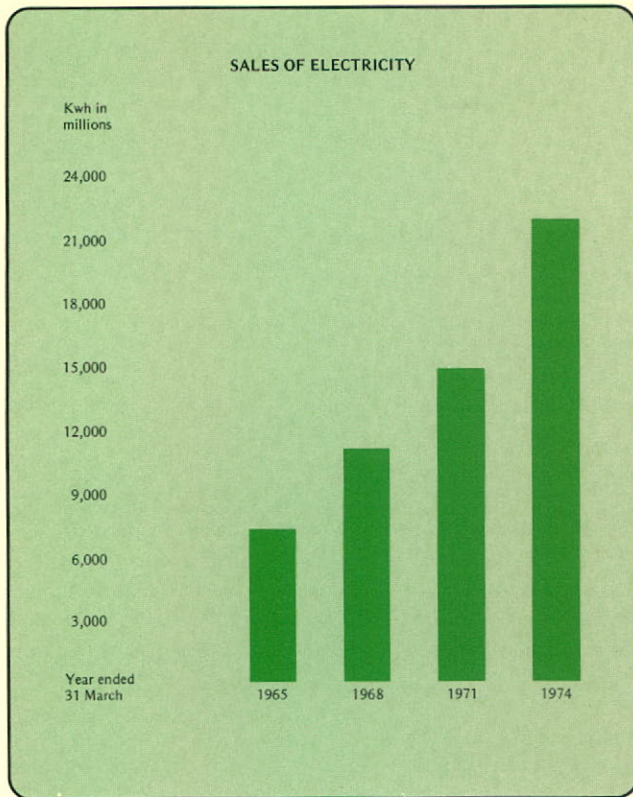
Interest in electric space heating for houses, apartments and condominiums in B.C. Hydro's service area continued, and during the year, the number of residential electric heating accounts increased more than 11%. The use of electricity for space heating in motels, churches, schools and commercial premises also increased significantly.

Rural Electrification

During the year ended 31 March 1974, the Government of British Columbia made a grant of \$3,000,000 to B.C. Hydro to provide financial assistance for rural electrification. This grant enabled B.C. Hydro to extend financial help during the year to 223 projects serving 682 customers along 308 miles of distribution lines. Projects approved included extensions to serve 61 customers at Lac Le Jeune, north of Merritt, 46 customers in an area near 100 Mile House and 19 customers at Garden Bay Lake, on the Sechelt Peninsula. A unique rural extension to serve the residents of the Alexis Creek – Chilanko Forks area of the Chilcotin plateau, west of Williams Lake, was completed during the year. It was a self-help project: B.C. Hydro designed and surveyed the line and provided materials, other than poles, at cost; the residents provided the poles and arranged for construction. This line also involved B.C. Hydro's first use of 20/34 kv distribution; the higher voltage was required because of the extreme length of the distribution line, which now spans 107 miles.



B.C. Hydro designed a street lighting system for the City of Kimberley to complement a plan to modernize the city's downtown area in a Bavarian motif. The scheme won awards at local and regional levels in the Illuminating Engineering Society's lighting design competitions, and has been entered in the international final.



B.C. Hydro consultant explains efficient use of energy to Skeena district teachers at professional development workshop.

Generation and Supply of Electricity

Demand for electricity during the year totalled 24,493 million kwh compared with 21,511 million kwh during the previous year. The following table shows requirements for energy and sources of supply for the year under review:

	Kwh in Millions	% of Total
Requirements for energy:		
Sales to customers	19,909	81.3
Export of surplus	2,031	8.3
Line loss and system usage	2,553	10.4
	<u>24,493</u>	<u>100.0</u>
Sources of Supply:		
Hydro generation—		
Peace River Project	14,125	57.7
Other	6,961	28.4
Thermal generation	3,267	13.3
Purchases and miscellaneous	140	.6
	<u>24,493</u>	<u>100.0</u>

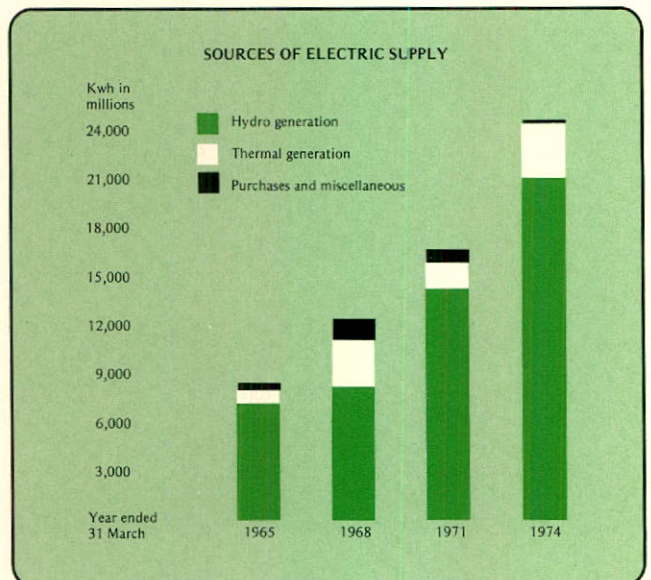
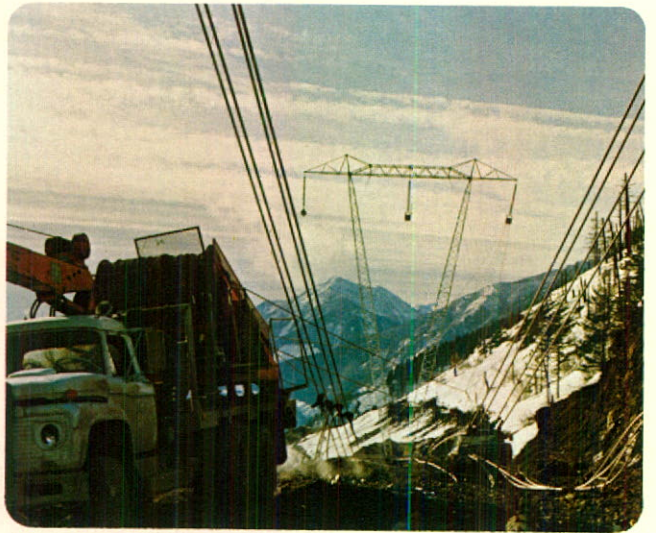
Exports of surplus power during the year increased substantially as B.C. Hydro was able to provide assistance to utilities in the United States during their electric energy crisis. The abnormally low run-off in the Pacific Northwest area of the United States resulted in reservoirs in that area dropping to an all-time low in August 1973. During this period, B.C. Hydro was able to meet its own requirements in full and had surplus thermal capacity available; this thermal capacity was used to provide assistance to the utilities in the United States.

During periods of crisis, the policy of all utilities in the Northwest Power Pool is to assist each other, and B.C. Hydro has received help under this policy in the past. The most recent occasion was on 4 February 1974, when both 500 kv transmission lines from the Peace River Project were out of service for a short period, resulting in a loss of 750,000 kw. Instantaneously, an equivalent amount of power was picked up from the grid system linking B.C. Hydro, through Bonneville Power Administration, with sixteen United States' utilities.

The installed nameplate generating capacity of the B.C. Hydro system at 31 March 1974 totalled 4,379,305 kw, up slightly from the previous year. A record one-hour demand for the integrated system — 3,578,000 kw — occurred on 7 January 1974. This represented an increase of 2.3% over the previous peak, which occurred in December 1972.



Giant snowslide east of Lillooet knocked out five towers on transmission line from Peace River in January. Crews braved severe weather and rough terrain to repair damage.



GAS SERVICE

Gross revenues from the sale of gas to the public were \$60,734,507, an increase of 9.9% from the previous year, while therms of gas sold increased 9.6%. The weather, which has a marked influence on the sale of gas for heating, was much milder than during the previous year.

B.C. Hydro participated in a hearing called by the newly created British Columbia Energy Commission to investigate all aspects of the natural gas industry in the Province. The Commission's report, completed in September 1973, recommended in part that field prices, wholesale distributor prices and export prices should all be increased substantially.

In November 1973, the gas supply contract between B.C. Hydro and Westcoast Transmission Company Limited was revised, increasing the average price from about 30 cents to approximately 58 cents per thousand cubic feet at 95% load factor. To recover part of the added costs, rates to our customers were increased on 1 March 1974. The new rates resulted in an average increase of 17% for residential customers, and increases in the range of 17% to 33% for commercial customers and 60% to 82% for interruptible customers.

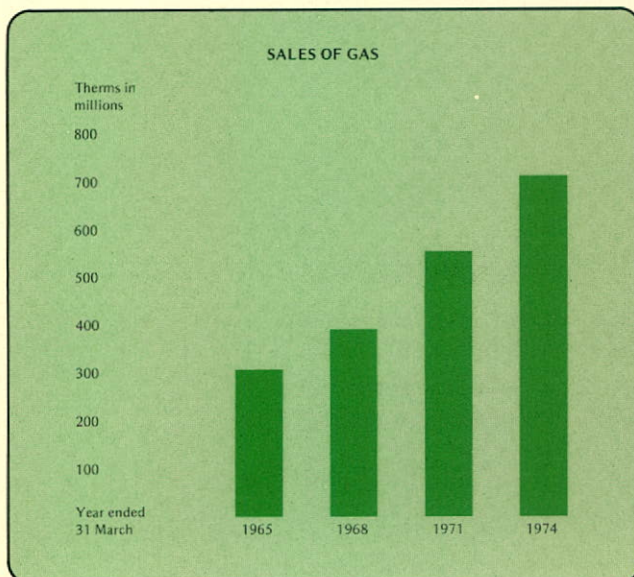
The peak one-day output of gas in the Lower Mainland during the year, excluding interruptible loads and gas delivered to Burrard Thermal Generating Plant, was 3.1 million therms on 2 January 1974, somewhat below the record peak of 3.4 million therms established in December 1972.

In the Lower Mainland, increases were recorded during the year in gas sales to all categories of customers. Consumption

by commercial customers increased substantially, natural gas having been chosen to heat 6,424 new apartment suites and many new commercial buildings; in addition, heating units serving 2,007 existing apartment suites were converted to use this fuel. Gas heating was installed in 10,820 new houses during the year, and furnaces in 2,738 existing houses were converted to use natural gas. It is significant that gas heating was chosen for more than 90% of new residences in B.C. Hydro's natural gas service area.

As at 31 March 1974, B.C. Hydro was serving 238,237 customers with gas, an increase of 10,872 or 4.8% during the year. The net increase in gas mains in service during the year was 180 miles, bringing the total to 4,113 miles.

To accommodate the expected growth in gas sales, planning was started on a major program of looping B.C. Hydro's gas transmission pipeline from Huntingdon. The first phase of this program will start in 1974 with the installation of a 24-inch pipeline through the Municipality of Richmond.



New main serves natural gas customers in Deep Cove area.

TRANSPORTATION SERVICES

Urban Transportation

Gross revenues from urban transportation services amounted to \$19,295,212, up 10.1% from the previous year. In addition, the Government of British Columbia again made a grant of \$2,000,000 to B.C. Hydro to reduce losses on the urban transit services and, through the newly formed Bureau of Transit Services, took an active part in planning the passenger transportation system. For the second year in succession, B.C. Hydro, in common with most North American transit systems, experienced a significant increase in passenger riding, and it is apparent that there is a greater public acceptance of urban transit systems. Passengers carried totalled 85.5 million, an increase of 11.4% over the previous year; however, in spite of this increase, losses on the urban transportation system continued to climb.

New services were established during the year on the concept of "Fastbus" routes operating between the central business area of Vancouver and outlying municipalities, with a supporting system of local buses on routes connecting to "Fastbus" operations.

In August 1973, B.C. Hydro provided free transportation to all athletes competing in the Canada Summer Games. During the Christmas shopping period, free transportation was made available to senior citizens on all routes for three days, and on New Year's Eve, B.C. Hydro provided free service from 9:00 p.m. until the last scheduled run.

During the year, ninety-nine new diesel buses ordered in the previous year were received and used to improve and expand service in the Lower Mainland. In Victoria, fifteen buses were added to the fleet; five of these were double-decker buses acquired when B.C. Hydro purchased London Omnibus Tours Limited in June. Orders were placed with Canadian suppliers for two hundred new diesel buses and fifty trolley buses; these will be used to improve transit service in Greater Vancouver and Greater Victoria and to extend service to areas presently without public transportation.

Interurban Transportation (Pacific Stage Lines)

Gross revenues from interurban bus services were \$6,432,635, an increase of 15.9% over the previous year. In spite of a strike by employees of British Columbia Ferry Authority, revenues from the Vancouver - Victoria and Vancouver - Nanaimo services were up 16.4% from the previous year. Revenues from B.C. Hydro's express service increased 20.7% over the previous year, and commissions on ticket sales and express handled for other lines rose 25%. The number of passengers carried increased 8.5% over the previous year, primarily as a result of a new service to Coquitlam.

Rail Freight

Gross revenues from rail freight operations totalled \$12,071,983, an increase of 11.9% over the previous year, while volume of freight handled was 2,799,128 tons, up 4.7%.

Development of industrial sites and acquisition of replacement industrial land continued during the year, and a record twenty-nine new private spur tracks and extensions were constructed. A development on Annacis Island for Canadian Auto Carriers Ltd., consisting of twenty acres of paved storage area, five unloading tracks and two storage tracks, was completed during the year. The establishment of industries on land adjacent to B.C. Hydro's railway ensures future growth of the rail freight service.



Five double-decker tour buses were acquired in Victoria.



Transit service extensions included new "Fastbus" routes.



B.C. Hydro provided free bus transportation to all athletes participating in the Canada Summer Games held in August 1973.

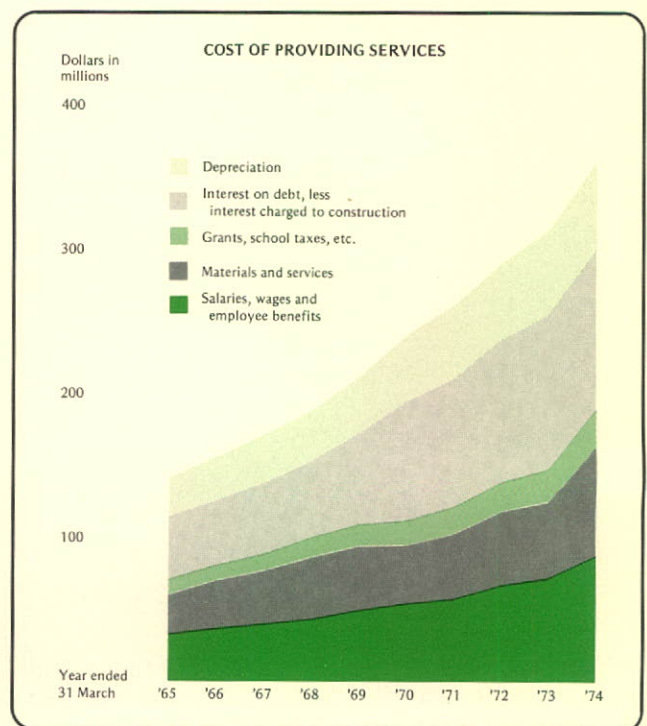
COST OF PROVIDING SERVICES

The total cost of providing all services during the year was \$361,943,282, an increase of \$48,213,741 or 15.4% over the previous year.

Salaries, wages and employee benefits charged to operations amounted to \$88,455,245, up \$15,776,573 or 21.7% over the previous year. This increase reflects higher rates of pay, an increase in the number of regular employees and a supplement in pensions to retired employees to offset some of the impact of inflation.

Grants, school taxes and water rentals charged to operations totalled \$25,039,270, an increase of \$2,852,925 or 12.9% over the previous year. Water rentals increased \$741,715 or 26.3%, because of increased production at Gordon M. Shrum Generating Station and higher rates for flooding permit fees. Increases in grants and school taxes were caused mainly by additions of property and generally higher assessments on property.

Interest and other costs on debt charged to operations during the year were \$110,740,440, up \$2,593,641 or 2.4% over the previous year. Provision for depreciation of plant



was \$61,680,247, an increase of \$3,959,004 or 6.9%. Increases in interest and depreciation are related to higher rates of interest on borrowings and the completion and transfer of new plant facilities to active service.

Purchases of natural gas from Westcoast Transmission Company Limited totalled \$41,534,682. Of this, \$34,348,786 was for gas sold to the public, an increase of \$12,394,533 or 56.5% over the previous year. The remainder of the gas purchased was used principally at Burrard Thermal Generating Plant. On 14 November 1973, the purchase price of natural gas was increased substantially, in accordance with a recommendation by the British Columbia Energy Commission. The higher price, together with growth in sales and increased production at Burrard Thermal Generating Plant, resulted in an increase of 78.0% in the cost of natural gas purchased.

Significant increases in cost were experienced in the operation of diesel generating plants and diesel buses during the year because of higher costs of diesel fuel.



Electric shop building is part of new Surrey Service Centre.

FINANCING

During the year ended 31 March 1974, B.C. Hydro sold \$238,105,000 of sinking fund bonds; \$91,105,000 of these were sold to the Canada Pension Plan Investment Fund, and the balance was placed with various Provincial Government trust funds.

The average effective annual interest cost of all long-term bonds sold by B.C. Hydro during the year was 8.00% compared with an average of 7.48% for the previous year.

On 3 August 1973, \$25,000,000 7% Parity Development Bonds Series CY, due 3 August 1978, were sold. The net proceeds of this issue were applied towards the repayment of \$25,505,000 7% Parity Development Bonds Series AT, which matured 3 August 1973. Parity Development Bonds outstanding as at 31 March 1974 amounted to \$138,010,000, a reduction of \$39,010,000 from the amount outstanding at the previous year-end.

During the year, \$31,469,592 was paid to Trustees to meet sinking fund requirements of long-term debt. All sinking fund obligations have been met.

Bonds and other securities issued by B.C. Hydro and its predecessors are unconditionally guaranteed as to principal and interest by the Province of British Columbia.



CONSTRUCTION PROGRAM

Expenditures on plant additions, land and improvements totalled \$332,306,762 compared with \$230,200,847 for the previous year. Net property additions were \$315,020,083 after deducting plant retirements of \$17,286,679. Expenditures on plant included an allocation of indirect costs for administration, engineering and supervision; and interest on plant under construction, at rates equivalent to the cost of borrowing funds.

Plant expenditures for the year, by service and in broad categories, were as follows:

Electric service	
Generation	
Hydro	
Mica generating plant	\$68,587,855
Kootenay Canal project	41,836,720
Other	39,493,065
Thermal	21,814,526
Transmission	
500 kv	31,965,533
Other	11,521,889
Transformation	24,644,409
Distribution	46,034,345
Other electric plant	11,099,468
Gas service	14,848,917
Transportation service	
New buses	5,985,094
Other transportation plant	2,212,609
General	12,262,332

Major Electric Service Plant Additions

In April 1973, a contract was awarded for the construction of an underground powerhouse at Mica that will ultimately house six generating units. The contract includes excavation for the powerhouse and auxiliary facilities and placement of first-stage concrete for all the facilities required to house the first four generating units. Contracts were awarded for turbines, transformers and high-voltage buses. The first two generating units are planned for service in 1976, and the third and fourth units for 1977.

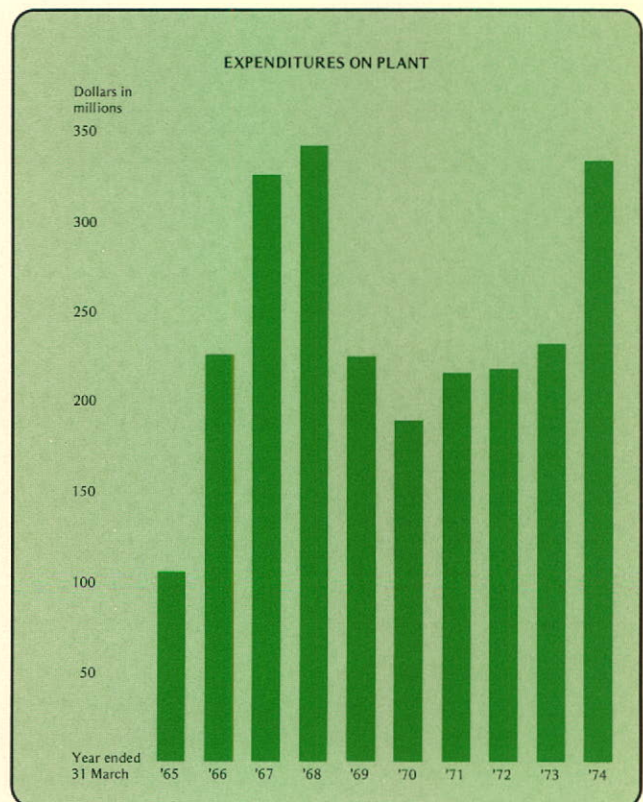
Clearing of rights-of-way for the two 500 kv transmission lines from Mica to the Lower Mainland was nearly completed, as was installation of tower foundations for one of the lines, between Kingsvale and Ingledow Substations (133 miles). Completion of the first line is scheduled for 1976, and the second in 1977.

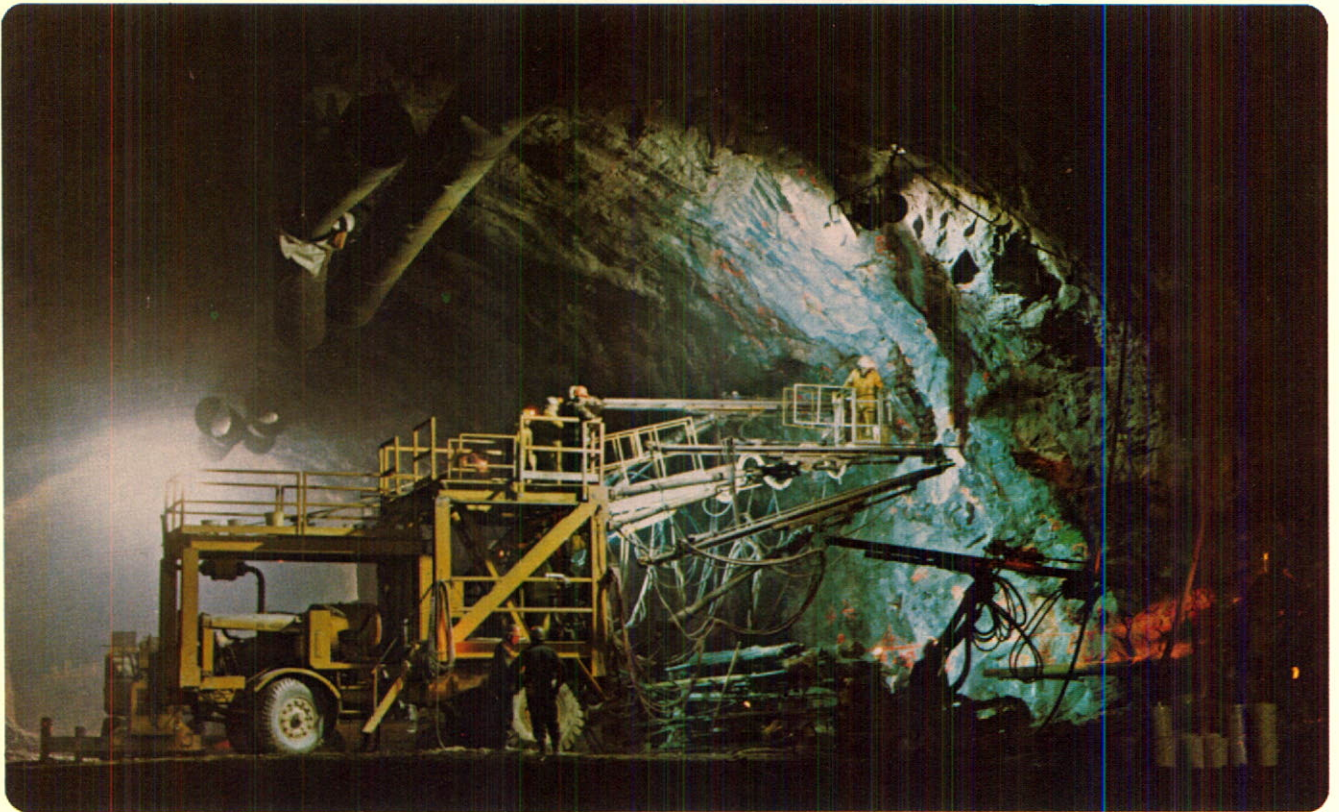
Construction progressed satisfactorily on the Kootenay Canal hydroelectric project. This development includes a three-mile-long canal and an aboveground powerhouse with

four 125,000 kw generating units. During the year, the canal was substantially completed; concrete structures for the canal headworks and penstock intakes were well advanced; earth and rock work on the powerhouse, penstocks, switchyard and associated works was substantially completed; and concrete work on the powerhouse and intake structures was commenced. Manufacture of generators and turbines continued during the year. The first two units are scheduled for service in 1975, and the other two in 1976. Power from this project will be distributed over a network of 500 kv and 230 kv transmission lines in the southeastern part of the Province.

Installation of the ninth generating unit at Gordon M. Shrum Generating Station progressed during the year. This unit, which has a nameplate rating of 275,000 kw, is scheduled for operation in late 1974. Provision has been made to install a tenth unit, as needed.

A lawsuit initiated by Northern Powerplant Builders on 17 July 1967 set out claims against B.C. Hydro for additional remuneration, damages and declarations as to the contractor's rights with respect to the contract for construction of the underground powerhouse and associated works at Gordon M. Shrum Generating Station. During the year, each party presented evidence to the Court through their respective witnesses. Most of this evidence related to matters raised during 1971 in an amendment to the contractor's pleadings. Presentation of Courtroom evidence on this part

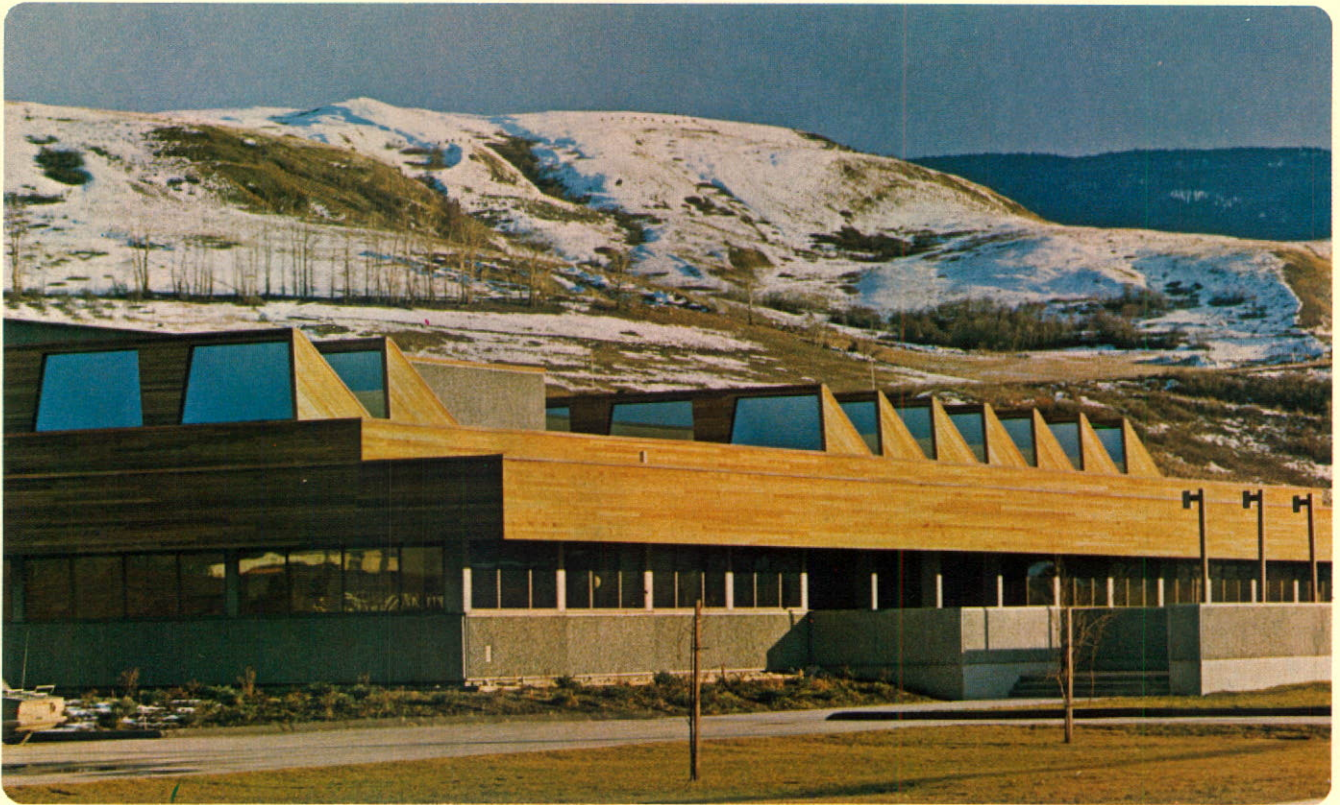




Excavation for underground powerhouse and auxiliary facilities at Mica employs huge drill. Cavern ultimately will house six generating units. First two units are planned for service in 1976, with the third and fourth to come on line in 1977.



Construction of three-mile-long Kootenay Canal was substantially completed and work proceeded satisfactorily on other aspects of the development. First two generating units are scheduled for service in 1975 and the other two in 1976.



Southern Interior Regional Administration Centre, officially opened in June, now houses all divisional operations in a single Vernon location. Centre includes administration, production, construction, engineering and personnel services.

of the case was completed on 19 November 1973. At 31 March 1974, both parties were engaged in preparation of written argument dealing with this part of the case, and these written arguments have now been submitted to the Court.

At Burrard Thermal Generating Plant, a sixth 150,000 kw unit is scheduled for service in late 1974. Installation of this unit will increase the capacity of the Burrard plant to 900,000 kw. In November 1973, the first of two 28,619 kw gas turbine generating units became operational at Prince Rupert. These units will augment the supply of power available from the Kemano plant of Aluminum Company of Canada, Limited and provide security of service for customers in the Prince Rupert area.

Near Port Hardy on Vancouver Island, the Keogh Gas Turbine Generating Station, with a nameplate rating of 40,500 kw, is scheduled to become operational in late 1974. This unit will provide additional peaking capacity for customers on Vancouver Island and serve as a standby source of power for the northern portion of the Island. A second unit of the same size is expected to be in service in the latter part of 1975.

Throughout B.C. Hydro's service area, substation capacities were increased to provide an adequate supply of power to meet the continually growing load.

In the Lower Mainland, construction of thirteen miles of 500 kv transmission line between Ingledow Substation and the United States border was completed. This line provides a second interconnection with Bonneville Power Administration and improves security of supply. A 230 kv cable circuit through the George Massey Tunnel was placed in service in December 1973, and a 230 kv underground transmission circuit between Horne-Payne and Murrin Substations is under construction, with completion scheduled in the summer of 1974. In November 1973, nine miles of 230 kv transmission line was placed in service between Arnott and Kidd No. 2 Substations; the overhead portion of this line was placed on specially designed tubular steel poles.

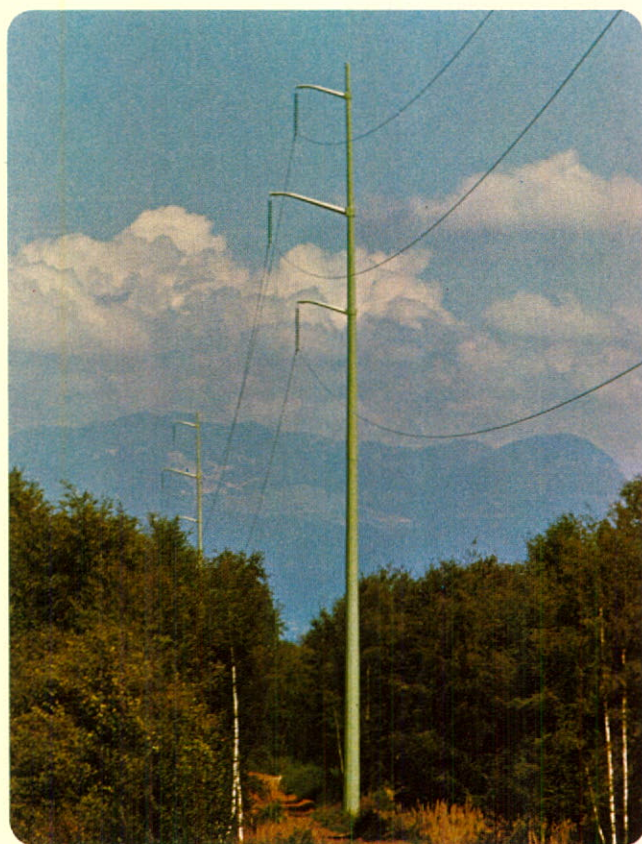
There are eighteen areas in B.C. Hydro's system that are not connected to the integrated system, but are supplied by diesel-electric plants. Additional units were installed during the year to meet growing loads at Bamfield, Mica Creek and Revelstoke.

In the southern interior of the Province, clearing on the Nicola-Ashton Creek 500 kv transmission line (72 miles) was approximately two-thirds completed at year-end, and in mid-1974, work will commence on the installation of tower footings. This line is expected to be in service in the latter part of 1975.

Contracts have been awarded for the supply and installation of oil-filled cables and terminal equipment to increase the transmission capacity from the Mainland to Vancouver Island. The cables, which are scheduled for delivery in 1975, will be laid across the Strait of Georgia and Trincomali Channel, distances of 16.8 miles and 2.4 miles respectively. The cables and associated converter equipment will add 225,000 kw of transmission capacity to the existing 312,000 kw high-voltage, direct-current interconnection.

Engineering studies continued on both the Seven Mile hydroelectric project on the Pend-d'Oreille River and the Site One project on the Peace River. Field investigations and studies continued on a number of other potential developments, including the Revelstoke project on the Columbia River, enlargement of existing plants on the Campbell River and development of a site on the Kokish River.

Construction of a new regional administration centre at Vernon was completed and the centre was officially opened in June 1973. Other buildings completed during the year were service centres in Surrey and Cranbrook and a combined office and warehouse at Williams Lake. Additions to existing administration centres are being constructed at Prince George and Fort St. John, and a service centre is planned for Prince Rupert.



Slim-line poles which minimize visual impact were used for powerline through Richmond and Delta municipalities.

Major Contracts

Major contracts awarded during the year included:

	Dollars in Thousands
Mannix Co. Ltd. <i>Construction of underground power-house, Mica generating plant</i>	85,153
Canadian General Electric Company Limited <i>Supply and installation of equipment in converter stations, Mainland to Vancouver Island H.V.D.C. interconnection</i>	20,199
Industrie Pirelli S.p.A. <i>Supply and installation of 300 kv submarine cable, Mainland to Vancouver Island H.V.D.C. interconnection</i>	13,378
Locweld and Forge Products (1961) Limited <i>Supply of tower steel (2 contracts)</i>	9,067
Federal Pioneer Limited <i>Supply of 500 kv power transformers</i>	8,251
General Motors of Canada Limited <i>Supply of 125 buses (3 contracts)</i>	6,536
Flyer Industries Limited <i>Supply of 50 trolley coaches and 50 buses (2 contracts)</i>	4,887
Wrights Alu Steel Cable Ltd. <i>Supply of conductor, Mica 500 kv transmission line</i>	3,616
Cegelec Canada Inc. <i>Supply of 500 kv circuit breakers and transformers</i>	2,831
British Columbia Transformer Co. Ltd. <i>Supply of distribution transformers</i>	2,766
Canadian General Electric Company Limited <i>Supply of 500 kv power transformers</i>	2,848
Canadian General Electric Company Limited <i>Supply of 500 kv shunt reactors</i>	2,234
Dillingham Corporation Canada Ltd. <i>Installation of foundations, Mica 500 kv transmission line</i>	2,100
Department of Lands, Forests, and Water Resources — Provincial Government <i>Clearing and preparation of land for flooding, Libby reservoir</i>	2,035
Brown Boveri (Canada) Limited <i>Supply of 230 kv circuit breakers and transformers</i>	2,022



Helicopter lowers sections of transmission tower to waiting workers, who fasten steel components securely into place. Aerial approach was adopted to avoid disturbing terrain where powerline crosses golf course in Surrey. The line is one of the 500,000-volt connections which will deliver power from the Mica project to centres where electricity is needed.

ENVIRONMENT

One of the major challenges facing B.C. Hydro is that of meeting British Columbia's ever-growing demands for energy while at the same time minimizing the effect of its operations on the environment. In response, B.C. Hydro has embarked on several new programs which emphasize protection of the environment.

Under these programs, environmental impact studies are being carried out for all proposed generating and transmission projects. During the year, environmental studies were substantially completed on proposed projects on the Peace and Pend-d'Oreille Rivers; these studies considered the effects on fish, wildlife, recreation, forestry, agriculture and mining. Similar studies were carried out on proposed powerline routes in the Peace River area, the Kootenays and on Vancouver Island. The findings of all these studies were presented to the public in a series of public meetings at various centres throughout the Province.

Most environmental studies are carried out by independent consultants or by departments of the Provincial or Federal governments; however, B.C. Hydro has also established a new environmental studies department. In addition, B.C. Hydro has undertaken a thorough review of its operations from the environmental point of view and is taking appropriate steps to meet its responsibilities in this respect.

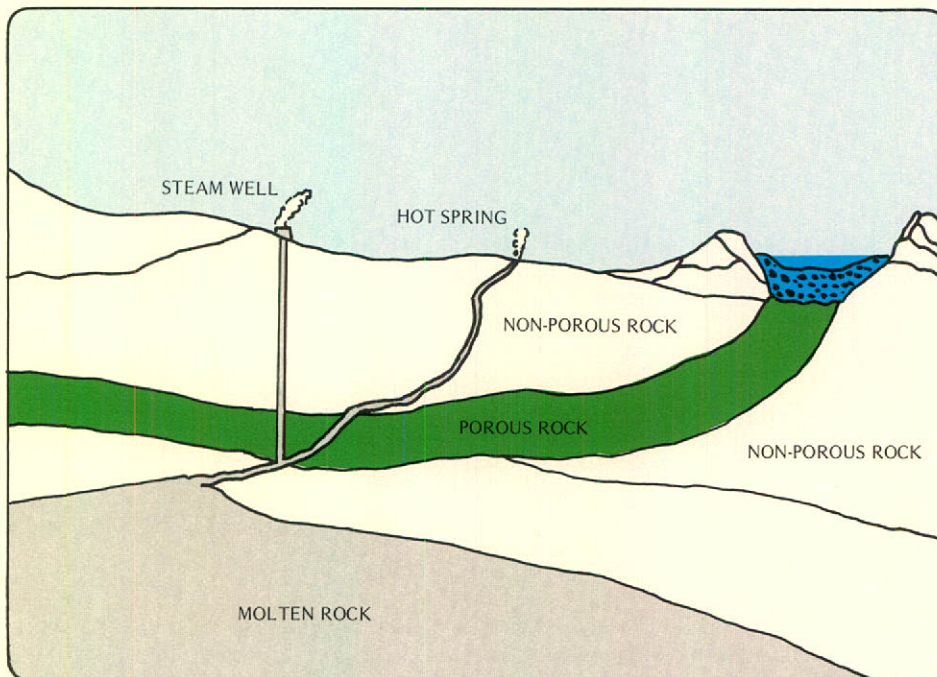
The problems associated with the planning and maintenance of transmission lines are being examined; the objective being to minimize disruption of the landscape and to make the rights-of-way as useful and productive as possible.

A study of the Mica reservoir area was completed early in

1974 by a special Provincial task force, and a similar one for Williston Lake Reservoir is now in progress. In addition, B.C. Hydro is carrying out studies on various other reservoirs in an attempt to ensure that these are put to the best possible overall use. Work is under way, in cooperation with Provincial Government departments, on clearing debris at several reservoirs. On Vancouver Island, seven acres of beach were cleared at a campsite on Campbell Lake, and stumps and debris were removed from the Jordan River reservoirs.

At the present time, hydroelectric plants remain the cleanest available source of electric energy, but other environmentally attractive sources are being investigated. B.C. Hydro is planning the installation of a small prototype windmill in the Queen Charlotte Islands to take advantage of the fairly constant winds from the Pacific Ocean. Geothermal energy, which has been successfully tapped in several countries, is also being considered, and a consulting firm has been retained to survey an extensive area in the Lillooet River Valley for underground steam and hot water deposits.

In the normal course of operations, B.C. Hydro makes every effort to restore construction sites to their former state or even to improve them. In appropriate areas, transmission line rights-of-way over Crown land are seeded by arrangement between B.C. Hydro and the British Columbia Forest Service; this often provides valuable grazing areas. B.C. Hydro also encourages recreational use of rights-of-way by leasing areas which it owns or by permitting private owners to develop rights-of-way for recreational use where this can be done without danger to the transmission lines or hazard to the users.



Example of geothermal system with good potential is shown in diagram alongside. Water seeps down channel of porous rock from river bed and contacts very hot rock where it boils. Steam is then tapped by drilled well.



Federal technicians tag fish as part of study to assess possible effects of increasing power capacity at John Hart plant.

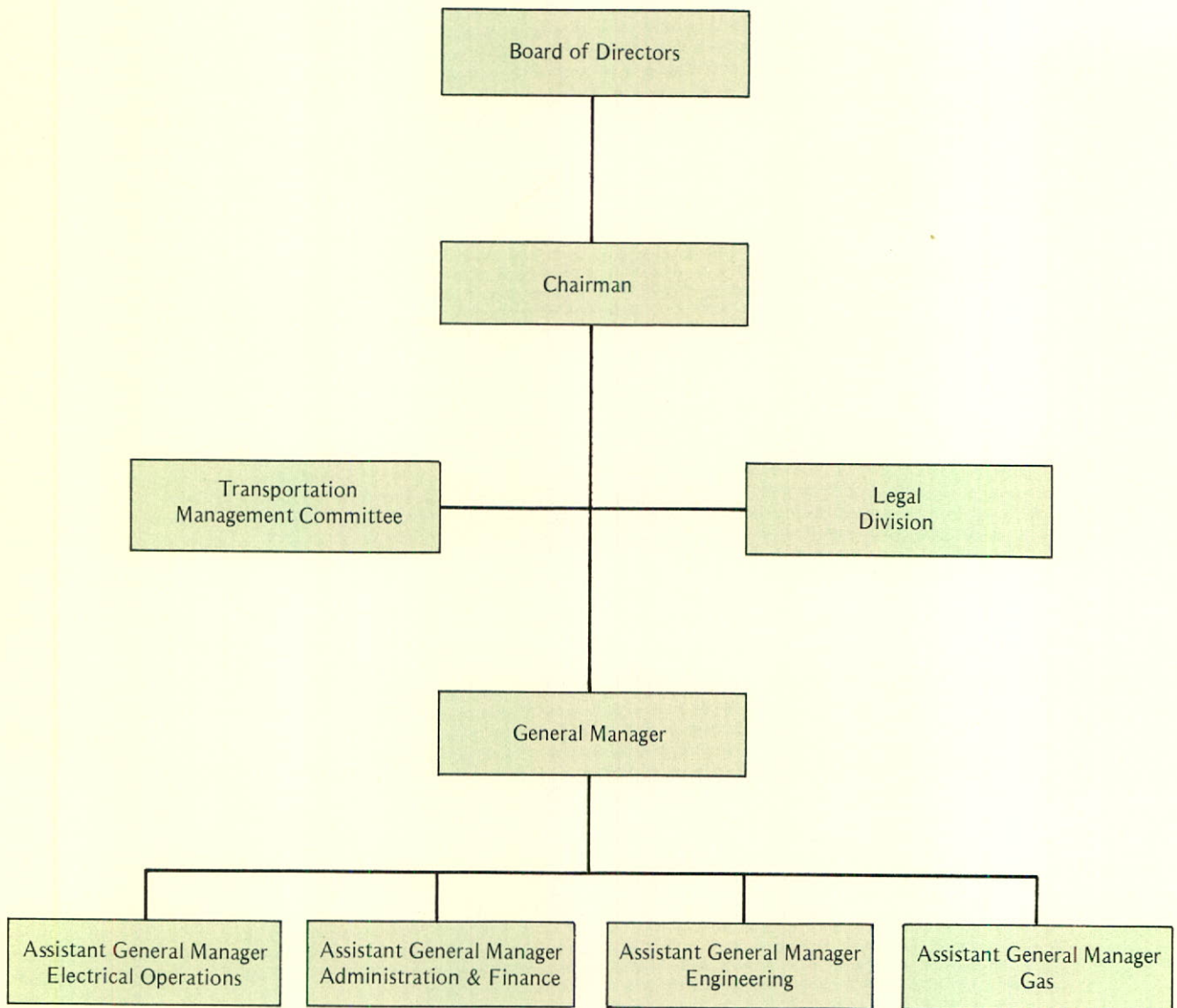


Topping stumps to reduce boating hazard is part of Hydro's foreshore beautification program in Upper Campbell reservoir.

ORGANIZATION

In June 1973, the Board of Directors approved a new management structure which is intended to improve B.C. Hydro's organization and to transfer more responsibility to management personnel.

The new structure is outlined below:



The aim of the new structure is to provide a clear line of responsible management, functionally organized, decentralized and permitting maximum delegation of responsibility and authority. To facilitate the restructuring, B.C. Hydro's subsidiary company, International Power and Engineering Consultants Limited, was merged with B.C. Hydro's engineering functions to establish one coherent engineering group.

EMPLOYEES

Regular employees at 31 March 1974 totalled 8,945, an increase of 1,471 during the year. This increase includes the transfer of 530 employees as a result of the merger of International Power and Engineering Consultants Limited into B.C. Hydro's operations.

Two collective labour agreements were negotiated with the International Brotherhood of Electrical Workers during the year; these agreements cover electrical and gas workers. The common features of the agreements are that they both cover a two-year period and provide for wage increases of 10% plus category adjustments in the first year with a further increase of 10% in the second year. Both agreements also include improvements in annual vacation and overtime provisions and contain a cost-of-living clause. Unique to the gas workers' agreement was the introduction of a self-insured dental plan and a phased retirement plan whereby the work week is gradually shortened, without loss of pay, prior to retirement.

Contract negotiations were also concluded during the year with Amalgamated Transit Union (Pacific Stage Lines); the new one-year agreement provides for a wage increase of 8% plus category adjustments.

General salary increases of up to 11% were granted to supervisory, professional and confidential employees effective 1 December 1973.

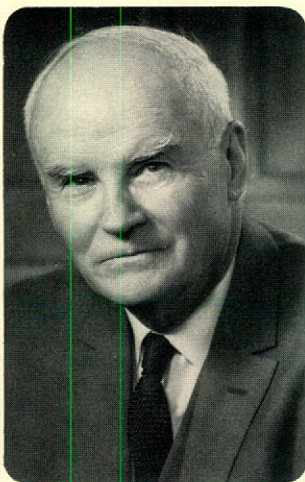
During the year, B.C. Hydro's supervisory, professional and confidential employees formed the Management and Professional Employees Society of B.C. Hydro and commenced discussions with management representatives for a basic recognition agreement. By year-end, an agreement had been

reached, and in April 1974, this agreement was ratified by B.C. Hydro's Board of Directors and the membership of the Society, thereby clearing the way for negotiations to commence with respect to a first collective agreement.

Authorized improvements to the British Columbia Hydro and Power Authority Pension Plan were announced effective 1 January 1974. The period used for determining employees' earnings in the pension formula was reduced from an average of the best seven consecutive years to an average of the best five consecutive years; the employee contribution rate was changed from 5% of plan earnings up to age 55 and 10% thereafter to 6% throughout, and the widow's pension was improved and became a spouse's pension. Another improvement was the provision of pension credits to disabled employees.

Development of managerial, supervisory and technical skills of employees received an increasing amount of attention. In-house programs of training and courses at outside educational institutions are helping to meet specific needs of employees in the face of technical advances and corporate growth.

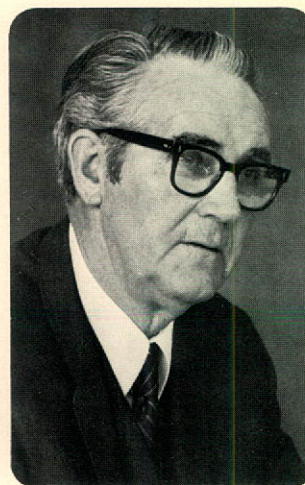
A total of 160 employees retired on pension during the year, including John H. Steede, Executive Director, who retired after 48 years' service with B.C. Hydro and its predecessor, British Columbia Electric Company Limited; Mr. Steede will continue to serve as a member of the Board of Directors. Other members of senior management retiring during the year were: G. Frederic Green, Production Division Manager, who retired after 36 years' service; Thomas Chambers, Chief Financial Officer and Financial Division Manager, with 27 years' service and Harold K. Pratt, Chief Engineer, with 8 years' service.



JOHN H. STEEDE



G. FREDERIC GREEN



THOMAS CHAMBERS



HAROLD K. PRATT

Fourteen employees who retired had service of 40 years or more; of these, the following, in addition to John H. Steede, had served more than 45 years:

JAMES ROBERT MacFARLANE
49 years, 8 months

WILLIAM HOLMES SPENSE MOWAT
48 years, 3 months

WILLIAM HENRY KNIGHT
47 years, 11 months

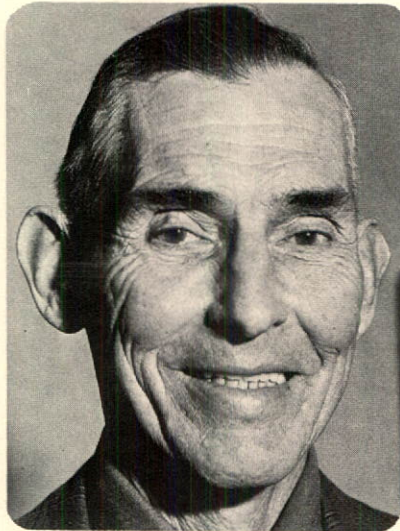
JAMES REID
47 years, 10 months

JOHN EMERSON RICHARDSON
45 years, 11 months

DONALD DAVIS
45 years, 1 month



J.R. MacFARLANE



W.H.S. MOWAT



W.H. KNIGHT

FINANCIAL STATEMENTS

The financial statements of B.C. Hydro have been examined by Price Waterhouse & Co., the Auditors appointed by the Lieutenant-Governor in Council. The Report of the Audi-

tors, Statement of Income and Earnings Employed in the Business, Balance Sheet, Statement of Source and Application of Funds and Statement of Long-Term Debt are included in the following pages.

REPORT OF THE AUDITORS

The Lieutenant-Governor in Council,
Province of British Columbia:

We have examined the balance sheet of British Columbia Hydro and Power Authority as at 31 March 1974, the statements of income and earnings employed in the business and source and application of funds for the year then ended and the statement of long-term debt as at 31 March 1974. Our examination included a general review of the accounting procedures and such tests of accounting records and other supporting evidence as we considered necessary in the circumstances.

In our opinion, these financial statements present fairly the financial position of British Columbia Hydro and Power Authority as at 31 March 1974 and the results of its operations and the source and application of its funds for the year then ended, in accordance with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

Vancouver, British Columbia
21 May 1974

PRICE WATERHOUSE & CO.,
Chartered Accountants.

BRITISH COLUMBIA HYDRO AND POWER AUTHORITY

STATEMENT OF INCOME AND EARNINGS EMPLOYED IN THE BUSINESS
FOR THE YEAR ENDED 31 MARCH 1974

	1974	1973
Gross revenues	<u>\$ 376,224,069</u>	<u>\$334,921,599</u>
Expenses:		
Salaries, wages and employee benefits	88,455,245	72,678,672
Materials and services	76,028,080	52,996,482
Grants, school taxes, etc.	25,039,270	22,186,345
Provision for depreciation (Note 1)	61,680,247	57,721,243
Interest on debt (Note 6)	\$ 133,800,910	\$123,706,008
Less—		
Interest charged to construction (Note 1)	<u>23,060,470</u>	<u>15,559,209</u>
	<u>361,943,282</u>	<u>313,729,541</u>
Net income	14,280,787	21,192,058
Transferred to reserve for stabilization of rates	<u>5,000,000</u>	<u>10,000,000</u>
Balance of net income transferred to earnings employed in the business	9,280,787	11,192,058
Earnings employed in the business—		
At beginning of year	<u>129,246,099</u>	<u>118,054,041</u>
At end of year	<u>\$ 138,526,886</u>	<u>\$ 129,246,099</u>

BRITISH COLUMBIA HYDRO AND POWER AUTHORITY

STATEMENT OF SOURCE AND APPLICATION OF FUNDS
FOR THE YEAR ENDED 31 MARCH 1974

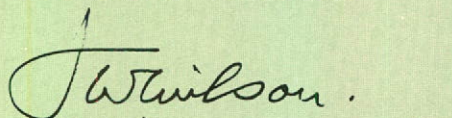
	1974	1973
Funds provided:		
Operations—		
Net income	\$ 14,280,787	\$ 21,192,058
Provision for depreciation	61,680,247	57,721,243
Other	226,896	199,016
	<u>76,187,930</u>	<u>79,112,317</u>
Contributions in aid of construction	9,192,741	10,024,056
Proceeds from sales of bonds	262,857,441	217,737,725
Columbia River Treaty—		
Benefits received during year (net)	—	861,887
Interest	—	16,140,650
Miscellaneous	1,320,162	1,524,521
Decrease in working capital exclusive of changes in current portion of long-term debt	<u>78,228,080</u>	<u>7,880,305</u>
	<u>\$427,786,354</u>	<u>\$333,281,461</u>
Funds expended:		
Plant additions	\$332,306,762	\$230,200,847
Sinking funds	31,469,592	27,575,614
Bonds redeemed	64,010,000	75,505,000
	<u>\$427,786,354</u>	<u>\$333,281,461</u>

BRITISH COLUMBIA HYDRO AND POWER AUTHORITY

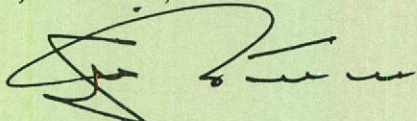
BALANCE SHEET AS AT 31 MARCH 1974

	1974	1973
PROPERTY ACCOUNT:		
Lands, franchises, water rights, storage dams, plants for the generation, transmission and distribution of electricity and gas, trolley coaches, motor buses, freight railway and rolling stock, etc., at cost	\$3,002,283,549	\$2,887,166,966
Less—		
Accumulated depreciation	568,666,120	511,922,856
	<u>2,433,617,429</u>	<u>2,375,244,110</u>
Deferred costs of dams, powerhouse and other common property (Note 1)	185,167,502	157,269,768
Unfinished construction	301,836,249	129,830,483
	<u>2,920,621,180</u>	<u>2,662,344,361</u>
CURRENT AND WORKING ASSETS:		
Cash	440,163	867,066
Funds receivable from issue of bonds	8,500,000	—
Temporary investments, at cost (Note 2)	33,061,564	107,876,700
Bonds held for sinking fund, at cost	3,135,225	2,353,326
Accounts receivable and unbilled revenues	64,938,912	49,049,617
Materials and supplies, at cost	22,177,064	15,629,406
Prepaid expenses	1,432,385	682,560
	<u>133,685,313</u>	<u>176,458,675</u>
MORTGAGES AND OTHER DEFERRED ACCOUNTS RECEIVABLE	4,390,881	3,917,692
INSURANCE FUND	3,371,737	2,460,811
UNAMORTIZED DISCOUNT AND EXPENSE ON DEBT (Note 1)	16,393,516	18,097,701
	<u>\$3,078,462,627</u>	<u>\$2,863,279,240</u>

ON BEHALF OF THE BOARD:



J.W. WILSON, Director



J.H. STEEDE, Director

	1974	1973
LONG-TERM DEBT, per statement (Note 3)	<u>\$2,055,101,732</u>	<u>\$1,862,352,706</u>
PARITY DEVELOPMENT BONDS, payable on demand (Notes 3 and 6):		
7% Series AT due 3 August 1973	—	25,505,000
7% Series AZ due 1 September 1974	43,505,000	50,505,000
7% Series CG due 1 September 1975	44,505,000	50,505,000
6% Series CS due 15 August 1977	25,000,000	50,505,000
7% Series CY due 3 August 1978	25,000,000	—
	<u>138,010,000</u>	<u>177,020,000</u>
CURRENT AND ACCRUED LIABILITIES:		
Accounts payable	111,842,489	80,641,647
Interest accrued on debt	41,030,428	36,776,552
Long-term debt payments due within one year —		
Sinking fund instalments	23,581,426	22,438,469
Debt maturities	11,027,600	—
	<u>187,481,943</u>	<u>139,856,668</u>
DEFERRED LIABILITIES	<u>19,568,508</u>	<u>19,084,058</u>
RESERVE FOR INSURANCE (Note 4)	<u>3,371,737</u>	<u>2,460,811</u>
CONTRIBUTIONS ARISING FROM COLUMBIA RIVER TREATY (Note 1) . .	<u>469,893,917</u>	<u>479,107,523</u>
CONTRIBUTIONS IN AID OF CONSTRUCTION (Note 1)	<u>51,507,904</u>	<u>44,151,375</u>
RESERVE FOR STABILIZATION OF RATES (Note 5)	<u>15,000,000</u>	<u>10,000,000</u>
EARNINGS EMPLOYED IN THE BUSINESS	138,526,886	129,246,099
COMMITMENTS (Note 8)		
	<u>\$3,078,462,627</u>	<u>\$2,863,279,240</u>

The accompanying notes are an integral part of the above balance sheet.

BRITISH COLUMBIA HYDRO AND POWER AUTHORITY

STATEMENT OF LONG-TERM DEBT AS AT 31 MARCH 1974

Issued by British Columbia Hydro and Power Authority—

Interest Rate %	Series	Date of Maturity	1974	1973
Bonds:				
3¼	B	1 October 1979	\$ 10,000,000	\$ 10,000,000
5¼	A	1 May 1982	32,496,300	32,496,300
5.46	W-A	1 February 1987	80,396,000	80,396,000
5.71	W-B	1 February 1988	95,001,000	95,001,000
6.68	W-C	3 February 1989	65,862,000	65,862,000
7.32	WD	2 September 1989	68,396,000	68,396,000
7.77	WE	2 March 1991	110,949,000	110,949,000
5¾	U	18 April 1991	40,000,000	40,000,000
5¾	X	1 July 1991	5,000,000	5,000,000
5¾	Y	2 July 1991	46,250,000 (1)	47,500,000 (1)
6¼	AG	1 December 1991	20,000,000	20,000,000
5¾	AH	2 January 1992	50,000,000 (1)	50,000,000 (1)
6	AJ	15 March 1992	25,000,000	25,000,000
7.10	WF	1 May 1992	109,182,000	109,182,000
6	BA	29 May 1992	2,500,000	2,500,000
6¼	AK	1 June 1992	50,000,000 (1)	50,000,000 (1)
6.10	AL-A	2 July 1992	10,000,000	10,000,000
6¼	AM	4 July 1992	25,000,000	25,000,000
6¼	BB	19 July 1992	4,000,000	4,000,000
6½	AP	1 November 1992	20,000,000	20,000,000
6¼	BC	1 February 1993	10,200,000	10,200,000
6¼	Z-S	15 February 1993	3,300,000	3,300,000
6¼	Z-T	15 February 1993	4,200,000	4,200,000
5	C	1 March 1993	15,000,000	15,000,000
7.33	WG	9 March 1993	73,847,000 (2)	73,847,000 (2)
6¾	AR	29 March 1993	10,000,000	10,000,000
7.30	VZ	9 April 1993	10,000,000	—
7.30	VA	10 April 1993	8,426,000	—
5¼	D	1 May 1993	25,000,000	25,000,000
7.34	VB	10 May 1993	5,284,000	—
5¼	F	1 June 1993	10,000,000	10,000,000
7¼	AS	1 June 1993	10,000,000	10,000,000
7.48	VC	6 June 1993	4,605,000	—
7¼	BD	2 July 1993	5,500,000	5,500,000
7.69	VD	10 July 1993	6,450,000	—
7.75	VE	1 August 1993	10,000,000	—
7.75	VF	2 August 1993	2,716,000	—
7	AU	5 August 1993	10,000,000	10,000,000
7.52	VG	4 September 1993	10,000,000	—
7.52	VH	5 September 1993	2,294,000	—
7	AV	1 October 1993	10,000,000	10,000,000
5¼	G	15 October 1993	15,000,000	15,000,000
7.58	VJ	5 November 1993	8,782,000	—
7	BE	1 December 1993	12,800,000	12,800,000
	Carried forward		\$1,153,436,300	\$1,086,129,300

Interest Rate %	Series	Date of Maturity	1974	1973
	Brought forward		\$1,153,436,300	\$1,086,129,300
7	Z-G	15 December 1993	7,000,000	7,000,000
5¼	H	15 December 1993	10,000,000	10,000,000
7.64	VK	1 March 1994	10,000,000	—
5¼	J	1 March 1994	10,000,000	10,000,000
7.64	VL	4 March 1994	12,548,000	—
7½	AW	31 March 1994	10,000,000	10,000,000
7½	AX	2 June 1994	25,000,000	25,000,000
5¼	L	2 July 1994	10,000,000	10,000,000
7%	AY	1 October 1994	30,000,000	30,000,000
8	CA	1 December 1994	10,000,000	10,000,000
5¼	M	15 December 1994	20,000,000	20,000,000
8	CB	30 December 1994	15,000,000	15,000,000
5¼	N	15 March 1995	10,000,000	10,000,000
8	CC	31 March 1995	20,000,000	20,000,000
8	CD	31 March 1995	5,000,000	5,000,000
8	CE	1 August 1995	10,000,000	10,000,000
5¾	S	15 September 1995	10,000,000	10,000,000
5½	T	29 December 1995	29,000,000 (4)	29,000,000 (4)
7.54	CF	30 December 1995	15,000,000	15,000,000
6.90	CH	30 March 1996	10,000,000	10,000,000
6.90	CJ	30 March 1996	20,000,000	20,000,000
7.25	CK	1 October 1996	20,000,000	20,000,000
7.25	CL	1 October 1996	5,000,000	5,000,000
6.93	CM	15 December 1996	20,000,000	20,000,000
6.93	CN	15 December 1996	5,000,000	5,000,000
6.90	CP	1 March 1997	7,000,000	7,000,000
7.38	CR	15 June 1997	10,000,000	10,000,000
7.76	CT	3 November 1997	25,000,000	25,000,000
7.76	CU	15 November 1997	4,000,000	4,000,000
7.63	CV	15 December 1997	5,000,000	5,000,000
7.63	CW	15 December 1997	25,000,000	25,000,000
7.48	CX	30 March 1998	25,000,000	25,000,000
8	CZ	3 July 1998	20,000,000	—
8	DA	1 September 1998	30,000,000	—
8½	DB	1 November 1998	13,000,000	—
8½	DC	1 November 1998	7,000,000	—
8.30	DD	1 December 1998	7,000,000	—
8.30	DE	15 December 1998	5,000,000	—
8.30	DF	15 December 1998	15,000,000	—
8.55	DG	15 February 1999	15,000,000	—
8.55	DH	15 February 1999	5,000,000	—
8.70	DJ	29 March 1999	25,000,000	—
8.70	DK	29 March 1999	5,000,000	—
	Carried forward		\$1,749,984,300	\$1,513,129,300

BRITISH COLUMBIA HYDRO AND POWER AUTHORITY

STATEMENT OF LONG-TERM DEBT AS AT 31 MARCH 1974 (continued)

Issued by the former British Columbia Electric Company Limited—

Interest Rate %	Series	Date of Maturity		1974	1973
	Brought forward			\$1,749,984,300	\$1,513,129,300
	First Mortgage Bonds, after deducting bonds redeemed in accordance with sinking fund requirements:				
3½	"E"	1 March	1975	11,027,600	11,550,000
3¾	"G"	1 December	1976	12,753,000 (1)	13,229,000 (1)
4¾	"H"	1 December	1977	9,004,000	9,467,000
4¾	"I"	1 February	1979	9,331,400	9,784,000
3¾	"J"	1 June	1980	9,919,000	10,321,000
4¼	"K"	1 February	1981	19,739,900	20,614,000
5	"L"	1 February	1982	27,390,700	28,580,000
5½	"M"	2 January	1988	34,914,300	36,467,000
5½	"N"	1 March	1989	21,837,900	22,716,000
6½	"O"	1 April	1990	23,660,000	24,395,000
5¾	"P"	1 May	1991	12,063,000	12,426,000
4	"F"	1 July	1991	1,823,000	1,990,000
	Perpetual Callable Bonds:				
4				217,500	231,100
4¼				87,250	88,550
4½				141,150	150,250
4¾				399,800	432,600
5				328,150	363,100
5½				215,100	223,700
	25-year Callable Bonds:				
4	AA	1 August	1986	11,782,500	11,768,900
4¼	AB	1 August	1986	10,912,750	10,911,450
4½	AC	1 August	1986	14,858,850	14,849,750
4¾	AD	1 August	1986	26,013,600	25,980,800
5	AE	1 August	1986	24,671,850	24,636,900
5½	AF	1 August	1986	14,784,900	14,776,300
	Sinking Fund Debentures, after deducting debentures redeemed in accordance with sinking fund requirements:				
5¾	A	1 April	1977	33,600,000	34,000,000
	Carried forward			\$2,081,461,500	\$1,853,081,700

Issued by the former British Columbia Power Commission—

Interest Rate %	Series	Date of Maturity		1974	1973
	Brought forward			\$2,081,461,500	\$1,853,081,700
Bonds:					
3¼	J	4 July	1975	10,000,000	10,000,000
3	S	1 April	1976	17,738,000	17,738,000
3%	T	1 April	1977	9,285,000 (3)	9,285,000 (3)
5	MC	15 September	1982	5,149,000	5,149,000
4	G	1 November	1988	10,000,000 (1)	10,000,000 (1)
3¼	H	15 July	1989	6,300,000 (1)	6,300,000 (1)
3¾	C	15 September	1991	3,000,000	3,000,000
4	D	21 May	1992	1,000,000	1,000,000
4	E	15 June	1992	1,000,000	1,000,000
4	F	15 September	1992	1,500,000	1,500,000
5	MD	15 September	1992	18,724,000	18,724,000
5	N	15 September	1992	10,000,000	10,000,000
Debentures:					
3¾	K	15 June	1986	20,000,000 (1)	20,000,000 (1)
4¾	L	15 April	1987	25,000,000 (1)	25,000,000 (1)
3%	P	1 February	1988	20,000,000 (1)	20,000,000 (1)
				<u>2,240,157,500</u>	<u>2,011,777,700</u>
Exchange premium at date of issue on long-term debt payable in United States funds				8,880,773	8,972,540
				<u>2,249,038,273</u>	<u>2,020,750,240</u>
<i>Less—</i>					
Sinking funds on deposit with Trustee, Minister of Finance for the Province of British Columbia				159,327,515	135,959,065
				<u>\$2,089,710,758</u>	<u>\$1,884,791,175</u>
<p>(1) Payable in United States funds. (2) Issued in consolidation of Series VM-VY sold during the period 7 April 1972 to 9 March 1973. (3) Payable in Canadian or United States funds at option of holder. (4) Redeemable at the option of the holder on 29 December 1975.</p>					
<i>Classification on balance sheet—</i>					
Long-term debt				\$2,055,101,732	\$1,862,352,706
Long-term debt payments due within one year:					
Sinking fund instalments				23,581,426	22,438,469
Debt maturities				11,027,600	—
				<u>\$2,089,710,758</u>	<u>\$1,884,791,175</u>

Long-term debt and sinking fund requirements for the years ending 31 March 1976 to 1979 are \$28,500,000, \$35,000,000, \$62,500,000 and \$30,500,000 respectively, exclusive of bonds referred to under (4) above.

NOTES TO FINANCIAL STATEMENTS AS AT 31 MARCH 1974

Note 1 – Summary of Significant Accounting Policies:

The accounting policies of B.C. Hydro conform to generally accepted accounting principles for public utilities. A description of significant accounting policies follows.

Plant and depreciation –

The cost of plant financed by contributions arising from the Columbia River Treaty and by contributions in aid of construction, which include grants for rural electrification from the Government of the Province of British Columbia and amounts paid by customers towards construction of plant, is included in property account. Contributions arising from the Columbia River Treaty are being amortized over the remaining term of the treaty. Contributions in aid of construction are being amortized over the estimated service lives of the related assets. In both cases, the credit resulting from amortization of the contributions is offset against provision for depreciation.

Consistent with the accounting practice adopted in 1968, the construction costs of the dam, powerhouse and other common property relating to the Peace River Project are being transferred to plant in service by instalments proportionate to the number of completed and operational generating units in relation to the ten units presently contemplated. The transfers are to be completed not later than 31 March 1976. By 31 March 1974, eight generating units were in service and consequently 80% of the cost of the dam, powerhouse and other common property had been transferred to plant in service. The amount not yet transferred to plant in service is included in deferred costs under property account.

The difference of \$89,624,500 as at 31 March 1974 between construction costs associated with the three Columbia River Treaty storage projects and the total contributions arising from the Columbia River Treaty is considered to relate to the future generation of power at the Mica damsite on the Columbia River and has also been included in deferred costs under property account. These costs will be transferred to plant in service as the Mica generating plant becomes operational.

B.C. Hydro charges interest to these deferred costs and to plant under construction at rates equivalent to the cost of borrowing funds.

The depreciation policy of B.C. Hydro is to allocate the original cost of plant to operations at uniform rates over the estimated service lives of the assets. Depreciation is provided during the year on all depreciable assets in service at the beginning of each year and is computed on the straight-line method.

Unamortized discount and expense on debt –

These costs are amortized by charges to expense over the original life of the respective issues.

Note 2 – Temporary investments:

	1974	1973
Short-term deposits and investment receipts—		
Banks	\$28,040,000	\$ 61,497,000
Other financial institutions	5,021,564	46,290,000
British Columbia Hydro and Power Authority parity development bonds	—	89,700
	<u>\$33,061,564</u>	<u>\$107,876,700</u>

Note 3 – Guarantee by Province of British Columbia:

The Government of the Province of British Columbia has unconditionally guaranteed the principal and interest of the long-term debt and parity development bonds.

Note 4 – Reserve for insurance:

In 1969, B.C. Hydro adopted a policy of self-insurance on plant and equipment and for general liability. An insurance reserve is being accumulated by annual charges to operations commensurate with the current cost of insurance.

Insurance coverage has been purchased for major projects under construction and for buses, trolley coaches and service vehicles. Fire insurance coverage is also maintained on certain plant and equipment to comply with trust deed requirements.

Note 5 – Reserve for stabilization of rates:

This reserve is available to delay or minimize upward adjustments in electric and gas rates that might otherwise be necessary to cover short-term losses in operations.

Note 6 – Interest on debt:

	1974	1973
Gross interest	\$140,890,318	\$129,339,907
Amortization of discount and expense	1,942,721	1,765,957
	<u>142,833,039</u>	<u>131,105,864</u>
Less—		
Income from sinking fund investments	9,032,129	7,399,856
	<u>\$133,800,910</u>	<u>\$123,706,008</u>

The interest rate on Series AT and AZ Parity Development Bonds was increased from 6½% to 7% effective September 1970.

Note 7 – Pension plans:

Employees of B.C. Hydro are covered under contributory pension plans, and provisions are being made for current services according to the requirements of the various plans. Provision has been made for all past service costs under these plans with the exception of those relating to a contributory plan introduced effective 1 January 1965. B.C. Hydro is funding the estimated past service costs of this plan by annual payments of \$393,800 over a fifteen-year period which commenced 1 April 1967.

Note 8 – Commitments:

Purchase commitments and contracts of B.C. Hydro for capital projects aggregated approximately \$290,000,000 as at 31 March 1974.

FINANCIAL STATISTICS

(in millions of dollars)

YEAR ENDED 31 MARCH	1974	1973	1972	1971	1970	1969	1968	1967	1966	1965
SOURCES OF REVENUE										
Electric	268.0	235.0	211.4	193.0	162.8	149.4	137.7	118.4	104.9	101.0
Gas	60.7	55.2	51.7	47.5	41.0	40.6	34.4	32.1	31.2	30.0
Passenger transportation	27.7*	25.1*	24.2*	21.3*	20.7*	19.5*	18.1	17.6	16.9	14.5
Rail freight	12.1	10.8	10.2	8.0	8.4	7.4	7.0	6.4	6.2	5.9
Miscellaneous	7.7	8.8	8.4	7.1	7.0	4.2	4.3	3.6	1.6	1.9
Total	376.2	334.9	305.9	276.9	239.9	221.1	201.5	178.1	160.8	153.3
<i>*Includes metropolitan transit subsidy received from Provincial Government.</i>										
DISPOSITION OF REVENUE										
Salaries, wages and employee benefits	88.5	72.7	67.5	57.9	55.1	49.6	44.0	40.1	36.7	32.9
Materials and services	76.0	53.0	51.0	45.2	40.4	44.9	43.4	36.7	32.5	27.0
Grants, school taxes, etc.	25.0	22.2	20.0	18.6	17.0	15.0	13.3	11.3	10.6	9.9
Provision for depreciation	61.7	57.7	52.9	50.2	44.7	38.6	34.7	31.7	28.8	27.1
Interest on debt, less interest charged to construction	110.7	108.1	97.7	88.9	83.1	63.7	53.2	49.0	44.7	43.2
Retained in the business (withdrawal)	14.3	21.2	16.8	16.1	(.4)	9.3	12.9	9.3	7.5	13.2
Total	376.2	334.9	305.9	276.9	239.9	221.1	201.5	178.1	160.8	153.3
EXPENDITURES ON PLANT	332.3	230.2	217.9	216.0	189.6	227.3	341.2	324.1	227.5	105.3

OPERATING STATISTICS

YEAR ENDED 31 MARCH	1974	1973	1972	1971	1970	1969	1968	1967	1966	1965
ELECTRIC										
Generating nameplate capacity at year-end (rated kw in thousands)*										
Hydro	3,318	3,318	2,814	2,455	2,455	2,001	1,320	1,320	1,306	1,306
Thermal	1,061	1,041	1,038	1,059	1,056	1,055	906	752	738	588
Total	4,379	4,359	3,852	3,514	3,511	3,056	2,226	2,072	2,044	1,894
Peak one-hour demand, integrated system (kw in thousands)	3,578	3,499	2,970	2,769	2,499	2,357	2,152	1,860	1,686	1,490
Customers at year-end (in thousands)	801	765	726	690	652	605	583	555	529	503
Electricity sold (kwh)										
Total (in millions)	21,940	19,103	16,174	14,833	13,656	12,237	11,084	10,000	8,506	7,345
Increase over previous year (%)	14.9	18.1	9.0	8.6	11.6	10.4	10.8	17.6	15.8	14.2
By class of customer (%)										
Residential	24	25	28	28	27	28	28	28	30	31
Commercial	20	20	22	21	21	21	21	20	21	22
Industrial	46	48	48	47	48	49	49	50	48	45
Other systems	1	1	1	1	2	2	2	2	1	2
Export**	9	6	1	3	2	—	—	—	—	—
Residential service										
Average annual kwh use per customer	7,694	7,365	7,342	6,949	6,651	6,674	6,222	6,016	5,650	5,486
Average revenue per kwh (cents)	1.9	1.9	1.9	1.9	1.7	1.7	1.7	1.5	1.5	1.8
*Excludes electricity available from other systems. Rated capacity has been exceeded on occasion.										
**Less than 1/2 of 1% 1965 through 1969.										
GAS										
One-day capacity at year-end (therms in thousands)										
Mainland—firm pipeline contracts*	3,260	2,660	2,400	2,460	2,360	2,529	2,260	2,140	2,020	1,900
—plant	1,000	1,000	1,000	1,000	250	250	250	250	250	250
Greater Victoria—plant	60	60	53	53	45	45	36	36	36	36
Peak one-day demand (therms in thousands)										
Mainland system—including interruptible	3,640	3,461	3,279	2,939	2,770	3,108	2,537	2,634	2,593	2,341
—excluding interruptible	3,136	3,359	3,065	2,762	1,962	2,889	1,905	1,474	1,493	1,849
Greater Victoria system	24	29	29	22	19	24	19	16	17	23
Customers at year-end (in thousands)	238	227	215	205	197	186	178	169	161	153
Gas sold (therms)										
Total (in millions)	711	649	601	554	485	470	391	357	322	306
Increase over previous year (%)	9.6	8.0	8.5	14.2	3.1	20.2	9.6	10.7	5.3	17.7
Average revenue per therm (cents)	8.5	8.5	8.6	8.6	8.4	8.6	8.8	9.0	9.7	9.8
*On basis of 100 cu. ft. to one therm.										
PASSENGER TRANSPORTATION										
Vehicles at year-end										
Urban—buses	447	335	326	353	340	339	340	321	325	336
—trolley coaches	293	293	298	298	296	296	296	296	296	296
—total	740	628	624	651	636	635	636	617	621	632
Interurban buses	98	91	90	85	66	71	70	56	61	70
Passengers carried (in millions)										
Urban	85.5	76.7	72.6	65.9	78.7	77.4	74.6	72.7	70.7	73.1
Interurban	2.8	2.6	2.5	2.2	2.3	2.2	2.1	2.1	2.0	2.0
Revenue miles run—urban (in millions)	23.6	20.4	20.0	19.3	21.2	20.9	20.8	20.5	20.4	20.5
Passenger revenue per mile—urban (cents)	80.9	85.2	83.7	78.9	71.6	72.1	71.2	70.2	68.4	57.7
RAIL FREIGHT (tons in thousands)	2,799	2,674	2,606	2,200	2,466	2,265	2,057	2,011	1,971	1,832
EMPLOYEES AT YEAR-END										
Regular	8,945	7,474	7,173	7,205	7,056	6,905	6,737	6,452	6,250	6,006
Temporary	1,080	772	669	481	810	717	614	687	647	418
Total	10,025	8,246	7,842	7,686	7,866	7,622	7,351	7,139	6,897	6,424

DIVISIONAL ORGANIZATION

OFFICE OF THE CHAIRMAN

W.D. Kennedy, *Manager, Canadian Entity Services*
W.D. Mitchell, *Legal Division Manager*

ADMINISTRATION AND FINANCE

C.W. Nash, *Assistant General Manager*

Division Managers:

L.E. Beard, *Financial (from 1 August 1973)*
T. Chambers, *Chief Financial Officer and Financial Division Manager (to 31 July 1973)*
E.S. Collins, *Land*
M.H. Fox, *Industrial Relations and Personnel*
J.A. MacCarthy, *Public and Customer Relations*
D.G. McKillop, *Administration*
T.A. Nordstrom, *Computer Systems*

ELECTRICAL OPERATIONS

J.N. Olsen, *Assistant General Manager (to 31 March 1974)*

Division Managers:

W.A. Bateman, *Operations Engineering*
W.A. Best, *Central Interior*
S.C. Burnell, *Metropolitan Vancouver*
T.V. Farmer, *South Interior*
M.A. Favell, *Operations Administration*
G.F. Green, *Production (to 31 July 1973)*
D.J. McLennan, *Fraser Valley*
G.J. Roper, *Vancouver Island*
P.D. Swoboda, *North Coast*

ENGINEERING

W.F. Miles, *Assistant General Manager*
H.K. Pratt, *Chief Engineer (to 31 August 1973)*
W.M. Walker, *Chief Engineer (from 1 September 1973)*

Division Managers:

E. Crowley, *System Design*
H.M. Ellis, *System Engineering*
H.E. Howe, *Hydroelectric Design (to 25 January 1974)*
E.H. Martin, *Construction*
F.J. Patterson, *Hydroelectric Design (from 28 January 1974)*

GAS

R.K. Kidd, *Assistant General Manager*

Division Managers:

K.S. Henderson, *Gas Operations*
A.H. McPherson, *Gas Engineering*

TRANSPORTATION

P.W. Barchard, *General Manager*
S.G. Boucher, *Pacific Stage Lines (from 19 October 1973)*
W.A. Duncan, *Railway Operations*
H.R. Halls, *Victoria Transportation (to 31 May 1973)*
H.E. Lyon, *Pacific Stage Lines (to 19 October 1973)*
Metropolitan Transit Lines (from 19 October 1973)
W.W. McAuley, *Metropolitan Transit Lines (to 19 October 1973)*
D.T. Suttie, *Victoria Transportation (from 1 June 1973)*
J.H. Wright, *Transportation Maintenance*

FOLD OUT MAP OF ELECTRIC TRANSMISSION SYSTEM

BRITISH COLUMBIA HYDRO AND POWER AUTHORITY

ELECTRIC TRANSMISSION SYSTEM

AT 31 MARCH 1974

WITH PLANNED ADDITIONS

LEGEND

- HYDROELECTRIC GENERATING STATIONS
- DIESEL-ELECTRIC GENERATING STATIONS
- ◻ GAS-TURBINE-ELECTRIC GENERATING STATIONS
- SUBSTATIONS
- TRANSMISSION LINES 60 KV-360 KV (EXISTING AND UNDER CONSTRUCTION)
- TRANSMISSION LINES 500 KV (EXISTING AND UNDER CONSTRUCTION)
- - - TRANSMISSION LINES 60 KV-360 KV (PLANNED)
- - - TRANSMISSION LINES 500 KV (PLANNED)

VANCOUVER AREA

MAJOR GENERATING PLANTS

- | | |
|-----------------------------|----------------------------|
| Aloette: Hydroelectric | Port Mann: Gas-Turbine |
| Burrard: Steam-Turbine | Ruskin: Hydroelectric |
| Lake Buntzen: Hydroelectric | Stave Falls: Hydroelectric |

MAJOR SUBSTATIONS

- | | |
|-------------|--------------------|
| Arnott | Inglewood |
| Atchelitz | Kidd, Nos. 1 and 2 |
| Camosun | Mainwaring |
| Cypress | Murrin |
| Dal Grauer | Newell |
| Horne-Payne | Walters |

VICTORIA AREA

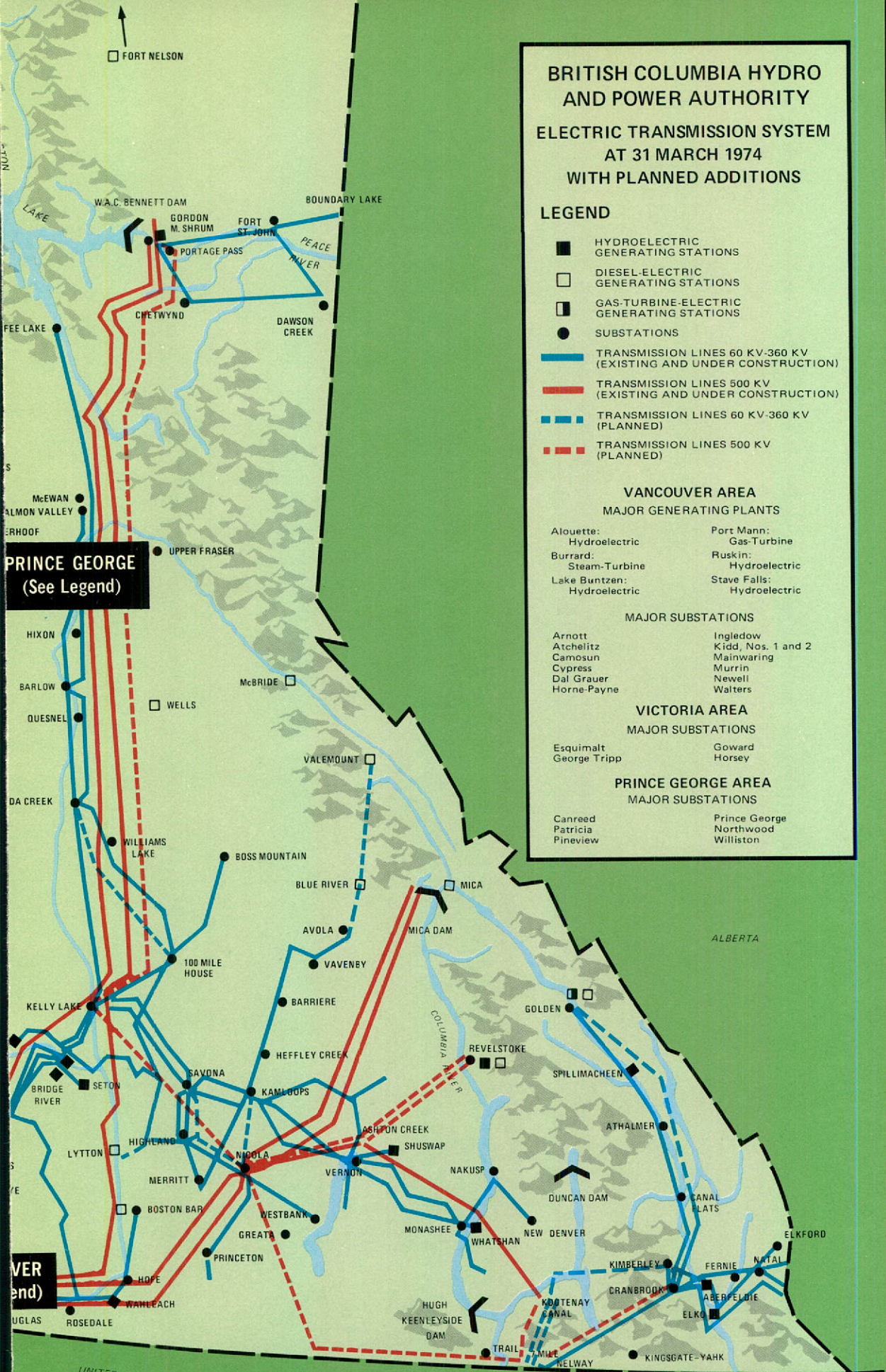
MAJOR SUBSTATIONS

- | | |
|--------------|--------|
| Esquimalt | Goward |
| George Tripp | Horsey |

PRINCE GEORGE AREA

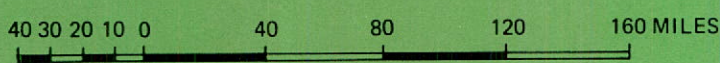
MAJOR SUBSTATIONS

- | | |
|----------|---------------|
| Canreed | Prince George |
| Patricia | Northwood |
| Pineview | Williston |



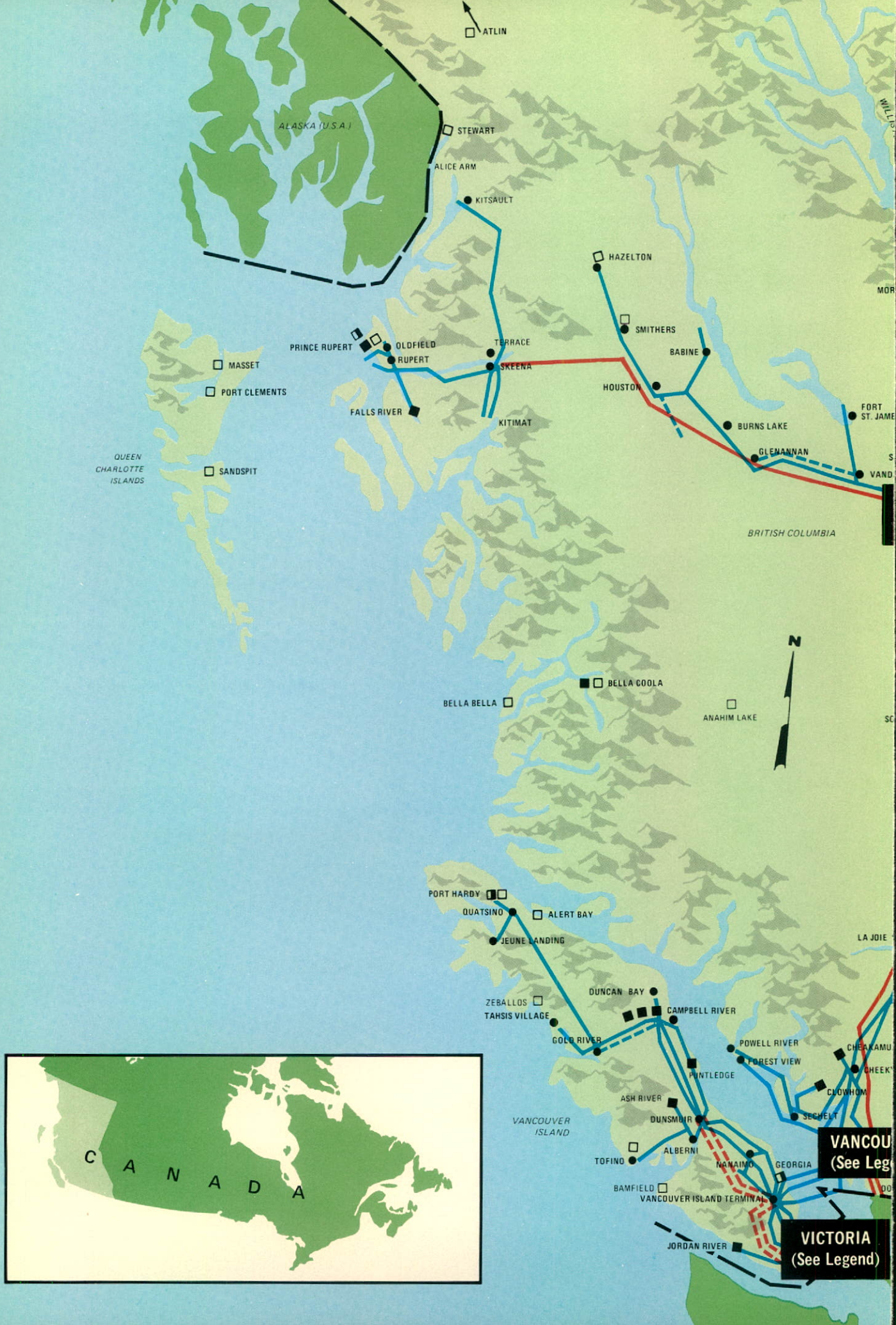
PRINCE GEORGE
(See Legend)

VER
end)



UNITED STATES OF AMERICA

ALBERTA





1



4



2



3



5

One of the major challenges facing B.C. Hydro is to meet British Columbia's ever-growing demands for energy while at the same time minimizing the effect of its operations on the natural environment.

B.C. Hydro has established an environmental studies department and has undertaken a thorough review of all its operations from the environmental point of view. Specific policies include pollution control at power production plants, rehabilitation of construction sites, and multiple use of rights-of-way.



6



8

- | | |
|-------------------------------|--------------------------|
| 1. Beacon Hill Park, Victoria | 6. South Okanagan Valley |
| 2. Near Atlin | 7. Yoho National Park |
| 3. Atlin Lake | 8. Kelowna |
| 4. Murray River | 9. Babcock Lake |
| 5. North of Prince Rupert | 10. Eddontenajon Lake |

Photographs are courtesy of Film and Photographic Branch, Government of British Columbia Department of Travel Industry.



7



9



10

