



# BRITISH COLUMBIA HYDRO AND POWER AUTHORITY

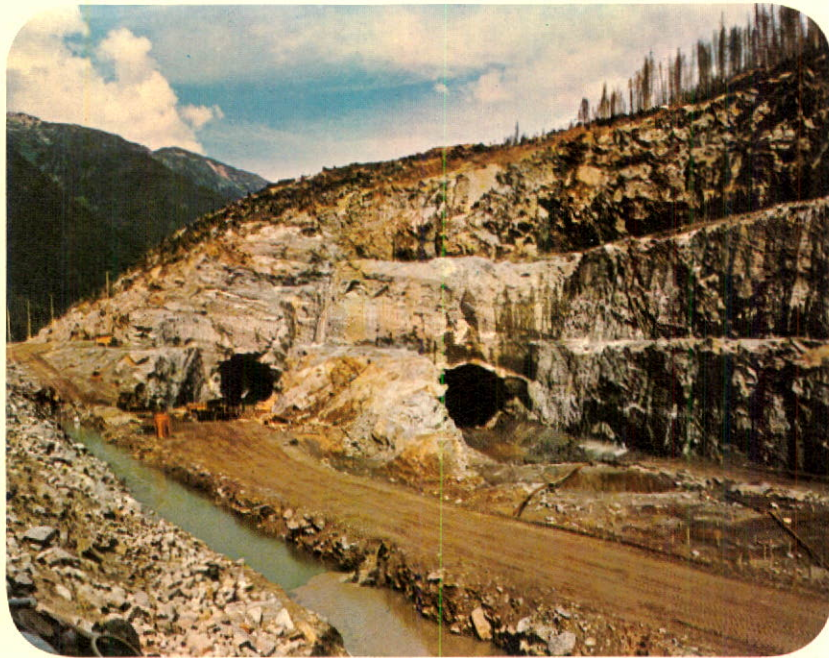


Vancouver

FIFTH ANNUAL REPORT  
Year ended 31 March 1967



*An aerial view of the Duncan Dam, the first of the Columbia Treaty storage projects scheduled for completion. This project is expected to be in operation during 1967.*



*Diversion tunnels are blasted through solid rock at Mica Project. The Columbia River will be diverted through these two 45-foot-diameter tunnels, permitting construction of the Mica Dam on a dry river bed.*



*The world's largest underground hydro-electric power plant takes shape at Portage Mountain, Peace River Project. The powerhouse cavern measures 890 feet in length, 67 feet in width and up to 150 feet in height.*

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*Auditors:* PRICE WATERHOUSE & CO.

*Bankers:* CANADIAN IMPERIAL BANK OF COMMERCE

*Securities issued by British Columbia Hydro and Power Authority:*

*Registrar, Canadian issues:*

THE AUTHORITY

*Registrar, United States issues:*

THE CANADIAN BANK OF COMMERCE TRUST COMPANY,  
New York

*Securities issued by British Columbia Electric Company Limited:*

*Registrar, Perpetual Callable Bonds and 25-year Bonds:*

MONTREAL TRUST COMPANY

*Registrar and Trustee, First Mortgage Bonds:*

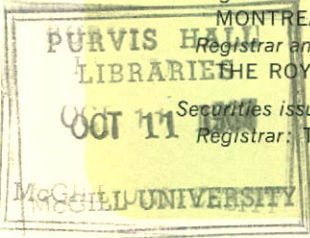
MONTREAL TRUST COMPANY

*Registrar and Trustee, Debentures:*

THE ROYAL TRUST COMPANY

*Securities issued by British Columbia Power Commission:*

*Registrar:* THE AUTHORITY





THE PRIME MINISTER

VICTORIA

1967

June 6th

Major-General the Honourable George Randolph Pearkes, V.C.,  
P.C., C.B., D.S.O., M.C., 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 31st March, 1967.

Prime Minister

## BRITISH COLUMBIA HYDRO AND POWER AUTHORITY

Head Office: 970 Burrard Street, Vancouver 1, B.C., Canada

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### DIRECTORS AND OFFICERS

JOHN DUNSMUIR  
EINAR M. GUNDERSON\*  
HUGH L. KEENLEYSIDE *Chairman\**  
THE HONOURABLE W. KENNETH KIERNAN  
F. ARTHUR LEE (*Deceased 13 September 1966*)

FRED D. MATHERS  
WILLIAM C. MEARNs\*  
GORDON M. SHRUM *Chairman\**  
FREDERICK A. SMITH  
THE HONOURABLE RAY G. WILLISTON



*From left to right: John Dunsmuir, The Honourable W. Kenneth Kiernan, Einar M. Gunderson, Hugh L. Keenleyside, Gordon M. Shrum, William C. Mearns, The Honourable Ray G. Williston, Frederick A. Smith, Fred D. Mathers.*

GEOFFREY G. WOODWARD *Secretary*  
MRS. P. ROSS KIDD *Assistant Secretary*

*\*Member of the Executive Management Committee*

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### SENIOR MANAGEMENT

PHILIP W. BARCHARD *Division Manager – Operations*  
21 years' service

THOMAS CHAMBERS *Comptroller and Chief Financial Officer*  
21 years' service

HUGH A. ELLIOTT *Division Manager – Commercial Services*  
31 years' service

G. FREDERIC GREEN *Division Manager – Production*  
30 years' service

GARTH GRIFFITHS *Division Manager – Staff Services*  
21 years' service

ROBERT W. GROSS *Division Manager – Land*  
21 years' service

W. DENIS KENNEDY *Division Manager – Major Resources*  
7 years' service

J. STUART LANG *Internal Auditor*  
21 years' service

ROBERT C. McMORDIE *Columbia Projects Manager*  
11 years' service

WILLIAM D. MITCHELL *Division Manager – Legal*  
5 years' service

J. PETER OTTESEN *Construction Manager – Major Hydro Projects*  
3 years' service

JOHN S. PURVES *Division Manager – Purchasing and Stores*  
38 years' service

SIGURDUR SIGMUNDSON *Division Manager – Transportation*  
22 years' service

JOHN H. STEEDE *Chief Engineer and Division Manager – Engineering*  
42 years' service

# BRITISH COLUMBIA HYDRO AND POWER AUTHORITY

OFFICE OF THE CHAIRMAN

970 BURRARD STREET

VANCOUVER 1, B. C.

5 June 1967

The Honourable W. A. C. Bennett, P.C., LL.D., D.Pol.Sc.,  
Prime Minister of British Columbia,  
Parliament Buildings,  
Victoria, B.C.

Dear Sir:

On behalf of the Board of Directors, we present the Annual Report of British Columbia Hydro and Power Authority for the fiscal year ended 31 March 1967.

Demand for electricity continued to increase at a high rate during the year. Sales of kilowatt-hours rose by 17.6% over the previous year, well above the average annual growth of 12.0% during the past decade. To meet this demand the Authority is pressing forward with the greatest program of plant expansion in its history. During the period under review expenditures for new construction exceeded \$324 million, a new record for the Authority in a single 12-month period.

Duncan Dam, the first of the Columbia River Treaty storage projects scheduled for completion, was in the final stages of construction by 31 March 1967. This project is expected to become operational before 1 April 1968, the date on which it was scheduled for completion. Construction of the Arrow Project is also proceeding ahead of schedule; at the year-end, work on the concrete portion of the dam was well advanced and the earth-fill section had been raised to about 40 feet above the river bed. At the Mica Project, work on the diversion tunnels is continuing and plans call for the diversion of the Columbia River before the end of 1967.


Good progress was made during the year on the Peace River Project. The height of the dam reached 450 feet and the embankment was approximately 80% completed before the winter shutdown in November 1966. The generation phase of the project, which includes the mammoth underground power plant, moved forward satisfactorily as work proceeded throughout the winter.

East Kootenay Power Company, Limited was acquired during the year and an agreement was completed, effective 1 April 1967, for the purchase of the Kitimat electrical distribution system from Aluminum Company of Canada, Limited. The operations of these systems are being merged with those of the Authority.


On 31 March 1967 the Authority announced increases in electric rates to meet rising operating costs; at the same time, a significant reduction in rates for gas service in Greater Victoria was introduced. After giving effect to these latest rate adjustments, electric and gas customers will enjoy annual savings of \$23 million compared with rates in 1962.

British Columbia's rapidly increasing population and high level of industrial and commercial expansion will continue to have a significant impact on the requirements for electric power in the Province. The Authority recognizes this challenge and will continue to direct its efforts towards ensuring an ample supply of power for British Columbia.

Yours truly,



CHAIRMAN



CHAIRMAN

## CANADA'S CENTENARY

*Canada is commemorating the 100th anniversary of Confederation in 1967 with an extensive program of celebrations marking the achievements of the nation's first century.*

*British Columbia Hydro and Power Authority is participating in these Centennial celebrations in the knowledge that the Authority and its predecessors have served the people of Canada's most western*

*region since 1860 and have made an important contribution to the economic progress of Canada.*

*To commemorate this milestone in the history of our country, British Columbia Hydro and Power Authority is decorating, in Centennial motif, many of its buildings throughout British Columbia. The Authority's Head Office building, shown in the front cover picture, displays Canada's Centennial symbol – a large maple leaf – and illuminated insignia.*

## THE YEAR IN BRIEF

- Expenditures on new plant, including the Peace, Duncan, Arrow and Mica projects, were \$324,063,381, a record for any 12-month period.
- Kilowatt-hour sales of electricity were 17.6% higher than last year.
- Terms of gas sold were 10.7% higher than last year.
- Number of passengers carried on the urban transportation services increased by 2.8% over last year, indicating a possible reversal of a previous downward trend.
- Electric rates were increased effective 1 April 1967 to meet rising costs; a reduction in rates for gas service in Greater Victoria was also introduced. After giving effect to these rate adjustments, electric and gas customers continue to enjoy annual savings of \$23 million compared with rates in effect in 1962.
- The Duncan storage project was ahead of schedule and is expected to become operational in 1967. Good progress was made on the Arrow and Mica storage projects. Total expenditures on the Duncan, Arrow and Mica storage projects to 31 March 1967 were \$189,731,799, of which \$91,817,294 was spent during the year.
- All phases of the work on the Peace River Project progressed satisfactorily; total expenditures to 31 March 1967 were \$271,974,120, of which \$124,514,189 was spent during the year.
- Net income for the year was \$9,350,954 compared with \$7,523,389 last year.

# ANNUAL REPORT OF BRITISH COLUMBIA HYDRO AND POWER AUTHORITY

for the year ended 31 March 1967

*The keynote of this report is action. It features record action and growth throughout the year in the Authority's sales, expenditures and new construction.*

## RESULTS OF OPERATIONS

Gross revenues for the year ended 31 March 1967 amounted to \$178,146,926, an increase of \$17,369,380 or 10.8% over the gross revenues for the previous year.

Net income after providing for all expenses was \$9,350,954, compared with \$7,523,389 for the previous year. The net income was added to the Authority's reserves and the corresponding funds have been 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 in the operations of the Authority:

	Year Ended 31 March 1967	Year Ended 31 March 1966
<b>Where the revenue came from</b>		
Sale of electricity to residential customers.....	\$ 41,635,372	\$ 38,059,716
Sale of electricity to other customers.....	76,791,810	66,858,262
Sale of gas.....	32,083,103	31,198,277
Transportation of urban and interurban passengers.....	17,635,677	16,896,109
Rail freight operations.....	6,420,825	6,158,016
Miscellaneous.....	3,580,139	1,607,166
	<u>\$178,146,926</u>	<u>\$160,777,546</u>
<b>How the revenue was used</b>		
Salaries, wages and employee benefits.....	\$ 40,141,462	\$ 36,702,973
Materials and services.....	36,655,844	32,510,332
Grants, school taxes, transit franchises, etc.....	11,351,142	10,556,265
Interest and other costs on debt, less interest charged to construction.....	48,973,573	44,644,470
Depreciation of plant.....	31,673,951	28,840,117
Balance employed in the business.....	9,350,954	7,523,389
	<u>\$178,146,926</u>	<u>\$160,777,546</u>

## RATES

On 31 March 1967 the Authority announced adjustments in electric rates to meet the rising cost of providing service. An adjustment in electric residential rates will result in increases of less than \$1.00 per month for more than 50% of all residential customers, while the maximum adjustment on any residential bill will not exceed \$1.50 per month. In keeping with the Authority's policy of standardizing rates throughout the Province, a reorganization of commercial rates was also announced which will improve efficiency and reduce administrative costs.

A new general rate, effective in April 1967, covering gas service in Greater Victoria, will result in savings ranging up to 35% to many gas customers. Residential gas customers in Greater Victoria benefited during the year from a rate reduction introduced in April 1966.

A review of the cost of electricity in localities supplied by diesel generation led to the introduction in October 1966 of higher rates in some of these areas.

After giving effect to the latest adjustments in electric and gas rates, customers will enjoy annual savings of \$23 million compared with rates in 1962. Lower rates which have been introduced since the formation of the Authority on 30 March 1962 have reduced the cost of electricity and gas to consumers by more than \$93 million to 31 March 1967.



## ELECTRIC SERVICE

### Sale of Electricity

Gross revenues from the electric service were \$118,427,182, an increase of 12.9% over last year. Sales of kilowatt-hours of electricity rose by 17.6% over the previous year, compared with an average annual rate of increase of 12.0% during the past decade. Impressive rates of increase in kilowatt-hours consumed were recorded for all categories of customers; residential was up 12.4%, general 13.4% and industrial 13.8%. Bulk power consumers registered a significant 25.8% increase over the previous year, indicative of the action and growth in the large power-consuming industries in British Columbia.

The number of customers served with electricity by the Authority totalled 555,029 at 31 March 1967, an increase of 25,788 during the year. Average annual consumption per residential account rose from 5,650 kwh to 6,016 kwh.

Although restrictions on borrowing had an adverse effect on new residential construction, electric space-heating for houses, apartments, motels and schools continued to make steady gains. Approximately 3,700 electric residential heating accounts were added during the year.

### Metropolitan Vancouver Region

More than 9,000 new residential accounts were added during the year in the Metropolitan Vancouver Region primarily because of the continuing trend towards high-rise apartment

accommodation. The demand for new housing will undoubtedly be reflected in an extension of this trend. Requests for underground distribution lines continued to increase; there are now 362 miles of such underground lines in this region, of which 23 miles were added during the year.

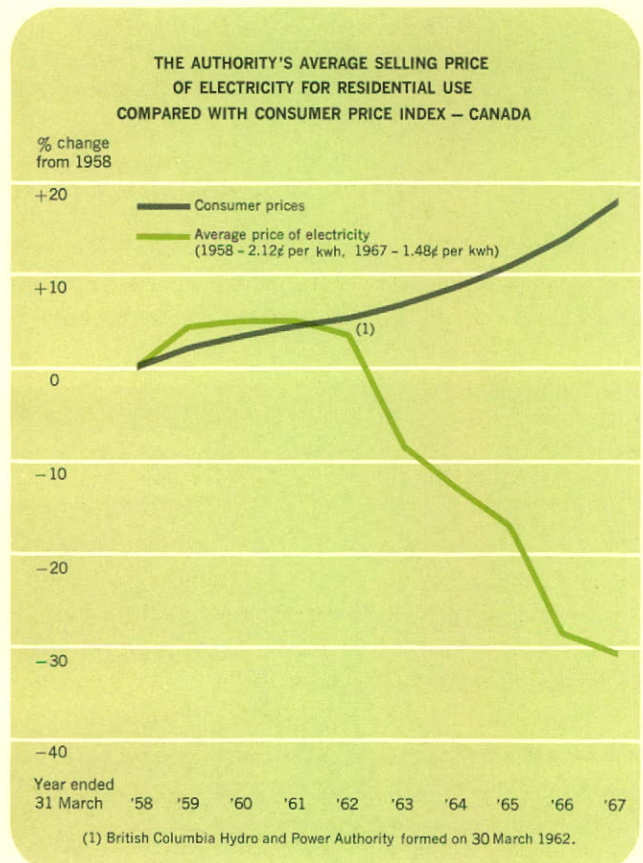
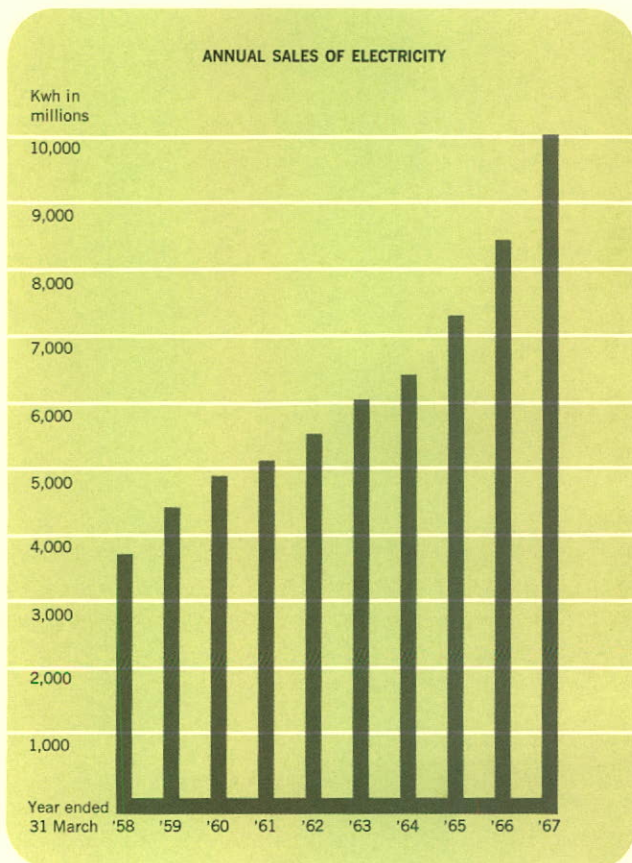
The Authority's service was extended during 1966 to serve Alta Lake and also the Whistler Mountain recreational area at Garibaldi Park.

### Fraser Valley Region

Economic expansion in the Fraser Valley continued at a good rate. Commercial developments included the new Guildford Town Centre in North Surrey and an addition to the adjacent Riverside shopping complex.

Growth of secondary industry during the year was marked by the opening of a new foundry and a steel wire drawing plant. Construction was started on three other plants of the heavy industry type in the Newton Industrial Centre. This centre has particular advantages for heavy industry and is developing satisfactorily. Six companies have purchased sites in the Langley Industrial Centre and have plants under construction or in the planning stage.

Service was extended during the year to an additional 3,413 customers in this region and 30 miles of new distribution circuits were placed in operation.



## **Vancouver Island Region**

There were 5,667 new accounts added to the Authority's system in the Vancouver Island Region during the year. The restricted money supply reduced residential building somewhat but this was offset by commercial and industrial construction including a number of new shopping centres, all-electric motels, all-electric schools and the Authority's new all-electric district office building at Courtenay. Construction of a new modern sawmill was commenced in Ladysmith and several existing mills increased their capacities.

Underground distribution systems were installed to serve Rumble Beach and Gold River. The "instant" town of Gold River, near the new pulp mill built by Tahsis Pulp Ltd. on the west coast of Vancouver Island, is worthy of mention because it is practically an all-electric town. Houses, apartments, hotel, school and many other premises use electricity as their sole source of energy. Total townsite load, to which electric space-heating contributes substantially, is in the order of 10,000 kw. Because of the unique all-electric character of this town the Authority has taken steps to specially record and analyze the load characteristics of the community.

The communities of Firvale and North Galiano were served by the Authority for the first time during the year.

## **Southern Interior Region**

In September 1966 East Kootenay Power Company, Limited was purchased. This company supplies service directly to about 1,200 customers and to several municipal systems including the cities of Cranbrook, Fernie and Kimberley. East Kootenay's operations are being merged with those of the Authority.

Construction of the Columbia River Treaty projects provided an economic stimulus to the southern interior of the Province. Sales of electricity in this region increased 26.1% over the previous year; a 53.2% increase in sales to industrial customers was largely responsible for the over-all gain. New distribution lines constructed during the year totalled 134 miles.

## **Central Interior Region**

Continued heavy investment in the pulp and paper industry provided strong support to the economy of this region during the year. There were 4,686 new accounts added to the Authority's system in the Central Interior Region during this period, an increase of 10.5%. Consumption of electricity increased by a remarkable 63.6% over the previous year; residential and commercial sales were up 24.5% and industrial sales were up more than 100%. A total of 279 miles of new distribution lines was placed in service during the year.

A new regional administration centre was opened by the

Authority at Prince George in January 1967, with many common services consolidated in the new building.

Communities added to the Authority's system during the year included Atlin, Big Lake, Hansard, Likely, Mackenzie, Nithi River, St. Marie's Lake and Strathnaver.

On 1 April 1967 the Authority purchased the Kitimat electrical distribution system from Aluminum Company of Canada, Limited and this acquisition added some 2,500 new customers to the Authority's system.

## **Rural Electrification**

It has been the practice of the Provincial Government to provide financial assistance for the electrification of rural areas in British Columbia. Following this practice the Government increased its grant to the Authority from a previous annual maximum of \$150,000 to a maximum of \$1,000,000 for the coming year.

To utilize the additional grant made available by the Provincial Government the Authority announced, on 31 March 1967, a more generous formula for extending electric service to rural residential customers in its service area. This new extension policy requires a smaller contribution from the customer and, because of the increased Government grant, hundreds of rural residents throughout British Columbia will be able to enjoy the benefits of modern electrical living.

## **Production of Electricity**

The largest one-hour demand ever recorded on the Authority's integrated system, 1,860,000 kw, occurred on 14 December 1966. This represented an increase of 10.3% over the previous peak recorded in January 1966.

Electrical energy requirements during the year totalled 11,158 million kwh compared with 9,611 million kwh last year. Of the total for the current year, 7,764 million kwh were produced by hydro-electric plants, 1,062 million kwh more than last year. Unusually heavy precipitation during the winter provided a better than average supply of water for hydro generation. Electricity generated by thermal plants totalled 2,931 million kwh and the balance of 463 million kwh was purchased from other utilities. To ensure an adequate supply of energy, firm power purchase contracts were entered into with Pacific Power & Light Company and with West Kootenay Power and Light Company, Limited. Peaking capacity was purchased from Bonneville Power Administration.

Total installed nameplate generating capacity at 31 March 1967 was 2,072,328 kw, comprising 1,320,322 kw hydro and 752,006 kw thermal capacity. Total capacity represents a 1.4% increase over last year, mainly resulting from the acquisition of the East Kootenay system.



*Attractive styling and time-saving efficiency of modern electric appliances find favour with homemakers. Good lighting creates a cheery kitchen atmosphere.*



*Electric heating is featured at "The Martinique", a modern Vancouver West End apartment building.*



*A new administration centre for the Central Interior Region was officially opened by the Authority at Prince George in January 1967.*

## GAS SERVICE

Gross revenues from the sale of gas to the public were \$32,083,103, up 2.8% from the previous year while therms of gas sold during the year rose by 10.7%. The relatively small percentage increase in gross revenues, compared with the larger increase in therms sold, resulted primarily from the gas rate reductions which became effective in April 1966. Weather conditions, which have a decided influence on gas sales for heating, were milder than last year. The number of degree days recorded at Vancouver International Airport during the prime heating months of September through March was 5.2% less than in the previous year.

The peak one-day output of gas on the Lower Mainland during the year, including gas delivered to Burrard Thermal Generating Plant, was 252 million cubic feet on 21 October 1966, exceeding the previous peak of 246 million cubic feet established in January 1966.

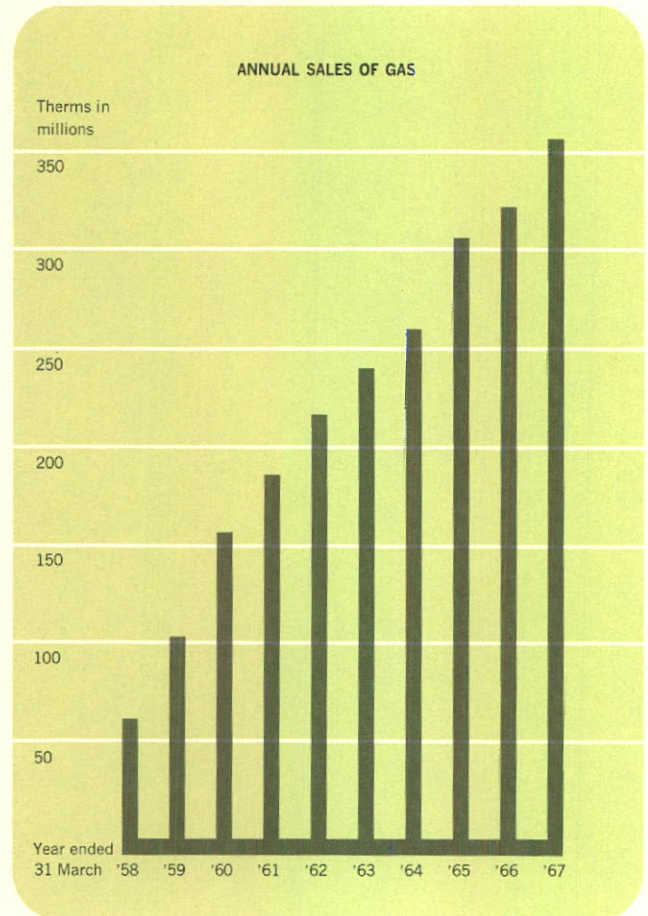
At 31 March 1967 there were 169,044 customers receiving gas service from the Authority, an increase of 8,091 during the year. Gas heating in the Lower Mainland continued to make steady gains with the great majority of new houses and commercial buildings installing gas equipment.

Major promotional programs, conducted during the year in cooperation with Westcoast Transmission Company Limited, were aimed at conversion to gas of heating systems in houses and apartment buildings using other fuels. During the periods these programs were in progress 1,465 houses and 2,850 apartment suites were converted to gas heating.

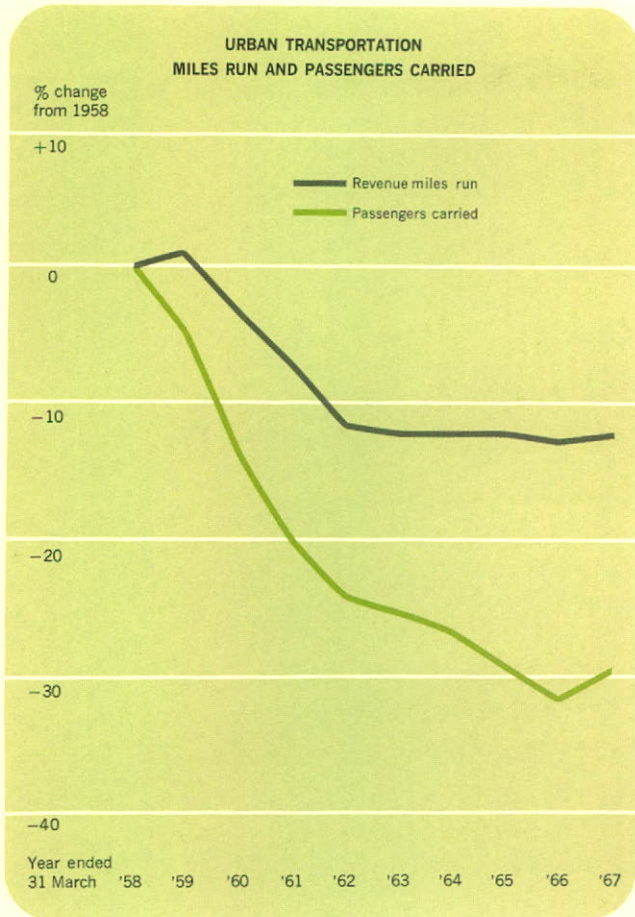
Other significant developments during the year included the following:

- (a) A net increase in natural gas mains laid of 119 miles, bringing the total to 3,046 miles at year-end.
- (b) Installation of an 8-inch gas pipeline across Morey Channel from Lulu Island to Sea Island to serve the new terminal at the Vancouver International Airport.
- (c) Improvements to the Greater Vancouver system to provide increased reliability of supply to fast-growing areas, such as the North Shore, and extensions to the system to meet the increasing demand for gas by high-rise apartments and other large-volume users.
- (d) Natural gas consumption at Burrard Thermal Generating Plant in excess of 18.5 billion cubic feet, or 34.8% of total send-out.

Westcoast Transmission Company Limited supplies natural gas to the Authority on the Lower Mainland. In accordance with terms of a purchase agreement with that company the daily billing demand for firm gas was increased 12 million cubic feet on 1 November 1966 to 154.9 million cubic feet.



*This 8-inch pipeline is part of distribution system that will supply natural gas to the new terminal at Vancouver International Airport.*



## TRANSPORTATION SERVICES

### Urban Transportation

The year ended 31 March 1967 showed a significant trend in increased use of transit services, particularly in the Vancouver metropolitan area. Gross revenues from the urban transportation services during the year were \$14,508,824, an increase of \$464,566 or 3.3% over the previous year. The improved patronage indicates a possible reversal of the downward trend which, with minor variations, had continued since the end of the second world war.

Transit franchise agreements with the City of Vancouver, the City of North Vancouver, the District of North Vancouver and the Township of Richmond expired during the year. The Authority is continuing to operate transit services in these areas.

Forty new buses were purchased during the year to replace older buses. Thirty of these were placed in service in the Greater Vancouver area and ten in Greater Victoria. At 31 March 1967 a new \$750,000 garage and operating centre, to be called Kensington Transit Centre, was under construction in Burnaby to replace the New Westminster centre which has been sold. The new facility is expected to become operational in June 1967, with an initial complement of 95 vehicles, serving Burnaby, New Westminster and the eastern section of Vancouver. Ultimately this location will accommodate up to 200 vehicles. In Victoria, the Garbally Garage was enlarged during the year and all transportation maintenance in that area, including work previously carried out at Pembroke Garage, has been consolidated at the Garbally location.



*This 48-passenger air-conditioned bus was one of four added during 1966 to fleet operating between Vancouver and Vancouver Island.*

### Interurban Transportation

Pacific Stage Lines' gross revenues during the year were \$3,126,853, an increase of 9.6% over last year. Revenues from the services operating between Vancouver and Victoria and between Vancouver and Nanaimo were up 7.4% and 8.4% respectively. Sightseeing revenue was up substantially, reflecting an increase in both rates and number of passengers carried. Charter revenue increased by approximately 22% over the previous year as a steady growth in patronage was enhanced by a shuttle bus service for the new Guildford Town Centre.

Four new 48-passenger air-conditioned buses were added to the fleet during the year for service on the routes between Vancouver and Vancouver Island.

### Rail Freight

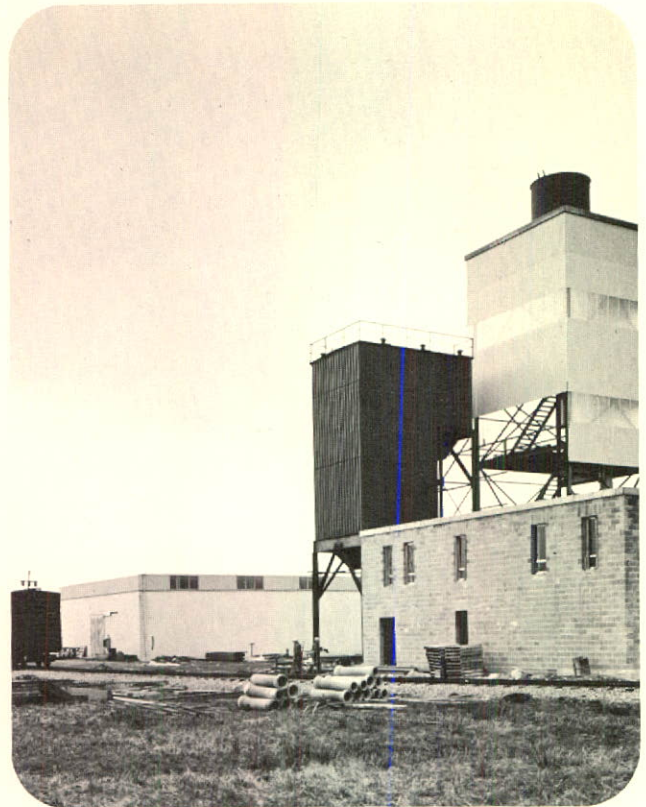
Gross revenues from rail freight operations totalled \$6,420,825, an increase of 4.3% over last year.

Industrial development activity was at the highest level yet experienced. During the year 22 new customers purchased industrial sites adjacent to the Authority's rail lines and are proceeding to construct plants on these properties. Sale of sites in the Authority's Kingsway-Boundary Industrial Centre in Vancouver and McPherson Avenue Industrial Centre in Burnaby is virtually complete. Excellent progress has also been made in the marketing of industrial sites in Langley and Newton. The availability of well-located sites beside the Authority's railway lines stimulates industrial development which results in increased revenues for the rail freight service; at the same time, the advantages of locating plants outside congested areas are becoming evident to an increasing number of industrialists.

Maintenance work on the Authority's 14 diesel locomotives, previously carried out at Kitsilano overhaul shops and at New Westminster shops, has been consolidated in a new repair shop completed in the spring of 1967 at New Westminster.

### MISCELLANEOUS REVENUES

Miscellaneous revenues for the year ended 31 March 1967 were \$3,580,139, an increase of \$1,972,973 over the previous year. Interest earned during the year from temporary investment of new borrowings accounted for most of the increase.



*Plant of Potter Distilleries Limited is one of several manufacturing establishments under construction at Langley Industrial Centre.*



*The new servicing and repair shop for Authority's rail freight operations was opened at New Westminster in the spring of 1967.*

## COST OF PROVIDING SERVICES

The total cost of providing all services during the year was \$168,795,972, an increase of \$15,541,815 or 10.1% over the previous year.

Interest and other costs on debt charged to operations were \$48,973,573, up \$4,329,103 or 9.7% from last year. Nearly 40% of this increase was offset by interest income from temporary investment of new borrowings. The general increase in cost of money caused the Authority to pay higher interest rates for long-term bonds issued during the year and to increase the interest rate on outstanding Parity Development Bonds from 5% to 5½% on 1 September 1966. The completion and transfer to active service of new plant also contributed significantly to the increase in interest charged to operations.

Provision for depreciation of plant was \$31,673,951 compared with \$28,840,117 last year, an increase of 9.8%. This increase is directly related to the completion and transfer to active service of new plant. The Authority's depreciation rates are comparable to those used by other utilities.

Salaries, wages and employee benefits charged to operations amounted to \$40,141,462, an increase of \$3,438,489 or 9.4% over the previous year. Major factors causing this increase were higher rates of pay resulting from union agreements, an increase in the number of regular employees and increased

pension costs including provision for minimum pensions under the new pension plan.

Cost of producing electric energy is greatly influenced by load growth and supply of water. Although favourable water conditions during 1966 permitted greater hydro-electric production than would have been possible in a normal water year, the significant load growth which took place during the year necessitated a substantial increase in the production of energy from thermal generation. As a consequence, the total cost of fuel for thermal generation increased \$1,482,538 over last year.

Purchases of natural gas from Westcoast Transmission Company Limited totalled \$17,468,778. Of this amount, \$12,838,147 was for gas sold to the public, an increase of 7.7% over the previous year. The balance was used mainly at Burrard Thermal Generating Plant.

Grants, school taxes, water rentals and franchise payments charged to operations during the year totalled \$11,351,142, an increase of \$794,877 or 7.5% over last year.

Land, buildings and improvements of the Authority are assessed and taxed each year in accordance with the Public Schools Act. The Authority pays school taxes on the same basis as any other taxpayer. In addition to school taxes the Authority makes annual grants to municipalities and other local governments for general purposes.



Floodlights add drama to Court House fountain in Vancouver. This fountain, unveiled in 1966, commemorates British Columbia's Centenary.

## FINANCING

On 16 February 1966 the Authority was empowered by Order-in-Council to borrow up to \$75 million during the period 1 March 1966 to 31 March 1967 by sale of bonds to the Canada Pension Plan Investment Fund. This authorization was amended on 22 December 1966 to \$100 million. Sinking fund bonds issued to the credit of the Canada Pension Plan Investment Fund during the year ended 31 March 1967 totalled \$89,484,000 comprising the following:

\$80,396,000 5.46% Series W-A due 1 February 1987 issued in exchange for \$5,085,000 Series V-A bonds dated 2 March 1966 and \$75,311,000 Series V bonds issued periodically during the year under review  
\$9,088,000 5.36% Series V-N due 2 March 1987

Six other issues of sinking fund bonds were sold during the year in Canada, as follows:

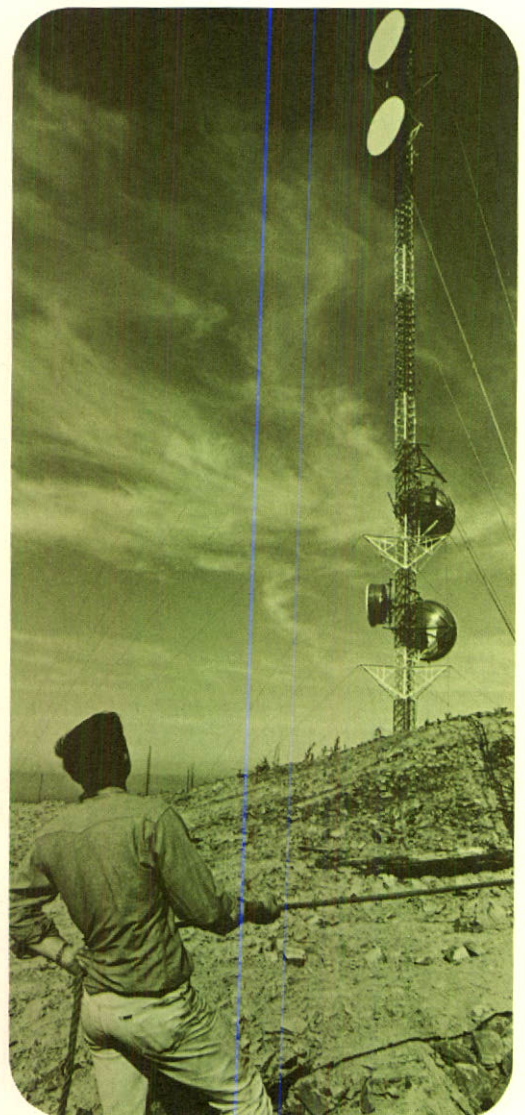
\$40,000,000 5¾% Series U due 18 April 1991  
\$5,000,000 5¾% Series X due 1 July 1991  
\$1,000,000 6¼% Series Z-A due 23 September 1991  
\$20,000,000 6¼% Series AG due 1 December 1991  
\$3,000,000 6¼% Series Z-B due 9 January 1992  
\$25,000,000 6% Series AJ due 15 March 1992

The following issues of sinking fund bonds were sold in the United States during the year:

\$50,000,000 (U.S.) 5½% Series Y due 2 July 1991  
\$50,000,000 (U.S.) 5½% Series AH due 2 January 1992



75-ton smoothing reactor en route to Vancouver Island terminal of a high voltage direct current interconnection with the Lower Mainland system.



Microwave station near Prince George, part of communication system for remote control of power plants.



The average effective annual interest cost of all bonds issued by the Authority during the year was 5.83%.

The interest rate of the four outstanding issues of Parity Development Bonds of the Authority was increased from 5% to 5½% effective 1 September 1966.

The amount of \$15,223,163 was paid to Trustees during the year to meet sinking fund requirements of the Authority's long-term debt. All sinking fund obligations have been met.

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

### Columbia River Treaty Funds

Following exchange of ratifications of the Columbia River Treaty by Canada and the United States in September 1964, British Columbia received \$273,291,661 in payment for Canada's entitlement to downstream power benefits under the Treaty. This sum was transferred to the Authority on 16 September 1964 and, with interest of \$38,615,069, had grown to \$311,906,730 at 31 March 1967. These funds were employed as follows:

Construction of Duncan, Arrow and Mica storage projects.....	\$189,731,799
Borrowed temporarily by the Authority (at 5¾%) for other purposes.....	36,981,561
Invested in short-term notes, including interest receivable.....	85,193,370

## STATEMENT OF SOURCE AND APPLICATION OF FUNDS FOR THE YEAR ENDED 31 MARCH 1967

(with corresponding figures for the year ended 31 March 1966)

	1967	1966
<b>Funds Provided</b>		
Operations:		
Net income.....	\$ 9,350,954	\$ 7,523,389
Charges against operations calling for no current outlay of cash -		
Provision for depreciation.....	31,673,951	28,840,117
Other.....	1,726,824	1,621,960
Total funds provided from operations.....	42,751,729	37,985,466
Sales of property.....	908,702	5,279,110
Proceeds from sales of bonds.....	281,691,031	143,471,383
Interest on Columbia River Treaty funds.....	15,988,948	14,841,098
Decrease in investment of Columbia River Treaty funds.....	51,809,282	87,065,327
	<u>\$393,149,692</u>	<u>\$288,642,384</u>
<b>Funds Expended</b>		
Plant additions:		
Peace River Project.....	\$124,514,189	\$ 69,828,006
Duncan, Arrow and Mica storage projects.....	91,817,294	73,230,070
Other.....	107,731,898	84,399,620
Total funds expended on plant additions.....	324,063,381	227,457,696
Purchase of shares of East Kootenay Power Company, Limited.....	3,400,275	—
Sinking fund purposes.....	15,223,163	15,064,859
Redemption of bonds.....	23,574,000	85,650,400
Decrease (increase) in notes payable to Provincial Government.....	11,000,000	(18,500,000)
Increase (decrease) in working capital, etc.....	15,888,873	(21,030,571)
	<u>\$393,149,692</u>	<u>\$288,642,384</u>

*The unparalleled growth of the Authority comes into sharp focus by comparing previous and current investments in plant. The first of the Authority's predecessors was incorporated seven years before Confederation and by 1951 the financial statements showed an accumulated plant investment of just under \$310 million, whereas in the year ended 31 March 1967 the Authority spent \$324 million on plant. Thus, in a single 12-month period the Authority's plant expenditures were \$14 million more than had been accumulated over the 91-year period to 1951.*

## CONSTRUCTION PROGRAM

Expenditures on plant additions, land and improvements totalled \$324,063,381 compared with \$227,457,696 in the previous year. Net property additions amounted to \$316,914,147 after deducting plant retirements of \$7,149,234. In addition, the Authority acquired plant having a gross book value of \$8,269,350 through the purchase of the shares of East Kootenay Power Company, Limited. Major expenditures for the year by projects or broad classifications included the following:

Peace River Project .....	\$124,514,189
Duncan, Arrow and Mica storage projects .....	91,817,294
Burrard Thermal Generating Plant .....	13,131,618
Major electric transmission line construction:	
Lower Mainland to Vancouver Island – 260 kv D.C. ....	11,062,804
Kitimat to Prince Rupert – 287 kv .....	11,011,759
Williston to Glenannan – 230 kv .....	7,397,438
Skeena to Nass River to Alice Arm – 138 kv .....	3,366,791
Strathcona to Gold River – 138 kv .....	1,713,736
Burns Lake to Topley and from Houston to Telkwa – 138 kv .....	1,257,114
Kelly Lake to Bridge River – 230 kv .....	1,255,494
McEwan to Morfee Lake – 138 kv .....	839,988
Valleyview to Vernon – 138 kv .....	761,626
Other .....	1,510,865
Microwave communication systems .....	5,589,560
Substations, associated distribution facilities and local transmission systems – electric .....	15,429,392
Electric extensions to serve new customers .....	14,846,787
Gas supply lines and other system improvements .....	823,145
Gas extensions to serve new customers .....	4,378,819
Buses for Vancouver and Victoria urban transit systems and for interurban transit system .....	1,730,619
Bus garage facilities .....	496,441
Rail freight repair shop .....	372,406

At Burrard Thermal Generating Plant installation of a fourth 150,000 kw turbine generator progressed favourably during the year. All major equipment was delivered for this unit, which has been assembled on site and is scheduled for operation in September 1967. A fifth 150,000 kw unit, ordered during the year, will be ready for service in the autumn of 1968.

Good progress was made on the first phase of a high voltage direct current interconnection between the Lower Mainland and Vancouver Island. Converter buildings near Ladner on the Mainland and Duncan on Vancouver Island were completed and conversion equipment is being installed. This project is scheduled to go into operation in September 1967. During the year an order was placed with Les Cables de Lyon, of France, to manufacture and install three submarine cables for additional crossings of Georgia Strait and Trincomali Channel; this circuit and its associated lines will be completed in 1968.

Construction work was nearing completion by 31 March 1967 on the 287 kv transmission line from the Aluminum Company of Canada's plant at Kitimat to Terrace and Prince Rupert which will supplement existing generating capacity and serve new industrial loads in the Prince Rupert area. Work was started on a 500 kv transmission line westward from Williston Substation, Prince George, to Glenannan Substation (104 miles) for initial operation at 230 kv. Ultimately, Prince Rupert and the Skeena and Bulkley valleys will be fully integrated with the Provincial grid by transmission from Prince George.

Considerable progress was made during the year in the expansion of other transmission and sub-transmission facilities to meet the increasing demand for power throughout the Province. A second 230 kv transmission line from Bridge River to Kelly Lake (47.5 miles) was completed and put into operation during 1966. In the Bulkley Valley 63 miles of 138 kv lines from Burns Lake

to Topley and from Houston to Telkwa were completed. A 138 kv line between McEwan and Morfee Lake (73 miles) was completed to serve Alexandra Forest Industries Ltd. and Mackenzie townsite, and a 3-mile 138 kv extension to Cattermole Timber Ltd. at Morfee Lake was also constructed. On Vancouver Island a 138 kv transmission line was completed between Strathcona and Gold River (37 miles). In the southern interior of the Province a 107-mile line from Valleyview to Vernon for 138 kv operation was completed. A 14-mile section of line from Soda Creek to Williams Lake and a 33-mile extension south from Williston Substation to Hixon were constructed, both for 60 kv operation.

Work was started on a 230 kv line from Burrard Thermal Generating Plant to Walters Substation in North Vancouver. Construction of a 230 kv line from Cheekye Substation to Sechelt (49 miles) was also commenced during 1966 to serve the growing load on the Sechelt Peninsula; initial operation of this line will be at 138 kv. Construction of a 138 kv line – to operate initially at 60 kv – from Terrace to Alice Arm (92 miles) was initiated during the year to serve British Columbia Molybdenum Limited.

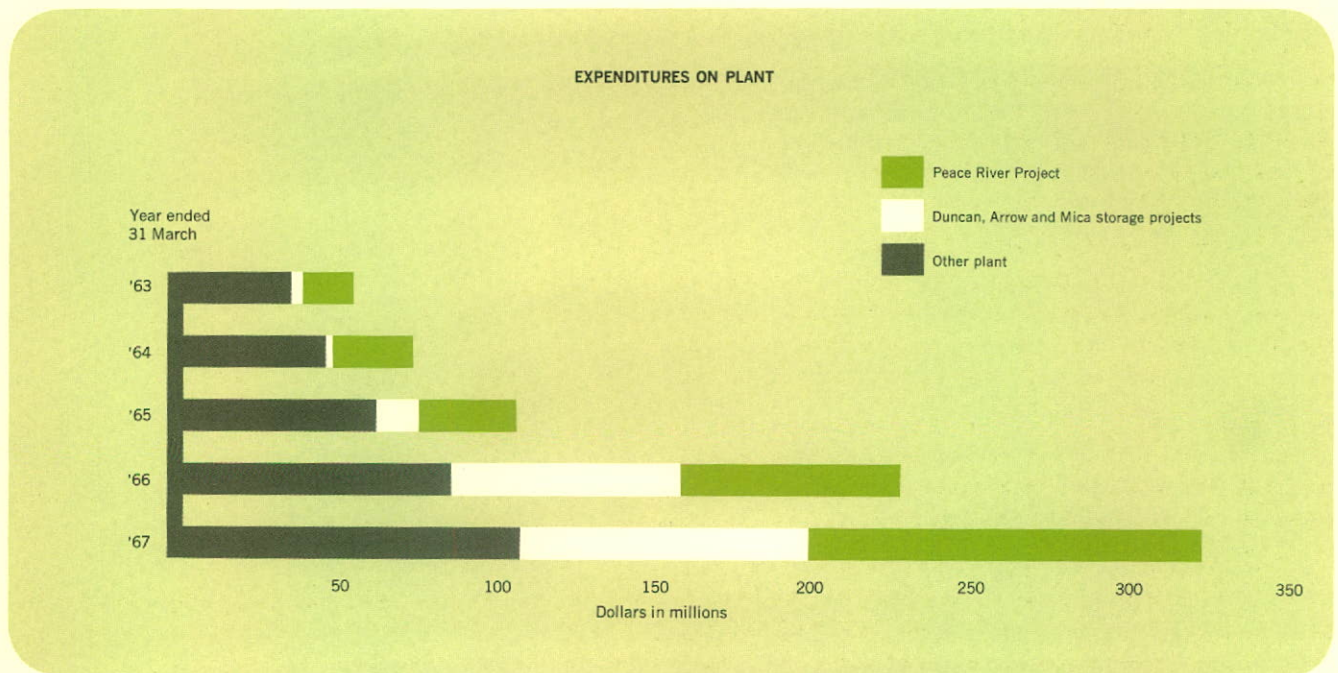
New and increased substation facilities were added in Greater Vancouver, Prince George, Prince Rupert, Kamloops, Vernon, on Vancouver Island and elsewhere throughout the Province.

The Vancouver to Portage Mountain microwave system, with a spur to Vernon, was completed and placed in operation during the year. Installation of a Lower Mainland microwave system and a link connecting the Head Office control centre with the Vancouver Island system were nearing completion.

Increased diesel-electric generating capacity was installed during the year to meet new load at Atlin and additional load at Blue River, Sandspit, Stewart and Valemount.

Major contracts awarded during the year, other than for the Peace River Project and the Duncan, Arrow and Mica storage projects, included:

Associated Electrical Industries (Canada) Ltd.	
150,000 kw steam turbine generator set for fifth unit, Burrard Thermal Generating Plant.....	\$5,481,000
Les Cables de Lyon	
Manufacture and installation of cables for direct current interconnection between Lower Mainland and Vancouver Island.....	4,545,930
Combustion-Engineering Superheater Ltd.	
Supply, fabrication and erection of steam boiler for fifth unit, Burrard Thermal Generating Plant.....	4,202,773
Peter Kiewit Sons Company of Canada Ltd. – Hume & Rumble (Prince George) Limited	
Installation of footings and erection of towers, Williston-Glenannan 500 kv transmission line.....	2,100,000



## PEACE RIVER PROJECT

Total expenditures on the Peace River Project to 31 March 1967 were \$271,974,120, of which \$124,514,189 was spent during the year under review. All phases of the work are progressing satisfactorily towards first production of power late in 1968.

The last two major construction contracts on the Portage Mountain development were awarded during the year. The first was for installation of the spillway and low-level outlets and the second for construction of the central control building, switchyard and completion of the power plant.

Work continued on the mammoth underground power plant. The main underground features of the power plant have been excavated and concrete is being placed in many underground areas and in the power intake surface structures.

A total of 23,373,307 cubic yards of fill was placed in the Portage Mountain Dam during the 1966 construction season. Since construction commenced in 1964, 45,622,907 cubic yards of fill have been excavated, transported approximately 3.5 miles by conveyor belt, processed and then placed in the dam. At 31 March 1967 the dam had reached an average height of 450 feet above bedrock and was approximately 80% completed.

Contracts were awarded during the year to firms in Canada, United Kingdom, United States, Austria, France, Germany and Japan to supply mechanical and electrical equipment for the dam and power plant. A major equipment contract was awarded to VOEST of Austria for three radial gates which will rank with the largest of this particular type in the world.

Manufacture of mechanical and electrical equipment continued on schedule. Deliveries were made to the site of turbine parts, guides and gates for intake structures, powerhouse travelling cranes and other mechanical and electrical equipment. Installation of embedded parts commenced during the year.

Good progress was made during the year on the two 500 kv transmission lines between Portage Mountain and the Vancouver area. A 205-mile section of the first line, between Kelly Lake Substation and Williston Substation, was completed. The entire right-of-way for the first line has been cleared, foundations for towers have been installed over a total distance of 415 miles and towers erected over 373 miles. The right-of-way for the second transmission line has been cleared from Portage Mountain to Quesnel. Installation of foundations and erection of towers for the second line are scheduled to commence in the summer of 1967.

The peak work force for the entire Peace River Project in 1966 was 4,297 men, an increase of 1,729 over 1965. Construction activity is expected to reach a maximum during the coming year.

Field investigations and foundation exploration for the second stage of the Peace River Project, to be located approximately 12 miles downstream from Portage Mountain Dam, are proceeding.

### PORTAGE MOUNTAIN DAM

Height - 600 feet. Length - 1¼ miles. Thickness - ½ mile at base. Volume - 60 million cubic yards of gravel, sand and rock.

### PORTAGE MOUNTAIN POWER PLANT

Located underground on the left bank of the river. Ultimate capacity: 2,300,000 kw.

### RESERVOIR

240 miles long, covering 680 square miles. Total storage capacity: 62 million acre-feet of water.

### TRANSMISSION

580 miles to southwest corner of the Province. Two lines to operate at 500,000 volts A.C.

### SECOND STAGE

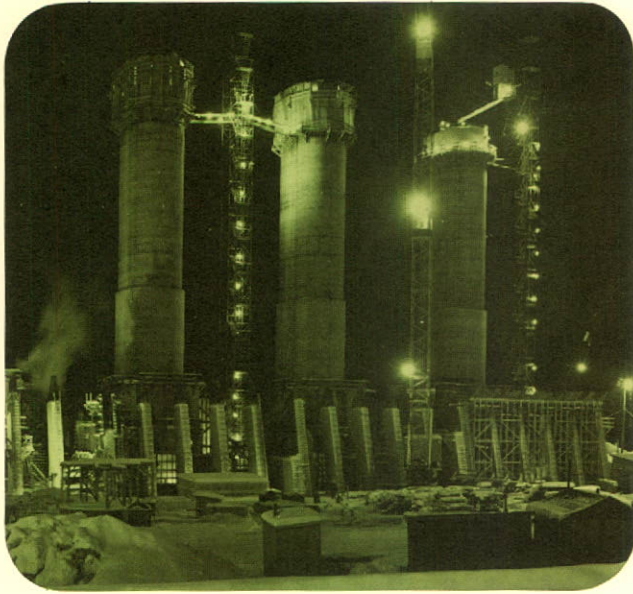
Second dam, 240 feet high, with 650,000 kw power plant planned for construction, when needed, 12 miles downstream from Portage Mountain site.

### ESTIMATED PEAK LABOUR FORCE

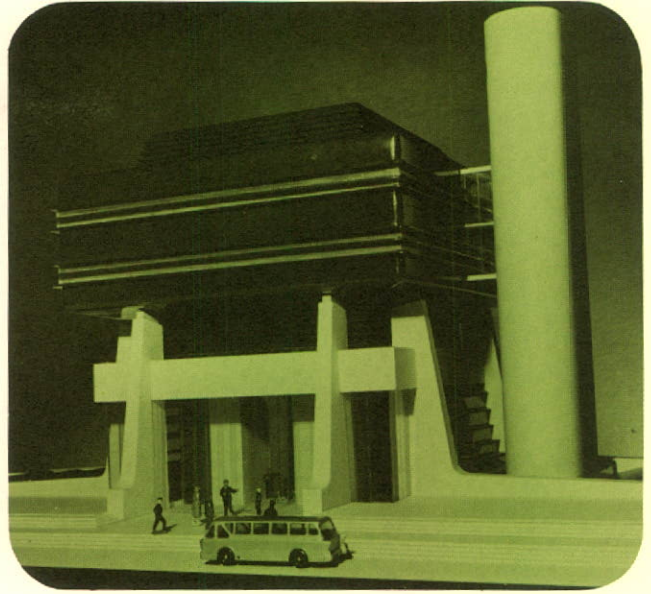
1967 - 5,000 men. 1968 - 3,500 men. 1969 - 2,500 men.

Major contracts awarded during the year included:

Kiewit-Dawson-Johnson (Peter Kiewit Sons Company of Canada Ltd., Dawson Construction Limited, Al Johnson Construction Co. of Canada Limited) <i>Spillway and low-level outlets, Portage Mountain Dam</i> .....	\$43,868,331
Foundation-Comstock (The Foundation Company of Canada Limited, Canadian Comstock Company Limited) <i>Central control building, switchyard and power plant completion</i> .....	18,503,634
Ceco Electric of Canada Limited, Commonwealth Electric Company, Donovan Construction Company, Donovan Construction Co. of Canada Limited <i>Installation of foundations and erection of towers for transmission lines</i> .....	6,533,048
The East Asiatic Co. (Canada) Ltd. <i>Fabrication and delivery of towers for transmission lines (2 contracts)</i> .....	4,400,000
Schulman Electric International Ltd. <i>Stringing conductor for transmission lines</i> ...	4,200,000
"Ce-Don" A Joint Venture (Ceco Electric of Canada Ltd., Commonwealth Electric Co. of Delaware, Donovan Construction Co. of Canada Ltd., Donovan Construction Co. of Minnesota) <i>Erection of towers for transmission lines</i> ....	3,348,100
Canada Wire & Cable Company Limited <i>Conductor for transmission lines</i> .....	3,137,458
Chapman-Long Construction Ltd. <i>Installation of foundations for transmission line towers</i> .....	2,991,377
Tide Bay Construction Ltd. and Tide Bay Dredging Co. Ltd. <i>Erection of towers for transmission lines</i> .....	2,387,956
Aluminum Company of Canada, Limited <i>Conductor for transmission lines</i> .....	2,283,713



*Intake structures under construction at Portage Mountain development will direct water from reservoir to underground power plant.*



*Architect's model depicts central control building at Portage Mountain. Structure will resemble giant transformer when completed.*



*450 feet high at the end of 1966 construction season, Portage Mountain Dam will reach height of 600 feet above river bed when completed.*

## DUNCAN, ARROW AND MICA STORAGE PROJECTS

The Authority is the Canadian Entity under terms of the Treaty between Canada and the United States relating to the development of the water resources of the Columbia River Basin. The Authority is required to construct three storage dams – Duncan, Arrow and Mica – which will regulate river flow both for hydro-electric generation and flood control purposes. The total spent on the three projects to 31 March 1967 was \$189,731,799, of which \$91,817,294 was spent during the year under review.

### Duncan Dam

Construction of the 130-foot-high earth-fill dam at Duncan Lake is expected to be finished before the scheduled completion date of 1 April 1968. The main dam was more than 95% completed at 31 March 1967 and the remaining work, including the spillway and discharge structures, is scheduled for completion in 1967.

### Arrow Dam

Steady progress has been made at the Arrow Dam project. Construction of the concrete portion of the main dam, which will contain the navigation lock and discharge structures, was well advanced with 75% of the concrete having been placed as at 31 March 1967. The earth-fill section of the dam had been raised about 40 feet above the river bed to within 20 feet of the water surface at year-end. Much of this work is being done using bottom-dump barges with a capacity of approximately 300 tons each. Log handling facilities were constructed to move the log supply of Celgar Limited past the dam during the period that the Columbia River is closed to

### COLUMBIA RIVER TREATY DAMS

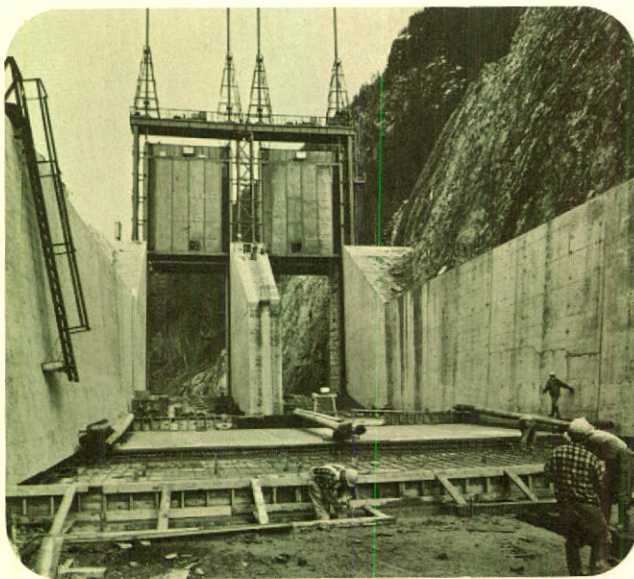
	DUNCAN	ARROW	MICA
Height (feet)	130	170	645
Length (feet)	2,600	2,850	2,600
Volume (cubic yards in millions)	6.4	8.5	42.0
Reservoir (length in miles)	28	145	135
Live storage capacity (acre-feet in millions)	1.4	7.1	12.0
Scheduled completion date	1 April 1968	1 April 1969	1 April 1973

navigation. The work force at the Arrow project reached a peak of 1,602 men by March 1967.

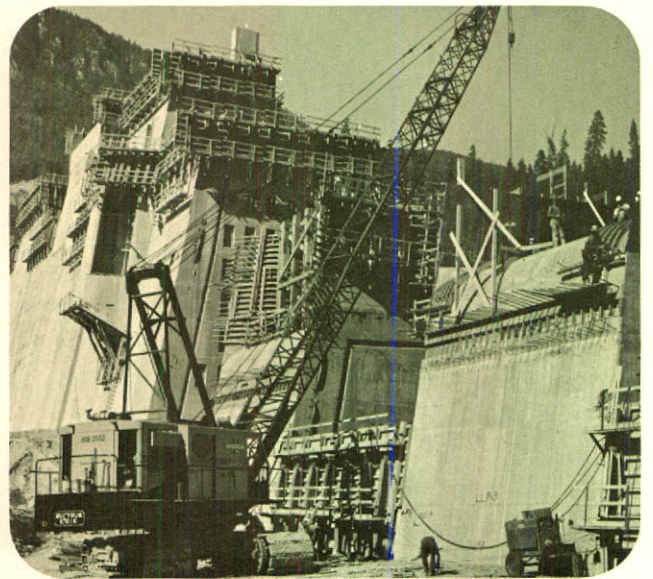
### Mica Dam

At the Mica Dam project, excavation of the two diversion tunnels, each 45 feet in diameter, was completed in November 1966 and the tunnels are being lined with concrete. Fabrication of intake gates and their operating mechanisms is under way. Upstream and downstream cofferdams are being built and it is expected that the Columbia River will be diverted through the tunnels in the autumn of 1967, permitting a start on construction of the main dam on a dry river bed.

A contract was awarded in December 1966 for excavation of an exploratory tunnel for the powerhouse on the west bank of the Columbia River at the damsite. The tunnel, which was completed in the spring of 1967, will provide information on the rock within the proposed powerhouse area.



View of 2,000-foot-long spillway and control gates at Duncan Dam. Spillway will supplement discharge tunnels for release of water.



Concrete portion of Arrow Dam will contain reservoir discharge works and navigation lock to pass log booms and river vessels.

Improvement and relocation of the Big Bend Highway from Revelstoke to Mica Creek is progressing on schedule.

Population of the new Mica Creek community was 1,300 at year-end and is expected to grow to 4,000 during the peak construction period in 1972.

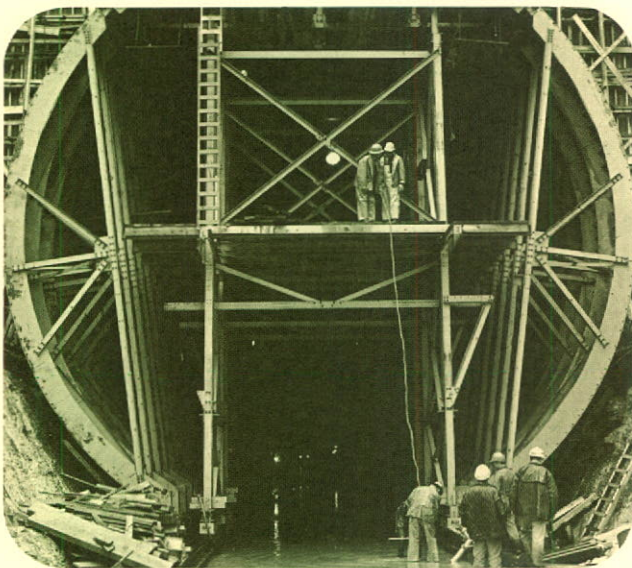
### Columbia Treaty Implementation

The Canadian and United States Entities proceeded with plans for the operation of the three storage reservoirs for hydro generation and flood control. Special arrangements were made for the operation of Duncan reservoir during the period 1 April 1967 to 31 March 1968. It was also agreed that appropriate energy benefits would be transmitted to Canada for British Columbia during this period.

### Contracts

Major contracts awarded during the year included:

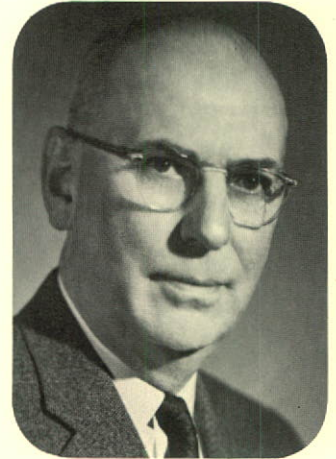
Department of Highways, Provincial Government	
<i>Big Bend Highway reconstruction (2 contracts)</i> ..	\$4,120,138
Department of Highways, Provincial Government	
<i>Clearing and road construction, Arrow Lakes Region</i> .....	3,000,000
A. C. McEachern Limited	
<i>Construction of "Big Eddy" dyke and flood boxes, Arrow Project</i> .....	1,125,242
P. F. Law Construction Limited	
<i>Construction of Section II, Duncan River access road</i> .....	1,055,000



Columbia River will be diverted through two 45-foot-diameter diversion tunnels at site of Mica Dam in the autumn of 1967.

### BOARD OF DIRECTORS

Mr. F. Arthur Lee, a Director of the Authority since its formation, died on 13 September 1966. Mr. Lee had retired from the Authority as an Executive Director in September 1964 but remained on the Board of Directors until the time of his death. He had originally joined the Authority's predecessor, British Columbia Power Commission, in 1959 as a Commissioner. Mr. Lee's special contribution came from his intimate knowledge of British Columbia's electrical industry – a knowledge he had acquired during a career dating back to 1912.



The late F. Arthur Lee.

### SENIOR MANAGEMENT

Mr. William D. Mitchell was appointed Manager, Legal Division, in January 1967. Mr. Mitchell succeeded Mr. W. H. Q. Cameron who resigned his position as General Solicitor and Legal Division Manager because of ill-health. Mr. Cameron is continuing with the Authority in a consulting capacity.

### EMPLOYEES

The Authority had a staff of 6,452 regular employees at 31 March 1967, up 202 or 3.2% from last year. The increase in employee recruitment is comparatively small when related to the rate of expansion in construction and operational activities. In the year ended 31 March 1967 expenditures on plant increased by 42.5% and kilowatt-hour sales of electricity by 17.6%.

During the year collective labour agreements were concluded with Amalgamated Transit Union, Amalgamated Transit Union (Pacific Stage Lines), International Brotherhood of Electrical Workers (Gas) and The Registered Nurses' Association of British Columbia. Two of the agreements were completed through direct negotiations and two through the services of conciliation officers. The settlements were for periods of two and three years and provided for wage increases generally ranging from 6% to 9% for each year of the respective contract periods as well as improvements in employee benefits.

An innovation in the field of collective bargaining was the introduction in the I.B.E.W. (Gas) Agreement of a shorter work-year whereby, in lieu of a shorter work-week, this group of employees will continue to work a 40-hour week but, commencing

in 1968, will earn three weeks additional leave per year to be taken at management's discretion.

A total of 157 employees retired on pension during the year, 68 more than last year. Twenty-three had more than 40 years' service; of these the following had served for over 45 years:

ERNEST R. TYSOE, *Commercial Consultant*  
49 years, 2 months

WILLIAM DONALD, *Car Repairer*  
47 years, 6 months

WILLIAM D. ROGERS, *Substation Supervisor*  
47 years

ALFRED R. BYRNELL, *Power Dispatcher*  
46 years, 9 months

Miss LOUISA EASLEY, *Meter Records Clerk*  
46 years, 4 months

GORDON LONGMUIR, *Storekeeper*  
46 years, 3 months



*Ernest R. Tysoe,  
Commercial Consultant –  
49 years, 2 months' service.*

The operations of the Authority continued to grow in scope and complexity and the Directors wish to record their appreciation of the commendable manner in which all employees met the challenge of these increased responsibilities.

## OUTLOOK

The economy of the Authority's service area continued to be buoyant during the past year despite the high cost of borrowing and shortage of funds, which adversely affected new residential construction in British Columbia, as elsewhere in Canada. The activity in the industrial and commercial sections of the economy continued apace as evidenced by the additional investment in pulp and newsprint mills, sawmills, mines, motels, shopping centres and educational facilities.

In the coming year a continued high level of activity is expected although the economy of the Province will have elements of both strength and weakness. The principal strength of the economy will be the continuation of long-term capital construction projects now under way; the pulp and paper industry alone has nearly \$700 million of committed and uncompleted projects and continuing benefits will be derived from the Peace River and Columbia River development programs. As a further stimulus to the Provincial economy the mining boom

is expected to continue and the ports of British Columbia should experience another record year. Elements of weakness appeared in the lumber business and in housing where monetary policies restricted activity during the past year. There have been indications in recent months of easing in the availability of new money; consequently, activity in the coming year on housing and in the lumber business is expected to show some improvement over the past year.

Over the longer term the economic climate of the Authority's service area is expected to be extremely favourable. Population growth is continuing at a rapid rate – during the past five years the annual rate of growth in British Columbia averaged 2.7% which exceeded the national average by approximately 50%. Industrial growth is forecast to continue at a steady pace. Publicly announced plans by pulp and paper firms indicate a total expenditure in excess of \$1 billion in the next six years with total annual capacity for production of pulp expected to increase from 4.5 million tons at 31 December 1966 to 7 million tons by 1972. Spurred by strong world demand, mineral exploration and development continued to expand in the Province; predictions are that in the next five years mineral production in the Authority's service area will more than double.

During the year ended 31 March 1967 agreements were concluded by the Authority with large industrial customers for 84,000 kw of bulk power at transmission voltages. Negotiations are also proceeding for 145,000 kw of additional load and a further 160,000 kw of new load. The build-up of these loads may extend over several years, but it is anticipated that within the next five years the Authority's bulk power sales will increase by 70%. It is significant that, although the forest products industry and associated chemical production plants still account for most of the bulk transmission load, there is an upward trend in mining loads reflecting the open-pit development of large bodies of low-grade ore. Mineral properties now under active investigation may add 100,000 kw during the next three or four years.

The continuing economic expansion of the Province demands an abundant supply of power. To meet this requirement for power the Authority is pressing forward rapidly with construction of the Peace River and Columbia River projects and additional thermal plant capacity; at the same time, transmission and distribution facilities are being extended to bring the benefits of electric energy to many more areas of the Province. The Authority will continue to direct its efforts towards ensuring an adequate supply of power which will provide the base for economic expansion in British Columbia.

## FINANCIAL STATEMENTS

The financial statements of the Authority have been examined by Price Waterhouse & Co., the Auditors appointed by the Lieutenant-Governor in Council. The Balance Sheet, Statement of Net Income and Report of the Auditors 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 1967 and the related statement of net income for the year then ended. 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 the Authority as at 31 March 1967 and the results of its operations for the year then ended, in accordance with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

Vancouver, B.C.  
19 May 1967

PRICE WATERHOUSE & CO.,  
Chartered Accountants.

## BRITISH COLUMBIA HYDRO AND POWER AUTHORITY

**STATEMENT OF NET INCOME FOR THE YEAR ENDED 31 MARCH 1967**

(with corresponding figures for the year ended 31 March 1966)

	1967	1966
Gross revenues.....	<u>\$178,146,926</u>	<u>\$160,777,546</u>
Expenses:		
Salaries, wages and employee benefits.....	40,141,462	36,702,973
Materials and services.....	36,655,844	32,510,332
Grants, school taxes, etc.....	11,351,142	10,556,265
Provision for depreciation.....	31,673,951	28,840,117
Interest and other costs on debt (Note 3).....	\$61,249,033	\$50,697,970
Less -		
Interest charged to construction.....	<u>12,275,460</u>	<u>6,053,500</u>
	<u>168,795,972</u>	<u>153,254,157</u>
Net income, transferred to stabilization of rates and contingency reserve (Note 5).....	<u>\$ 9,350,954</u>	<u>\$ 7,523,389</u>

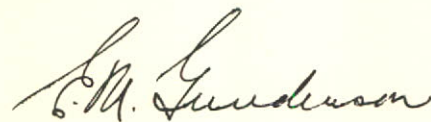
**BALANCE SHEET AS AT 31 MARCH 1967***(with corresponding figures as at 31 March 1966)*

	1967	1966
<b>PROPERTY ACCOUNT:</b>		
Lands, franchises, water rights, plants for the generation, transmission and distribution of electricity and gas, trolley coaches, motor buses, freight railway and rolling stock, etc., at cost.....	\$1,256,333,794	\$1,197,581,780
Less -		
Accumulated depreciation.....	<u>271,573,963</u>	<u>241,707,772</u>
	984,759,831	955,874,008
Unfinished construction -		
Peace River Project.....	271,974,120	147,459,931
Duncan, Arrow and Mica storage projects (Note 4).....	189,731,799	97,914,505
Other.....	<u>79,400,000</u>	<u>29,300,000</u>
	<u>1,525,865,750</u>	<u>1,230,548,444</u>
<b>CURRENT AND WORKING ASSETS:</b>		
Cash.....	7,223,851	3,630,810
Temporary investments.....	31,160,859	3,949,569
Accounts receivable and unbilled revenues.....	23,237,268	21,251,122
Materials and supplies at average cost.....	10,259,481	7,523,566
Prepaid expenses.....	<u>430,925</u>	<u>392,900</u>
	<u>72,312,384</u>	<u>36,747,967</u>
COLUMBIA RIVER TREATY FUNDS (Note 4).....	<u>85,193,370</u>	<u>137,002,652</u>
MORTGAGES AND OTHER DEFERRED ACCOUNTS RECEIVABLE.....	<u>4,768,258</u>	<u>4,089,756</u>
<b>DEFERRED CHARGES:</b>		
Unamortized discount and expense on long-term debt and parity development bonds.....	20,454,769	17,765,381
Other.....	<u>100,652</u>	<u>114,625</u>
	<u>20,555,421</u>	<u>17,880,006</u>
	<u>\$1,708,695,183</u>	<u>\$1,426,268,825</u>

APPROVED ON BEHALF OF THE BOARD:



G. M. SHRUM, Director



E. M. GUNDERSON, Director

	1967	1966
LONG-TERM DEBT (Notes 1 and 2).....	<u>\$1,003,226,345</u>	<u>\$ 745,802,756</u>
PARITY DEVELOPMENT BONDS, payable on demand (Notes 2 and 3):		
5½% Series E due 15 August 1967.....	50,505,000	50,505,000
5½% Series K due 3 August 1968.....	50,505,000	50,505,000
5½% Series P due 1 September 1969.....	50,505,000	50,505,000
5½% Series R due 1 September 1970.....	50,505,000	50,505,000
	<u>202,020,000</u>	<u>202,020,000</u>
NOTES PAYABLE, held by the Province of British Columbia.....	<u>7,500,000</u>	<u>18,500,000</u>
CURRENT AND ACCRUED LIABILITIES:		
Accounts payable.....	67,999,173	53,147,030
Interest accrued on long-term debt, parity development bonds and notes payable.....	15,401,986	12,040,431
Long-term debt payments due within one year -		
Sinking fund instalments.....	13,577,526	12,386,690
Debt maturities.....	11,905,101	23,574,000
	<u>108,883,786</u>	<u>101,148,151</u>
COLUMBIA RIVER TREATY OBLIGATION (Note 4):		
Amount received to construct and operate Duncan, Arrow and Mica storage dams.....	273,291,661	273,291,661
Interest.....	38,615,069	22,626,121
	<u>311,906,730</u>	<u>295,917,782</u>
CONTRIBUTIONS IN AID OF CONSTRUCTION.....	<u>11,711,242</u>	<u>8,784,010</u>
STABILIZATION OF RATES AND CONTINGENCY RESERVE (Note 5).....	<u>63,447,080</u>	<u>54,096,126</u>
	<u>\$1,708,695,183</u>	<u>\$1,426,268,825</u>
COMMITMENTS (Note 7)		

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

## NOTES TO FINANCIAL STATEMENTS AS AT 31 MARCH 1967

**Note 1 – Long-term debt:***Issued by British Columbia Hydro and Power Authority –*

Bonds:

	1967	1966
5¼% Series A due 1 May 1982.....	\$ 32,496,300	\$ 32,496,300
3¼% Series B due 1 October 1979.....	10,000,000	10,000,000
5% Series C due 1 March 1993.....	15,000,000	15,000,000
5¼% Series D due 1 May 1993.....	25,000,000	25,000,000
5¼% Series F due 1 June 1993.....	10,000,000	10,000,000
5¼% Series G due 15 October 1993.....	15,000,000	15,000,000
5¼% Series H due 15 December 1993.....	10,000,000	10,000,000
5¼% Series J due 1 March 1994.....	10,000,000	10,000,000
5¼% Series L due 2 July 1994.....	10,000,000	10,000,000
5¼% Series M due 15 December 1994.....	20,000,000	20,000,000
5¼% Series N due 15 March 1995.....	10,000,000	10,000,000
5¾% Series S due 15 September 1995.....	10,000,000	10,000,000
5½% Series T due 29 December 1995.....	29,000,000	29,000,000
5.29% Series V-A due 2 March 1986.....	—	5,085,000
5¾% Series U due 18 April 1991.....	40,000,000	—
5¾% Series X due 1 July 1991.....	5,000,000	—
5½% Series Y due 2 July 1991.....	50,000,000*	—
6¼% Series Z-A due 23 September 1991.....	1,000,000	—
6¼% Series AG due 1 December 1991.....	20,000,000	—
5¾% Series AH due 2 January 1992.....	50,000,000*	—
6¼% Series Z-B due 9 January 1992.....	3,000,000	—
5.46% Series W-A due 1 February 1987.....	80,396,000	—
5.36% Series V-N due 2 March 1987.....	9,088,000	—
6% Series AJ due 15 March 1992.....	25,000,000	—

*Issued by the former British Columbia Electric Company Limited –*

First Mortgage Bonds, after deducting bonds redeemed in accordance with sinking fund requirements:

3¼% Series "A" due 2 January 1967.....	—	23,574,000
3¼% Series "B" due 1 October 1967.....	7,148,000	7,340,000
3¼% Series "C" due 1 April 1968.....	12,424,000	12,766,000
3¾% Series "D" due 1 February 1969.....	12,350,000	12,700,000
3½% Series "E" due 1 March 1975.....	14,592,000	15,047,000
4% Series "F" due 1 July 1991.....	2,800,000	2,895,000
3¾% Series "G" due 1 December 1976.....	15,870,000*	16,228,000*
4¾% Series "H" due 1 December 1977.....	11,903,000	12,224,000
4¾% Series "I" due 1 February 1979.....	12,168,000	12,482,000
3¾% Series "J" due 1 June 1980.....	12,544,000	12,831,000
4¼% Series "K" due 1 February 1981.....	25,209,000	25,806,000
5% Series "L" due 1 February 1982.....	34,499,000	35,239,000
5½% Series "M" due 2 January 1988.....	44,001,000	44,884,000
5½% Series "N" due 1 March 1989.....	26,961,000	27,453,000
6½% Series "O" due 1 April 1990.....	27,881,000	28,292,000
5¾% Series "P" due 1 May 1991.....	14,159,000	14,347,000

Perpetual Callable Bonds:

4%.....	405,900	466,000
4¼%.....	132,700	140,200
4½%.....	254,800	282,950
4¾%.....	659,550	761,650
5%.....	568,350	657,900
5½%.....	390,750	433,050
carried forward.....	\$ 766,901,350	\$518,431,050

**Note 1 – Long-term debt (continued):**

	1967	1966
brought forward.....	\$ 766,901,350	\$518,431,050
<b>25-year Callable Bonds due 1 August 1986:</b>		
4% Series AA.....	11,594,100	11,534,000
4¼% Series AB.....	10,867,300	10,859,800
4½% Series AC.....	14,745,200	14,717,050
4¾% Series AD.....	25,753,850	25,651,750
5% Series AE.....	24,431,650	24,342,100
5½% Series AF.....	14,609,250	14,566,950
<b>Sinking Fund Debentures:</b>		
5¾% Series A due 1 April 1977, after deducting debentures redeemed in accordance with sinking fund requirements.....	36,400,000	36,800,000
<b>Issued by the former British Columbia Power Commission – Bonds:</b>		
3% Series A due 1 October 1967.....	7,000,000	7,000,000
3% Series B due 1 November 1968.....	6,000,000	6,000,000
3¾% Series C due 15 September 1991.....	3,000,000	3,000,000
4% Series D due 21 May 1992.....	1,000,000	1,000,000
4% Series E due 15 June 1992.....	1,000,000	1,000,000
4% Series F due 15 September 1992.....	1,500,000	1,500,000
4% Series G due 1 November 1988.....	10,000,000*	10,000,000*
3¼% Series H due 15 July 1989.....	6,300,000*	6,300,000*
3¼% Series J due 4 July 1975.....	10,000,000	10,000,000
5% Series MC due 15 September 1982.....	5,149,000	5,149,000
5% Series MD due 15 September 1992.....	18,724,000	18,724,000
5% Series N due 15 September 1992.....	10,000,000	10,000,000
3% Series S due 1 April 1976.....	17,738,000	17,738,000
3½% Series T due 1 April 1977 (payable in Canadian or United States funds at option of holder).....	9,285,000	9,285,000
<b>Debentures:</b>		
3¾% Series K due 15 June 1986.....	20,000,000*	20,000,000*
4¾% Series L due 15 April 1987.....	25,000,000*	25,000,000*
3¾% Series P due 1 February 1988.....	20,000,000*	20,000,000*
	<u>1,076,998,700</u>	<u>828,598,700</u>
Exchange premium (discount) at date of issue on long-term debt payable in United States funds.....	5,157,928	(2,553,040)
	<u>1,082,156,628</u>	<u>826,045,660</u>
<b>Less –</b>		
Sinking funds on deposit with Trustee, Minister of Finance for the Province of British Columbia.....	53,447,656	44,282,214
	<u>\$1,028,708,972</u>	<u>\$781,763,446</u>
<b>Classification on balance sheet –</b>		
Long-term debt.....	\$1,003,226,345	\$745,802,756
Long-term debt payments due within one year, included in current and accrued liabilities:		
Sinking fund instalments.....	13,577,526	12,386,690
Debt maturities.....	11,905,101	23,574,000
	<u>\$1,028,708,972</u>	<u>\$781,763,446</u>

\*Payable in United States funds and carried at par of exchange.

**NOTES TO FINANCIAL STATEMENTS AS AT 31 MARCH 1967** (continued)**Note 2 – 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 3 – Interest:**

Included in interest and other costs on debt is \$1,726,824 for amortization of discount and expense on long-term debt and parity development bonds, and a deduction of \$2,319,699 for income from sinking fund investments.

The interest rate on parity development bonds was increased from 5% to 5½% effective 1 September 1966.

**Note 4 – Columbia River Treaty:**

The Authority is the Canadian Entity for purposes of the Columbia River Treaty between Canada and the United States and is required to construct three storage dams – Duncan, Arrow and Mica. Canada's entitlement to half the increased power generation in the United States resulting from the construction of the three dams was sold to the Columbia Storage Power Exchange for periods of 30 years from the scheduled dates of completion of the respective dams. As a result of this sale, the Government of British Columbia received the sum of \$273,291,661. This amount was transferred to the Authority on 16 September 1964 and, with interest in the amount of \$38,615,069, aggregated \$311,906,730 as at 31 March 1967. This sum has been applied as follows:

Investments and accrued interest:	
Province of Quebec 5.05% note maturing 1 December 1967.....	\$ 40,000,000
Province of Quebec 5.05% note maturing 15 October 1968.....	20,000,000
Kinross Mortgage Corporation 5.67% note maturing 18 September 1967 – guaranteed by Canadian Imperial Bank of Commerce.....	25,000,000
Accrued interest receivable.....	193,370
	<u>85,193,370</u>
Funds temporarily advanced to the Authority for general purposes, with interest at 5¾%.....	36,981,561
	<u>122,174,931</u>
Expenditures on Duncan, Arrow and Mica storage projects to 31 March 1967, including interest during construction.....	189,731,799
	<u>\$311,906,730</u>

As operations of the storage dams are commenced, amounts aggregating \$64,400,000 (United States dollars) will be receivable by instalments by the Government of British Columbia for providing flood control, subject to reduction of the amount receivable if full operation of any storage dam is not commenced within the time required by the Treaty.

If these storage dams are not completed so as to be fully operative within agreed dates, the Authority is liable under certain covenants to make compensation to the Columbia Storage Power Exchange. The Authority also has obligations relating to the operation and maintenance of these storage dams.

**Note 5 – Stabilization of rates and contingency reserve:**

Balance as at 31 March 1966.....	\$54,096,126
Net income for the year ended 31 March 1967.....	9,350,954
Balance as at 31 March 1967.....	<u>\$63,447,080</u>

**Note 6 – Pension plans:**

Substantially all employees of the Authority are covered under existing contributory pension plans and a new contributory plan introduced effective 1 January 1965. Current services are being provided for by payment to all the plans, and provision has been made for all past service costs under these plans with the exception of those relating to the new plan. Employees may elect, by a date to be fixed by the Authority, to transfer from existing plans to the new plan. Some transfers will depend upon a re-examination being made of recent amendments to the existing plans and of their relationship to the Canada Pension Plan. Until it is known how many employees will transfer to the new plan, the amount of the past service costs of this plan cannot be determined.

**Note 7 – Commitments:**

In addition to the general commitment to construct the three storage dams on the Columbia River (Note 4) (the final costs of which cannot yet be determined), in respect of which the uncompleted portions of contracts entered into as at 31 March 1967 amounted to a total of \$50,000,000, other commitments and contracts of the Authority for capital projects and inventories of materials and supplies aggregated approximately \$239,000,000 as at 31 March 1967.

## FINANCIAL STATISTICS

(in millions of dollars)

	1967	1966	1965	1964	1963	1962	1961	1960	1959	1958
<b>SOURCES OF REVENUE</b>										
Electric – residential.....	41.6	38.1	40.6	38.5	37.4	40.0	38.2	36.4	33.0	28.7
– other.....	76.8	66.8	60.4	54.8	55.1	50.3	46.6	44.1	39.1	33.1
Gas.....	32.1	31.2	30.0	25.7	24.6	22.5	19.7	17.0	12.2	8.1
Passenger transportation.....	17.6	16.9	14.5	13.8	13.9	13.4	13.9	14.6	14.3	13.9
Rail freight.....	6.4	6.2	5.9	5.6	5.3	5.0	4.8	4.9	5.1	4.9
Miscellaneous.....	3.6	1.6	1.9	1.2	1.4	2.1	3.0	2.2	1.8	2.3
Total.....	178.1	160.8	153.3	139.6	137.7	133.3	126.2	119.2	105.5	91.0
<b>DISPOSITION OF REVENUE</b>										
Employment costs, materials and services.....	76.8	69.2	59.9	54.5	51.7	47.9	46.1	45.6	40.4	39.0
Grants, school taxes, etc.....	11.3	10.6	9.9	9.1	8.4	7.1	6.8	6.2	5.5	4.6
Provision for depreciation.....	31.7	28.8	27.1	25.3	22.8	21.8	20.7	18.9	17.0	13.6
Taxes on income.....	—	—	—	—	—	2.8	12.0	11.8	9.2	7.6
Interest and other costs on debt, less interest charged to construction.....	49.0	44.7	43.2	41.9	40.8	32.5	25.3	20.3	16.8	13.2
Dividends on preferred shares.....	—	—	—	—	—	1.7	5.0	5.0	5.0	4.4
Dividends on common shares.....	—	—	—	—	—	1.9	8.1	7.2	6.3	5.8
Employed in the business.....	9.3	7.5	13.2	8.8	14.0	17.6	2.2	4.2	5.3	2.8
Total.....	178.1	160.8	153.3	139.6	137.7	133.3	126.2	119.2	105.5	91.0
<b>EXPENDITURES ON PLANT.....</b>	<b>324.1</b>	<b>227.5</b>	<b>105.3</b>	<b>70.6</b>	<b>54.2</b>	<b>57.1</b>	<b>64.3</b>	<b>81.0</b>	<b>98.8</b>	<b>157.1</b>

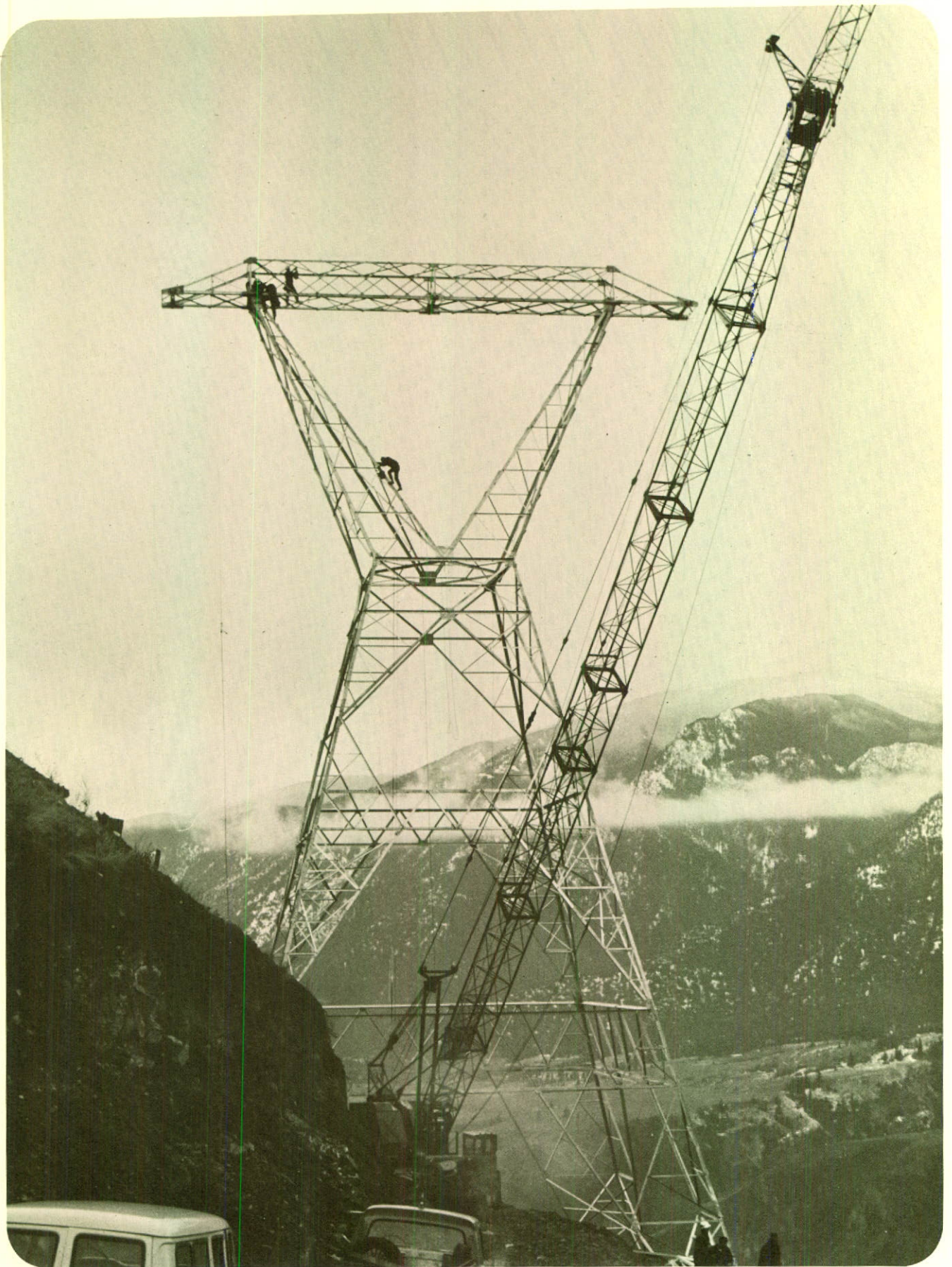
NOTE: Statistics are for years ended 31 March except 1962 (1 April 1961 to 29 March 1962) and 1963 (30 March 1962 to 31 March 1963). For years prior to 30 March 1962, statistics of the former British Columbia Electric Company Limited and the former British Columbia Power Commission have been combined.



## OPERATING STATISTICS

	1967	1966	1965	1964	1963	1962	1961	1960	1959	1958
<b>ELECTRIC</b>										
Generating capacity at year-end (rated kw in thousands) (1)										
Hydro.....	1,320	1,306	1,306	1,295	1,295	1,295	1,296	1,172	1,023	987
Thermal.....	752	738	588	571	570	268	268	253	110	84
Total.....	2,072	2,044	1,894	1,866	1,865	1,563	1,564	1,425	1,133	1,071
Peak one-hour demand, integrated system (kw in thousands).....	1,860	1,686	1,490	1,244	1,169	1,154	1,083	1,064	1,020	885
Customers at year-end (in thousands).....	555	529	503	478	459	443	432	420	403	385
Electricity sold to public (kwh)										
Total (in millions).....	10,000	8,506	7,345	6,431	6,059	5,540	5,149	4,934	4,471	3,769
Increase over previous year (%).....	17.6	15.8	14.2	6.1	9.4	7.6	4.4	10.4	18.6	15.6
By class of customer (%)										
Residential.....	28	30	31	32	32	33	33	33	33	36
Other systems (largely residential).....	2	1	2	2	2	1	2	2	2	2
Commercial, industrial, etc.....	70	69	67	66	66	66	65	65	65	62
Residential service										
Average annual kwh use per customer.....	6,016	5,650	5,486	5,200	5,029	4,829	4,723	4,658	4,455	4,240
Average revenue per kwh (cents).....	1.5	1.5	1.8	1.8	1.9	2.2	2.2	2.2	2.2	2.1
<i>(1) Excludes electricity available from other systems. Rated capacity has been exceeded on occasion.</i>										
<b>GAS</b>										
One-day capacity at year-end (therms in thousands)										
Mainland - firm pipeline contracts (2).....	2,140	2,020	1,900	1,780	1,780	1,780	1,540	1,000	575	575
- plant.....	250	250	250	250	250	250	320	320	190	190
Greater Victoria - plant.....	36	36	36	36	36	36	27	27	27	27
Peak one-day demand (therms in thousands)										
Mainland system - including interruptible.....	2,634	2,593	2,341	1,359	1,580	1,287	934	828	728	330
- excluding interruptible.....	1,474	1,493	1,849	1,060	1,342	1,081	733	690	663	288
Greater Victoria system.....	16	17	23	16	18	21	13	16	15	13
Customers at year-end (in thousands).....	169	161	153	145	137	129	120	111	96	79
Gas sold to public (therms)										
Total (in millions).....	357	322	306	260	240	217	186	157	103	62
Increase over previous year (%).....	10.7	5.3	17.7	8.6	10.3	16.8	18.5	52.1	66.4	105.5
Average revenue per therm (cents).....	9.0	9.7	9.8	9.9	10.3	10.2	10.6	10.8	11.8	13.0
<i>(2) On basis of 100 cu. ft. to one therm.</i>										
<b>PASSENGER TRANSPORTATION</b>										
Vehicles at year-end										
Urban - buses.....	321	325	336	339	334	332	342	341	346	340
- trolley coaches.....	296	296	296	312	317	327	327	351	351	351
- total.....	617	621	632	651	651	659	669	692	697	691
Interurban buses.....	56	61	70	80	81	75	71	67	69	69
Passengers carried (in millions)										
Urban.....	72.7	70.7	73.1	75.8	77.3	78.3	82.4	89.3	98.4	102.9
Interurban rail.....	—	—	—	—	—	—	—	—	—	.8
Interurban bus.....	2.1	2.0	2.0	2.3	2.5	2.5	2.6	2.7	3.1	3.3
Revenue miles run - urban (in millions).....	20.5	20.4	20.5	20.5	20.5	20.6	21.7	22.6	23.6	23.3
Passenger revenue per mile - urban (cents).....	70.2	68.4	57.7	52.8	54.0	54.2	54.3	56.5	52.4	51.1
<b>RAIL FREIGHT (tons in thousands).....</b>	2,011	1,971	1,832	1,663	1,567	1,527	1,427	1,359	1,276	1,314
<b>EMPLOYEES AT YEAR-END</b>										
Regular.....	6,452	6,250	6,006	5,761	5,641	5,804	5,919	6,053	6,263	6,538
Temporary.....	687	647	418	451	328	292	323	340	487	802
Total.....	7,139	6,897	6,424	6,212	5,969	6,096	6,242	6,393	6,750	7,340

NOTE: Statistics are for years ended 31 March except 1962 (1 April 1961 to 29 March 1962) and 1963 (30 March 1962 to 31 March 1963). For years prior to 30 March 1962, statistics of the former British Columbia Electric Company Limited and the former British Columbia Power Commission have been combined.



*Construction workers erecting giant tower for 500,000 volt transmission line which will begin carrying Peace River power late in 1968.*

# BRITISH COLUMBIA HYDRO AND POWER AUTHORITY

ELECTRIC TRANSMISSION SYSTEM AT 31 MARCH 1967 – WITH PLANNED ADDITIONS

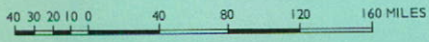


## LEGEND

- HYDRO-ELECTRIC GENERATING STATIONS
  - DIESEL-ELECTRIC GENERATING STATIONS
  - ▣ GAS-TURBINE-ELECTRIC GENERATING STATIONS
  - SUBSTATIONS
  - TRANSMISSION LINES 60 KV AND ABOVE, (EXISTING AND UNDER CONSTRUCTION)
  - TRANSMISSION LINES 60 KV AND ABOVE (PLANNED)
- REGIONS:
1. METROPOLITAN VANCOUVER
  2. FRASER VALLEY
  3. VANCOUVER ISLAND
  4. SOUTHERN INTERIOR
  5. CENTRAL INTERIOR

## VANCOUVER AREA

- MAJOR GENERATING PLANTS
- |  |                             |
|--|-----------------------------|
| Alouette: Hydro-Electric                   | Port Mann: Gas-Turbine      |
| Burrard: Steam-Turbine                     | Ruskin: Hydro-Electric      |
| Lake Buntzen, Nos. 1 and 2: Hydro-Electric | Stave Falls: Hydro-Electric |
- MAJOR SUBSTATIONS
- |             |                    |
|-------------|--------------------|
| Arnott      | Kidd, Nos. 1 and 2 |
| Dal Grauer  | Mainwaring         |
| Horne-Payne | Murrin             |
| Inglewood   | Walters            |



## THE BUSINESS OF THE AUTHORITY AND THE AREAS SERVED (See map, inside back cover)

### **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 in the Fraser Valley eastward to Hope.  
Distribution of liquefied petroleum gas-air in Greater Victoria.

### **Passenger Transportation Service**

Urban passenger transportation in Greater Vancouver and Greater Victoria.  
Interurban passenger transportation in Greater Vancouver, the Fraser Valley eastward to Hope, between Vancouver and Victoria and between Vancouver and Nanaimo.

### **Rail Freight Service**

Rail freight operations in Greater Vancouver and the Fraser Valley.



*Arrow Dam navigation lock and reservoir discharge structures being constructed within a horseshoe-shaped cofferdam extending into the Columbia River.*