Hydro-Québec
Annual Report
1975

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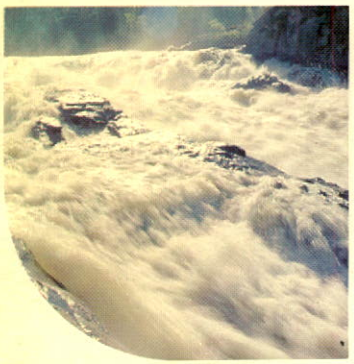
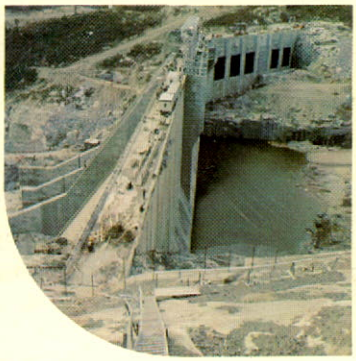

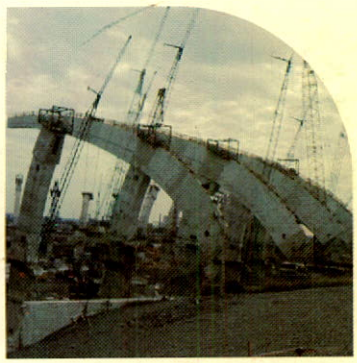

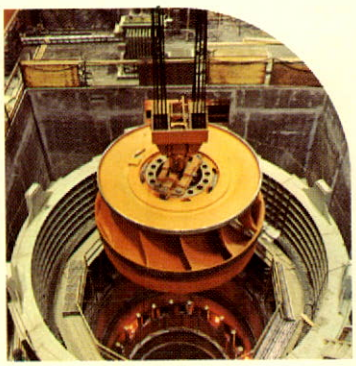

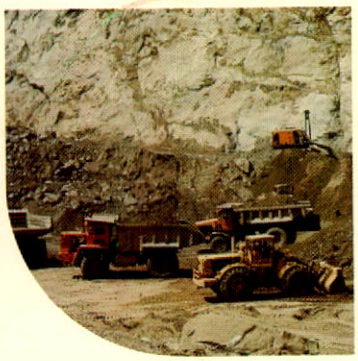

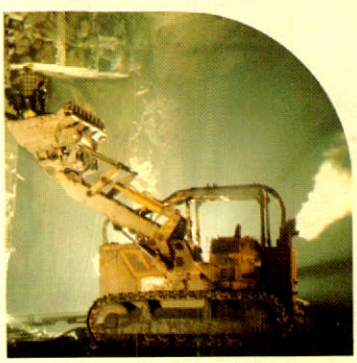

Hydro-Québec
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La version française du présent rapport sera fournie, sur demande, par:

Direction des Relations publiques
Hydro-Québec, 19e étage
75 ouest, boulevard Dorchester
Montréal (Québec) H2Z 1A4

Ministère des Richesses naturelles
Province de Québec
Cabinet du Ministre

L'honorable lieutenant-colonel
Hugues Lapointe, c.r.
Lieutenant-gouverneur de
la province de Québec

May it please Your Honour,

The undersigned has the honour
to present the report of
Hydro-Québec
for the year ended
December 31, 1975.

Respectfully submitted,

Le ministre des
Richesses naturelles,

Québec, April 16, 1976

The Commission

President
Roland Giroux

Vice-president
Yvon De Guise, Eng.

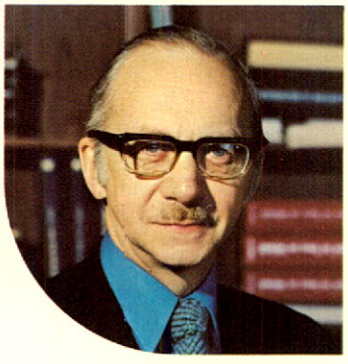
Commissioners
Georges Gauvreau, N.P.
Robert A. Boyd, Eng.
Paul Dozois

Controller
Roger Girard, C.A.

Secretary
Michel-André Demers

General Auditor
Marcel Jean, C.A.

Director of Special Projects
Jan G. Charuk



Hydro-Québec was created on April 14, 1944, by an Act of the Provincial Legislature as a government-owned enterprise responsible for producing and distributing electricity in the Province of Québec.

General Managers

Construction
Guy Monty, Eng.

Distribution and Sales
Maurice Saint-Jacques, Eng.

Engineering
Lionel Cahill, Eng.

Finance and Accounting
Edmond A. Lemieux, C.A.
Treasurer
Georges Lafond, C.A.

Personnel
Alexandre Beauvais, Eng.

Production and Transmission
J. J. Villeneuve, Eng.

Supply
Roger A. Labrie

Directors of Consulting Directorates

Economic Research
Jean-Charles de Groote

Electronic Data Processing
André Duval

Environmental Planning
Gaston Galibois, Eng.

Institute of Research
Lionel Boulet, Eng.

Law
Jean Boulanger, Q.C.

Organization
Pierre Fiset

Programming and Control
Louis-Georges Boivin, Eng.

Projects
Gaston Turenne, Eng.

Public Relations
Marcel Couture

Regional Directors

Abitibi
Maurice Huppé, Eng.

Laurentides
Marcel Lapierre, Eng.

Maisonneuve
Georges A. Lauzon, Eng.

Manicouagan
Gérard R. Labossière, Eng.

Matapédia
Gilles Béliveau, Eng.

Mauricie
Jacques Durocher

Montmorency
Pierre Godin, Eng.

Richelieu
Pierre Simard, Eng.

Saguenay
Jean-Claude Grégoire, Eng.

Saint-Laurent
Jean Lespérance

President's foreword

During 1975 Hydro-Québec suffered its share of the losses inflicted on the economy as a whole by strikes and the economic recession, but nevertheless, as shown further on, the year's financial results can be considered satisfactory.

In 1975, one of the most difficult years the world economy has experienced since the Second World War, Hydro-Québec was entering a period of mounting capital expenditures in the James Bay region and elsewhere — expenditures that are necessary if we are to satisfy the growth in Québec's electricity demand in the coming years.

Capital expenditures for the year amounted to $1,141,766,000, nearly double what they were in 1974. The financing of these expenditures was facilitated by a financial strategy that included rate increases, but these increases were lower than those implemented by most other electrical utilities in North America.

Hydro-Québec has only two sources of capital — its own revenue and borrowings. For us, as for others, it is critically important to establish and maintain a prudent balance between resort to our customers by means of electricity rates and resort to capital markets. Hydro-Québec does, however, enjoy some unique advantages because more than 99% of its production is water powered.

In 1975, residential and commercial customers provided most of the additional revenues that helped finance our construction work. For these categories of customer the average price of a kilowatthour increased by only 7.8% and 9.5% respectively, compared with 1974. These price increases reflect a rate policy that Hydro-Québec hopes it can continue to practise.

On the world's capital markets, we must obtain large sums in competition with numerous borrowers, including other electrical utilities ,and this demands the greatest diligence and prudence in our financial policy. In general, we try to borrow as much as possible on the long-term market, while remaining in a position to take advantage of our bank credit and the short-term market should the need arise. Moreover, long-term borrowings enable us to maintain a balance between the average life of our plant and the average maturity of our debt.

As a result of this strategy, Hydro-Québec ended 1975 with a high degree of liquidity available to face the increasing construction expenditures ahead.

During the year, we continued to exercise strict control over our capital-expenditure and operating budgets. For example, without compromising the most critical in-service dates, we have postponed certain construction in order to stretch the spending program.

In addition, Hydro-Québec intensified its discussions and negotiations with neighboring systems and its main industrial customers, with a view to reducing investments through better management of available resources.

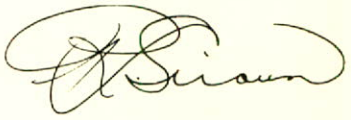
Establishment of more numerous and stronger interconnections with neighboring systems could lead to larger exchanges of power and energy and to a form of pooling of reserve capacity. And the mutually advantageous agreements we are presently concluding with industrial customers could result in a substantial reduction of their demand during peak periods. Moreover, our main industrial customers favorably received the advice we undertook to give them concerning their own electrical installations — advice that will enable them to save electricity and reduce their demand.

These measures will undoubtedly have their impact, but the growth in the electricity needs of Québec customers shows no sign of moderation. On the contrary, as this annual report shows, in the midst of an economic recession we were obliged to connect a large number of new industrial and commercial loads and there was a continuing trend towards electrical heating for residential use, reflecting a move away from other forms of energy.

These new loads lead us to believe that the small rate of increase in demand during 1975 was temporary and does not represent a change in the long-term growth pattern.

At the time of writing this report the vice-president, Mr. Yvon De Guise, had left Hydro-Québec, much to the regret of the Commission. Mr. De Guise, who joined Hydro-Québec in 1945, was appointed a commissioner in 1965 after having held several senior positions. He has been replaced as commissioner by another engineer, Mr. Guy Monty, who was formerly general manager of construction. Mr. Monty has been with Hydro-Québec since 1946 and now contributes the rich experience of his career to the Commission's deliberations.

The new commissioner, like Mr. De Guise, was a member of the original Hydro-Québec team which launched the enterprise and then developed it into what it is today — one of the continent's major electrical utilities. Indeed, my colleagues and I would like to take this opportunity to pay a special tribute to all the workers who have been with Hydro-Québec since its early years.



Roland Giroux

Montreal, April 12, 1976

10 Years' Progress

Financial situation (in millions of dollars)	**1975**	**1974**	**1973**	**1972**	**1971**	**1970**	**1969**	**1968**	**1967**	**1966**
Property and plant, at cost	$ 5,307	4,973	4,834	4,599	4,251	3,899	3,404	2,992	2,842	2,622
Construction work in progress	$ 1,970	1,197	752	465	411	389	608	791	686	634
Long-term debt and notes payable	$ 5,026	4,107	3,566	3,299	3,026	2,805	2,738	2,546	2,399	2,176
Reserves or net worth	$ 1,667	1,437	1,260	1,140	1,041	913	796	712	634	558
Total sales revenue	$ 904	783	662	569	524	483	420	390	359	315
Total operating and interest charges	$ 730	645	573	499	427	397	362	328	297	274

Effects of growth

Installed capacity at December 31 (in megawatts*)	11,356	11,123	11,148	11,107	11,107	10,617	9,809	8,365	8,179	7,763
Maximum firm-power demand in the service area (in megawatts*)	12,478	11,131	11,135	9,747	9,173	8,873	8,100	7,664	6,930	6,562
Billed sales of electricity (in billions of kilowatthours)	76.9	77.7	68.7	60.4	52.5	50.6	46.3	43.1	41.2	39.7
Total number of customer accounts (in thousands)	2,136	2,081	2,017	1,943	1,895	1,852	1,773	1,720	1,656	1,581
Number of permanent employees of Hydro-Québec	14,543	13,679	13,027	12,627	12,245	12,012	11,890	11,723	11,637	11,466

*1 megawatt (or 1 MW) = 1,000 kilowatts = 1,000,000 watts

Financial results*

The year 1975 produced satisfactory results for Hydro-Québec in the two most critical areas — revenues and the financing of construction work — despite the impact of prolonged strikes and the economic recession on the volume of sales to industry.

The continuation of a strong demand by residential and commercial customers, together with the rate increase, resulted in *net income before allocations to reserves* of $229,750,000, which was $53,127,000 or 30.1% more than in 1974.

As elsewhere generally, there was a substantial rise in expenditures on new plant required to meet increased electricity needs in coming years. In 1975, these expenditures reached $1,141,766,000, compared with $615,845,000 in 1974. Hydro-Québec financed 85.5% of this amount through borrowings on the capital market, as against 81.6% in 1974.

An examination of the *Financial Statements and Statistics* shows that total revenues (*revenue* plus *other income*) were $959,813,000, compared with $822,022,000 the preceding year. This was an increase of $137,791,000 or 16.8% over 1974. Total expenses (*expenditure* plus *interest charges*) amounted to $730,063,000, an increase of $84,664,000 or 13.1% over the preceding year.

Revenue

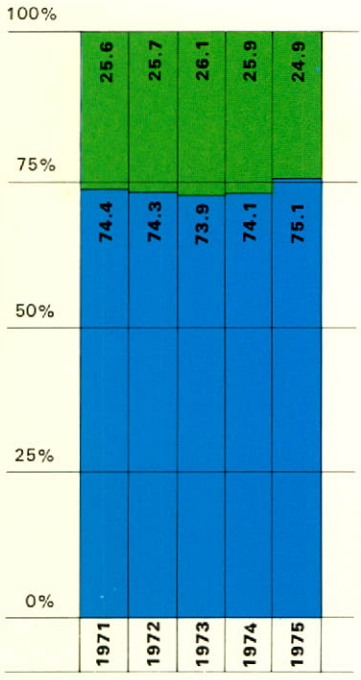
Sales of electricity produced $892,611,000, compared with $775,408,000 in 1974, an increase of $117,203,000 or 15.1%. The rate increase accounted for about $80,200,000 or 68.4% of this amount.

Among *other income* items, *investment income (net)* rose from $14,957,000 to $27,799,000. This resulted from an increase in the volume of *short-term investments* made during the year with the product of borrowings before its final allocation. The improvement in the firm's liquidity is reflected in the balance sheet, mainly by the item *cash and short-term investments* which, at December 31, was $295,668,000, compared with $141,436,000 one year before.

*In this section, words in italics correspond to terms used in the *Financial Statements and Statistics*.

Composition of capital*

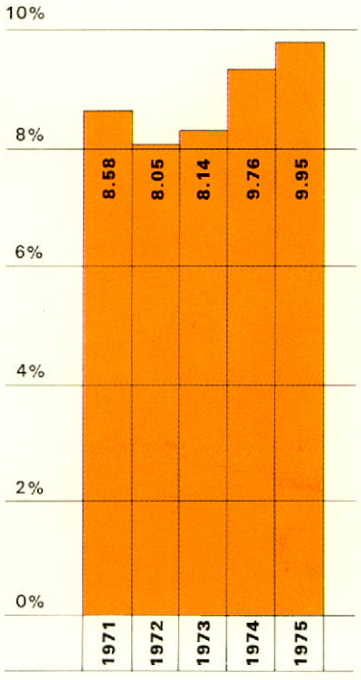
- Borrowed capital
- Net worth (reserves)



*At year-end.

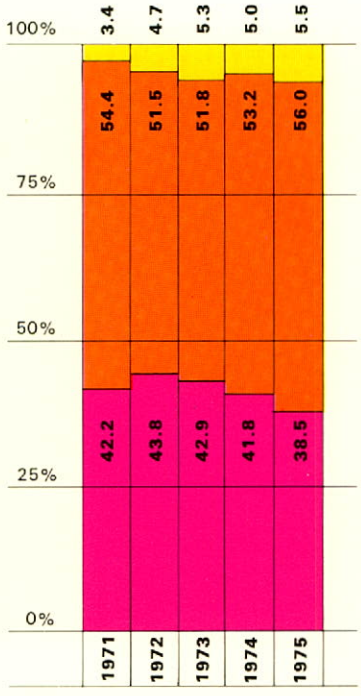
Interest rates

Average annual effective interest rate on long-term borrowings for each year since 1971



Composition of funded debt*

- Canadian currency
- U.S. currency
- Other



*Not counting sinking funds.

Expenditures

Among *expenditure* items, *operating, maintenance, administration and other expenses* amounted to $266,392,000, an increase of $29,539,000 or 12.5% over 1974. *Power purchased* cost $106,633,000, which was $19,703,000 or 22.7% more than in 1974. The volume of power purchases rose from 25.9 billion kWh to 31.7 billion kWh. Deliveries from Churchill Falls generating station alone were 29.5 billion kWh, compared with 22.2 billion kWh in 1974.

Provision for renewals (depreciation) stood at $84,394,000, having increased by only $5,947,000 because few new installations were placed in service during the year. Once more, Hydro-Québec's contract with Churchill Falls (Labrador) Corporation Limited provided the utility with a large part of the additional production capacity required.

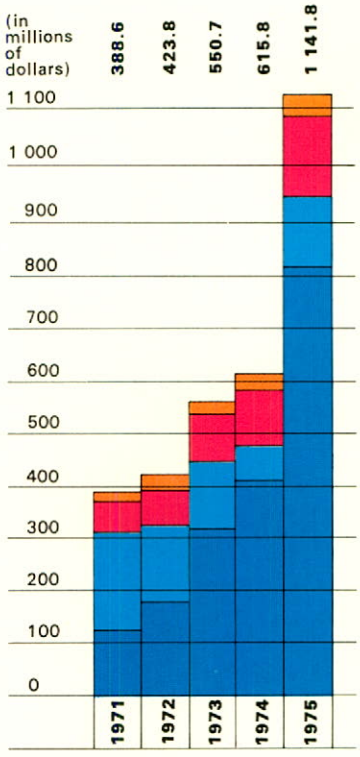
Interest charges continued to grow, comprising a total of $352,664,000 in 1975, compared with $267,547,000 the preceding year, which was an increase of 31.8%. Capitalized interest, that is, *interest charged to construction work in progress,* including the James Bay project, rose 89.3% from $62,757,000 to $118,826,000. Interest charges attributable to operations amounted to $233,838,000, as against $204,790,000 in 1974, an increase of 14.2%.

Financial position

The *Consolidated Statement of Changes in Financial Position* shows that *total funds from operations* amounted to $317,891,000, an increase of $60,810,000 or 23.7% compared with 1974.

These internally generated funds included *net income before allocations to reserves,* less *net profit on repurchase of debentures* ($9,925,000), which does not involve a cash inflow, plus a total of $98,066,000 for charges not requiring current cash outlays, the main one being *provision for renewals (depreciation)* ($84,394,000).

Breakdown of capital expenditures since 1971



	1971	1972	1973	1974	1975
Production:					
SEBJ*	28.8	107.0	229.2	263.2	583.0
Other power stations	90.1	80.8	86.8	148.4	234.1
Subtotal	118.9	187.8	316.0	411.6	817.1
Transmission	184.6	142.5	125.2	66.2	135.0
Distribution	57.3	66.0	86.0	105.2	150.8
Other	27.8	27.5	23.5	32.8	38.9
Total	388.6	423.8	550.7	615.8	1 141.8

*Société d'énergie de la Baie James.

Some $97,069,000 of these *total funds from operations* were used to redeem maturing debentures (some of which bore interest rates of 3, 3½ and 5%), and $55,338,000 went to meet sinking fund requirements (see Note 1-e of the *Consolidated Financial Statements).* The balance of $165,484,000 was used to help finance the year's plant investments.

Borrowings

Not counting net exchange premiums, long-term borrowings produced a net amount of $1,077,992,000, of which $1,056,008,000 came from new debenture issues and $21,984,000 from an increase in other long-term debt. These borrowings served to finance 85.5% of the year's plant investments, to reduce notes payable by $20,004,000 and to increase working capital in anticipation of 1976 requirements.

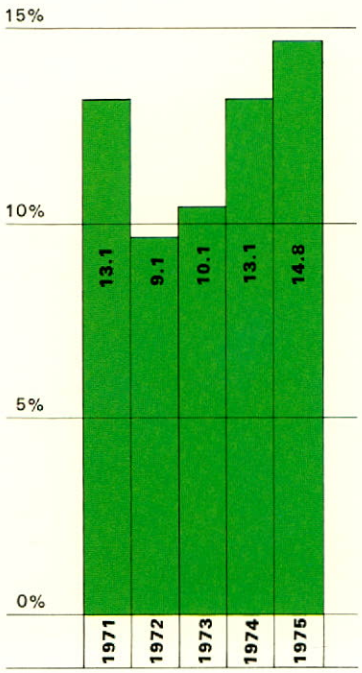
The nominal value of the long-term loans contracted during the year totaled $1,065,900,000, including $9,300,000 worth of debentures for delivery in January and May of 1976. In addition, $40,000,000 worth of debentures from loans contracted in 1974 were delivered in January and April of 1975. The average effective interest rate on the year's borrowings was 9.95%, compared with 9.76% in 1974.

Moreover, 86% of these borrowings have long maturities of 22 to 30 years.

Hydro-Québec negotiated three loans for a total of $650,000,000 in U.S. dollars, or 61% of the year's total. It also borrowed $339,000,000 in Canadian dollars, including $165,000,000 taken up by the *Caisse de dépôts et placements du Québec* and two $12,000,000 loans from the Federal Government for construction of the Gentilly 2 nuclear power station. In addition, at effective interest rates of 8.31% and 7.95%, 100 million Swiss francs were borrowed in September (when they were worth $38,400,000) and another 100 million Swiss francs were borrowed in December (when they were worth $38,500,000).

At December 31, as a result of new borrowings, redemption of maturing issues and purchases for the sinking fund, the net amount of long-term debt stood at $5,001,094,000, having increased by $939,122,000 during the year. On the same date, net worth (reserves) totaled $1,666,718,000 and represented 24.9% of invested capital, which comprises total assets less *current liabilities* and *other liabilities.*

Return on net worth*



**Net income before allocations to reserves* divided by the average of reserves at the beginning and end of each year.

Electricity sales

A substantial decrease in industrial consumption meant that primary energy sales to Québec customers, which grew 10.4% in volume during 1974, increased by only 1% in 1975.

The volume of primary energy sales to Québec customers was 59.3 billion kWh, compared with 58.7 billion kWh in 1974. Including deliveries outside Québec and secondary energy sales, the total volume of sales decreased by 1% from 77.7 billion kWh in 1974 to 76.9 billion kWh in 1975.

The increase of $117,203,000 in revenue from electricity sales is explained by the rate increases implemented in 1975 and by the fact that the consumption of major categories of customers (residential and commercial) continued to grow. As a result of the rate increases, the average sale price of a farm kilowatthour rose by 6.8%, a residential kilowatthour by 7.8%, a commercial kilowatthour by 9.5%, and a secondary-energy kilowatthour (inside and outside Québec) by 59.5%. The average sale price of an industrial primary-energy kilowatthour increased 20.1% due partly to the rate increase and partly to the fact that the main industrial customers are committed by contract to pay for certain minimum amounts of power and energy in cases of low usage.

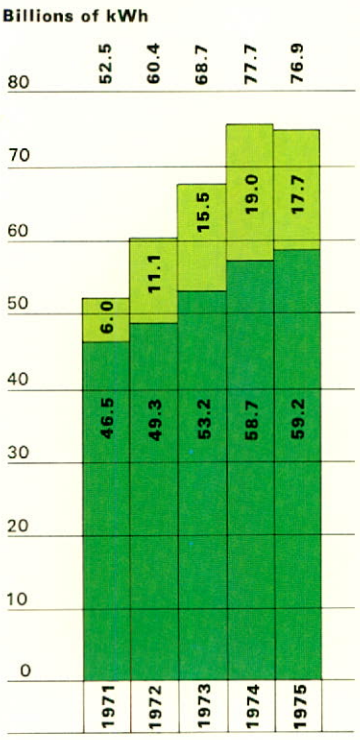
Industrial demand

Industrial consumption of primary energy decreased 9.6% from 1974, that is, from 27.1 billion kWh to 24.5 billion kWh. The single factor of strikes in the pulp and paper, asbestos and electrometallurgy industries reduced sales by about 1.35 billion kWh and revenues by about $7,000,000.

Electricity consumption declined 10.8% in the pulp and paper industry, 13.8% in the electrometallurgy industry, 38.6% in the non-metals mining industry (mainly asbestos), and 12.5% in the metal-ore mining industry. In the manufacturing sector (iron and steel, oil, cement, textiles, etc.), consumption was up 1% over 1974 and revenue by nearly 16.2%.

During the year, the number of industrial customer accounts increased by 118 from 10,425 to 10,543, but in 1974 they had increased by 274.

Breakdown of sales



Commercial customers

Consumption in the general category, which includes a wide variety of establishments in addition to commercial customers, went from 12.03 billion kWh to 13.11 billion kWh, an increase of 9%. These sales produced $218,218,000 in revenue, an increase of $35,457,000 or 19.4%. The number of these customer accounts rose by 3,478 during the year to reach a total of 216,988 at the end of December.

Residential customers

Residential customers consumed 17.51 billion kWh, as against 16.07 billion kWh in 1974, or 8.9% more. Revenues from this category of customer totaled $296,266,000, up $44,061,000 or 17.5%.

At December 31, the total number of residential customer accounts stood at 1,817,915, which was 53,793 or 3% more than one year before. The average annual consumption per residential account also continued to increase, going from 9,264 kWh to 9,776 kWh, which was 512 kWh or 5.5% more.

Despite a further reduction in the number of farm customer accounts, consumption of electricity by farms increased 5.9% to reach a total of 1.26 billion kWh for the year. At December 31, there were 76,054 farm accounts, compared with 77,549 one year earlier, a reduction of 1,495. However, the average annual consumption per farm account increased from 15,241 to 16,383 kWh.

Export contracts

Deliveries of primary energy outside Québec totaled 12.30 billion kWh in volume and $58,449,000 in revenue, an increase of 5.6% in volume and 7.4% in revenue.

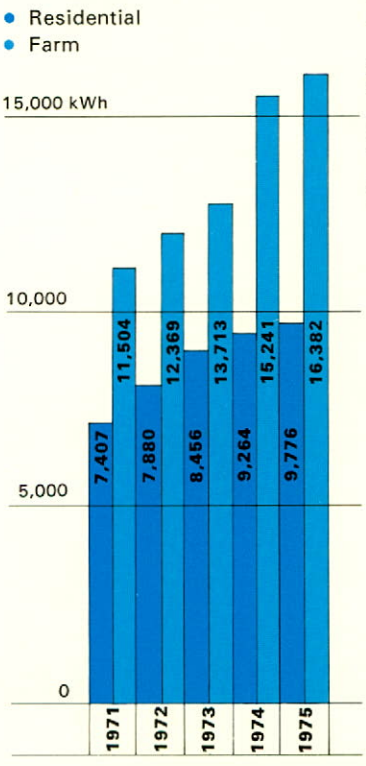
The main contracts governing these sales will expire soon. Hydro-Québec's contract with the New Brunswick Electric Power Commission (320 MW) will expire on October 31, 1976, and its contract with Ontario Hydro (1,000 MW) on May 31, 1977. During 1975, Hydro-Québec delivered 9.23 billion kWh to Ontario and 2.52 billion kWh to New Brunswick.

Secondary energy

Sales of secondary energy in Québec were heavily curtailed in 1975. They amounted to 1.87 billion kWh in volume and $8,668,000 in revenue, a decline of 54.6% in volume and 35.3% in revenue.

Deliveries of secondary energy outside Québec amounted to 3.51 billion kWh in volume and $33,861,000 in revenue, representing increases of 8.1% and 46.3% respectively. These figures include sales of 902 billion kWh to the United States for $15,970,000, an increase of 4% in volume and 46.7% in revenue.

Average annual consumption per residential account and farm account*



*Based on the average of the number of accounts at the beginning and end of each year.

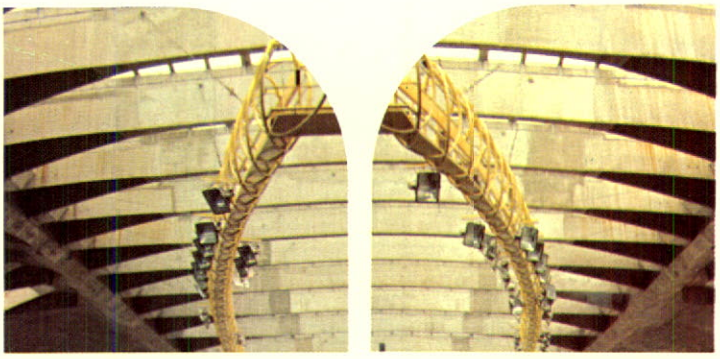
Increased electricity needs

Despite the economic situation, Québec's electricity needs continued to grow rapidly in 1975. From January to December, throughout the territory served, Hydro-Québec had to begin supplying a great variety of new industrial and commercial loads totaling 500 MW, including 220 MW in the St. Laurent Region (the Montreal metropolitan area).

In addition, Hydro-Québec renewed 61 industrial contracts covering a total of 724 MW, of which 114 MW was new maximum firm-power demand, with an additional revenue-earning potential of $15,700,000 a year.

This new firm maximum demand is divided among the pulp and paper industry (44 MW), cement plants (26 MW), manufacturing (23 MW), the oil industry (15 MW) and mining operations (6 MW).

Moreover, negotiations under way in 1975 should lead to the signature in 1976 of seven contracts for a total of about 350 MW, including 230 MW needed for the expansion program of the Sidbec steel-works complex: the Fire Lake iron ore mine will require 10 MW, the Port-Cartier pelletizing plant 70 MW, and the enlargement of the Contrecoeur mills 150 MW. Other new loads to be supplied include 70 MW at the La Prade heavy-water plant at Gentilly, 30 MW at a paper mill in Saint-Félicien, and 10 MW at another paper mill in Cabano.



The Olympic Games: construction of velodrome nears completion

Saguenay Region

During the year, Hydro-Québec also assumed responsibility for supplying seven major customers in the Saguenay area, namely five municipal systems, Bagotville military base and a paper mill. The needs of these new customers which presently total 90.8 MW, were formerly supplied by a subsidiary of the Aluminum Company of Canada Ltd. (Alcan). Hydro-Québec acquired the distribution system concerned, which contains 143 km (89 miles) of 161-kV lines and 12 substations.

Alcan expects that its expansion projects in the area will eventually absorb all production from the 2,700 MW of hydroelectric generating plant which it operates in the Lac-Saint-Jean basin, and that consequently it will no longer have surplus power or energy to dispose of.

Hydro-Québec has been preparing, for several years, to take over from Alcan in this region. For example, one of the main 735-kV transmission lines from James Bay will pass through the Saguenay region.

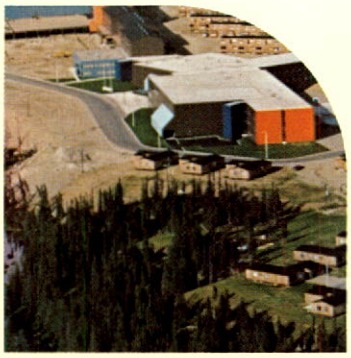
Residential construction

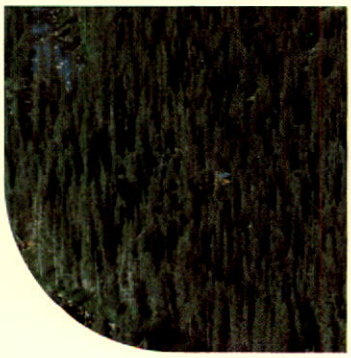
In the residential construction sector during 1975, the number of housing starts rose 6% from 51,642 dwelling units to 54,741, but did not reach the peak of 59,550 attained in 1973.

Electrical heating was used in 59.2% of new dwelling units in 1975, compared with 57.8% in 1974 and 43.3% in 1971. Moreover, during the year, nearly 10,000 existing dwelling units were converted to electrical heating; 65.6% of these conversions were in the Richelieu and Laurentides regions.

At December 31, there were 204,648 rented electric water heaters in the territory served, 17,367 or 9.3% more than one year before.

Fermont: an all-electric town





Production

In 1975, the peak primary demand by Québec customers occurred at 5 p.m. on December 19 during a combination of unusual circumstances, reaching 12,478 MW, which was 1,347 MW or 12.1% more than the previous year's peak.

At the time of the 1975 peak, the temperature in Montreal was —24°C (—11°F), whereas it had been a much milder 2°C (36°F) when the 1974 peak occurred.

On the other hand, the 1975 peak happened at a time when strikes in the pulp and paper industry alone had reduced demand by some 350 MW.

Moreover, to retain necessary spinning reserve, the system had shed a total of 192 MW of interruptible load.

Thus the 1975 peak might have been 350 MW higher had there been no strikes in the pulp and paper industry, and 192 MW higher had there been no reduction of the system's interruptible loads.

Since 1966, the peak primary power demand by Québec customers has increased at an average rate of 7.4% a year, although the rate in individual years has ranged from 0 to 14.2%.

Hydraulic conditions

In nearly all the river basins exploited by Hydro-Québec runoff was much less than the average of the 10 preceding years, with the decrease ranging from 9.1 to 16.5%. An exception was the St. Lawrence River, whose flow was 8.6% greater than average.

This poor runoff coincided with a contraction in the Québec demand for primary and secondary energy, and was accompanied by a 22.2% increase in energy purchases, which rose from 25.9 to 31.7 billion kWh. Production by Hydro-Québec's hydroelectric power stations dropped 9.3%, from 60.1 billion kWh in 1974 to 54.5 billion kWh in 1975.

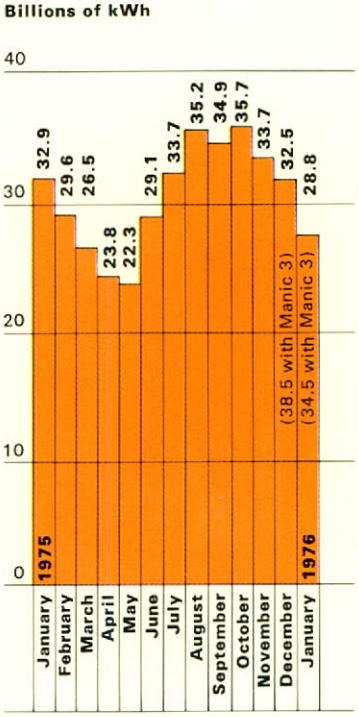
Installed capacity

Hydro-Québec's installed capacity increased by 232,695 kW in 1975 to reach 11,355,859 kW at year-end. At Manic 3 powerhouse the first generating unit (197,200 kW) was commissioned in December, and at Première-Chute powerhouse the fourth and final unit (31,050 kW) was commissioned in November. Moreover, changes carried out in small thermal power stations resulted in a net addition of 4,445 kW to system capacity.

At December 31, sales contracts with neighboring systems totaled 1,576 MW, while 4,871 MW was available under purchase contracts, the principal one being for Churchill Falls power (see Note 7 of the *Consolidated Financial Statements.*) The difference of 3,295 MW, added to installed capacity, meant that at year-end a nominal capacity of 14,651 MW was available to meet the needs of Québec customers.

Water reserves in 1975

Accumulation of usable reserves, expressed in billions of kWh, in all regulating reservoirs during the year. With the commissioning of Manic 3 power station, whose first unit went into service in December 1975, the maximum energy potential of all reservoirs increased from 41.6 to 49.4 billion kWh.



Construction of generating stations

Expenditures on the construction of additional production plant almost doubled in 1975, totaling $817,136,000 as opposed to $411,611,000 in 1974.

Some $583,033,000 was spent by the *Société d'énergie de la Baie James* (SEBJ), the subsidiary responsible for developing the La Grande River which flows into James Bay 1,000 km (650 miles) north of Montreal. In contrast, the SEBJ had spent $263,166,000 in 1974.

Optimization studies carried out during the year increased the projected overall capacity of the La Grande hydroelectric complex from 10,020 to 10,190 MW. The four power stations of the complex will be placed in service between 1980 and 1985, although the start of construction work on some installations has been postponed six to 12 months. The 44 generating units planned will produce an average of 68 billion kWh a year.

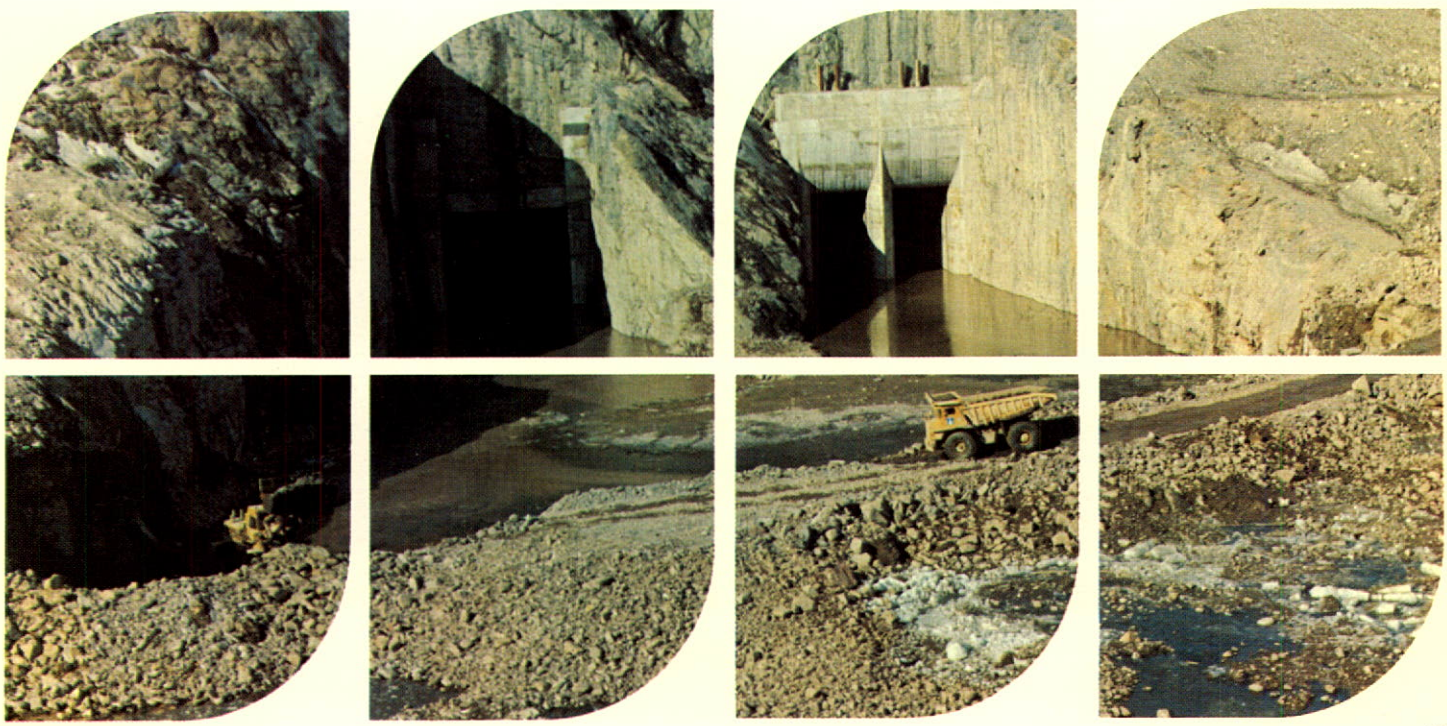
Elsewhere, Hydro-Québec's powerhouse construction program continues. Manic 3 and Outardes 2 will complete the development of the Manicouagan and Outardes Rivers, which flow into the St. Lawrence 410 km (255 miles) northeast of Québec City. At Gentilly, Québec's second nuclear power station will be commissioned in November 1979, and in northwest Québec a thermal power station equipped with 174-MW gas turbines will be commissioned in the fall of 1976.

La Grande River

Preliminary work on the La Grande hydroelectric complex began in 1972. The La Grande River flows almost directly westward along latitude 53° 40′ north. It is 854 km (531 miles) long and drops 382 metres (1,254 feet) between the site of the easternmost powerhouse and the river mouth. The diversion of the upper reaches of two neighboring rivers, the Eastmain to the south and the Caniapiscau to the east, will increase the average flow of the La Grande River at the river mouth (Fort George) from 1,700 to 3,300 cubic metres per second (from 60,000 to 117,000 cubic feet per second).

Construction of permanent installations began in 1975 at the site of the LG-2 power station, which will have an installed capacity of 5,328 MW and an estimated annual production of 38.8 billion kWh, making it America's largest hydroelectric power station.

The La Grande River was diverted on June 29, 1975, and construction of the main dam has begun. It is being built of earth and rockfill and will have a crest length of 2,865 metres (9,400 feet) and a volume of 23 million cubic metres (30 million cubic yards). Construction has also begun on 21 of the 29 dykes required around the reservoir. The total volume of the dykes will almost equal that of the main dam.



LG-2: diversion tunnels

The 16 generating units of LG-2 will be installed 137 metres (450 feet) underground in a chamber 483 metres long (1,584 feet). Excavation work proceeded throughout the year at a satisfactory pace.

The three other power stations of the La Grande complex will be LG-1, LG-3 and LG-4.

LG-1 is one of the complex's installations whose construction start has been postponed. It will be situated 71 km (44 miles) from the river mouth and will be commissioned from 1983 to 1985 and not from 1982 to 1985. It will have an installed capacity of 910 MW, operating under a net head of 22 metres (72 feet), and will produce an annual average of 14.1 billion kWh.

The LG-3 construction site, 238 km (148 miles) from the river mouth, will be opened in 1976 but the construction start itself has been postponed by about six months. The latest optimization studies have increased the planned capacity of the powerhouse from 1,760 to 1,920 MW (in ten units). LG-3 will exploit a gross head of 76 metres (250 feet) and produce an annual average of 12.3 billion kWh.

The commissioning schedule for the eight units of LG-4 powerhouse has not been affected by the program revision. The units will come on line in 1984 and 1985, but new studies have slightly reduced the planned capacity of this powerhouse from 2,072 to 2,032 MW. LG-4 will operate under a gross head of 119 metres (390 feet) and will produce an annual average of 14.1 billion kWh.

The start of work to divert the Caniapiscau and Eastmain Rivers into the La Grande has been postponed for a year. This will temporarily reduce the anticipated quantity of energy produced by the first units on line. The Caniapiscau will be diverted in 1983 instead of 1982 and the Eastmain in 1980 instead of 1979.

LG-2: diversion of the La Grande River

Manic 3

At Manic 3, on the Manicouagan River, construction of the main dam began on April 8, 1971 and was completed on September 8, 1975. The first of the powerhouse's six generating units went on line on December 10, five days ahead of schedule.

The five remaining units of this 1,183-MW underground powerhouse will all come on line in succession during the first nine months of 1976. Manic 3 operates under a head of 96 metres (315 feet) and will produce an average of 5.4 billion kWh a year.

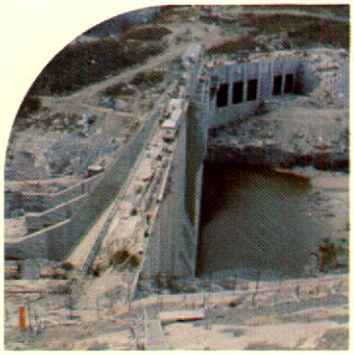
Outardes 2

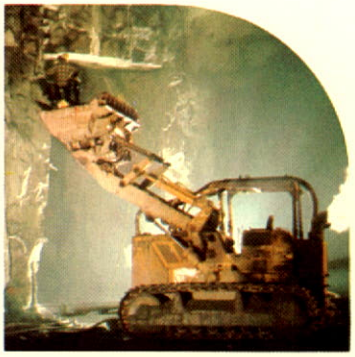
Construction of the permanent installations, halted since 1968, recommenced in 1975 at the Outardes 2 site, where a 454-MW powerhouse will replace the small 61-MW plant that the Quebec North Shore Paper Company has operated since 1937 at the mouth of the Outardes River.

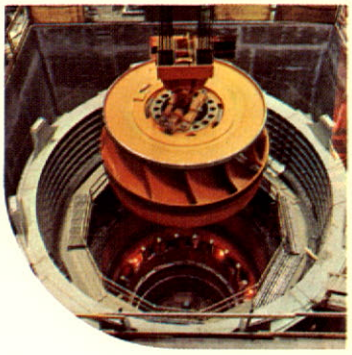
The new powerhouse's three generating units, operating under a head of 84 metres (277 feet) will be commissioned in July, September and December 1978. In an average year they will produce 2.57 billion kWh.

Abitibi

The fourth and final 31,050-kW generating unit was commissioned on December 18 at the Première-Chute powerhouse, on the upper reaches of the Ottawa River in Abitibi, northwest Québec. To meet the needs of this region before it is connected to the main power grid by one of the James Bay transmission lines in 1979, a 174-MW thermal power station, comprising three generators driven by six gas turbines (two per generator), will be commissioned in the fall of 1976 at Cadillac, midway between Rouyn and Val d'Or.





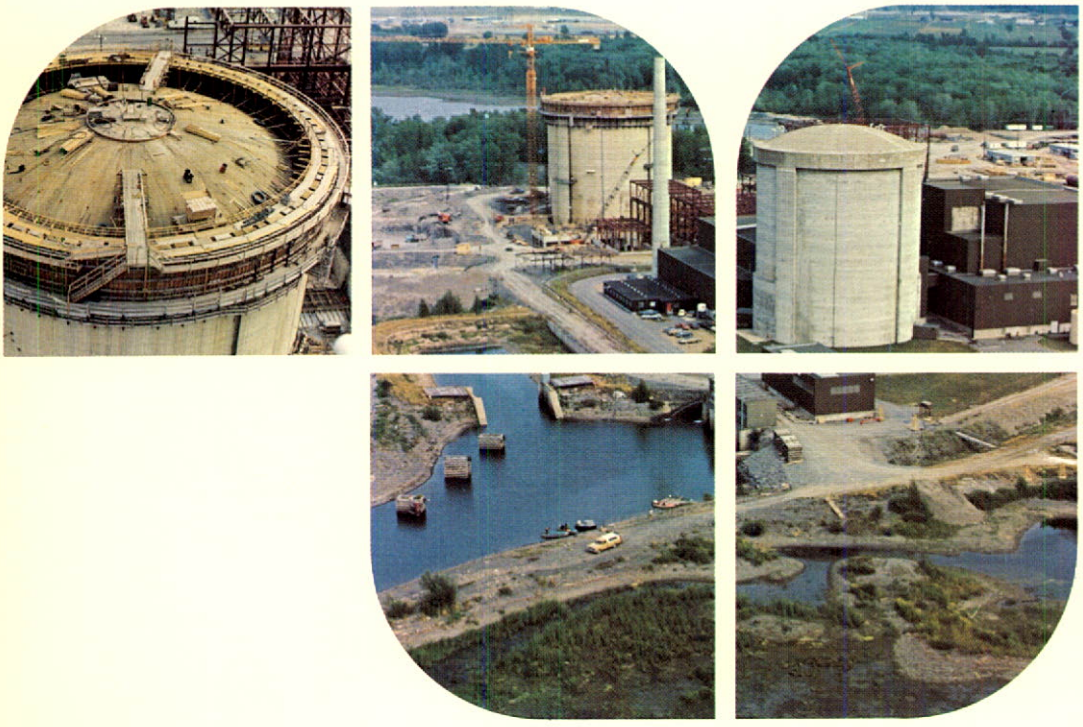


Nuclear energy

Delivery delays have slowed down construction work in progress at the Gentilly nuclear complex on the south shore of the St. Lawrence River, midway between Québec City and Montreal. Commercial operation of Gentilly 2 (685 MWe) had been scheduled to begin in January 1979 but is now delayed until November 1979. The Gentilly 2 plant will be the CANDU-PHW type, using natural uranium as fuel and heavy water as both moderator and coolant.

There will be a delay of about two years in the construction of the La Prade heavy-water plant, which Atomic Energy of Canada Limited (AECL) is building 2.4 km (1.5 miles) from Gentilly. The first of the two units, each with a capacity of 400 tons of heavy water, is scheduled to go into production at the beginning of 1981 instead of late in 1978.

During 1976 Hydro-Québec will finalize two contracts with AECL to supply the La Prade plant with electricity (70 MW), steam and water. The steam will be supplied by the 266-MWe Gentilly 1 nuclear generating station, a prototype using ordinary water as the coolant. This generating station, operated by Hydro-Québec but owned by AECL, was put back into operation in December 1974 after a 21-month shutdown due to a heavy-water shortage. Certain modifications will have to be carried out in 1976 before the plant regains full output. When these modifications are completed it will be able to supply electricity to the Hydro-Québec system until the La Prade heavy-water plant begins operating. Then the function of Gentilly 1 will be to supply steam to the La Prade plant.



Gentilly: the Gentilly 1 and Gentilly 2 plants

1985-1990 construction program

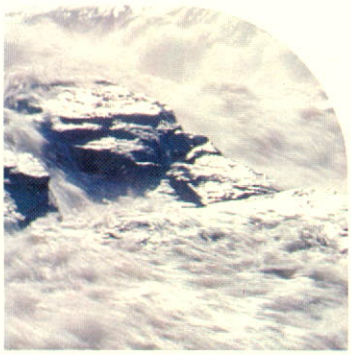
Work continued throughout the year on the development of a basic program to cover the growth in Québec's electricity needs between 1985 and 1990, that is, during the five-year period following completion of the construction now under way in the James Bay region. Work on the new program will continue in 1976 until a final formula is adopted.

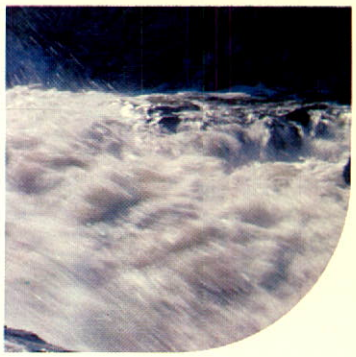
Present forecasts indicate that between 1985 and 1990 the system will need an additional capacity of 12,500 MW, including 5,500 MW of peaking plant. The study on the new generating equipment needed for this period showed that it will be impossible to meet the growth in electricity needs after 1985 by development of the remaining hydroelectric potential.

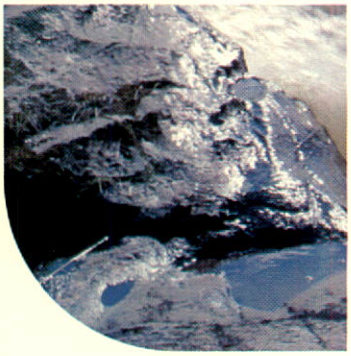
A survey conducted in 1975 indicated that a total of 25,000 MW of undeveloped potential is available on about 30 rivers. Using existing technology and respecting ecological constraints, about 15,000 MW of this total could probably be economically developed in the form of base-load power stations. Therefore a decision must be made soon on the best way of developing this hydroelectric potential of 15,000 MW after 1985.

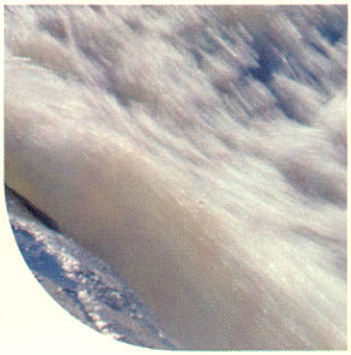
During 1975, new surveys and studies further contributed to a knowledge of the undeveloped hydroelectric potential remaining in Québec. There were also further investigations to determine the best sites for future nuclear power stations and peaking stations, including pumped-storage plants and gas turbines. These investigations were accompanied by studies of environmental impact.

Studies of the remaining hydroelectric potential are at various stages of completion, but those dealing with the most promising resources are well advanced. For example, final design work is nearly finished for the power complex on the Nottaway, Broadback and Rupert Rivers (5,500 MW in seven power stations), located south of the La Grande River in the James Bay region. In addition, preliminary surveys and designs are either being prepared or have been completed for some 7,500 MW of new plant.









Transmission system

Expansion of the transmission system absorbed $135,044,000, compared with $66,225,000 in 1974, an increase of $68,819,000 or 103.9%.

During the year, completion of the 735-kV system that transmits power to Québec City and Montreal from Churchill Falls and the Manic-Outardes complex coincided with the start of right-of-way clearing for the five main 735-kV lines of the James Bay transmission system.

The existing 735-kV system was placed in service over the 10-year period from 1965 to 1975. At December 31, this system contained 4,290 km (2,666 miles) of circuits and 10 major substations. During a five-year period from 1980 to 1984, an additional 5,149 km (3,200 miles) of 735-kV circuits and 16 major substations will be added to Québec's power grid, including a 735-kV loop around Montreal.

In 1975, new substations and additions to existing substations added 3,032 MVA* to the transformer capacity of the high-voltage system, compared with 5,591 MVA in 1974. A 735-kV line, 240 km long (149 miles), was placed in service between Jacques-Cartier substation near Québec City and Duvernay substation near Montreal. This is the fourth and final 735-kV circuit planned between these two cities.

At other voltage levels, only 29 km (18 miles) of new 315-kV circuits and 172 km (107 miles) of new 120-kV circuits were placed in service.

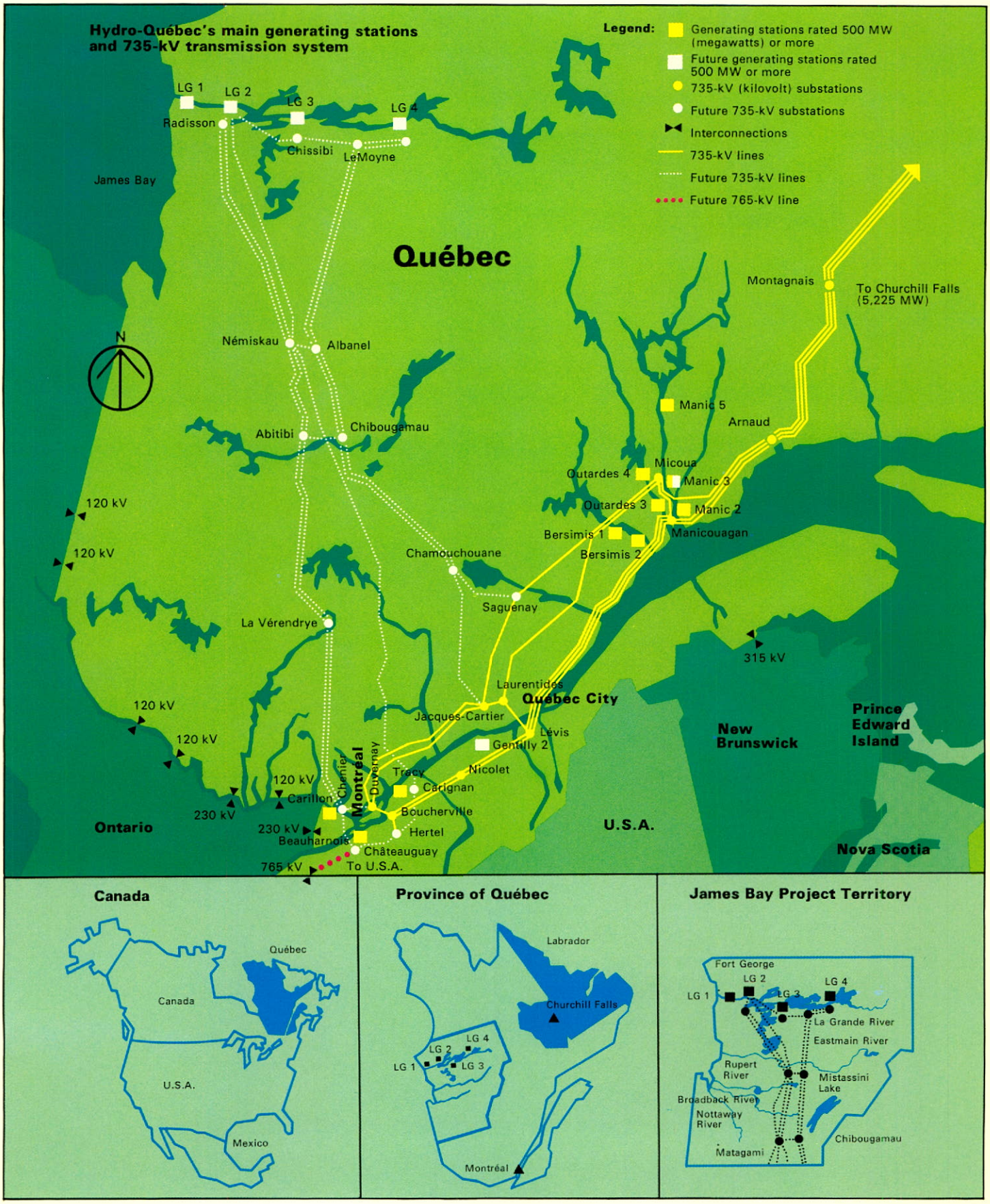
*1 MVA = 1 megavolt-ampere = 1,000,000 volt-amperes.

Interconnection between Québec and New York

Subject to the approval of the National Energy Board, construction will begin in 1976 on a 765-kV interconnecting line between Québec and the United States. It is planned to place the line in service on June 1, 1977.

This line would permit the implementation of the contract Hydro-Québec signed in 1973 with the Power Authority of the State of New York (Pasny) after authorization in the previous year by the Québec cabinet and the National Assembly. This contract is made possible by the fact that the two systems experience their heaviest loads at different times of the year, Hydro-Québec's occurring in winter and Pasny's in summer.

If the requested authorization is granted, Hydro-Québec will make 800 MW available to Pasny from April to October inclusive over a 20-year period starting June 1, 1977. During the first five years of the contract Hydro-Québec will deliver more than 14 billion kWh to Pasny. From 1982 on, Pasny must, at Hydro-Québec's request, deliver to the Québec system during the winter months all or part of the energy it received the previous summer.


Hydro-Québec's main generating stations and 735-kV transmission system
Legend:
Generating stations rated 500 MW (megawatts) or more
Future generating stations rated 500 MW or more
735-kV (kilovolt) substations
Future 735-kV substations
Interconnections
735-kV lines
Future 735-kV lines
Future 765-kV line
Québec
James Bay
LG 1
LG 2
LG 3
LG 4
Radisson
Chissibi
LeMoyne
Némiskau
Albanel
Abitibi
Chibougamau
Montagnais
To Churchill Falls (5,225 MW)
Manic 5
Arnaud
Micoua
Outardes 4
Manic 3
Outardes 3
Manic 2
Bersimis 1
Manicouagan
Bersimis 2
Chamouchouane
Saguenay
La Vérendrye
315 kV
120 kV
120 kV
120 kV
120 kV
120 kV
230 kV
230 kV
765 kV
Laurentides
Québec City
Jacques-Cartier
Lévis
Gentilly 2
Chénier
Montréal
Duvernay
Tracy
Nicolet
Carignan
Carillon
Boucherville
Hertel
Beauharnois
Châteauguay
To U.S.A.
Ontario
U.S.A.
New Brunswick
Prince Edward Island
Nova Scotia
Canada
Québec
Canada
U.S.A.
Mexico
Province of Québec
Labrador
Churchill Falls
LG 1
LG 2
LG 3
LG 4
Montréal
James Bay Project Territory
Fort George
LG 1
LG 2
LG 3
LG 4
La Grande River
Eastmain River
Rupert River
Mistassini Lake
Broadback River
Nottaway River
Matagami
Chibougamau

Hydro-Québec Generating Stations

in service or under construction at December 31, 1975

Generating stations in service

	(kilowatts)
Hydroelectric	
Beauharnois	1,574,260
Manic 5	1,292,000
Manic 2	1,015,200
Bersimis 1	912,000
Outardes 3	756,200
Bersimis 2	655,000
Carillon	654,500
Outardes 4	632,000
La Trenche	286,200
Beaumont	243,000
La Tuque	216,000
Paugan	201,975
Manic 3	197,200
Manic 1	184,410
Rapide-Blanc	183,600
Shawinigan 2	163,000
Les Cèdres	162,000
Shawinigan 3	150,000
Grand'Mère	148,075
Rapide-des-Iles	146,520
Chelsea	144,000
Première-Chute	124,200
La Gabelle	123,750
Rapides-Farmers	98,250
Rapides-des-Quinze	89,600
Rapide 7	57,000
Bryson	56,000
Rapide 2	48,000
Rivière-des-Prairies	45,000
Chute-Hemmings	28,800
Hull 2	27,280
Sept-Chutes	18,720
Saint-Narcisse	15,000
Drummondville	14,600
Métis 1	6,400
Pont-Arnault	5,450
Chute-Bell	4,800
Métis 2	4,250
Saint-Alban	3,000
Saint-Raphaël	2,550
Sherbrooke	2,256
Chute-Garneau	2,240
Corbeau	2,000
Magpie	1,800
Rawdon	1,720
Chute-Burroughs	1,600
Chute-Wilson	840
Anse-Saint-Jean	400
High-Falls	340

	(kilowatts)
Thermal	
Tracy	600,000
Iles-de-la-Madeleine	27,003
Havre-Saint-Pierre	7,400
Blanc-Sablon	3,150
Fort George	2,700
La Baleine	2,350
Natashquan	2,200
La Tabatière	1,900
Harrington-Harbour	1,400
Saint-Augustin	1,400
La Romaine	1,200
Parent	700
Johan-Beetz	605
Ile-d'Entrée	440
Ile-aux-Grues	425
Total installed capacity of hydroelectric generating stations (49)	10,702,986
Total installed capacity of thermal-electric generating stations (15)	652,873
Total capacity in service at December 31, 1975	11,355,859
Nuclear power station	
Gentilly 1*	266,400

*Gentilly 1 does not at present belong to Hydro-Québec and therefore is excluded from the total.

**_La Société d'énergie de la baie James_, a subsidiary of Hydro-Québec, is responsible for the development of the La Grande River.

Generating stations under construction

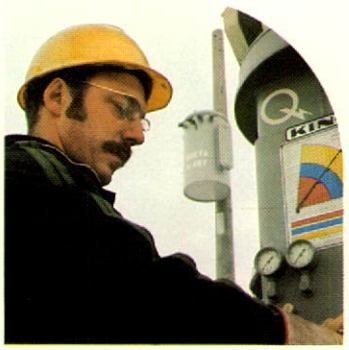
	In-service date	(kilowatts)
Hydroelectric		
Manic 3	1976	986,000
Outardes 2	1978	453,900
La Grande 2**	1980-82	5,328,000
Nuclear		
Gentilly 2	1979	685,000

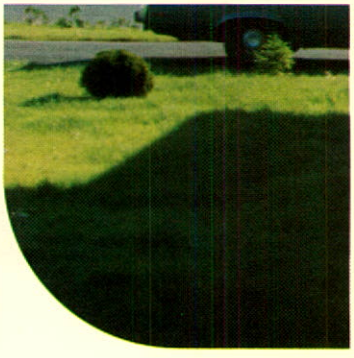
Distribution system

Capital expenditures for the distribution system, which had been $105,188,000 in 1974, totaled $150,769,000 in 1975. This increase of $45,581,000 or 43.3% is attributable to inflation, greater demand for electricity, and delays caused by the shortages of 1974. Despite efforts made during the year to keep up with the growth of demand, many lines and substations were overloaded at the end of December in regions with the most rapid growth of residential, industrial and commercial loads.

In 1975, a total of 1,588 km (987 miles) of new circuits rated between 4 and 25 kV were placed in service. At December 31, the distribution system contained 75,621 km (46,999 miles) of circuits rated 34 kV and less. A total of 2,570 km (1,597 miles) of underground distribution circuits were in service at year-end, including 138 km (86 miles) that had been installed in 1975 and 63 km (39 miles) in 1974.

Most of Hydro-Québec's regional administrations continued to implement large-scale programs for the conversion of distribution circuits to 25 kV or more, so that future load growth can be met. The system's first 315/25-kV substation was commissioned at Québec City in 1975, and several similar substations will be built at Montreal in the next few years. This type of substation will enable several intermediate stages of transformation to be eliminated.





Institute of Research

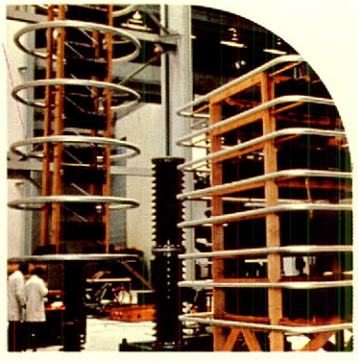
During 1975 the Hydro-Québec Institute of Research (IREQ), in addition to carrying out numerous research and test programs for Hydro-Québec, continued its collaboration with various foreign organizations and public utilities. For example, the Electric Power Research Institute of the United States gave IREQ two research and test contracts on direct-current transmission, and IREQ is collaborating in the creation of an electrical test and research laboratory in Brazil. The Institute is also conducting a large-scale program of tests on extra-high-voltage electrical-energy transmission for a group of Japanese electrical utilities.

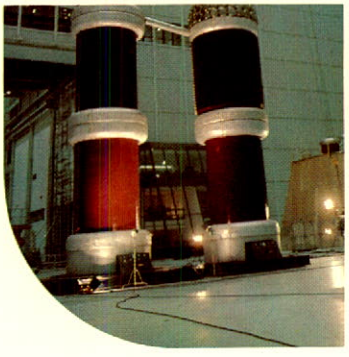
Research carried out during the year for Hydro-Québec was aimed primarily at finding the best methods of transforming wind energy into electricity and storing wind energy in the form of compressed air.

IREQ also carried out research and tests on various spacer models, on an evaporation cooling process for electrical equipment, on different types of insulators and on a new fuse that would guarantee greater equipment protection and personnel safety.

The laboratories at IREQ, situated at Varennes on the south shore of the St. Lawrence River 32 km (20 miles) from downtown Montreal, continued to add to their facilities during the year. The high-voltage laboratory now boasts equipment for direct-current tests. In addition, the fourth and final phase of construction of the high-power laboratory is nearing completion. This laboratory will thus soon be able to offer a complete service of direct high-power tests while permitting greater automation of equipment and measurements. IREQ has also acquired a new analyser of transient phenomena for studies on transmission systems.

At December 31, the Institute's staff comprised 358 permanent employees: 117 scientists, 122 technicians and 119 administrative or support personnel.





Personnel

At December 31, Hydro-Québec's permanent staff numbered 14,543, an increase of 864 or 6.3% over the preceding year. This figure does not include personnel of the *Société d'énergie de la Baie James* (SEBJ).

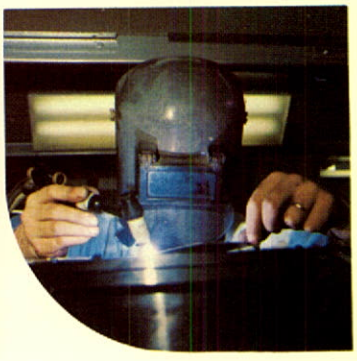
Wages and salaries paid by Hydro-Québec during 1975 increased by $35,802,000 or 18.4% and amounted to $230,518,000, including $13,715,000 in cost-of-living bonuses as against $12,900,000 in 1974. Moreover, Hydro-Québec paid $1,154,000 in cost-of-living bonuses to its retired personnel, compared with $777,000 the previous year.

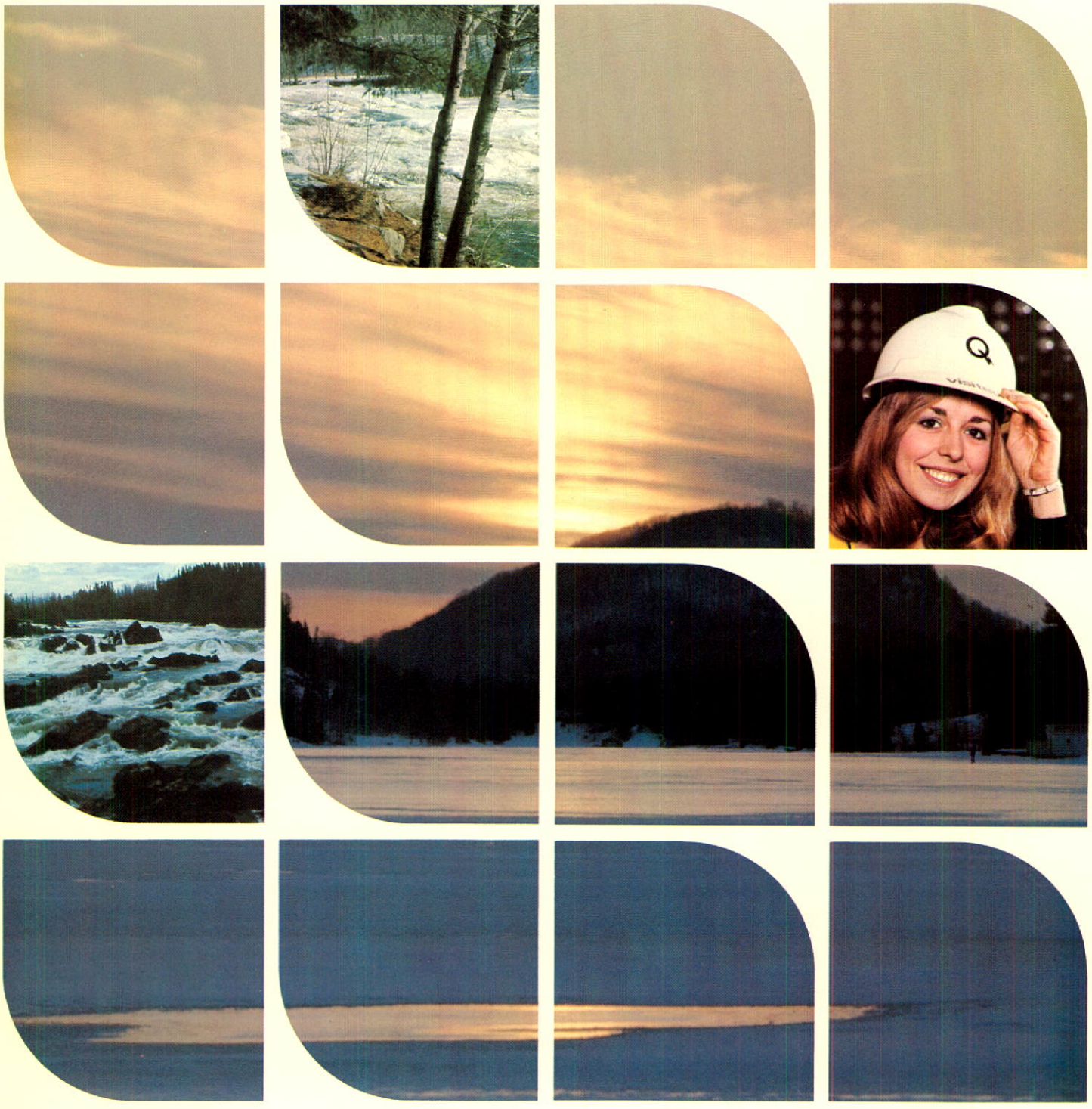
Wages paid to Hydro-Québec's construction workers (excluding those of SEBJ) increased to $64,843,000 for an average 3,412 workers, as against $43,712,000 for an average 2,563 workers in 1974.

Total wages and salaries paid to SEBJ personnel amounted to $19,613,000 of which $16,743,000 was paid to workers on construction sites. This does not include salaries paid by contractors. Total manpower on the La Grande River complex construction sites peaked at 5,796 in September.

During the year Hydro-Québec renewed its collective agreement with the *Syndicat professionnel des ingénieurs de l'Hydro-Québec,* representing 626 staff engineers and affiliated with the Confederation of National Trade Unions (CNTU). The new agreement was concluded for a three-year period, from January 1, 1975 to December 31, 1977.

Important negotiations commenced at year-end on the renewal of four collective agreements expiring on December 31 ,1975 and affecting 9,790 employees, two-thirds of Hydro-Québec's personnel. The four unions involved are affiliated with the Canadian Union of Public Employees (CUPE) and represent 3,993 office workers, 1,177 technicians, 4,534 trades employees and 86 security guards.





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Hydro-Québec Annual Report 1975

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Auditors' Report

We have examined the consolidated balance sheet of Hydro-Québec and its subsidiaries as at December 31, 1975, and the consolidated statements of revenue and expenditure, reserves, and changes in financial position 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 consolidated financial statements present fairly the financial position of Hydro-Québec and its subsidiaries as at December 31, 1975, and the results of their operations and the changes in their financial position for the year then ended, in accordance with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

Montreal, Canada,
April 6, 1976.

Samson, Bélair & Associés
Chartered Accountants

H. Marcel Caron & Associés
affiliated with Clarkson, Gordon & Co.
Chartered Accountants

Consolidated Statement of Revenue and Expenditure

(in thousands of dollars)
for the year ended December 31

		1975	1974
Revenue	Sales of electricity: primary	$850,082	$738,866
	secondary	42,529	36,542
		892,611	775,408
	Increase in unbilled revenue	11,599	7,764
		904,210	783,172
	Other operating income (net)	17,879	14,709
		922,089	797,881
Expenditure	Operating, maintenance, administration and other expenses	266,392	236,853
	Power purchased	106,633	86,930
	Provision for renewals (depreciation)	84,394	78,447
	Provincial levy	20,000	20,000
	School and municipal taxes	18,806	18,379
		496,225	440,609
Net operating income		**425,864**	357,272
Other income	Investment income (net)	27,799	14,957
	Net profit on repurchase of debentures	9,925	9,184
Income before interest charges		**463,588**	381,413
Interest charges	Interest on long-term debt	344,330	259,472
	Interest on bank indebtedness and notes payable	3,732	4,085
	Amortization of debenture discount and expenses	4,602	3,990
	Interest charged to construction work in progress	(118,826)	(62,757)
		233,838	204,790
Net income before allocations to reserves		**$229,750**	$176,623
Allocations to reserves	Interest	**$107,773**	$ 88,476
	Provisions:		
	Contingencies	74,163	44,625
	Rate stabilization	18,084	15,663
	Amortization of capital invested	29,730	27,859
		121,977	88,147
		$229,750	$176,623

See accompanying notes

Consolidated Balance Sheet

(in thousands of dollars)
as at December 31

	Assets	1975	1974
Fixed assets	Property and plant:		
	In service	$5,306,976	$4,972,944
	Less reserve for renewals (accumulated depreciation)	1,092,022	1,017,458
		4,214,954	3,955,486
	Construction work in progress	1,970,380	1,196,540
		6,185,334	5,152,026
	Construction, operating and research equipment, at cost less accumulated depreciation	63,658	52,361
		6,248,992	5,204,387
Current assets	Cash and short-term investments	295,668	141,436
	Accounts receivable	121,288	99,342
	Unbilled revenue	76,781	65,182
	Materials and supplies	68,020	53,157
	Prepaid expenses	5,972	6,298
		567,729	365,415
Other assets	Investments (Note 2)	131,925	132,130
	Unamortized debenture discount and expenses	73,062	62,031
	Accounts receivable	7,998	11,638
	Unamortized deferred cost on purchase of energy	38,579	37,951
		251,564	243,750
		$7,068,285	$5,813,552

	Liabilities and Reserves	1975	1974
Long-term debt	Bonds and debentures — guaranteed by the Province of Quebec (Notes 3 and 4)	$4,898,675	$4,005,966
	Less sinking funds (Note 3)	34,496	52,809
		4,864,179	3,953,157
	Net exchange premium (Note 4)	77,266	71,150
		4,941,445	4,024,307
	Other long-term debt (Note 5)	59,649	37,665
		5,001,094	4,061,972
Notes payable	Notes payable within two years, of which $20,637 (1975) and $45,141 (1974) are due within one year	**25,137**	45,141
Current liabilities	Bank indebtedness	16,762	12,534
	Accounts payable and accrued liabilities	219,962	148,491
	Accrued interest	126,339	96,115
		363,063	257,140
Other liabilities	Workmen's compensation awards	2,208	2,094
	Customers' deposits and advances	10,065	10,237
		12,273	12,331
Reserves	Contingencies	683,699	567,011
	Rate stabilization	300,040	262,284
	Amortization of capital invested	682,979	607,673
		1,666,718	1,436,968
		$7,068,285	$5,813,552

See accompanying notes

On behalf of Hydro-Québec:
(signed) Roland Giroux
(signed) Paul Dozois

Montreal, Canada,
April 6, 1976.

(signed) E.-A. Lemieux
General Manager,
Finance and Accounting.

Consolidated Statement of Reserves

(in thousands of dollars)
for the year ended December 31

	1975				1974
	Contingencies	Rate stabilization	Amortization of capital invested	Total	Total
Balance, beginning of year	$567,011	$262,284	$607,673	$1,436,968	$1,260,345
Add:					
Interest	42,525	19,672	45,576	107,773	88,476
Provisions	74,163	18,084	29,730	121,977	88,147
Balance, end of year	**$683,699**	**$300,040**	**$682,979**	**$1,666,718**	$1,436,968

See accompanying notes

Consolidated Statement of Changes in Financial Position

(in thousands of dollars)
for the year ended December 31

	1975	1974
Financial resources were provided by		
Operations		
Net income before allocations to reserves	$ 229,750	$176,623
Less net profit on repurchase of debentures	9,925	9,184
	219,825	167,439
Plus:		
Provision for renewals (depreciation)	84,394	78,447
Depreciation of operating equipment	8,703	6,929
Amortization of debenture discount and expenses	4,602	3,990
Amortization of deferred cost on purchase of energy	367	276
Total funds from operations	**317,891**	257,081
Issue of debentures (less discount and expenses)	1,056,008	689,526
Increase in other long-term debt	21,984	7,244
Net exchange premium	6,116	(8,586)
Sundry items (net)	9,564	6,118
	$1,411,563	$951,383
Financial resources were applied to		
Additions to fixed assets	$1,141,766	$615,845
Maturities of bonds and debentures	97,069	97,066
Purchase of sinking fund investments (cost)	55,338	47,010
Decrease in notes payable	20,004	7,261
Increase in deferred cost on purchase of energy	995	4,318
Increase in working capital	96,391	179,883
	$1,411,563	$951,383

See accompanying notes

Notes to Consolidated Financial Statements
December 31, 1975

Note 1

Summary of significant accounting policies

A summary of the major accounting policies of Hydro-Québec is presented below to assist the reader in analysing the consolidated financial statements.

a) Consolidation

The consolidated financial statements include the financial statements of Hydro-Québec and of all its subsidiary companies including Société d'énergie de la Baie James.

b) Investments

All of the short-term investments mature within three months and are shown at cost, which approximates market value. The long-term investments are carried at cost (see Note 2).

c) Materials and supplies

Hydro-Québec values its inventories of materials and supplies on the basis of average cost. These materials and supplies are primarily those required for the construction and maintenance of its distribution system.

d) Unamortized deferred cost on purchase of energy

In accordance with the terms of a contract with Churchill Falls (Labrador) Corporation Limited (see Note 7), Hydro-Québec is obligated to pay to the Corporation an amount equal to a part of the interest charges on the First Mortgage Bonds, General Mortgage Bonds and other indebtedness of the Corporation. A portion of the payments made before the plant reached full production is being amortized over the life of the contract by charges to the cost of power purchased.

e) Sinking funds

Hydro-Québec invests substantially all of its sinking funds in its own debentures and in bonds of its subsidiaries and follows the practice of carrying these investments at par, which may not be indicative of cost or current market value. The resulting profit, net of unamortized debenture or bond discount and other expenses, is included in *Net profit on repurchase of debentures* in the consolidated statement of revenue and expenditure. Debentures or bonds of an issue purchased for the sinking fund of that issue are cancelled.

f) Foreign exchange translation (see Note 4)

Consolidated long-term debt payable in U.S. currency is carried in the accounts at the rate of $1 U.S. equals $1 Canadian, while consolidated long-term debt payable in Deutsche marks and Swiss francs is carried in the accounts at the Canadian dollar equivalent at the dates of borrowing.

The adjustment arising from the conversion of debt payable in U.S. funds into Canadian funds at the rates of exchange in effect at the time the debt was incurred, less the exchange premium on debentures purchased for sinking funds, is carried on the consolidated balance sheet in a separate account called *Net exchange premium.*

Exchange gains and losses at maturities of debentures and at purchases for sinking funds are included in *Net profit on repurchase of debentures* in the consolidated statement of revenue and expenditure.

g) Reserves

Under the provisions of its Act the object of Hydro-Québec is to supply power in the Province at the lowest rates consistent with sound financial administration. More specifically, the Hydro-Québec Act provides that the rates should be maintained at a level sufficient to defray all costs and to accumulate three reserves: Contingencies, Rate stabilization and Amortization of capital invested.

Each year, Hydro-Québec must credit to these three reserves, from its net income, interest calculated at a rate equivalent to the weighted average of the effective interest rates on the outstanding long-term debt of Hydro-Québec (7.5% in 1975 and 7.02% in 1974). The balance of net income is allocated to the reserves and contributes to an adequate coverage of interest charges and to the financing of part of the construction program.

The three reserves constitute the net worth of Hydro-Québec.

h) Property and plant and Reserve for renewals (accumulated depreciation)

Property and plant are carried at cost which includes material, direct labor and overhead costs such as engineering and administration that are applicable to the capital construction program. The cost also includes interest charged to *Construction work in progress* as explained under i) below. Expenditures for additions, improvements and renewals are capitalized and expenditures for maintenance and repairs are charged against income. When assets are sold or retired, their cost and accumulated depreciation are removed from the accounts and any gain or loss resulting from their disposal is amortized over a period of 10 years using a sinking fund method.

Preliminary engineering, investigation work and survey costs incurred on projects before their authorization for construction are included in *Construction work in progress* and no interest is charged on these costs until such authorization. When a project is abandoned its costs are charged to operations.

The costs of generating facilities are transferred to *Property and plant in service* by instalments proportionate to the number of generating units completed and in service in relation to the total number of units of the project. The costs of transmission, distribution and other facilities are transferred to *Property and plant in service* when completed and in commercial operation.

Hydro-Québec uses a uniform sinking fund method of providing for depreciation of its own and its subsidiaries' property and plant, including intangible assets, based on their respective service lives. The rate of interest used in the sinking-fund method is 3%.

Note 1— Summary of significant accounting policies *(cont'd)*

The expected service lives for the main categories of property and plant in service are as follows:

Category	Life
Hydraulic power houses	50 years
Hydraulic turbines and generators	40 years
Dams and reservoirs	50 years
Transmission towers (steel) and conductors	50 years
Distribution poles (wood)	25 years
Distribution conductors	40 years
Intangible assets	25 years

i) Interest charged to construction work in progress

Interest is charged to *Construction work in progress* at a rate equivalent to the weighted average of the effective interest rates on debentures of Hydro-Québec issued to finance such construction. This rate was 8.96% in 1975 and 8.20% in 1974.

j) Construction, operating and research equipment

This equipment is carried at cost. Hydro-Québec uses the straight-line method of providing for depreciation of these assets based on their respective service lives. The cost of equipment used for the construction of major generating facilities is included in *Construction work in progress*.

k) Unbilled revenue

Revenues are recorded on the basis of cycle billings and accrued in respect of energy delivered but not billed.

Note 2

Investments, at cost

	1975 ($'000')	1974 ($'000')
Churchill Falls (Labrador) Corporation Limited (see Note 7)		
General Mortgage Bonds, 7½%, due 2010 (par value $100 million)	$ 90,500	$ 90,500
Common shares	34,333	34,333
	124,833	124,833
Gelco Enterprises Ltd., 4% unsecured note, due 1991	7,000	7,195
Sundry investments	92	102
	$131,925	$132,130

Hydro-Québec's share in the earnings of Churchill Falls (Labrador) Corporation Limited since the date of acquisition amounts to $22,957,000 at December 31, 1975, of which $9,135,000 and $7,023,000 was earned in 1975 and 1974 respectively.

Note 3

Bonds and debentures

Series	Interest rate	Year of issue	Year of maturity	Bonds and debentures ($'000')	Sinking fund investments ($'000')
Debentures of Hydro-Québec					
*"K"	3½%	1953	1978	$ 33,793 U.S.	$ 16,398
*"N"	3½%	1956	1981	26,669 U.S.	7,366
*"O"	4¼%	1956	1976	17,446	956
*"P"	4¼%	1956	1981	20,165 U.S.	5,562
*"Q"	4⅜%	1957	1977	28,210 U.S.	
*"S"	5%	1957	1982	14,094	
*"T"	3¾%	1958	1983	26,880 U.S.	
*"V"	5%	1958	1979	14,606	
*"W"	5%	1959	1980	20,500	
*"X"	5%	1959	1984	33,715 U.S.	
*"Y"	6%	1959	1979	18,025	
*"Z"	5½%	1960	1982	24,677	
*"AA"	5½%	1960	1983	18,851	
*"AB"	5½%	1961	1985	29,748	
*"AC"	5½%	1961	1985	27,345	
*"AD"	5½%	1962	1982	31,273	
*"AF"	5¾%	1962	1984	40,814	
*"AG"	5%	1963	1988	237,107 U.S.	
*"AM"	5¼%	1963	1986	38,289	
*"AN"	5½%	1964	1984, 1994	32,064	

Note 3 — Bonds and debentures *(cont'd)*

Series	Interest rate	Year of issue	Year of maturity	Bonds and debentures ($'000')	Sinking fund investments ($'000')
*"AO"	4½%	1964	1994	$ 50,000 U.S.	
*"AP"	4¾%	1964	1989	38,695 U.S.	
*"AQ"	5½%	1964	1988	47,983	
*"AR"	5½%, 5%	1965	1987, 1995	59,180	$ 18
*"AS"	4⅝%	1965	1985	44,087 U.S.	
*"AT"	5¼%	1966	1987	43,743 U.S.	
*"AU"	6%	1966	1991	43,254	
*"AV"	5⅜%	1966	1992	53,673 U.S.	
*"AW"	6%	1966	1980, 1990	42,566	572
*"AX"	6¼%	1966	1991	33,508 U.S.	
*"AY"	6¼%	1967	1993	52,164 U.S.	
*"AZ"	6½%	1967	1978, 1990	44,026	400
*"BA"	6¼%	1967	1993	45,155 U.S.	
*"BB"	6½%	1967	1992	43,835 U.S.	
*"BC"	6¾%, 7%, 6%, 7%	1967	1976-77, 1980, 1994	48,000	
*"BD"	6⅞%	1968	1989	54,607 U.S.	
*"BE"	7½%, 7½%, 7%	1968	1976-78, 1980, 1994	41,600	
*"BF"	7¾%	1968	1986	23,500 U.S.	
*"BG"	7¼%	1968	1991	44,802 U.S.	
* —	6¾%	1969	1984 (135 million Deutsche marks)	36,195	3,217
* —	7¼%	1969	1984 (90 million Deutsche marks)	24,340	
*"BH"	7¾%	1969	1990	206	7
*"BI"	8¾%	1969	1999	48,535 U.S.	
"BJ"	8%	1969	1979	5,861 U.S.	
*"BK"	8½%	1969	1992	25,028	
*"BL"	9¾%	1969	1995	48,517 U.S.	
*"BM"	9½%	1970	1990	5,816	
*"BN"	9¼%	1970	1995	58,038 U.S.	
*"BO"	9½%	1970	1990	28,625	
*"BP"	9½%	1970	1997	73,800 U.S.	
*"BQ"	9¼%	1970	1985	12,000 U.S.	
*"BR"	8¾%	1971	1999	74,548 U.S.	
*"BS"	8¼%	1971	1986	16,800 U.S.	
*"BT"	7¾%	1971	1996	47,900	
*"BU"	8¾%	1971	1996	48,049	
* —	8%	1971	1986 (100 million Deutsche marks)	29,835	
*"BV"	8½%	1971	2001	75,000 U.S.	
*"BW"	8½%	1971	1986	24,000 U.S.	
*"BX"	7⅞%	1972	2002	100,000 U.S.	
* —	6½%	1972	1987 (100 million Deutsche marks)	31,391	
*"BY"	8¼%	1972	1997	48,483	
*"BZ"	8¼%	1972	1993	58,200	
*"CA"	8%, 8⅜%	1972	1980, 1997	63,328	
"CB"	8¼%	1972	1996	50,000	
* —	6¼%	1972	1987 (80 million Swiss francs)	21,021	
*"CC"	7½%	1973	2003	125,000 U.S.	
"CD"	8%	1973	1998	50,000	
* —	6½%	1973	1988 (100 million Deutsche marks)	35,234	
"CE"	8¼%	1973	1998	55,000	
*"CF"	8½%	1973	2003	100,000 U.S.	
"CG"	8¾%	1973	1998	50,000	
"CH"	8½%	1973	1998	50,000	
*"CI"	8¼%	1974	2004	125,000 U.S.	
*"CJ"	8½%	1974	1989	30,000 U.S.	
"CK"	9%	1974	1999	60,000	
"CL"	9⅞%	1974	1996	80,000	
*"CM"	10⅞%	1974	1999	150,000 U.S.	
—	9%	1974	1979 (40 million Swiss francs)	13,200	

Note 3 — Bonds and debentures *(cont'd)*

Series	Interest rate	Year of issue	Year of maturity	Bonds and debentures ($'000')	Sinking fund investments ($'000')
"CN"	10%	1974	1980	$ 50,000	
"CO"	10%	1974	1982	100,000	
"CP"	10%	1974	1982	100,000 U.S.	
*"CQ"	10¼%	1975	2005	200,000 U.S.	
"CR"	9%, 9¾%	1975	1985, 2000	120,000	
"CS"	10%	1975	2000	80,000	
*"CT"	9¾%	1975	2005	197,450 U.S.	
"CU"	10¼%	1975	1997	65,000	
—	8%	1975	1980 (100 million Swiss francs)	38,400	
"CV"	9½%	1975	1981	50,000	
*"CW"	10%	1975	2005	243,250 U.S.	
—	7¾%	1975	1980 (100 million Swiss francs)	38,500	
Total debentures of Hydro-Québec				**$4,850,199**	**$ 34,496**

*Sinking fund debentures

Bonds of subsidiaries

The Shawinigan Water and Power Company					
"R"	4¾%	1956	1976	$ 10,065	
"S"	5¾%	1961	1981	12,914	
Southern Canada Power Company, Limited					
"B"	3½%	1946	1976	5,050	
"C"	3½%	1948	1976	2,350	
"D"	3⅜%	1951	1981	2,500	
Quebec Power Company					
"G"	6¼%	1962	1982	11,242	
Lower St. Lawrence Power Company					
"F"	5⅞%	1959	1984	835 U.S.	
Saguenay Electric Company					
"A"	5½%	1962	1982	3,520	
Total bonds of subsidiaries				**$ 48,476**	
Total bonds and debentures				**$4,898,675**	**$ 34,496**

Subsequent to year-end, Hydro-Québec issued or has agreed to issue the following debentures:

Series	Interest rate	Date of issue	Year of maturity	Amount ($'000')
"CT"	9¾%	January 16, 1976	2005	$ 2,550 U.S.
"CX"	10¼%	February 18, 1976	1996	855,000 U.S.
"CY"	10¾%	May 4, 1976	1996	20,000
"CW"	10%	May 12, 1976	2005	6,750 U.S.
"CX"	10¼%	June 22, 1976	1996	130,000 U.S.
"CX"	10¼%	September 14, 1976	1996	5,000 U.S.
"CY"	10¾%	December 15, 1976	1996	15,000
"CX"	10¼%	January 5, 1977	1996	10,000 U.S.
				$1,044,300

Bonds of subsidiaries are guaranteed by Hydro-Québec, which guarantee is in turn guaranteed by the Province of Quebec.

Consolidated long-term debt maturities and sinking fund requirements in each of the next five years are approximately as follows:

	($'000')
1976	$ 93,836
1977	$ 94,785
1978	$111,473
1979	$126,842
1980	$263,220

Note 4

Net exchange premium

Consolidated long-term debt at December 31, 1975 includes $2,727,167,000 U.S., 507 million Deutsche marks and 320 million Swiss francs.

If the net long-term debt payable in foreign currencies were converted into Canadian dollars at the rates of exchange prevailing at December 31, 1975, the premium required would be approximately $28,897,000 more than the net exchange premium shown on the consolidated balance sheet. As a result, if the total long-term debt payable in various currencies in the principal amount of $5,001,094,000 at December 31, 1975 were converted into Canadian dollars at the rates of exchange prevailing on this date, this principal amount would be $5,029,991,000.

Note 5

Other long-term debt

	1975 ($'000')	1974 ($'000')
Rural Electrification Bureau, 1976-1994*	$ 6,327	$ 7,027
Government of Canada, 1976-1999**	20,308	20,618
Atomic Energy of Canada Limited**	32,000	8,000
Other long-term debt maturing from 1976 to 1984	1,014	2,020
	$59,649	$37,665

*Does not bear interest as long as there is no default under the provisions of the governing agreements.

**Notes guaranteed by the Province of Quebec at various rates from 7 3/16% to 9 5/8% payable in 25 equal annual instalments following completion of the project involved. On March 1, 1976, Hydro-Québec issued to Atomic Energy of Canada Limited a note for $19 million, bearing interest at the rate of 10%.

Note 6

Pensions

The Hydro-Québec employees' retirement plan is a contributory, benefit-based plan, under which the benefits payable are guaranteed by Hydro-Québec. The initial actuarial deficit in respect of services prior to 1966 and the experience deficiency for current services amounted to approximately $28 million and $5 million, respectively, at December 31, 1974 as determined by an actuarial survey at that date.

The total pension cost of $19,915,000 for 1975 ($16,959,000 in 1974) provides fully for Hydro-Québec's contribution to the Quebec Pension Plan and to the Retirement Fund in respect of current services, amortization of the experience deficiency over a five-year period and amortization of the initial actuarial deficit over a period ending December 31, 1995.

An additional past service obligation, which amounted to approximately $34 million at December 31, 1974 as determined by an actuarial study at that date, related to supplementary amounts that Hydro-Québec has decided to pay starting January 1, 1972 in order to assure a minimum pension of $1,200 per year and to adjust the pensions paid or to be paid to the pensioners of the subsidiaries acquired in 1963, is being substantially amortized over a period of thirty years by annual charges to operations. Hydro-Québec paid $1,902,000 in 1975 ($1,809,000 in 1974) in respect of these benefits.

Note 7

Commitments and projected capital expenditures

Churchill Falls

In May 1969, Hydro-Québec executed a contract with Churchill Falls (Labrador) Corporation Limited ("CFLCo") for the purchase, starting in 1972, of energy from a generating station at Churchill Falls in Labrador with a rated capacity of 5,225,000 kilowatts. At December 31, 1975, Hydro-Québec held 34.2% of the common stock of CFLCo and $100 million of its General Mortgage Bonds at a total cost of approximately $124.8 million.

The power contract provides for the purchase by Hydro-Québec for a period of 40 years from the Effective Date as defined in the power contract (September 1, 1976) of all the power generated at Churchill Falls except for amounts required (not exceeding 12% of the energy generated) by Newfoundland. This contract will be automatically renewed for a further period of 25 years upon already agreed terms. The price to be paid by Hydro-Québec for the energy will vary until the year 2016 and will depend upon the final cost of construction of the plant. It is estimated that the maximum total annual payments by Hydro-Québec for energy will range from $93 million to $80 million until the year 2016 and will be approximately $63 million during the remaining 25 years.

In addition, Hydro-Québec is obligated to pay CFLCo an amount equal to a part of the interest charges on the First Mortgage Bonds, General Mortgage Bonds and other indebtedness of CFLCo. Hydro-Québec estimates that these payments will not exceed $15 million per annum, declining as the bonds and other indebtedness are retired. Subject to certain limitations and compensations, the contract requires Hydro-Québec to make payments for energy whether or not taken; Hydro-Québec can also be required to make additional advances, against the issue of units of Subordinated Debentures and shares of Common Stock, to service the debt of CFLCo and to cover its expenses if funds are not otherwise available.

James Bay

In 1971, the Quebec Government created Société de développement de la Baie James to undertake the development of the natural resources in northwestern Quebec and Société d'énergie de la Baie James to develop the hydro-electric resources of the same area.

Note 7 — Commitments and projected capital expenditures *(cont'd)*

At December 31, 1975, all the shares of the authorized capital stock of Société d'énergie de la Baie James were either owned or subscribed for by Hydro-Québec.

The James Bay project currently consists of the construction of four generating plants on La Grande River with a projected capacity of 10,190,000 kilowatts at an estimated cost in 1974 of $11.9 billion with completion expected in 1985. At December 31, 1975, $1.3 billion has been invested in the project.

In May 1972, the James Bay Crees and Inuit of Quebec instituted proceedings in the Superior Court for the District of Montreal to have the James Bay Region Development Act declared unconstitutional and ultra vires of the jurisdiction of the Legislature of Quebec, and, in addition, to obtain a permanent order of injunction to prevent the carrying out of all works in the James Bay Territory related to this Act.

Following various interlocutory proceedings, an agreement in principle was entered into on November 15, 1974 by the James Bay Crees and Inuit of Quebec and the Province of Quebec, Société d'énergie de la Baie James, Société de développement de la Baie James, Hydro-Québec and the Government of Canada whereby the parties undertook to execute a final agreement, providing, among other things, for the extinguishment of all claims of the James Bay Crees and Inuit of Quebec in and to the territory on which the project is located.

The final agreement, signed on November 11, 1975, was subsequently confirmed by the James Bay Crees and Inuit of Quebec. The agreement is subject to enactment within two years of implementing legislation by the Quebec National Assembly and the Parliament of Canada.

The final agreement provides for the termination of all current legal proceedings and the prohibition of related future legal proceedings affecting the project and the claims of the James Bay Crees and Inuit of Quebec with respect thereto. It also provides for basic monetary compensation of $225 million. Of this amount $75 million is to be paid by Société d'énergie de la Baie James or Hydro-Québec, in instalments to be determined with reference to the future installation of hydro-electric generating capacity within the territory. Such instalments would commence one year after each turbine-generator has been in commercial operation and would extend to December 31, 1996, at which date the balance, if any, is payable.

Another $75 million is to be paid over a period of ten years from March 31, 1976 to January 1, 1985 to the extent of 57% by the Province (and/or a corporation designated by the Province) and to the extent of 43% by the Government of Canada.

The balance of $75 million is to be paid by the Province through the issuance of $15 million of twenty-year debentures on November 1 of each of the years 1975 to 1979 inclusive.

Projected capital expenditures

Hydro-Québec carries on a continuous construction program in anticipation of future demand for electrical power in the Province. The capital expenditures projected for the calendar year 1976 amount to $1,481 million, including $821 million for the James Bay project.

Note 8

Anti-Inflation Program

On December 19, 1975, the Government of the Province of Quebec sanctioned An Act Respecting Anti-Inflation Measures.

According to the regulations adopted in virtue of this Act, Hydro-Québec is not subject to the Inflation Control Commission in respect of its prices and profit margins but is expressly subject to it in respect of compensation control.

Five-Year Summary of Consolidated Revenue and Expenditure
(in thousands of dollars)

		1975	1974	1973	1972	1971
Revenue	Sales of electricity: primary	$850,082	$738,866	$638,628	$552,768	$503,139
	secondary	42,529	36,542	15,475	8,377	15,175
		892,611	775,408	654,103	561,145	518,314
	Increase in unbilled revenue	11,599	7,764	7,542	7,449	5,963
		904,210	783,172	661,645	568,594	524,277
	Other operating income (net)	17,879	14,709	12,785	11,554	11,282
		922,089	797,881	674,430	580,148	535,559
Expenditure	Operating, maintenance, administration and other expenses	266,392	236,853	201,641	172,300	149,897
	Power purchased	106,633	86,930	62,753	34,446	15,738
	Provision for renewals (depreciation)	84,394	78,447	75,439	70,030	64,103
	Provincial levy on energy generated	—	—	8,222	29,882	29,057
	Provincial levy	20,000	20,000	15,000	—	—
	School and municipal taxes	18,806	18,379	18,783	18,875	19,070
		496,225	440,609	381,838	325,533	277,865
Net operating income		**425,864**	357,272	292,592	254,615	257,694
Other income	Investment income (net)	27,799	14,957	10,748	10,573	10,094
	Net profit on repurchase of debentures	9,925	9,184	8,391	7,561	9,547
Income before interest charges		**463,588**	381,413	311,731	272,749	277,335
Interest charges	Interest on long-term debt	344,330	259,472	224,062	191,511	167,800
	Interest on bank indebtedness and notes payable	3,732	4,085	3,652	4,636	8,007
	Amortization of debenture discount and expenses	4,602	3,990	3,820	3,524	3,311
	Interest charged to construction work in progress	(118,826)	(62,757)	(40,412)	(25,825)	(29,535)
		233,838	204,790	191,122	173,846	149,583
Net income before allocations to reserves		**$229,750**	$176,623	$120,609	$ 98,903	$127,752
Allocations to reserves	Interest	**$107,773**	$ 88,476	$ 77,274	$ 68,487	$ 57,250
	Provisions: Contingencies	74,163	44,625	3,019	—	36,203
	Rate stabilization	18,084	15,663	13,233	4,653	10,485
	Amortization of capital invested	29,730	27,859	27,083	25,763	23,814
		121,977	88,147	43,335	30,416	70,502
		$229,750	$176,623	$120,609	$ 98,903	$127,752

Five-Year Consolidated Sales and Revenue

		1975	1974	1973	1972	1971
Electrical Energy Generated and Purchased (in millions of kWh)	Generated (net)	54,392	59,893	57,514	55,660	54,134
	Purchased	31,687	25,938	18,390	11,560	4,200
	Received as per agreement or by inadvertence	2,629	133	61	101	23
		88,708	85,964	75,965	67,321	58,357
	Less:					
	Losses and internal use	7,974	6,956	5,715	5,565	4,917
	Delivered as per agreement or by inadvertence	3,212	1,130	1,099	766	648
	Increase in unbilled sales	585	183	471	594	293
	Total electrical energy sold	**76,937**	77,695	68,680	60,396	52,499
Electricity Sales (in millions of kWh)	Residential and farm	18,768	17,260	15,215	13,703	12,503
	Commercial (including Municipal)	13,113	12,033	11,149	10,629	9,096
	Industrial: Primary	24,506	27,100	24,566	22,766	22,369
	Secondary	1,778	2,710	2,171	1,573	439
	Street lighting and luminaires	576	539	512	457	453
	Transportation	151	142	160	164	164
	Wholesale: Primary	14,324	13,123	10,965	9,194	5,008
	Secondary	3,598	4,654	3,863	1,848	2,395
	Interdepartmental	123	134	79	62	72
	Total electricity sales	**76,937**	77,695	68,680	60,396	52,499
Sales Revenue (in thousands of dollars)	Residential and farm	$315,358	$269,075	$235,615	$203,038	$189,293
	Commercial (including Municipal)	218,218	182,761	164,842	152,299	134,539
	Industrial: Primary	218,308	201,068	171,760	147,949	144,903
	Secondary	8,188	9,042	5,228	3,655	1,665
	Street lighting and luminaires	20,188	17,083	15,196	13,437	12,720
	Transportation	1,700	1,420	1,482	1,371	1,402
	Wholesale: Primary	75,940	67,053	49,472	34,469	20,046
	Secondary	34,341	27,500	10,247	4,722	13,510
	Interdepartmental	370	406	261	205	236
	Total sales revenue	**$892,611**	$775,408	$654,103	$561,145	$518,314
Average Revenue (cents per kWh)	Residential and farm	1.680¢	1.559¢	1.549¢	1.482¢	1.514¢
	Commercial (including Municipal)	1.664¢	1.519¢	1.479¢	1.433¢	1.479¢
	Industrial: Primary	0.891¢	0.742¢	0.699¢	0.650¢	0.648¢
	Secondary	0.460¢	0.334¢	0.241¢	0.232¢	0.379¢
	Wholesale: Primary	0.530¢	0.511¢	0.451¢	0.375¢	0.400¢
	Secondary	0.954¢	0.591¢	0.265¢	0.256¢	0.564¢
	Other	2.619¢	2.320¢	2.256¢	2.198¢	2.084¢
Total Customer Accounts	(year-end)	**2,135,724**	2,080,650	2,017,079	1,943,119	1,895,082
Residential and Farm Accounts	(year-end)	**1,893,969**	1,841,671	1,783,871	1,716,529	1,669,523

Statistics of Electricity Generated and Purchased and its Disposal in 1975

Gross Generation		The consolidated system (in millions of kWh)	
Hydro-Electric Stations			
Upper Ottawa	(5 plants)		2,205
Gatineau	Paugan	943	
	Others (3 plants)	1,111	2,054
Lower Ottawa	Carillon	2,258	
	Others (7 plants)	935	3,193
Upper Saint Lawrence	Beauharnois	11,996	
	Other (1 plant)	819	12,815
Saint Maurice	La Trenche	1,535	
	Beaumont	1,313	
	La Tuque	1,219	
	Shawinigan 3	913	
	Others (4 plants)	3,546	8,526
Bersimis	Bersimis 1	5,332	
	Bersimis 2	2,603	7,935
Outardes	Outardes 3	3,919	
	Outardes 4	2,947	6,866
Manicouagan	Manic 5	6,403	
	Manic 2	3,582	
	Manic 1	293	
	Manic 3	80	10,358
Other rivers	(14 plants)		563
Total	. . (48 hydro-electric plants until mid-December, then 49 plants thereafter)		54,515
Thermal-Electric Stations	(15 plants)		108
Total gross generation	(63 plants, then 64)		54,623
Less: station use			231
Total generation (net)			54,392
Purchased from	Alcan		980
	Maclaren-Quebec Power Co.		599
	Churchill Falls (Labrador) Corporation Limited		29,524
	Sundry purchases		584
Total purchases			31,687
Plus: received as per agreement or by inadvertence			2,629
Energy available			88,708
Less: delivered as per agreement or by inadvertence			3,212
Energy available (net)			85,496
Total sales			76,937
Increase in unbilled sales			585
Losses			7,974
System peaks (MW)	Primary		14,003
	Secondary		162

Hydro-Québec Employees' Retirement Fund

Auditors' Report

We have examined the statement of assets and reserve of the Hydro-Québec Employees' Retirement Fund as at December 31, 1975 and the statement of revenue and expenditure 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 assets of the Fund as at December 31, 1975 and its revenue and expenditure for the year then ended, in accordance with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

Montreal, Canada,
April 6, 1976.

Samson, Bélair & Associés
Chartered Accountants

H. Marcel Caron & Associés
affiliated with Clarkson, Gordon & Co.
Chartered Accountants

Hydro-Québec Employees' Retirement Fund

Statement of Revenue and Expenditure

(in thousands of dollars)
for the year ended December 31

		1975	1974
Revenue	Current contributions:		
	Employees	$ 7,618	$ 6,376
	Hydro-Québec	15,047	12,589
		22,665	18,965
	Contribution by Hydro-Québec for initial actuarial deficit (Note)	2,108	2,108
		24,773	21,073
	Additional past service contributions less cancellations	91	37
		24,864	21,110
	Less refunded to employees leaving service	528	406
		24,336	20,704
	Revenue from investments	15,840	12,295
		40,176	32,999
Expenditure	Pensions paid	3,947	3,556
Net revenue transferred to reserve		**$36,229**	$29,443

See accompanying note

Hydro-Québec Employees' Retirement Fund

Statement of Assets and Reserve

(in thousands of dollars)
as at December 31

		1975	1974
Assets (note)	Investments, at cost		
	Bonds of, or guaranteed by the Province of Quebec	$165,462	$132,915
	Municipal and School Commission bonds	24,806	24,257
	Government of Canada bonds	833	336
	(Par value $198,850, market value $164,427)	**191,101**	157,508
	Common stocks (market value $1,360)	1,868	1,486
	Short-term investment, guaranteed by the Province of Quebec	10,000	12,000
		202,969	170,994
	Accrued interest on investments	4,460	3,512
	Past service contributions receivable from employees	79	76
	Amount receivable from Hydro-Québec	3,856	553
		$211,364	$175,135
Reserve			
	Balance, beginning of year	$175,135	$145,692
	Net revenue for the year	36,229	29,443
	Balance, end of year	**$211,364**	$175,135

See accompanying note

On behalf of Hydro-Québec
(signed) Roland Giroux
(signed) Paul Dozois

Montreal, Canada,
April 6, 1976.

(signed) E.-A. Lemieux,
General Manager,
Finance and Accounting.

Hydro-Québec Employees' Retirement Fund

Note to Financial Statements
December 31, 1975

These statements show only the position of the assets of the Hydro-Québec Employees' Retirement Fund, but do not purport to show the adequacy of the fund to meet the obligations of the Hydro-Québec retirement plan which are guaranteed by Hydro-Québec. An actuarial survey of the obligations of the plan as of December 31, 1974 shows an actuarial deficit in respect of services prior to 1966 of approximately $28 million, and an experience deficiency at December 31, 1974 in respect of current services of approximately $5 million.

Hydro-Québec assumes the annual amortization ($2,108,000) of the initial actuarial deficit over a period ending December 31, 1995. The experience deficiency at December 31, 1974 for current services is being amortized over a period of 5 years, from 1975 to 1979 inclusive. As a result, contributions to the fund are sufficient to cover obligations in respect of current services and the amortization of the above actuarial deficit in respect of past services over a period ending December 31, 1995.