



*Annual Report*

*With Renewed Energy*

1997

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### Units of Measure

\$M: millions of dollars  
MW: megawatt (one million watts)  
GW: gigawatt (one million kilowatts)  
GWh: gigawatthour (one million kilowatthours)  
TWh: terawatthour (one billion kilowatthours)





E = Energy

**Energy is Hydro-Québec's business.** But energy is also what we have shown in positioning ourselves favorably in a rapidly changing market. Above all, it is the energy to fulfill our primary mission, which is to serve each of our customers well, every day of the year, in Québec—or anywhere else in the world.



## Corporate Profile

**Hydro-Québec** is a publicly owned joint-stock company with a single shareholder, the Québec government. It offers multi-energy services to its customers, either directly or through its subsidiaries, its TransÉnergie division, its holdings, or its strategic partners.

A world leader in generating green energy, and with over 36,000 MW in installed capacity in 1997, Hydro-Québec also ranks among North America's largest distributors of electricity, serving 3.4 million residential, commercial, institutional and industrial customer accounts in Québec. In addition, it supplies nine municipal systems, one regional cooperative and some 15 electric utilities in the Northeastern United States, Ontario and New Brunswick. Its 1997 sales totaled 162.5 TWh, with Québec markets accounting for more than 90% (147.3 TWh) and sales outside Québec for nearly 9.4%.

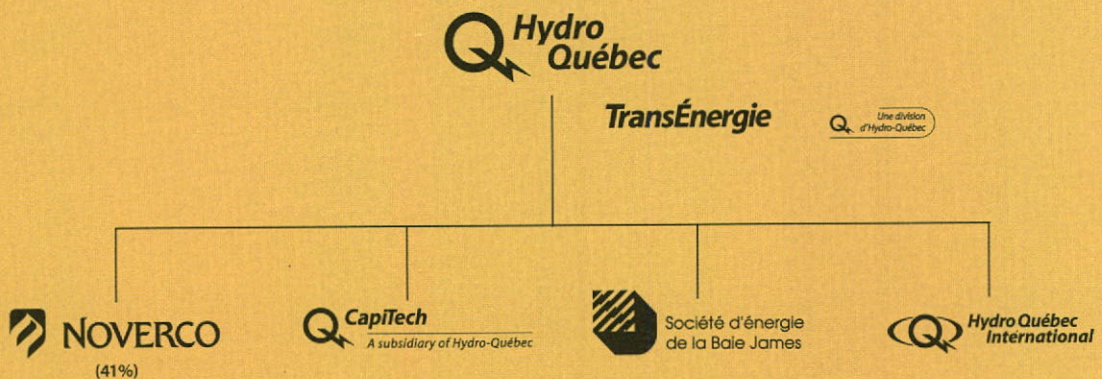
**TransÉnergie** transmits electricity and markets transmission capacity, while maintaining and enhancing assets and ensuring non-discriminatory access to the transmission system, in compliance with reliability, system security and other rules in effect.

**Hydro-Québec International** develops international markets for Hydro-Québec and its subsidiaries in the energy sector and related sectors; exports the technological know-how and products of Hydro-Québec and its subsidiaries; invests in partnerships on the international energy market; and promotes and supports efforts to export the know-how of Québec companies in the energy sector.

**Société d'énergie de la Baie James** chiefly provides world-class services in engineering and in carrying out construction projects in the energy industry, both locally and internationally.

**Hydro-Québec CapiTech**, formerly Nouveler, invests as a partner in energy technology companies and their related products or by-products. It also manages Hydro-Québec's non-strategic investments and provides management services for strategic subsidiaries.

**Noverco**, in which Hydro-Québec has a stake, is a holding company that controls a large number of companies involved primarily in the transmission and distribution of natural gas.

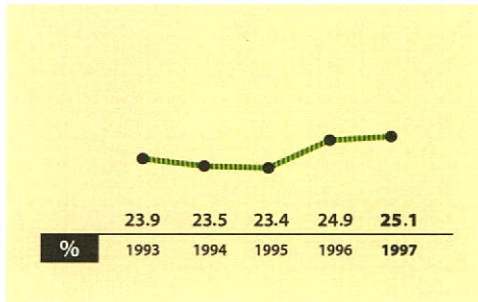




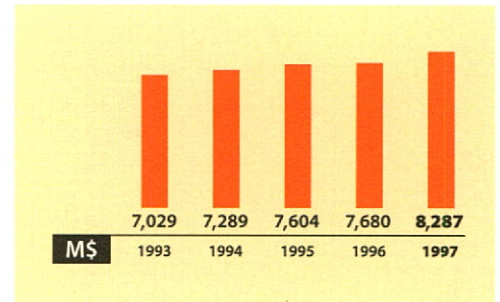
# Key Figures

(consolidated, in \$ millions)	1997	1996	Change (%)
<b>Operations</b>			
Revenue	8,287	7,680	7.9
Expenditure	4,446	4,004	11.0
Financial expenses	3,049	3,156	(3.4)
Net income	786	520	51.2
<b>Balance Sheet</b>			
Total assets	55,194	53,760	2.7
Long-term debt	37,116	36,404	2.0
Shareholder's equity	12,888	12,459	3.4
<b>Financial Position</b>			
Operating activities	2,389	2,005	19.2
Financing activities	(403)	(288)	(39.9)
Investing activities	(2,133)	(2,047)	(4.2)
Cash at end of year	349	496	(29.6)

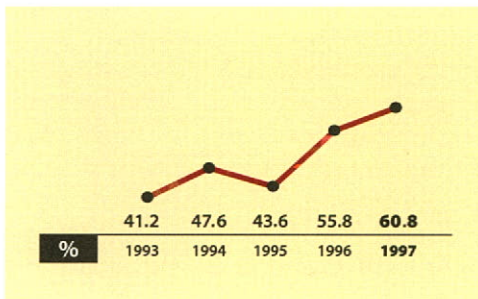
## Capitalization



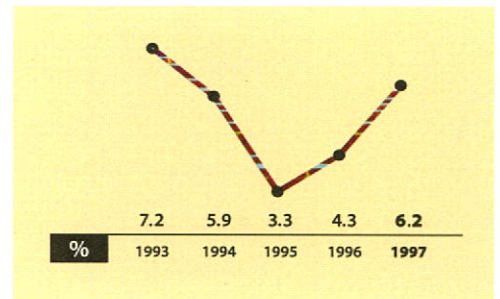
## Sales



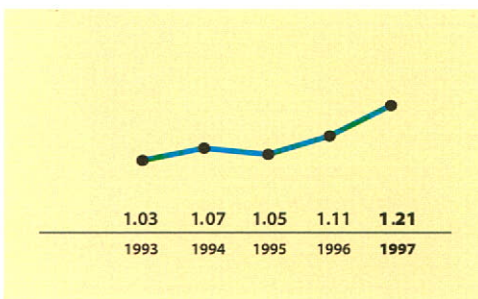
## Self-Financing



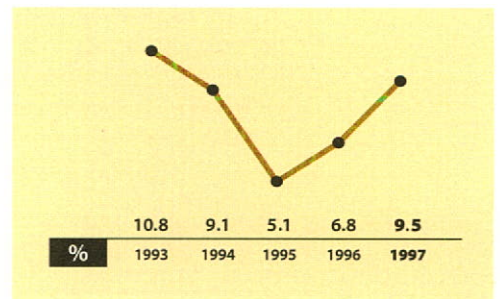
## Return on Equity



## Interest Coverage



## Return on Revenue





# On the Path to Growth

## Message from the Chairman of the Board and the President and Chief Executive Officer



Fiscal 1997 marked a major turning point for Hydro-Québec. The utility resolutely embarked on a new path toward increasing profitability and ensuring future growth, thereby generating positive spinoffs for the Québec economy as a whole.

First of all, in accordance with our obligations as a public utility, we continued to improve the quality of our services and to reexamine our operating methods so as to meet the energy needs of all Quebecers, with favorable rates and conditions.

We plan to make the most of our competitive edge to seize new business opportunities arising from the restructuring of North American energy markets and the new regulatory framework.

Over the years, Hydro-Québec has earned a reputation for quality and reliability, as well as for its remarkable expertise, particularly in the field of high-voltage transmission over long distances. Our hydroelectric generating plant, unique in Eastern North America, not only provides us with a reliable energy source, but also enables us to store energy in our reservoirs, which in turn allows us to take advantage of price fluctuations.

The energy we generate is non-polluting. It considerably reduces greenhouse gas emissions in the Northeastern United States, a factor to which consumers are increasingly sensitive. What is more, our rates are among the lowest in the Northeastern U.S.

### Hydro-Québec, a World-Class Player

A permit from the U.S. Federal Energy Regulatory Commission (FERC) recognizes our subsidiary Hydro-Québec Energy Services (U.S.) as a wholesaler at market prices, enabling us to follow through on our desire to expand our business base. Since this permit was granted, we have been entitled to sell electricity directly to wholesalers in the United States under U.S. market conditions – a development that should improve our return on revenue from foreign sales.

In addition to the efforts we have made to strengthen our position in neighboring provinces, our active presence on American markets will help us increase sales substantially. Furthermore, strict control over costs and a refocusing on the core activities of our business units will contribute to increasing income. One effect of this will be to maintain low electricity rates in Québec. Late last year, Hydro-Québec announced its firm intention to freeze Québec electricity rates until April 2002, following a 1.6% adjustment for inflation, effective May 1, 1998.

Overall, in view of the foreseeable growth of the Québec and export markets, we expect to increase sales by 25% within the next 10 years; this means adding another 40 TWh to the 162.5 TWh sold in 1997. Two-thirds of this increase will come from meeting the needs of the Québec market, which remains our primary reason for existence.

### The Means to Achieve Our Objectives

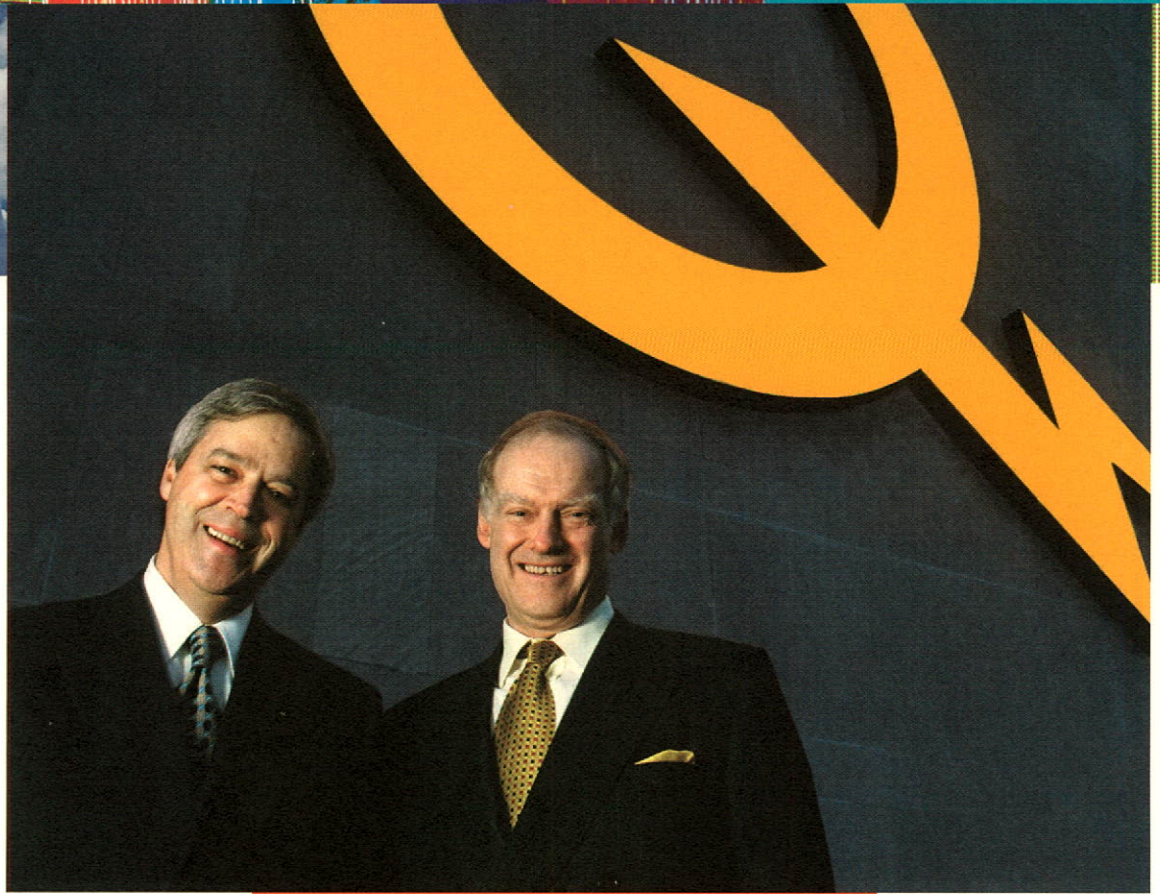
The anticipated increase in sales will entail renewed investment in generation and transmission.

In this respect, last year we stated our intention to complete the development of our hydroelectric potential in order to meet the demand in Québec and in markets beyond our borders. We also plan to increase our capacity for transmitting power to neighboring markets as our exports grow.

Our development projects must meet three criteria. We will only undertake projects whose profitability under market conditions has been or will be demonstrated beyond any doubt. These projects must accord with the principles of sustainable development. And they must be favorably received by the local communities.

This is the spirit in which we engaged in intensive discussions with the representatives of Newfoundland & Labrador Hydro Corporation to evaluate the possibility of jointly building and operating new hydroelectric facilities in Labrador. We firmly believe that the tremendous potential represented by the opening up of the North American energy market favors the development of a new partnership which can only be productive.





L. Jacques Ménard and  
André Caillé

*The restructuring of the North American energy industry and the needs of emerging markets offer Hydro-Québec promising prospects for growth.*

**Hydro-Québec, at the Heart of Convergence**

Given the growing convergence between electricity and natural gas, we continued our thrust toward other energy sectors. Specifically, we made investments and formed business alliances with companies operating in energy sectors other than electricity, such as Noverco (the holding company that controls Gaz Métropolitain), Enron Capital and Trade Resources Canada Corp., Trigen (the U.S. subsidiary of the French group La Lyonnaise des Eaux), and IPL Energy of Calgary. We also established a 50-50 partnership between Hydro-Québec International

and Gaz de France, setting up MEG International (Multinationale de l'électricité et du gaz) with a view to investing in thermal generation projects and gas projects on international markets.

We foresee accelerated growth in an important market: that of multi-energy products filling a whole set of needs, particularly those of large companies. Our ability to meet this new type of demand will contribute to optimizing the use of our production, transmission, distribution and storage facilities for natural gas and electricity, and we expect to reap increased benefits from this convergence.

In organizational terms, we continued restructuring the utility into distinct business units. Each reviewed its procedures in order to bring them in line with the utility's growth strategy, to be more effective and reduce operating costs.

In parallel with this reorganization, we created the TransÉnergie division, which provides effective management of the transmission system, so as to meet all of our customers' power transmission needs on an equitable and non-discriminatory basis.





To ensure Hydro-Québec's growth in the longer term, the newly formed International Affairs and Projects Group was given a mandate to develop a world-class base of international activity. Growth potential on the international market is estimated at nearly 665,000 MW between now and 2007. We also broadened the mission of Hydro-Québec International to derive additional benefits from the growth in worldwide needs.

To this end, Hydro-Québec, in partnership with other companies or with venture capital funds in Québec and elsewhere, will invest up to \$1.2 billion over the next few years in international energy projects. Moreover, with the participation of Québec and foreign companies, we will use the expertise of our business units to carry out and operate profitable international projects.

Continuing our aim to improve profitability, we also reoriented research and development efforts to focus on Hydro-Québec's core activities. The integration of strategic subsidiaries into our business units clearly confirms our desire to make R&D one of the foundations of our growth.

Lastly, we strengthened the marketing of our technological products and assets, with particular emphasis on developing partnerships and sharing risks with private enterprise. Our subsidiary, Nouveler, the holding company that manages our technological subsidiaries, underwent extensive restructuring and now operates under the name Hydro-Québec CapiTech.

#### **Promising Results**

The changes made in our operating methods played an important role in improving results for 1997. Sales totaled \$8 billion, for a 7.9% increase over the preceding year. As a result of strict cost control and

a significant adjustment in the size of our work force, net income was \$786 million, up 51% from 1996. Our return on equity reached 6.2%, compared with 4.3% at the end of 1996.

In 1997, our purchases of goods and services, including professional services, totaled \$1,163 million. With an 80% Québec content, they supported 12,700 direct and indirect jobs.

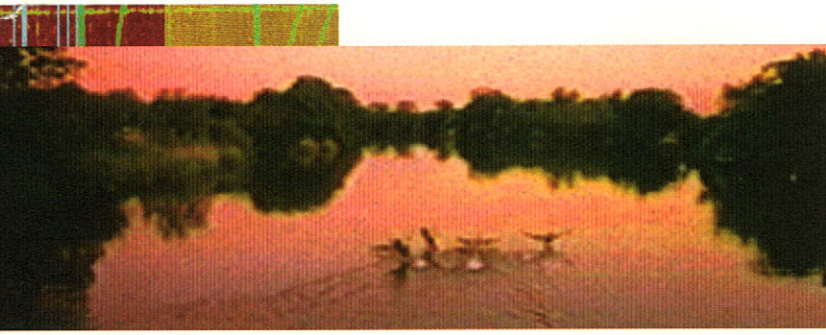
We can already state that our activities as a whole will more than ever provide a major stimulus for the Québec economy. Over the next five years, our investments in generation, transmission and distribution should amount to more than \$13 billion, and our operating activities will

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#### **Hydro-Québec is determined to:**

- *Meet its customers' energy needs by offering them reliable, high-quality service, at the best possible rates and under the best possible conditions;*
- *Ensure reasonable growth and rates of return, through careful management of its resources;*
- *Optimize its role as an engine of the Québec economy by taking advantage of the business opportunities presented by the new electricity market;*
- *Complete the development of Québec's hydroelectric potential, on competitive terms, with respect for the environment and in cooperation with local communities;*
- *Expand its growth potential by developing a world-class base of international activity;*
- *Turn research and development into an instrument for growth and profitability;*
- *Foster the updating and continuity of its employees' know-how.*





help sustain close to 95,000 direct and indirect jobs throughout Québec. So it is with much enthusiasm that we at Hydro-Québec are setting out on the path to growth.

### **New Solidarity**

Achieving our objectives depends, to a large extent, on the quality of our human resources and their concrete, effective contribution to fulfilling the utility's mission.

At the close of an especially demanding year, we wish to thank our employees for their support. We take pride in the fact that even in an environment of great change, at no time did the quality of service our customers rightly expect ever waver.

The generosity and energy our employees demonstrated during the power outages caused by the ice storm that struck Québec early in 1998 speaks

volumes for their high level of professionalism.

We also want to acknowledge the invaluable contribution of our management team, as well as that of the many managers who suggested ways of responding to the major challenges resulting from changes in our markets.

Thanks to their efforts and innovative ideas, Hydro-Québec will be able to continue serving its customers well, by providing them with clean, reliable energy at rates that are among the lowest in North America.

### **A Vigilant Board of Directors**

We also wish to convey our appreciation to the members of the Board of Directors for the vision they demonstrated throughout this year of change. We especially want to thank the Directors who left the Board in 1997: Phyllis Lambert, Michel Clair, Armand Couture, Jean-Louis Dulac, and Jean-André Élie. Their contribution to Hydro-Québec's development was inestimable.

We welcome Jean-Paul Beaulieu, Daniel Boulard, Charles G. Cavell, and Yvon Lamontagne, who joined the Board this past year.

We would like to make special mention of Humberto Santos, who passed away in 1997, just a few months after he was appointed to the Board of Directors. We are deeply saddened by the loss of this remarkable man who, in a very short time, made his presence felt with the wisdom of his words and deeds.

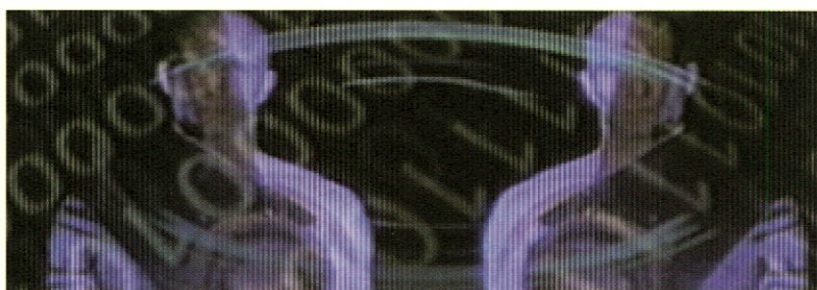
L. Jacques Ménard  
Chairman of the Board

André Caillé  
President and  
Chief Executive Officer









## Energy to Serve Our Customers Well

**Hydro-Québec gives top priority to the changing expectations of its customers.** It works to meet their energy needs, increase the reliability of its power system, improve their comfort, and provide each customer in the residential, commercial, institutional and industrial fields with personalized energy solutions.



# Generation

## Generating for Growth

After experiencing average growth of 3.5% a year from 1981 to 1995, spurred by a strong upsurge in demand in the industrial sector, the Québec electricity market should see annual growth of 1.5% for the next five years. This moderate increase is explained mainly by the slowdown in demographic growth, a more modest startup rate of enterprises that require large amounts of electricity, and increased efficiency in electricity use.

For many years now, Hydro-Québec has also made major electricity sales to the United States and to neighboring provinces, especially Ontario and New Brunswick. Since 1985, sales outside Québec have totaled some \$6 billion, including \$596 million in 1997. More than three-quarters of sales outside Québec this past year went to the United States.

The gradual closing of older thermal generating stations, together with the foreseeable decommissioning of several nuclear power plants in New England, Ontario

and New Brunswick, presents a particularly favorable scenario for Hydro-Québec, which is in a position to offer adjacent markets clean, renewable energy at highly competitive rates.

As markets open up all across North America, Hydro-Québec expects to achieve additional sales of 20 TWh over the next five years, including 14 TWh in Québec and 6 TWh outside Québec.

To meet this additional demand, Hydro-Québec proposes to increase inflows into some of its reservoirs in order to improve the utilization factor of its existing facilities and meet all the future needs of its markets at attractive costs. Hydro-Québec also plans to take advantage of the electricity-natural gas convergence to acquire a thermally generated supply of electric power of up to 10 TWh.

Further, we have embarked on a process to reduce costs and shorten project lead times, which will help improve the competitive position of hydroelectricity as an energy source.

## Faster Pace of Construction

We have therefore accelerated work in progress in order to be able to commission the hydro-electric generating station on the Rivière Sainte-Marguerite (on the North Shore) six months ahead of schedule. This will reduce the total cost of the complex, with an installed capacity of 882 MW, to a little over \$2 billion, representing savings of \$85 million from the original project budget. Accordingly, we brought forward the commissioning of the first generating unit to spring 2001 to benefit from the first spring flood, which will earn estimated revenue of some \$50 million.

We have also obtained the necessary authorization to conduct draft design studies for the partial diversion of the Portneuf, Manouane, Boucher and Sault aux Cochons rivers. The studies under way will enable us to determine the profitability of these projects and their possible impact on the local environment, in close cooperation with Hydro-Québec's partners and users of the territory. These projects would optimize use of the Bersimis generating stations at a minimal cost and develop the untapped potential of the Betsiamites watershed.

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## Hydroelectric completion projects in Québec must comply with three basic criteria, namely:

- *be profitable under market conditions, which means a generation cost of less than 3 cents per kilowatthour;*
- *be acceptable from an environmental standpoint, in accordance with the principles of sustainable development;*
- *be favorably received by the local communities.*

## A Firm Commitment to Sustainable Development

In keeping with our commitment to preserve the environment, we continued our long-term research efforts, particularly in the area of wind power generation. We therefore signed an agreement with Énergie Le Nordais for the supply and installation of three Micon



### Energy Requirements (TWh)

	1997
Sales in Québec	147.3
Sales on external markets	15.2
Total sales	162.5
Deliveries as per agreement	6.4
Electricity losses and other	13.4
Total requirements	182.3

### Supply (TWh)

	1997
Generated (gross)	141.7
Purchased	34.8
Other*	5.8
Total supply	182.3

\* This category includes purchases on short-term markets, the marketing of storage capacities and deliveries received as per agreement.

*Hydro-Québec plans to complete Québec's hydropower potential with a view to ensuring continuity with the developments carried out over the last 30 years.*

wind turbines, with a capacity of 750 kW each, in the Gaspé peninsula. This will create a first wind power demonstration facility, slated for commissioning in early 1998. Hydro-Québec also awarded a contract to Énergie Le Nordais for the installation of a 100-MW wind farm, one of the largest in the world. We have agreed to buy the electricity produced for a period of 25 years.

We have made firm commitments to local and Aboriginal communities to carry out our projects with their support. We are consequently proposing partnership opportunities to them, so that the projects undertaken will generate positive spinoffs for all concerned.

### Hydro-Québec – Newfoundland: Promising Discussions

Hydro-Québec has also engaged in discussions with authorities of Newfoundland & Labrador Hydro Corporation, mainly concerning the comple-

tion of the hydropower potential on the Churchill River in Labrador. This involves additional capacity at Churchill Falls generating station and new generating facilities at Gull Island and Muskrat. These projects will add more than 3,000 MW in capacity.

In 1997, Hydro-Québec's total installed capacity was 36,000 MW, including power purchased from Churchill Falls (Labrador) Corporation. Of this total, 94% was generated from hydropower.

**Hydro-Québec** derives clean, renewable energy from Québec's hydropower potential, which helps conserve the environment for present and future generations.



# Distribution and Customer Services

## Listening to Our Customers

The quality of service and low rates offered to Hydro-Québec's customers constitute our main accomplishments over the years. We are counting on these accomplishments to provide new

services and increase our profitability. The goal: to make Hydro-Québec the top energy choice for residential, commercial and institutional customers as well as for small industry.

## Low Rates and Competitiveness

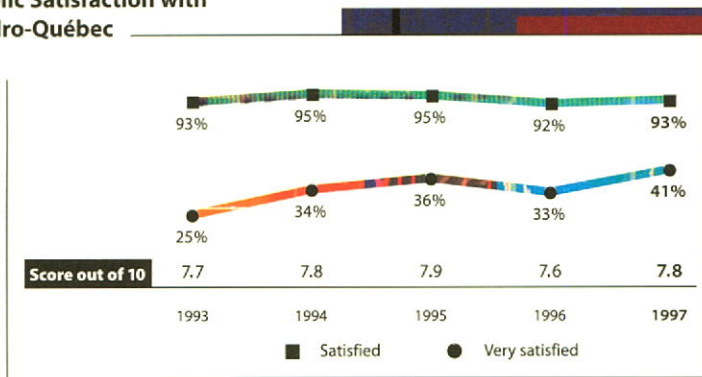
For all our customers, particularly residential customers, Hydro-Québec's rates rank among the lowest in North America. Our intention to freeze rates for three years (until 2002), after a 1.6% adjustment for inflation in May 1998, provides all our customers with a stable basis for planning their investments in the medium term.

In addition to offering our business customers some of the best rates in North America, we continued our efforts to develop services to help them maintain their competitive edge. We developed a technical help service for electrotechnology implementation geared especially to small and medium-sized industrial companies. This service helps them acquire the efficient technologies that best suit their particular activities and characteristics.

As a general practice, Hydro-Québec helps its commercial, industrial and institutional customers manage their energy consumption by offering them an energy optimization service tailored to their specific needs.

Moreover, our specialists are available to help companies solve their generating-loss problems due to disturbances in power supply. This assistance ranges from producing diagnostics, to proposing solutions and supporting their implementation.

## Public Satisfaction with Hydro-Québec

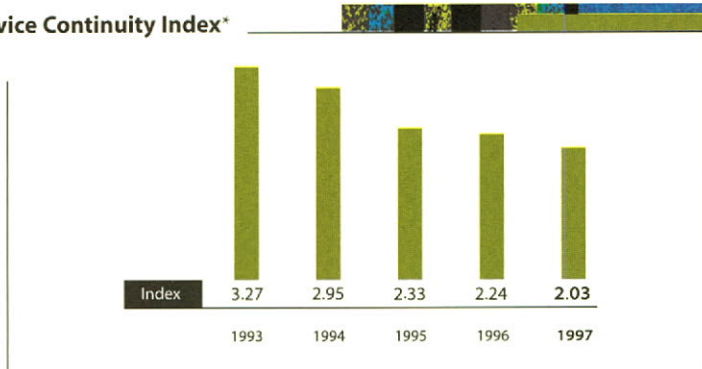


## Comparative Electricity Prices\*

	Residential rate		Industrial rate	
	C\$	Index	C\$	Index
Montréal	5.94	100	3.99	100
Ottawa	7.36	124	5.79	145
Toronto	9.23	155	6.35	159
Vancouver	6.12	103	4.06	102
Boston	17.05	287	11.98	300
Nashville	8.16	137	6.31	158
New York	18.73	315	9.87	247

\* Average price at May 1, 1997

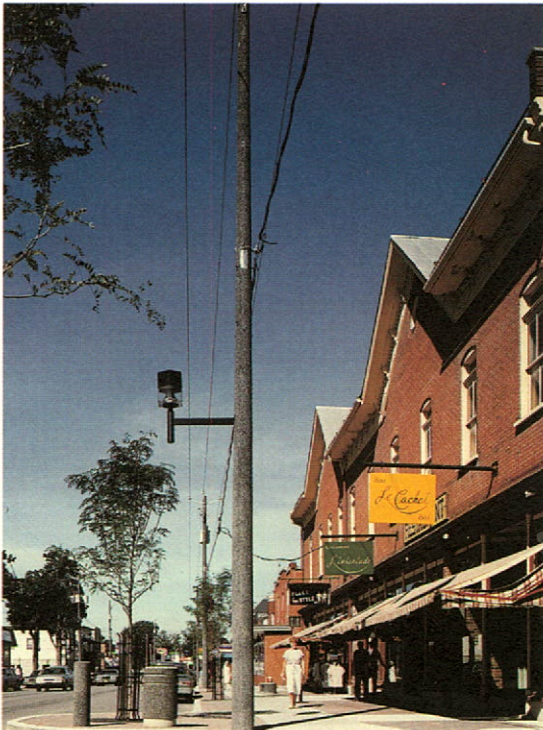
## Service Continuity Index\*



\* Standardized index taking exceptional weather conditions into account



*Hydro-Québec intends to maintain its social contract with the people of Québec by providing them with a secure power supply and offering them low, stable, and uniform rates.*



### **Enhanced Comfort**

For the consumer, energy management and enhanced comfort go hand in hand. In 1997, Hydro-Québec launched its *Nouveau confort* program in partnership with home-building experts. The high standards that characterize this new program allow us to considerably increase the energy efficiency of new single-family homes, whether detached, semi-detached or row houses.

Owners of such houses can cut their electric-heating bills by up to 50%, while also enjoying unparalleled comfort. These homes are better designed, better insulated, better ventilated, better oriented, and use the most advanced technologies,

particularly for space and water heating. Under this program, Hydro-Québec has devoted substantial efforts to training its partners in the construction industry.

Again to serve our customers better, we continued our water heater rental program. In 1997, more than 4,000 new rentals were issued under this program.

In response to growing consumer interest in home automation, Hydro-Québec developed a pilot project covering 215 homes in the Saguenay region. These homes are benefiting,

on an experimental basis, from the many advantages of heating controlled by an electronic manager programmed by the customer, with help from Hydro-Québec.

This electronic manager, connected to all the thermostats in the customer's home, can control their operation according to the family's changing needs, from day to day, season to season, or activity to activity.

Finally, because quality of service and customer satisfaction first entail efficient electricity distribution, we continued our efforts to maintain continuity of service. In 1997, the standardized distribution continuity index was 2.03 hours per customer, compared with 3.27 in 1993.

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**At Hydro-Québec,  
customer satisfaction**

*is a top priority.*



# Energy Services

## **Giving Large Businesses a Competitive Edge**

Hydro-Québec makes a substantial effort to offer all Quebecers, including the approximately 250 large-power industrial customers it serves, a reliable, high-quality power supply at competitive rates. It plays a part in maintaining their competitive edge by providing personalized services and helping them acquire the industrial processes that best suit their needs.

*Over the years, Hydro-Québec has positioned itself as a reliable, flexible and highly competitive company on markets outside Québec.*

These customers also benefit from the expertise of Hydro-Québec's electrotechnologies research and development service, various energy efficiency measures and business agreements.

Through its services, Hydro-Québec thus contributes to the economic development of our society as a whole, by fostering the growth of existing companies and encouraging the establishment of new large companies that are major energy consumers.

In 1997, we concentrated particularly on the development of new products designed for industrial customers, such as our multi-energy service and other services that make use of our know-how and technologies, especially in the areas of generation, transmission and distribution.

In the current environment of market restructuring, large industries may be expected to favor suppliers that provide multi-energy services along with a wide range of personalized services. Such services include energy management, billing, financing activities, and other forms of strategic alliances that help companies reduce their energy costs and be more competitive.

## **An Expanded Range of Services**

The investments and strategic alliances Hydro-Québec recently concluded with companies operating in sectors other than electricity, such as natural gas and oil, must be viewed in terms of the convergence of various forms of energy and the provision of comprehensive services.

As part of this trend to convergence observed in the North American energy sector, Hydro-Québec also acquired a stake in Noverco, the holding company of Gaz Métropolitain. Through Noverco, Hydro-Québec also has a stake in IPL Energy of Calgary. In addition to these transactions, Hydro-Québec has formed strategic alliances with Enron Capital and Trade Resources Canada.

In general, this type of transaction will enable Hydro-Québec to develop a critical mass, geographically diversify its activities and seek synergies in the production and supply of energy-related products and services.

## **Tremendous Potential for Growth**

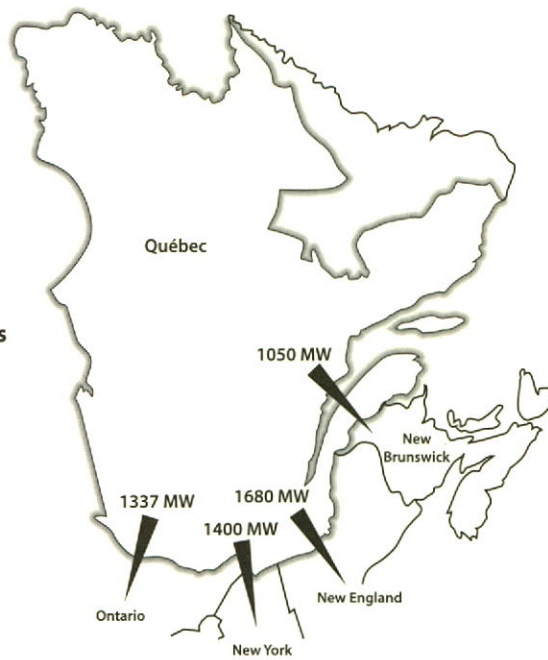
As a result of a permit obtained from the U.S. Federal Energy Regulatory Commission, Hydro-Québec Energy Services (U.S.), a Hydro-Québec subsidiary, is now able to make direct sales at market prices to American wholesalers, including utilities, municipalities, resellers and large-power industrial consumers in the U.S.

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**Hydro-Québec works hard to keep its rates at the lowest level** *to ensure the competitive position of its industrial customers and sustain industrial development in Québec.*



**Interconnections with Neighboring Systems**  
(Usable export capacity)



Hydro-Québec can not only sell electricity in the United States, but also buy it on the short-term market in off-peak periods when prices are lower, and then resell it when prices are higher—yet another factor in improving profitability and optimizing plant utilization.

In 1997, Hydro-Québec exported 15.2 TWh, or a little more than 9% of its total sales; of this, 3.8 TWh went to the neighboring provinces of Ontario and New Brunswick. Altogether, sales outside Québec generated revenue of \$596 million.

We are also working intensively to increase the volume of exports and reach our target of an additional 6 TWh in sales outside Québec by the year 2002. If we factor in long-term contracts ending in the next few years, the effort to develop markets outside Québec amounts to some 14 TWh for this period.

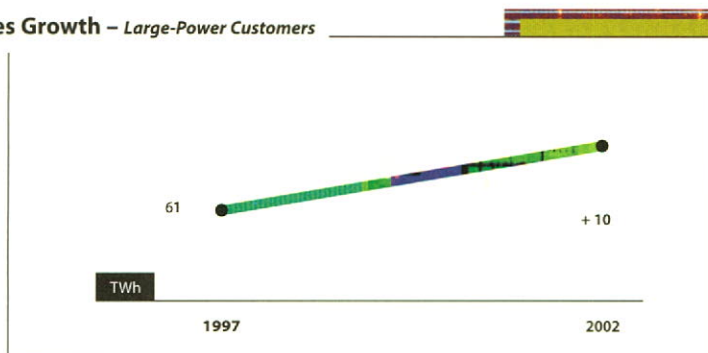
To achieve this goal, two main approaches have been adopted: direct sales to customers in the wholesale market and to industrial customers outside Québec, and alliances with local resellers to penetrate retail segments outside Québec which will open up gradually.

**A New Value-Added Service**

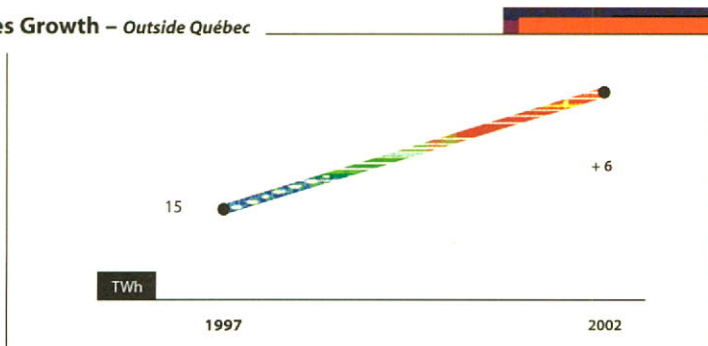
Lastly, to further enhance the range of services it provides, Hydro-Québec now offers its customers outside Québec the possibility of banking a predetermined quantity of energy in its reservoirs. These customers can thus take advantage of fluctuations in market prices. While generating rental revenue, this service will optimize the use of Hydro-Québec's facilities.

Following an initial call for proposals from power producers in July, a banking agreement was reached with Ontario Hydro.

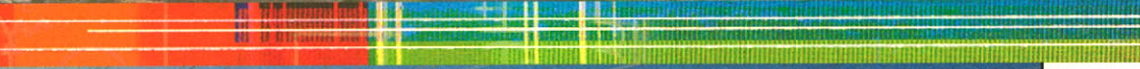
**Sales Growth – Large-Power Customers**



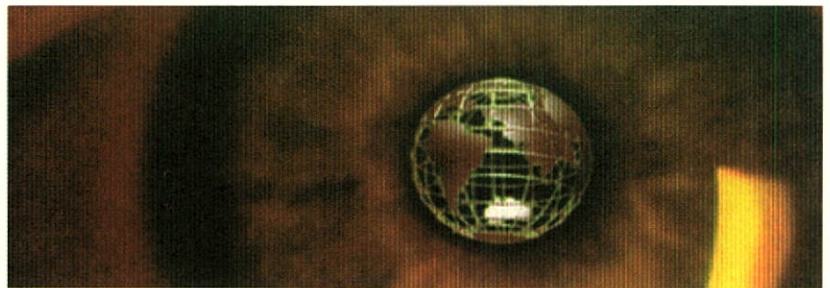
**Sales Growth – Outside Québec**











## Energy Without Borders

**Hydro-Québec enjoys exceptional competitive advantages** that enable it to play a leading role in the new energy market, both in North America and around the world.



# TransÉnergie

## Non-Discriminatory Access to the Power System

In 1997, because of the new market conditions in North America, Hydro-Québec separated its transmission operations from its electricity generation, distribution and marketing activities. The result was the creation of a new division, TransÉnergie. Recognition of the administrative autonomy of this unit is designed to assure present and future Hydro-Québec customers of non-discriminatory access to its transmission system.

*The priority objective of TransÉnergie is to ensure the reliability of its system so it can meet its customers' needs at all times.*

Under the new rules governing the restructuring of the North American energy market, all power producers may use the transmission system of any utility to sell their energy on the wholesale market of their choice, for import, export or transmission between two territories.

TransÉnergie now offers access to its system capacity to all those who want to use it for their power transfers, i.e., Hydro-Québec, electricity distributors in Québec, independent power producers, neighboring power systems, and energy brokers in Canada and the United States.

The capacity available on the system is posted on the OASIS (Open Access Same-Time Information System) Web site.

The requirements of functional separation and, more specifically, of neutrality led TransÉnergie to organize its services in line with the new market environment. TransÉnergie is also responsible for maintaining the system's high level of quality and reliability at the lowest possible cost.

## Promising Beginnings

In addition to serving the total Québec market as its first priority, TransÉnergie signed four transmission contracts in 1997 with North American customers. One of these agreements, with James Maclaren Industries, a subsidiary of Noranda Forest Inc., allows Hydro-Québec to use the Maclaren grid to exchange energy with Ontario while allowing Maclaren to sell electricity surpluses from its three generating stations on the North American market. TransÉnergie also began talks with several other potential customers in Canada and the United States.

Hydro-Québec's interconnection network currently has a usable transfer capacity of about 5,500 MW.

TransÉnergie also intends to offer a variety of transmission-related technological products, as well as specialized services with commercial value, such as facility maintenance.



**Hydro-Québec has** more than 32,000 km of transmission lines at voltages ranging from 49 kV to 765 kV, as well as interconnections with a total usable capacity of about 5,500 MW. A direct-current line links Radisson substation, in the James Bay region, directly with Sandy Pond substation, located in a suburb of Boston.





## Reliability First

*In January 1998, freezing rain accumulating up to 90 mm thick in some areas caused major damage to the transmission system infrastructure, particularly in southwestern Québec, even though the system was built to standards several times more stringent than the minimum industry requirements at the time of construction. The mobilization of all of Hydro-Québec's internal and external resources to restore the system was so successful that, far from being resentful, the people of Québec expressed great satisfaction with the work accomplished by the utility.*

*Such extreme weather conditions are most unusual in Québec. Nevertheless, because of the serious consequences they can have, TransÉnergie has set about improving the system's reliability by making it sturdier and improving its configuration, so as to minimize damage and speed up restoration, should similar events occur.*

## Interconnections

System	Usable Export Capacity
Cedars Rapids Transmission Co. (New York)	1,400 MW
New England (multiterminal direct-current system)	1,400 MW
Vermont	200 MW
Citizen Utilities	80 MW
New Brunswick	1,050 MW
Ontario and Cedars Rapids (Cornwall)	1,337 MW



# International Affairs and Projects

## The World Energy Market

Within the next decade or so, Hydro-Québec will complete the development of as much of its hydroelectric potential as can be realized at a competitive cost.

The development of a world-class base of international activity has now become critical to ensuring our long-term growth and the continuity of our expertise and employee know-how.

*Hydro-Québec plans to invest in the international energy market by making maximum use of its employees' know-how, in partnership with the Québec electricity industry.*

World energy demand will experience strong growth over the next 10 years, especially in newly industrialized or developing countries in Asia, South America and, to a lesser extent, Eastern Europe. In the coming years, Hydro-Québec will invest up to \$1.2 billion in international energy projects. Tremendous growth opportunities are opening up to energy companies, particularly those capable of offering multi-energy solutions and a full range of integrated services.

## A New Organization

To ensure expansion on international markets, Hydro-Québec has amalgamated the Projects and Construction Division with Société d'énergie de la Baie James (SEBJ) and Hydro-Québec International (HQI), to form the International Affairs and Projects Group.

The Group's mission is to develop and manage Hydro-Québec's portfolio of investments in the international energy market to obtain maximum profitability. It also handles engineering and management activities for Hydro-Québec projects in Québec and around the world, working with local and foreign financial and industrial partners to improve its offers of service, optimize spinoffs and share risk.

In this context, Hydro-Québec International has acquired a broader mission. It now acts as a single window for the development of Hydro-Québec's international activities. Working closely with the utility's business units, it makes use of their expertise in its sales and marketing efforts and in carrying out mandates in target markets.

HQI's short-term goal is to invest, as a partner, in acquisition and construction projects in energy production, transmission and distribution.

With 20 years of experience on international markets and some 300 technical assistance contracts completed in over 60 countries, Hydro-Québec International is known around the world. Since 1978, these activities have generated revenue of \$505 million, including \$230 million for its partners in Québec.

## HQI and Partnership Development

In all its foreign operations, Hydro-Québec International works with Québec-based and international partners, especially companies offering expertise or know-how that complements its own, to share the risks and benefits of its projects, whether these involve investments, marketing, or the provision of goods and services.

Recently Hydro-Québec International concluded a financial partnership agreement with the Solidarity Fund, affiliated with the Québec Federation of Labor. The Fund will inject

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**In global terms, the energy sector will grow by a phenomenal 5 to 10% a year up until 2007, compared with 1.5% in Québec.**



\$500 million in equity over the next five years to help develop international energy markets, thus raising HQI's investment capacity to \$1.7 billion.

In 1997, HQI won a U.S.\$180-million contract from the government of Peru to build a 220-kV interconnection. The Solidarity Fund is a member of the consortium headed by HQI, while SEBJ will act as prime contractor for the project. Trans-Énergie is also expected to obtain a 30-year contract to operate the interconnection.

To improve its penetration of the thermal power production and natural gas markets, HQI, in conjunction with GDF Québec (the Québec subsidiary of Gaz de France), created MEG International (Multinationale de l'électricité et du gaz). As its first project, the new company has teamed up with Pan American Enterprises to convert minibuses to natural gas and to operate a network of natural gas stations in Mexico City.

HQI also managed a project to build and operate a 10.6-MW power plant in Costa Rica in partnership with two Québec firms. The plant was inaugurated in early 1998.



During the China trade mission organized by the Québec government, HQI signed a memorandum of understanding with China's Department of Hydraulic Resources to set up a joint venture for dam safety management and instrument manufacture. HQI also obtained a contract to train workers in the operation and maintenance of a CANDU-type nuclear generating station.

HQI signed a partnership agreement with Boralex, a subsidiary of Groupe Cascades, to build small thermal plants (using flare gas) and hydroelectric generating stations in Tunisia.

Lastly, HQI renewed a number of cooperation agreements, including one with Northeast China Electric Power Group and one with STEG, the Tunisian gas and electric utility.

### Francophonie and International Cooperation

In 1997, HQI continued to manage two programs Hydro-Québec entrusted to it several years ago: the Francophonie program for consolidating business relations with French-speaking countries, and the international cooperation program.

These programs include activities such as visits and technical tours, missions to other countries, internships and training at Hydro-Québec, and bilateral or multilateral projects.

**Hydro-Québec held a conference on hydroelectricity in Montréal,** in conjunction with the Québec's natural resources ministry and the Latin American energy organization OLADE. Strong ties were developed with Latin American energy companies, and the event gave HQI an opportunity to raise awareness of its new role as an operator-investor in energy projects.









## Energy to Innovate

**Hydro-Québec's growth over the years has been bolstered by considerable R&D efforts.** Now more than ever, our future development depends on our ability to innovate in areas related to our core business.

## R&D and IREQ

### Technology: A Tool for Growth

At Hydro-Québec, we intend to remain on the leading edge of technology in order to sustain our growth.

We have therefore reassessed the R&D activities of our research institute, IREQ, with a view to reaping the benefits of investments made over the past 20 years.

*Hydro-Québec's technological leadership in its areas of expertise is a powerful tool for growth and profitability.*

IREQ, which already conducts research for Hydro-Québec's business units, will now focus on mandates related to their business strategies, especially in the areas of generation, transmission and distribution.

R&D efforts will concentrate mainly on reducing maintenance costs, improving equipment availability, reducing the environmental impact of operations, developing tools for system and reservoir management, and developing high-performance electro-technologies. IREQ may work alone on these projects or in partnership with the private sector, universities, or other Canadian or foreign research institutes.

To secure a leading role in exploratory research, Hydro-Québec has decided to allocate \$20 million annually for the next five years to basic R&D. This budget will be used to monitor developments in long-term projects such as intelligent networks, superconductivity and tele-robotics. Resources will also be allocated to step up prospecting in areas such as renewable energy, power electronics, fuel cells, dispersed generation, the greenhouse gas effect and the environment.

### Strategic Investments

Hydro-Québec intends to forge partnerships with companies interested in investing in the research, development and marketing of technological assets related more specifically to the use of electricity in ground transportation and other modes of transport. These sectors account for nearly 30% of world energy consumption.

Following a report by a committee of nine North American experts asked to report on the motor-wheel project, Hydro-Québec joined up with venture-capital fund Sofinov, Société générale de financement du Québec (SGF) and the Solidarity Fund to create a new company to market the M4 motor-wheel technology. This company, which holds an exclusive world license for the







technology, will develop strategic alliances with industrial partners to commercialize the motor-wheel and, ultimately, an electric vehicle.

Interest in using the polymer-electrolyte battery ACEP for electric vehicles was confirmed during the year.

In June, the U.S. Advanced Battery Consortium (USABC) signed a third partnership agreement with Hydro-Québec, 3M of St. Paul, Minnesota, and Argonne National Laboratories of Chicago for the development of a battery based on ACEP technology for use in electric vehicles. The two-year contract is worth \$24.5 million, bringing USABC's total investment in this technology to \$84.8 million since 1993.

Under this agreement, ACEP batteries for electric vehicles will be assembled in Québec and used in road tests. Hydro-Québec invested \$8.3 million to increase the production capacity of Argo-Tech Production, a Hydro-Québec CapiTech subsidiary that has been assembling ACEP battery prototypes since 1994.

Another technology, the interphase power controller (IPC), developed jointly by IREQ and ABB Canada, reached market at the end of the year. The New York Power Authority (NYPA) has adopted the technology, which facilitates energy exchanges within North America by ensuring the optimum management of inter-grid power transfers. The IPC is just one example of the innovative solutions Hydro-Québec can offer utilities to help them adapt to the new open-market environment.

**ACEP is one of the most technologically advanced rechargeable batteries for electric vehicles. Its polymer electrolyte enables it to use the world's lightest metal, lithium, as a source of electrochemical energy.**

# Commercialization of Technologies and Hydro-Québec CapiTech

## Investing in Technology

As part of our focus on growth, we undertook a restructuring of our subsidiary Nouveler in 1997.

*Hydro-Québec CapiTech aims to support Hydro-Québec's technological leadership by investing venture capital in energy technologies and related products, both nationally and internationally.*

After establishing new directions for marketing the technologies in which Hydro-Québec has invested through Nouveler, each business unit identified and took charge of the subsidiaries whose products were of strategic interest

to its objectives. As a result, seven ventures were attached to the utility's business units. Investments deemed non-strategic but profitable were left under the responsibility of Hydro-Québec's holding company, which adopted a new name and a new business plan.

## Hydro-Québec CapiTech: New Name, New Mission

Nouveler now operates under the name Hydro-Québec CapiTech.

Backed by Hydro-Québec's investment capacity and technological expertise, Hydro-Québec CapiTech has a mission to invest in energy technologies and related products in partnership with private-sector firms or venture-capital companies. It therefore manages Hydro-Québec's non-strategic holdings with a view to improving long-term return and provides management services to the strategic subsidiaries held by Hydro-Québec business units.

### Hydro-Québec CapiTech Principal Holdings: Growth Companies

**Altersys:** *Is designing and marketing an automation platform for real-time applications with PC-based distributed architecture to replace control systems that use mini-computers.*

**Famic:** *Develops and markets engineering services and teaching aids using new information technologies to support technical teaching and vocational training.*

**Microturbines Technologies:** *Designs, manufactures and markets microturbines (10 to 500 kW) for low-head hydropower plants.*

**Trioniq Saguenay (1989):** *Holds a license from Hydro-Québec to manufacture and market a diagnostic and control system for voice and data transmission circuits; develops, manufactures and markets instrumentation and automation products.*



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**Hydro-Québec CapiTech  
Principal Holdings:  
Mature Companies**

**Electrolyser:** *Markets an electrolysis technology under a license granted to Electrolyser Corporation Ltd.*

**ArgonAL, HydrogenAL,  
and HydrogenAL II:** *Own and operate plants for the production and liquefaction of hydrogen, nitrogen and argon.*

Hydro-Québec CapiTech will continue to invest with other venture-capital firms in companies that are particularly well positioned to bring the most promising IREQ-developed products to market. Such technologies include the M4 motor-wheel and the ACEP battery. It also plans to invest in technologies developed by other Canadian and foreign companies whenever such technologies promise to enhance its own innovations.

In the short term, Hydro-Québec CapiTech will focus mainly on growth companies to achieve better profits and return for its shareholder by the year 2000. Subsequently, it will place more emphasis on startup companies and should achieve a balance between these two types of holdings by 2002.

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**Hydro-Québec CapiTech Principal Holdings:  
Startup Companies**

**Argo-Tech Production:** *Manufactures lithium-polymer batteries for Hydro-Québec as part of an R&D project.*

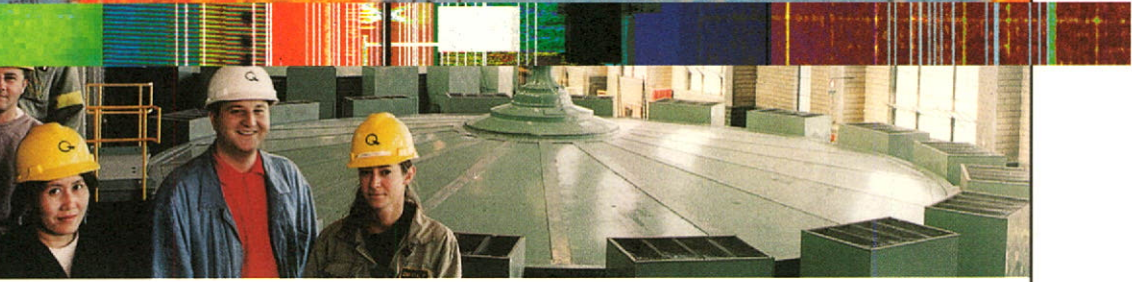
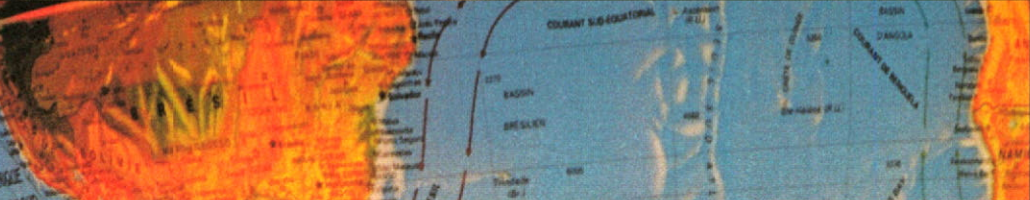
**Domosys Corporation:** *Develops, produces and markets electronic chips and related software for manufacturers of home-automation devices and other equipment.*

**H2T:** *Develops and markets technologies for hydrogen-related infrastructures.*

**T-M4:** *Is developing and commercializing a high-efficiency electric motor and related controls, under license from Hydro-Québec.*

**Yuasa Acep:** *Manufactures small primary batteries to be used in ID cards that transmit signals to electronic devices.*









## All the Energy in the World

**Hydro-Québec contributes to the community in many ways.** By training its workforce, it helps sustain a unique expertise that raises Québec's international profile. It also gives considerable financial support to various institutions as well as humanitarian causes and cultural endeavors throughout Québec.

# Organization



## Proactive Management

In an open market, a company's ability to compete depends largely on the productivity of all its resources. In 1997, we therefore continued our in-depth restructuring of activities into business units, each with its own objectives and financial targets.

This restructuring involved reviewing the operating methods in all the units in order to improve effectiveness and reduce operating costs.

The International Affairs and Projects Group was created to give Hydro-Québec a world-class base of international operations.

Hydro-Québec International was given a new mission: to develop and invest in the international market, where strong growth is anticipated in the coming years.

The operations of the technology subsidiaries were reviewed and brought back in line with the core activities of the business units. In doing this, we were careful to preserve our invaluable expertise in areas of innovation unique to Hydro-Québec.

Finally, we created an independent unit, TransÉnergie, to manage transmission operations and to market access to our grid on a non-discriminatory basis.

## Hydro-Québec encourages its employees to embrace values that reflect its corporate mission:

- *customer satisfaction*
- *business sense*
- *respect for other employees*
- *improvement of quality*
- *respect for the environment*
- *working with communities*
- *continuity of Hydro-Québec.*



*Hydro-Québec relies on the contribution of all employees to ensure its growth and guarantee the continuity of its expertise.*

### **Quality First**

In 1997, Hydro-Québec pursued the continuous improvement process launched at the start of the decade. Total quality management remains the keystone that will enable us to maintain top-notch service at competitive prices, and position ourselves on neighboring and international markets through the quality of our expertise and know-how.

We spent \$50 million – equivalent to 276 person-years – on training to keep our employees at the top of their fields and maximize their contribution to achieving our growth objectives.

We also renewed five of our six labor agreements. The new working conditions will give us more flexibility in managing work time and help optimize our management procedures.

In 1997, Hydro-Québec reduced its workforce by 12.5%, from 23,320 to just over 20,400. This reduction includes 2,415 employees who accepted one of the early retirement packages offered. Care was taken to preserve the utility's expertise and maintain a significant presence in each administrative region.

We plan to stabilize the workforce at 19,500 by the early 2000s. Growth in certain areas such as generation, distribution and international operations, combined with natural attrition, will lead to the hiring of new employees when needs justify.



*In 1997, Hydro-Québec pursued its continuous improvement process to maintain quality of service and keep costs down.*

# Community Involvement

## Hydro-Québec: An Integral Part of the Community

Hydro-Québec restructured its community involvement program in 1997. The utility grants donations and sponsorships in three areas of activity: events or initiatives for humanitarian causes, cultural endeavors and socioeconomic activities.

Hydro-Québec has a policy similar to the IMAGINE rule adopted by many large Canadian companies. The total budget for community involvement is 1% of average net income for the two previous years, anticipated net income for the current year, and forecast net income for the next two years. For 1997, this expense totaled \$6.7 million, including \$3.8 million in donations and \$2.9 million in sponsorships.

## \$3.8 Million in Donations

Donations are contributions of a philanthropic nature. They are given in the form of money or material goods to non-profit organizations or humanitarian causes.

Hydro-Québec puts special emphasis on health and higher education, each of which received \$1 million in donations during the year.

In the health-care sector, Hydro-Québec has joined forces with the Québec health-care research fund, which submits recommendations on how to allocate the money available. This enables us to make donations according to real needs in health care, based on community requirements and government grants received by hospitals.

In higher education, donations are made according to each university's student population and the government grants received. Funds provided for university chairs and joint research programs are in addition to these donations.

Hydro-Québec is still the largest donor to Centraide in Québec, matching the total donations collected from its employees. Exceptionally in 1997, Hydro-Québec kept its contribution at the same level as the previous year (\$1.5 million) even though total employee donations had decreased because of staff

Summary of Donations (1997)

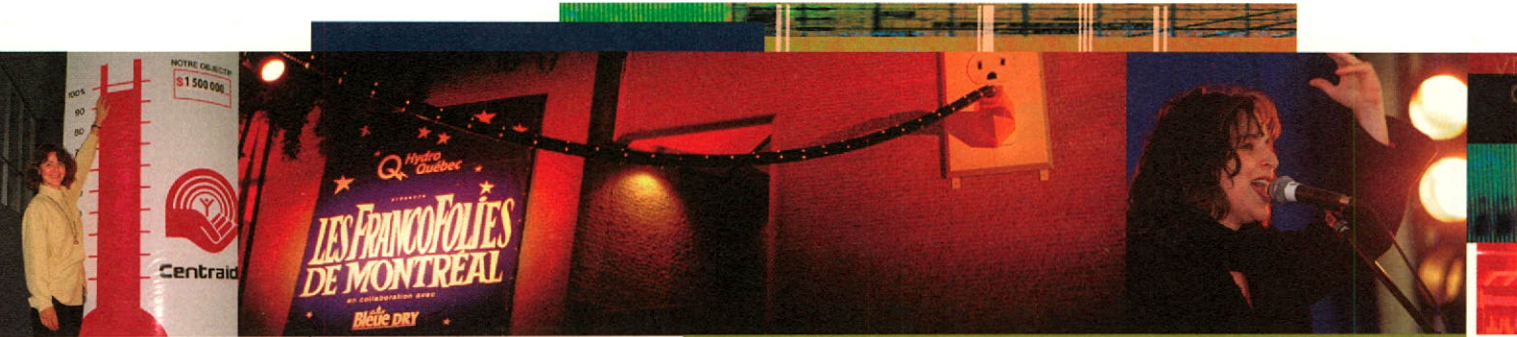
• Hospitals	\$915,000
• Centraide - Corporate donation	\$1,500,000
• Universities	\$1,147,000
• Cultural, educational and humanitarian organizations	\$26,000
• Various monetary contributions	\$173,000
• Various contributions of material goods	\$83,000
<b>Total</b>	<b>\$3,844,000</b>



Summary of Sponsorships (1997)

• Culture	\$946,000
• Socioeconomic development	\$860,000
• Environment	\$150,000
• Sports	\$145,000
• Regional socioeconomic partnerships	\$795,000
<b>Total</b>	<b>\$2,896,000</b>





reductions. Hydro-Québec pensioners once again showed their generosity by maintaining their remarkable contribution of \$173,000.

#### **\$2.9 Million in Sponsorships**

A sponsorship is a contribution paid in the form of money

or material goods, usually to an organizer of an event, for advertising or promotional purposes. Sponsorships help Hydro-Québec enhance public perception of the utility, its products and services, while furthering the attainment of its business objectives.

Hydro-Québec has chosen to use its sponsorships to support culture, specifically Québec song, theatre and music. We allocated nearly \$1 million to sponsor cultural activities in 1997, including just under \$100,000 for theatre. These funds are distributed throughout most regions of Québec.

Socioeconomic activities received \$860,000 in sponsorships during the year, while environment and sports received approximately \$150,000 each.

*Hydro-Québec is actively involved in community support, in assistance for education and health, and in the cultural and socioeconomic development of the community.*

**To contribute to the development of Québec society,**  
*Hydro-Québec has chosen to concentrate its donations on education, health and humanitarian causes*

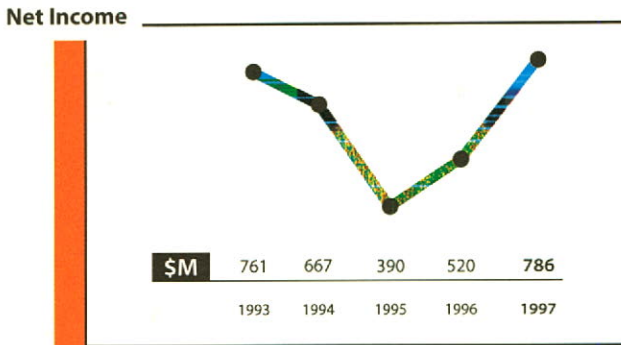
# Financial Review

The 1997 financial results are a reflection of Hydro-Québec's commercial development and an affirmation of its commitment to enhanced profitability. In keeping with this commitment, we increased net income to \$786 million, up \$266 million, or 51%, over 1996. Our return on revenue rose appreciably, from 6.8% in 1996 to 9.5% this year.

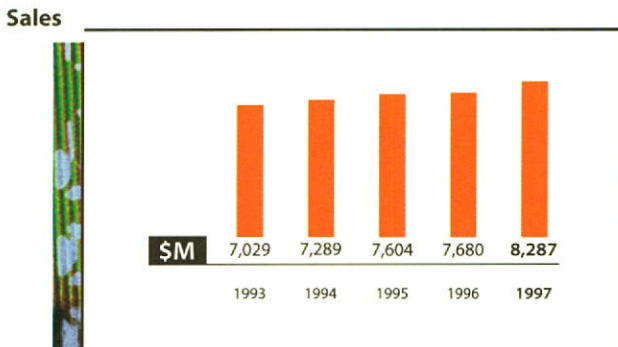
This increase is attributable to higher revenue, rigorous control over operations and related costs, and active management of our debt.

To become a major player in an increasingly open and competitive North American market, we forged numerous business partnerships and strategic alliances, including the acquisition of an interest in Noverco and alliances with IPL Energy, Gaz de France and Enron Canada. These agreements laid the groundwork for the market-driven diversification of our products and expansion of our markets.

Hydro-Québec sales topped \$8 billion, up \$607 million, or 7.9%, over last year.



This growth is due to a 3.7% increase in revenue from electricity sales in Québec and to Noverco's contribution to the consolidated results.



Control over costs and investments, initiated in preceding years, was stepped up in 1997. Most of our progress this year has been achieved through rigorous control of operating expenses and through the personnel reduction program.

Cash flows from operations grew as a direct consequence of the improvement in net income, which allowed us to reduce our dependency on outside sources to cover our capital requirements. In line with the measures taken in recent years, we also continued to actively manage our debt, which, coupled with

favorable market conditions, allowed us to once again reduce our financial expenses.

Our enhanced profitability was also expressed in an appreciable increase in the rate of return on equity, which reached 6.2%, compared with 4.3% at the end of last year.

Finally, for the first time since 1989, we were able to pay our shareholder a dividend of \$357 million. The declaration of this dividend, which is dependent on the strengthening of our capitalization rate, is a very significant step in our profitability enhancement efforts.



Since 98% of the Corporation's assets are employed in the electricity sector, they are the primary focus of this Financial Review. A description of the Corporation's partnerships and strategic alliances completes this overview.

### Comparative Data

(in \$M)	1997*	1996	Variation	
Revenue	7,965	7,680	285	3.7 %
Expenditure	4,165	4,004	161	4.0 %
Operating income	3,800	3,676	124	3.4 %
Financial expenses	3,026	3,156	(130)	(4.1)%
Net income	774	520	254	48.8 %
Investments	2,109	2,047	62	3.0 %
Total debt**	37,961	37,587	374	1.0 %

\* Comparative 1997 data excludes Noverco, shown under *Investments and Affiliates*.

\*\* Includes perpetual debt, debt payable within one year, and other financial assets.

## Electricity Sales

Revenue from electricity sales was slightly higher than expected, up \$272 million, or 3.6%. However, the volume of sales was 162.5 TWh, down 0.9 TWh, or 0.6%, over last year. Demand for electricity in Québec grew, particularly in the industrial sector. On the other hand, short-term sales on markets outside Québec were reduced.

### Electricity Sales

	Sales			Sales revenue		
	1997	Variation 1996 - 1997		1997	Variation 1996 - 1997	
	TWh	TWh	%	\$M	\$M	%
In Québec	147.3	2.8	1.9	7,331	264	3.7
Outside Québec	15.2	- 3.7	- 19.6	596	8	1.4
<b>Total</b>	<b>162.5</b>	<b>- 0.9</b>	<b>- 0.6</b>	<b>7,927</b>	<b>272</b>	<b>3.6</b>

### Sales in Québec

Sales of electricity in all Québec markets were 147.3 TWh, a gain of 2.8 TWh, or 1.9%. Half of this increase, or 1.4 TWh, is due to unseasonably cold temperatures. Aside from the effect of the weather, the volume of sales actually grew by 1.9 TWh, if the extra day in the previous year is excluded. In fact, February 29, 1996, generated additional sales of 0.5 TWh, thus causing a variation of 1.4 TWh in sales between the two years.

Revenue from electricity sales in Québec stood at \$7,331 million, an increase of \$264 million, or 3.7%. This growth is attributable to higher rates, unseasonably cold temperatures and a slight increase in demand.

### Residential and Farm Sector

Sales in the residential and farm sector were up 0.9 TWh, or 1.8%, reflecting the sensitivity of demand in this sector to temperature changes.

Unseasonable temperatures pushed consumption up by 1.1 TWh, which is more than the total variation in demand for this sector. A high percentage of customers in this sector – 69% – use only electricity to heat their homes.

Excluding the impact of the weather, the volume of sales declined 0.2 TWh. This variation corresponds exactly to the consumption generated on February 29, 1996. Otherwise, demand remained steady.

Revenue from sales in this sector moved ahead \$121 million, or 4.1%, due to both the rate increases and the effect of the weather.

### Electricity Sales and Variation Factors, by Sector

	1997	Variation 1996 - 1997		Variation factors (TWh)	
	TWh	TWh	%	Temperature	Other
Residential and farm	51.2	0.9	1.8	1.1	- 0.2
General and institutional	29.6	0.5	1.7	0.2	0.3
Industrial	61.1	1.3	2.2	–	1.3
Other	5.4	0.1	1.9	0.1	–
<b>Total</b>	<b>147.3</b>	<b>2.8</b>	<b>1.9</b>	<b>1.4</b>	<b>1.4</b>

### General and Institutional Sector

Sales volume in the general and institutional sector edged up 1.7%, with nearly half of this increase attributable to the weather. Nevertheless, corresponding sales revenue rose by \$50 million, or 2.7%.

### Industrial Sector

The industrial sector posted the highest increase in demand, with sales up 2.2%. This growth stems primarily from the pulp and paper industry and, to a lesser extent, from the chemical industry. Having lost some momentum in 1996, both industries capitalized on a resurgence in activities linked to increased exports of newsprint in 1997.

Sales revenue for the sector as a whole grew by \$87 million or 4.2%, of which \$22 million derived from rate increases and \$18 million from the higher price of aluminum and the strengthening of the U.S. dollar.

### Revenue from Electricity Sales and Variation Factors, by Sector

	1997	Variation 1996 - 1997		Variation factors (\$M)		
	\$M	\$M	%	Higher rates	Temperature	Other
Residential and farm	3,066	121	4.1	65	60	- 4
General and institutional	1,885	50	2.7	18	15	17
Industrial	2,148	87	4.2	22	–	65
Other	232	6	2.7	3	3	–
<b>Total</b>	<b>7,331</b>	<b>264</b>	<b>3.7</b>	<b>108</b>	<b>78</b>	<b>78</b>

### Other Sector

Despite the deregulation of the wholesale market on May 1, 1997, sales to municipal distribution networks and for public lighting remained unchanged.

This sector covers our independent distributors: nine municipal networks and one regional cooperative. Since last spring, these customers have been able to buy their supplies from the producer of their choice, whether in Québec or elsewhere. In 1997, none of the distributors took advantage of this opportunity, which is a clear indication of our strong competitive position in the deregulated North American market.



## Sales Outside Québec

The volume of electricity sales outside Québec was 15.2 TWh, down 3.7 TWh, or 19.6%, from last year. However, corresponding revenue increased by \$8 million, or 1.4%, to \$596 million.

Short-term sales reached 5.8 TWh and account for 38% of sales outside Québec, compared with 50% for the previous year. In 1997, we reduced the quantities available for export on the short-term market and targeted times that were most conducive to us. Revenue from short-term sales total \$196 million, or 33% of sales outside Québec.

### Sales Outside Québec

	Sales			Sales revenue		
	1997	Variation 1996 - 1997		1997	Variation 1996 - 1997	
	TWh	TWh	%	\$M	\$M	%
<b>Other provinces</b>						
Firm sales	0.5	-	-	23	1	4.5
Short-term sales	3.3	-	-	111	16	16.8
	<b>3.8</b>	<b>-</b>	<b>-</b>	<b>134</b>	<b>17</b>	<b>14.5</b>
<b>United States</b>						
Firm sales	8.9	(0.1)	(1.1)	377	62	19.7
Short-term sales	2.5	(3.6)	(59.0)	85	(71)	(45.5)
	<b>11.4</b>	<b>(3.7)</b>	<b>(24.5)</b>	<b>462</b>	<b>(9)</b>	<b>(1.9)</b>
<b>Total</b>	<b>15.2</b>	<b>(3.7)</b>	<b>(19.6)</b>	<b>596</b>	<b>8</b>	<b>1.4</b>

The volume of sales to the other Canadian provinces, 3.8 TWh, was identical to the previous year. Despite this stability, the \$134 million in revenue from these sales exceeded the 1996 figure by \$17 million. The increase in revenue stemmed mainly from higher sales prices on both the firm and short-term markets.

This year, 75% of electricity sales outside Québec were to the United States. The volume of sales on the U.S. market declined from 15.1 TWh to 11.4 TWh, a decrease of 3.7 TWh, or 24.5%. The drop was largely due to short-term sales, firm sales having remained relatively stable. Revenue from sales to the United States totaled \$462 million, \$9 million, or 1.9%, less than the previous year. However, prices on the firm markets showed a rising trend.

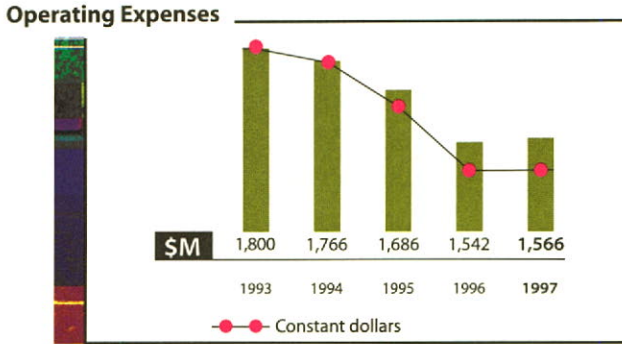
Export markets offer considerable commercial potential. In November 1997, the Federal Energy Regulatory Commission (FERC) licensed HQ Energy Services (U.S.), a subsidiary of Hydro-Québec, to conduct business in the United States under U.S. market conditions. This is a major step forward in our efforts to strengthen our commercial presence in these markets.

### Source of Electricity Sales Revenue Dollar (in %)



# Expenditure

Expenditure remained stable, in relative terms, generating an operating profit at the same level as a year earlier, or 48% of total revenue. Expenditure, at \$4,165 million, was \$161 million, or 4%, more than in 1996.



## Operating Expenses

Operating expenses totaled \$1,566 million, very near our forecast, compared with \$1,542 million last year. Due to rigorous and diligently applied controls throughout the year, growth in operations pushed up costs by only \$24 million, or 1.6%. These results show the benefits of the intensive efforts undertaken in previous years to improve productivity. Over the past five years, operating expenses declined by \$234 million, which, in constant 1993 dollars, represents a decrease of \$319 million, or 17.7%.

Payroll expense, which accounts for 75% of operating expenses, decreased by \$76 million, a direct consequence of the programs offered to our employees and the measures negotiated, which include time management, the reduction of bonuses and allowances, as well as the severance pay program and the relaxation of the pension plan rules.

Total staff numbered 20,416 at the end of 1997, 2,904, or 12.5%, less than at the end of 1996. The employee-management ratio increased to 13.2 in 1997 from 11.5 at the end of last year. The timing of departures over the course of the year, the payment of severance pay and the capitalization of part of the cost of salaries resulted in a decrease in payroll expense of only 6.1%, although the number of employees was reduced by 12.5%. However, the measures introduced will lighten the expense burden in the medium term.

## Other Expenses

Other expenses stood at \$2,599 million, an increase of \$137 million, or 5.6%. They include electricity and fuel purchased, and depreciation, amortization and decommissioning.

Electricity and fuel purchased totaled \$329 million, \$54 million, or 19.6%, more than in 1996. The cost of firm purchases from Churchill Falls (Labrador) Corporation, which amounted to \$102 million, was higher than last year, while the volume of purchases rose by 18%. Purchases from private producers also amounted to \$102 million, an increase of \$26 million, partly as a result of the commissioning of ten new private-production generating stations. Electricity purchased on the short-term market totaled \$54 million, up 28.6%, due to attractive short-term market opportunities.

Depreciation, amortization and decommissioning was \$1,514 million, an increase of \$87 million, or 6.1%. This increase is attributable to three factors: the annualization of the depreciation of major commissionings at the end of 1996, the write-off of projects for an additional amount of \$42 million, and the amortization of development expenses deferred as a result of the revised capitalization and commercialization criteria for research and development expenses.



# Financial Expenses

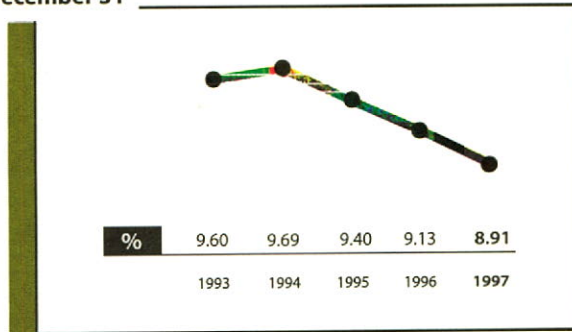
## Interest

Interest expense was reduced to \$2,974 million, compared with \$3,079 million in the preceding year, down \$105 million, or 3.4%. The reasons for this decrease are the drop in interest rates, which benefit us because a portion of our debt is based on variable rates, and the reduction in our debt due to repayments made throughout the year. (See the *Financing* section of this Financial Review.)

The reduction in interest expense was offset, however, by the commissioning of new facilities in 1996. Although commissionings enhance our production capacity and sales potential, they also increase interest expense. When installations are put into service, interest is no longer capitalized to *Fixed assets in progress* but is charged to interest expense for the year.

The drop in interest rates in 1997 was instrumental in lowering the interest rate on long-term debt, which was 8.91% at December 31, 1997.

**Interest Rate\* on Long-Term Debt  
at December 31**



\* Weighted average interest rate, as per Note 10 to the Financial Statements.

## Exchange Loss

Exchange loss stood at \$52 million this year, down \$25 million. This reduction stemmed from the decline, in 1997, of debt maturities denominated in U.S. dollars and hedged by future revenue streams in that currency. Under this hedging method, exchange losses are deferred and charged to operations upon maturity of the debt rather than amortized over the term of the debt.

# Investments and Commissionings

In 1997, we increased our total investments by 3.1%, from \$2,047 million to \$2,109 million. However, this includes the \$482 million we invested in the gas sector to acquire our interest in Noverco.

Our investment in fixed assets totals \$1,571 million, down 24% over 1996. This year, nearly two-thirds of this amount went toward the continuity in service of our installations and system, compared with slightly more than half in 1996. Commissionings fell by 46%, to \$1,420 million, following completion of the final phase of the La Grande complex at the end of 1996.

## Investment in Fixed Assets and Commissionings

	Investment in Fixed Assets	Commissionings
	\$M	\$M
Generation	630	409
Transmission	350	404
Distribution	325	348
Other	266	259
<b>Total</b>	<b>1,571</b>	<b>1,420</b>

## Investment in Fixed Assets

Our main investment related to electricity generation is the Sainte-Marguerite-3 project, which this year was allocated \$283 million. Construction work was accelerated to give us a six-month advance on reservoir impounding and the commissioning of the generation station, which is scheduled for 2001.

We also invested \$219 million in major rehabilitation work, including Beauharnois generating station and the Shawinigan complex. The upgrading and modernization work will enable us to increase production and operating reliability and add at least 25 years to the useful lives of the installations.

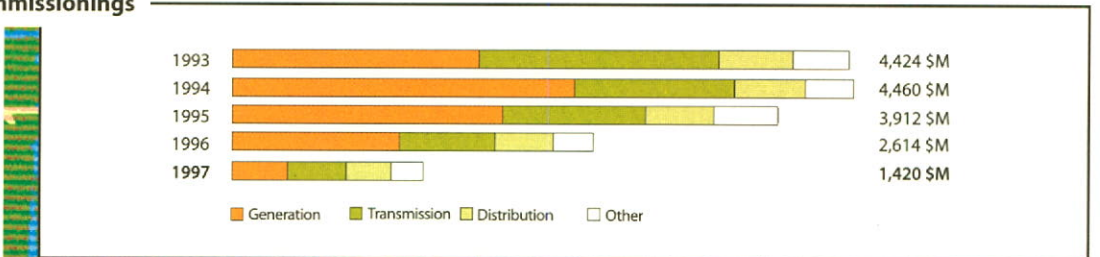
Similar amounts – \$350 million and \$325 million, respectively – were spent on the transmission and distribution systems. The work undertaken is instrumental in enhancing transmission system reliability, upgrading the system control centre, and the continuity in service of the distribution system.

Finally, under Other investments, we allocated \$91 million to our telecommunications installations and \$148 million to support equipment, including \$86 million to computer equipment.

## Commissionings of New Facilities

Commissionings of new facilities totaled \$1,420 million in 1997, a substantial decline of \$1,194 million from the preceding year. Construction of Phase II of the La Grande complex came to an end in 1996 with the commissioning of Laforge-2 generating station.

## Commissionings



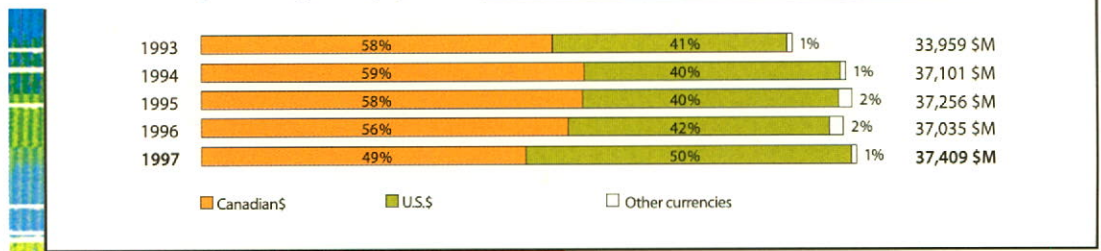
This year, commissionings resulted from the rehabilitation work on Beauharnois, La Gabelle and Tracy generating stations. Commissionings planned between now and the year 2000 will target the continuity of service of our generation, transmission and distribution assets.



# Financing

In 1997, the borrowing program remained stable at approximately \$2 billion, a level identical to that of the preceding two years. We made two very successful public offerings to Canadian investors. Under our first public offering of \$400 million, maturing in five years, investors can exchange their securities at maturity for another five-year-term security. The second public offering, with a term of slightly more than five years, raised \$350 million and confirmed investor interest in our securities.

**Breakdown of Debt\* by Currency of Repayment**



\* Includes debt payable within one year and other financial assets, but excludes perpetual debt.

With a view to borrowing at the best cost and managing our debt effectively, we continued to direct our attention to the following five objectives in 1997:

- diversify sources of funding,
- manage foreign exchange risk,
- manage debt effectively,
- seek an optimum interest rate structure,
- stagger debt refinancing.

### *Diversify Sources of Funding*

With Europe edging toward the adoption of a single currency, we felt it important to make our presence known among European investors by floating an issue in French francs convertible into Euro, the future single European currency. The issue is the first by a non-European issuer to explicitly provide for conversion into Euro.

Substantial use of the continuous issuance medium-term notes programs ensured greater diversity and enabled us to cover 40% of the borrowing program, or \$750 million, while reducing the average cost of borrowing.

In keeping with our strategy of the last few years, our public offerings and issues of medium-term notes were aimed at maintaining the geographic diversity of our sources of funding and attracting many different groups of investors. We also pursued our investor-relations program, which was instrumental in maintaining a positive climate for our borrowing program.

### Manage Foreign Exchange Risk

We continued to use swaps to manage foreign exchange risk associated with issues in currencies other than the U.S. dollar.

Including swaps, 49% of debt at December 31, 1997 was in Canadian dollars, down 7% compared with year-end 1996. The two reasons for this decrease were the composition of matured debt, almost all of which is denominated in Canadian dollars, and the proportion of financing transactions concluded in Canadian dollars, which stood at 46%, including swaps.

### Manage Debt Effectively

Again this year, we took advantage of favorable interest rates to renegotiate and repay in advance \$537 million in debt.

We also paid particular attention to counterparty risk, and continued to actively manage credit risk related to derivative instruments, notably swaps, in order to maintain the high quality of our portfolios.

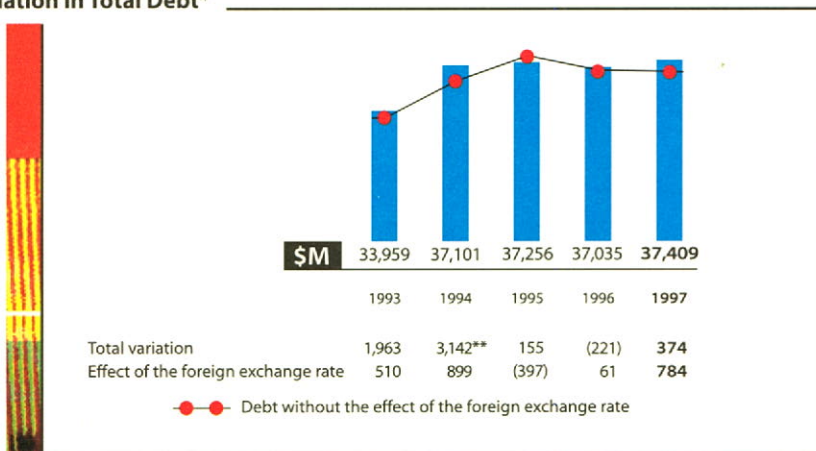
### Seek an Optimum Interest Rate Structure

To minimize the effect of inflation and economic cycles on our net income, we continued to ensure that variable-rate debt represents a substantial part of total debt. We capitalized on favorable market conditions, particularly in Canada, to increase the variable-rate portion from 24.8% at the end of 1996 to 28.7% at the end of 1997.

### Stagger Debt Refinancing

Taking advantage of the openness of the French market, we floated an 11-year issue in the amount of FF1.5 billion, or C\$355 million. Due to an anticipated fall in market interest rates, the average term of borrowings realized in 1997 is 7.2 years, compared with an average term of total debt of 12.1 years at December 31, 1997 and 12.7 years at December 31, 1996.

Variation in Total Debt\*



\* Includes debt payable within one year and other financial assets, but excludes perpetual debt.

\*\* Includes refinancing of \$800 M for 1995.

At year-end 1997, Hydro-Québec's total debt, net of other financial assets, was \$37,409 million, up \$374 million. The depreciation of the Canadian dollar against the U.S. dollar, especially in the last quarter of 1997, increased the debt by approximately C\$680 million.

Finally, Hydro-Québec is authorized to issue up to U.S.\$2,750 million of commercial paper, or its Canadian dollar equivalent, on the Canadian and U.S. markets. These programs, with C\$26.9 million outstanding at the end of 1997, showed an average outstanding amount equal to C\$125.2 million, and our unused standby credit lines totaled U.S.\$1,800 million.



## Investments and Affiliates

### Partnerships and Strategic Alliances

As a result of our investment acquired in 1997, the financial results of Noverco, the holding company that controls Gaz Métropolitain and Company, Limited Partnership, and those of Hydro-Québec have been consolidated for the first time. The amounts recorded in respect of Noverco represent our share of the results, in accordance with the successive acquisitions of interest. Since August 27, we have held 41% of the common stock of Noverco.

Revenue recorded was \$322 million, or 3.9% of consolidated sales, and expenditure and financial expenses totaled \$304 million, or 4.1% of consolidated expenses. Net income of \$12 million, after the non-controlling interest, represented 1.5% of consolidated net income. (See Note 15 to the *Financial Statements*.)

Our investment in Noverco marks a first tangible step towards market diversification and expansion. This partnership with IPL Energy and Gaz de France, as well as the agreement with Enron Canada, involves us in the operation and expansion of gas pipelines.

### International Markets and Technological Development

In 1997, the activities of our main subsidiaries underwent significant repositioning. In spite of this, financial results remained below expectations. If we exclude several non-recurring items totaling \$31.7 million, the contribution of subsidiaries to consolidated net income would have been \$12.7 million.

On the international scene, to be better positioned to capitalize on market growth, Hydro-Québec International (HQI) and the Société d'énergie de la Baie James have joined forces. In 1997, several agreements and partnerships were concluded.

HQI showed a loss of \$9.2 million in the consolidated results, including non-recurring items of \$8.6 million resulting from an investment in Guinea and its share of the deficit of an investment in Morocco. Net income of \$1.8 million was recorded in the Statement of Operations for the preceding year.

In addition, it was agreed to focus the Nouveler investments on marketing non-strategic technologies, while strategic interests related to Hydro-Québec's primary mission will be under the Corporation's control. As part of a reorganization in 1997, investments were analyzed and assessed against growth and profitability criteria and Nouveler withdrew from certain investments.

Nouveler showed a loss of \$9.8 million in the consolidated results, taking into account non-recurring items totaling \$23.1 million. These items primarily include the write-off of investments, including the interest in HMS Énergie, and the share of the deficit related to the interest in M3i Systems. Before these items were taken into account, Nouveler showed a profit of \$13.3 million, due to the contribution of \$17 million from its subsidiary, Cedars Rapids Transmission Company. In keeping with the new orientations, the results of Cedars Rapids Transmission Company will no longer be integrated with those of Nouveler in 1998 since it is a strategic investment related directly to the primary mission of Hydro-Québec. Overall, Nouveler's results led to a loss of \$12.5 million in the 1996 consolidated results.

The measures introduced in 1997 are promising. HQI was given a new mission, changed its management team, and defined a business plan aimed at expansion in the international energy market. HQI also intends to contribute to Hydro-Québec's medium-term growth. Hydro-Québec subsidiary CapiTech, the successor to Nouveler, must meet superior profitability requirements for technologies marketing in the near term.

## Outlook

The results for 1997 attest to the success of Hydro-Québec's efforts to improve performance. The first week of January 1998 brought with it the worst ice storms in Québec's history, severely testing our expertise and requiring all our resources to restore normal conditions.

This event will certainly have repercussions on our activities and our financial outlook, both in terms of investments and costs incurred, and lost revenue. In the review of our planning currently being conducted for 1998, we are according priority to increased security of supply for Québec customers.

At the same time, we are keeping our sights on our objectives and working to make up for the delay so as not to compromise our long-term commitments. In 1998, we intend to build on our financial gains and pursue progress in the competitive energy market. Until the recent events, we had anticipated 1998 profits in excess of \$900 million. We are now looking at profits equal to or higher than those of 1997.

As part of our multi-energy strategy, we are pursuing our breakthrough in the commercialization of new energy products and services, including energy storage, and turning to new energy sources such as natural gas.

Control of operating expenses remains an ongoing concern in order to maintain and improve our gross margin. The introduction of new technologies and the more precise measurement of R & D work will contribute to our efforts to improve productivity. The implementation of the R/3 software (SAP), for example, will enable us to enhance the efficiency of support activities.

Finally, in 1998, we will appear before the Régie de l'énergie (Energy Board). The first item on the agenda concerns our proposal regarding the terms for establishing and implementing price-based power supply rates. The regulation of cost-based transmission and distribution rates will then be discussed, as well as the content and terms and conditions of the resource plan.



# Financial Statements

## Management report

Hydro-Québec's consolidated financial statements and all additional information contained in the Annual Report are the responsibility of Management and are approved by the Board of Directors. Management's responsibility also includes the selection of appropriate accounting practices in accordance with generally accepted accounting principles, taking into account generally accepted accounting methods and practices of competent regulatory bodies. As required, Management makes judgments and prepares reasonable estimates regarding operations in view of materiality. Financial information contained elsewhere in the Annual Report is consistent with that in the financial statements.

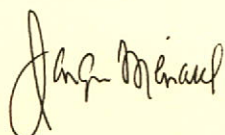
Management, in keeping with its responsibilities, maintains an internal control system, designed among other things to provide reasonable assurance that the utility's assets are adequately safeguarded and that the accounting records form an appropriate basis for the preparation of reliable financial statements. An internal auditing process allows evaluation of the sufficiency and efficiency of internal and management control, as well as of the utility's policies and procedures. Recommendations ensuing from this process are submitted to Management and the Audit Committee.

The Board of Directors assumes its responsibility for the consolidated financial statements principally through its audit committee, composed solely of directors who do not hold full-time positions at Hydro-Québec or in one of its subsidiaries. This committee's mandate is to ensure that the financial statements present fairly the utility's financial position, changes in financial position, and results of operations. The Audit Committee meets regularly with Management, the General Auditor and the external auditors to review the results of their audits and the reports on the utility's accounting methods and policies and internal control systems. The General Auditor and the external auditors have full and unrestricted access to the Audit Committee, with or without Management's presence.

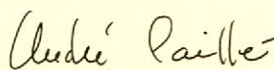
The utility has also established a code of ethics primarily to ensure the proper management of its resources and the orderly conduct of business.

The consolidated financial statements have been audited jointly by Samson Bélair/Deloitte & Touche and Coopers & Lybrand/Laliberté Lanctôt, Chartered Accountants, in accordance with generally accepted auditing standards. Their responsibility consists in expressing their professional opinion on the fairness of the financial statements. The Auditors' Report, which appears overleaf, specifies the extent of their audit and gives their opinion on these financial statements.

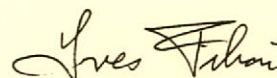
In the opinion of Management, these financial statements incorporate, within reasonable limits, all important elements and data available at February 6, 1998.



L. Jacques Ménard  
Chairman of the Board



André Caillé  
President and  
Chief Executive Officer



Yves Filion  
Deputy Chief Executive Officer  
and Chief Financial Officer

Montréal, Canada  
February 6, 1998

## Auditors' report

To the Ministre des Finances du Québec

We have audited the consolidated balance sheet of Hydro-Québec as at December 31, 1997 and the consolidated statements of operations, retained earnings and changes in financial position for the year then ended. These financial statements are the responsibility of Hydro-Québec's Management. Our responsibility is to express an opinion on these financial statements based on our audit.

We conducted our audit in accordance with generally accepted auditing standards. Those standards require that we plan and perform an audit to obtain reasonable assurance whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by Management, as well as evaluating the overall financial statement presentation.

In our opinion, these consolidated financial statements present fairly, in all material respects, the financial position of Hydro-Québec as at December 31, 1997 and the results of its operations and the changes in its financial position for the year then ended in accordance with generally accepted accounting principles. As required by the *Loi sur le Vérificateur général (L.R.Q., chapitre V-5.01)*, we report that, in our opinion, these principles have been applied on a basis consistent with that of the preceding year.

Samuel Bélair  
Deloitte + Touche

Chartered Accountants

Montréal, Canada  
February 6, 1998

Coopérative de l'Hydro-Québec  
Société de l'Hydro-Québec

General Partnership  
Chartered Accountants



## Consolidated statement of operations

(in millions of dollars)

For the year ended December 31

	Notes	1997	1996
<b>Revenue</b>	2	\$8,287	\$7,680
<b>Expenditure</b>			
Operations		1,602	1,542
Electricity and fuel purchased		529	275
Depreciation, amortization and decommissioning	3	1,545	1,427
Taxes	4	770	760
		4,446	4,004
<b>Operating income</b>		3,841	3,676
Financial expenses	5	3,049	3,156
<b>Income before non-controlling interest</b>		792	520
Non-controlling interest		6	–
<b>Net income</b>		\$ 786	\$ 520

## Consolidated statement of retained earnings

(in millions of dollars)

For the year ended December 31

	Notes	1997	1996
Balance at beginning of year		\$8,085	\$7,565
Net income		786	520
		8,871	8,085
Dividends	14	357	–
<b>Balance at end of year</b>		\$8,514	\$8,085

## Consolidated balance sheet

### Assets

(in millions of dollars)

As at December 31

	Notes	1997	1996
<b>Fixed assets</b>	6		
In service		\$56,574	\$54,487
Less accumulated depreciation		11,756	10,363
		44,818	44,124
In progress		2,835	2,701
		47,653	46,825
<b>Current assets</b>			
Cash and investments		395	522
Accounts receivable		1,729	1,665
Other financial assets		131	41
Materials, fuel and supplies		240	216
		2,495	2,444
<b>Other long-term assets</b>			
Investments	7	288	105
Consolidated goodwill		202	–
Deferred charges	8	4,068	3,358
Other financial assets	9	488	1,028
		5,046	4,491
		\$55,194	\$53,760




## Liabilities and shareholder's equity

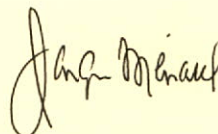
(in millions of dollars)

As at December 31

	Notes	1997	1996
<b>Long-term debt</b>	10	\$37,116	\$36,404
<b>Current liabilities</b>			
Borrowings		46	26
Dividends payable		357	-
Accounts payable		1,030	969
Accrued interest payable		1,354	1,330
Current portion of long-term debt		1,317	1,700
		4,104	4,025
<b>Other long-term liabilities</b>	11	399	320
<b>Perpetual debt</b>	12	552	552
<b>Non-controlling interest</b>		135	-
<b>Shareholder's equity</b>			
Share capital			
Authorized			
50,000,000 shares, par value of \$100 each			
Issued and fully paid			
43,741,090 shares		4,374	4,374
Retained earnings		8,514	8,085
		12,888	12,459
		\$55,194	\$53,760



Yvon Lamontagne  
Chairman of the Audit Committee



L. Jacques Ménard  
Chairman of the Board

## Consolidated statement of changes in financial position

(in millions of dollars)

For the year ended December 31

	Notes	1997	1996
<b>Operating activities</b>			
Net income		\$ 786	\$ 520
Depreciation of fixed assets		1,297	1,242
Amortization of deferred charges		276	272
Change in non-cash items		389	(57)
Dividends		(357)	-
Other		(2)	28
		<b>2,389</b>	<b>2,005</b>
<b>Financing activities</b>			
Issue of long-term debt		1,415	1,680
Maturity of long-term debt and sinking fund redemption		(1,797)	(1,544)
Repayment in advance of long-term debt		(81)	(538)
Receipts (Disbursements) resulting from credit risk management		(19)	110
Other		79	4
		<b>(403)</b>	<b>(288)</b>
<b>Investing activities</b>			
Fixed assets		(1,590)	(2,056)
Acquisition of an interest	15	(459)	-
Marketing programs		(37)	(51)
Other		(47)	60
		<b>(2,133)</b>	<b>(2,047)</b>
<b>Change in cash during year</b>		<b>(147)</b>	<b>(330)</b>
<b>Cash at beginning of year</b>		<b>496</b>	<b>826</b>
<b>Cash at end of year</b>		<b>\$ 349</b>	<b>\$ 496</b>

Cash comprises Cash and short-term investments less Short-term borrowings.



## Notes to Financial statements

For the year ended December 31, 1997

### Note 1 Significant accounting policies

The consolidated financial statements have been prepared in accordance with generally accepted accounting principles in Canada and take into account generally accepted accounting methods and practices of regulatory bodies, in accordance with the *Hydro-Québec Act*.

For the purposes of the present financial statements, "Corporation" is used as a collective reference to Hydro-Québec and its interests.

#### Hydro-Québec mandate and rates

Under the provisions of its Act, Hydro-Québec's mandate is to supply power and to pursue endeavors in energy-related research and promotion, energy conversion and conservation, and any field connected with or related to power or energy.

The *Hydro-Québec Act* stipulates that the rates and conditions under which power is supplied must be consistent with sound financial administration. The rates are established by Hydro-Québec and are subject to the approval of the Gouvernement du Québec. Under the *Act respecting the Régie de l'énergie*, sanctioned December 23, 1996, the rates will be subject to the approval of the Régie de l'énergie. However, until the coming into force of the sections of the Act relating to rate determination, the Government has the power to determine or modify the rates.

#### Consolidation

The consolidated financial statements include the accounts of the subsidiaries of Hydro-Québec, all of which are wholly owned. The investment in the jointly controlled enterprise, that is, the joint venture, is accounted for using the proportionate consolidation method (Note 15).

The excess of the cost of the investment in the joint venture over the share of the fair value of the net assets acquired is recorded as consolidated goodwill and amortized on a straight-line basis over a period that does not exceed 40 years. In the event of a permanent impairment in value, consolidated goodwill would be adjusted to its estimated fair value, based on the assessment of the future operating income converted into discounted cash flow.

#### Revenue

Revenue from sales of electricity is recorded on the basis of cyclical billings and also includes revenue accrued in respect of electricity delivered but as yet unbilled.

#### Foreign currency translation

Revenue and expenditure resulting from transactions in foreign currencies are translated into the Canadian dollar equivalent at exchange rates in effect at the transaction date. Monetary assets and liabilities are translated into Canadian dollars at exchange rates in effect at the balance sheet date, and non-monetary items are translated into Canadian dollars at exchange rates in effect at the transaction date.

The exchange gains or losses resulting from the translation of current monetary items are included in the Consolidated statement of operations. Those resulting from the translation of long-term monetary items are deferred and amortized on a straight-line basis over the remaining term of the debt securities, except when they relate to debt securities hedged by future revenue streams in United States dollars, in which case they are deferred until the date of repayment of such debt.

Currency swaps used to manage exchange risks related to the repayment of the principal amount of long-term debt are presented at rates in effect at the balance sheet date. Those which constitute financial assets are presented as Other financial assets, while those representing financial liabilities are presented as Long-term debt. Gains or losses on these currency swaps are deferred and amortized on a straight-line basis over their remaining terms.

*Continued*

**Fixed assets**

Fixed assets are carried at cost, which comprises material, direct and indirect labor, and an appropriate allocation of the administration overhead, engineering and management expenses and borrowing costs capitalized during construction. Capitalized borrowing costs are based on the previous year's average cost of long-term debt issued by Hydro-Québec.

Upon disposal of asset units, the cost of the units and the cost of their dismantlement, net of accumulated depreciation and salvage value, are charged to a separate account and amortized over 10 years according to the sinking fund method at the rate of 3%. However, when the disposed asset units are replaced, the cost of dismantlement, less the salvage value, is added to the cost of the new units and then depreciated according to the method and useful life appropriate to the new asset.

The costs of facilities under construction are transferred to Fixed assets in service when these facilities are completed and in commercial operation. As for generating facilities, the costs are transferred in instalments as units of the facilities are completed.

**Depreciation of fixed assets**

Fixed assets of Hydro-Québec (other than construction, operating and research equipment) are depreciated over their useful lives according to the sinking fund method at the rate of 3%.

Construction, operating and research equipment are depreciated over their useful lives according to the straight-line method.

The useful lives of Hydro-Québec's main classes of fixed assets are as follows:

Hydraulic generation	50 years
Nuclear generation	30 years
Thermal generation (other than nuclear)	15 to 20 years
Transmission	40 to 50 years
Distribution	25 to 40 years
Administration and service buildings	50 years
Construction, operating and research equipment	3 to 30 years

Hydro-Québec revises the useful lives of its fixed assets on a periodic basis. Under the *Hydro-Québec Act*, the depreciation period is restricted to a maximum of 50 years.

**Short-term investments**

Short-term investments are shown at amortized cost, which approximates fair value.

**Borrowing discount and expenses**

Borrowing discount and expenses are deferred and amortized on a straight-line basis over the life of the borrowings.

**Postretirement benefits**

**Pension Plan**

The costs of the Pension Plan are determined periodically by independent actuaries. Pension expense is charged to operations and comprises the total of the following:

- the cost of pension benefits provided in exchange for employees' services rendered during the year, calculated using the projected benefit method prorated on services, and
- amortization over the employees' expected average remaining service life, according to the straight-line method, of (i) adjustments arising from changes in the Plan or in assumptions, (ii) experience gains or losses, and (iii) the Plan surplus determined upon adoption of the 1986 recommendations of the Canadian Institute of Chartered Accountants.

The cumulative difference between amounts recorded as pension expense and contributions made to the pension funds is reflected in Deferred charges.



Continued

### Other postretirement benefits

In addition to pension benefits, Hydro-Québec offers its current and retired employees group life-insurance, medical and hospitalization plans. These plans are not funded. Postretirement expenses from these plans are charged to operations for the year in which the benefits are vested to the employees and include amortization, under the straight-line method and over the employees' expected average remaining service life, of the initial estimate of liabilities upon adoption of this accounting policy in 1993.

The cumulative difference between the amounts recorded as other postretirement benefits and the premiums paid to insurance companies is shown under Other long-term liabilities.

### Marketing programs

Hydro-Québec has implemented a number of marketing programs aimed at consumption management, energy conservation and market optimization. The deferred charges related to these programs are amortized on a straight-line basis over a period that does not exceed five years after the year in which they are incurred.

### Research and development

Research and development expenses are charged to operations, except when the development expenses incurred meet the capitalization criteria. The deferred development costs are amortized on a straight-line basis over a period of five years after the year in which they are incurred.

### Cancellation or postponement of major projects

Project costs are reviewed periodically. Costs deemed irretrievable at the time of cancellation of a major project or its postponement to a later date are recorded under Deferred charges and amortized on a straight-line basis over three years.

### Personnel reduction and renewal measures

In 1996, Hydro-Québec began an organizational restructuring so as to improve its competitiveness and strengthen its position in the changing energy sector. In 1997, Hydro-Québec introduced various temporary measures to reduce its work force and reallocate personnel. The most significant of these measures are severance pay, under a program that ends February 28, 1998, and improvements to the Pension Plan, which will be effective until the year 2000. The treatment of the cost of these measures takes into account generally accepted accounting methods and practices of regulatory agencies, as provided for under the *Hydro-Québec Act*. The cost of these measures is deferred and amortized on a straight-line basis over a period of 60 months, beginning the month following each individual commitment.

### Sinking funds

The sinking funds are created through the purchase of Hydro-Québec debentures, Government of Canada bonds, or bonds issued or guaranteed by the Gouvernement du Québec. The Hydro-Québec debentures are deducted from long-term debt. Government issued or guaranteed bonds are presented as Other financial assets.

Sinking fund securities are carried at cost, which may not be indicative of the fair value. The difference between the cost and the par value at maturity is amortized over the remaining term of the security and is included under Financial expenses. The unamortized discount and expenses are written off when these debt securities are canceled.

### Derivative instruments

Hydro-Québec uses different derivative instruments to manage foreign exchange and interest rate risks related to long-term debt, as well as the risk of price changes in raw materials inherent in certain sales contracts for electricity.

## Note 1 Significant accounting policies

Continued

Interest exchanges, concluded in accordance with the swap agreements used to change long-term interest rate exposure, are matched to interest expense on the borrowings to which they are related.

Derivative instruments used to manage short-term financial risks of not more than three years are recorded at cost. Gains or losses realized are deferred and charged to operations on a basis consistent with the recognition of the gains or losses of the underlying position.

### Decommissioning of nuclear generating station

The future costs of decommissioning the Gentilly-2 nuclear generating station are charged to operations. These estimated costs take into account the cost of dismantlement and the remaining life of the generating station, the cost for final disposal of the irradiated fuel and fuel consumption, and interest calculated on the amounts charged.

Hydro-Québec revises these costs periodically in accordance with the various assumptions and estimates underlying the calculations and with any technological advances that may arise in the decommissioning of nuclear generating stations.

### Reclassification

Some figures of the previous year were reclassified in order to respect the presentation adopted in the current year.

## Note 2 Revenue

<i>(in millions of dollars)</i>	1997	1996
Sales of electricity	\$7,927	\$7,655
Sales of natural gas	302	-
Other operating revenue	58	25
	<b>\$8,287</b>	<b>\$7,680</b>

Sales of electricity and natural gas include \$462 million and \$17 million, respectively, from sales to the United States (\$471 million in 1996).



**Note 3 Depreciation, amortization and decommissioning**

<i>(in millions of dollars)</i>	1997	1996
Depreciation of fixed assets	\$1,297	\$1,242
Amortization of marketing programs	92	94
Amortization of major projects canceled or postponed	63	63
Write-off of projects	56	13
Decommissioning of nuclear generating station	8	7
Other	29	8
	<u>\$1,545</u>	<u>\$1,427</u>

**Note 4 Taxes**

<i>(in millions of dollars)</i>	1997	1996
Capital tax	\$ 322	\$ 324
Tax on gross revenue as municipal real estate tax on certain immovables	209	205
Loan guarantee fees	188	192
Municipal, school and other taxes	51	39
	<u>\$ 770</u>	<u>\$ 760</u>

**Note 5 Financial expenses**

<i>(in millions of dollars)</i>	1997	1996
<b>Interest</b>		
Interest on debt securities	\$3,153	\$3,312
Amortization of borrowing discount and expenses	55	55
	<u>3,208</u>	<u>3,367</u>
Less		
Borrowing costs capitalized to Fixed assets in progress	153	221
Net investment income	58	67
	<u>211</u>	<u>288</u>
	<u>2,997</u>	<u>3,079</u>
<b>Exchange loss</b>	52	77
	<u>\$3,049</u>	<u>\$3,156</u>

**Note 6 Fixed assets**

	<i>(in millions of dollars)</i> 1997			1996		
	In service	Accumulated depreciation	In progress	In service	Accumulated depreciation	In progress
<b>Generation</b>						
Hydraulic	\$23,185	\$ 3,954	\$ 2,005	\$23,005	\$ 3,576	\$ 1,703
Nuclear	1,612	543	14	1,611	495	10
Thermal, other than nuclear	1,053	402	13	927	361	115
	<u>25,850</u>	<u>4,899</u>	<u>2,032</u>	<u>25,543</u>	<u>4,432</u>	<u>1,828</u>
<b>Transmission</b>						
Substations	9,773	1,820	247	9,423	1,600	311
Lines	7,064	1,182	197	6,975	1,104	191
Sundry	109	43	-	-	-	-
	<u>16,946</u>	<u>3,045</u>	<u>444</u>	<u>16,398</u>	<u>2,704</u>	<u>502</u>
<b>Distribution</b>						
Substations	111	55	12	114	54	6
Lines	7,543	1,602	78	7,212	1,386	94
Sundry	1,305	470	11	661	285	8
	<u>8,959</u>	<u>2,127</u>	<u>101</u>	<u>7,987</u>	<u>1,725</u>	<u>108</u>
<b>Other</b>						
Administration and service buildings	1,698	283	15	1,626	238	29
Construction, operating and research equipment	1,613	993	88	1,597	928	78
Sundry	1,508	409	155	1,336	336	156
	<u>4,819</u>	<u>1,685</u>	<u>258</u>	<u>4,559</u>	<u>1,502</u>	<u>263</u>
	<u>\$56,574</u>	<u>\$11,756</u>	<u>\$ 2,835</u>	<u>\$54,487</u>	<u>\$10,363</u>	<u>\$ 2,701</u>



**Note 7 Investments (at cost)**

<i>(in millions of dollars)</i>	1997	1996
Churchill Falls (Labrador) Corporation (Note 17)		
Bonds <sup>a</sup>	\$ 63	\$ 64
Common shares	34	34
Noverco Inc. (Note 15)		
Notes <sup>b</sup>	127	—
Stock options <sup>c</sup>	35	—
Other	29	7
	<b>\$ 288</b>	<b>\$ 105</b>

a) General Mortgage, 7 1/2%, due 1998 through 2010 (par value of \$70 million in 1997 and \$71 million in 1996).

b) Subordinate debentures, interest rate based on the annual average rate of Government of Canada bonds with terms of over 10 years plus 4.45%, due in 2031, redeemable.

c) This cost approximates fair value.

**Note 8 Deferred charges**

<i>(in millions of dollars)</i>	1997	1996
Deferred exchange loss	\$2,600	\$1,933
Borrowing discount and expenses	481	520
Pension expense	368	404
Marketing programs	204	230
Development expenses	76	76
Major projects canceled or postponed	63	126
Personnel reduction and renewal measures	171	—
Other	105	69
	<b>\$4,068</b>	<b>\$3,358</b>

**Note 9****Other financial assets**

Other financial assets are used exclusively to manage long-term debt.

<i>(in millions of dollars)</i>	1997	1996
Currency swaps	\$ 556	\$ 725
Sinking funds	63	344
	<u>619</u>	<u>1,069</u>
Less		
Current portion	131	41
	<u>\$ 488</u>	<u>\$1,028</u>

**Note 10****Long-term debt****Composition and maturities**

Debentures and other long-term debt of the Corporation are summarized by years of maturity in the following table. These maturities are translated into Canadian dollars at the exchange rates in effect at the balance sheet date and include requirements of the sinking funds.

<i>(in millions of dollars)</i>				1997	1996
Years of maturity	Canadian dollars	United States dollars	Other currencies	Total	Total
1997	\$ -	\$ -	\$ -	\$ -	\$ 1,700
1998	167	390	760	1,317	1,349
1999	1,202	928	462	2,592	2,506
2000	902	746	905	2,553	2,597
2001	1,667	703	1,049	3,419	3,433
2002	482	1,775	412	2,669	-
1 - 5 years	4,420	4,542	3,588	12,550	11,585
6 - 10 years	4,781	3,316	875	8,972	9,766
11 - 15 years	1,743*	477	563	2,783	1,546
16 - 20 years	56	2,071	541	2,668	3,909
21 - 25 years	4,601*	3,162	-	7,763	4,294
26 - 30 years	(159)	1,073	-	914	4,010
31 - 35 years	258	2,509	-	2,767	2,977
36 and more	16	-	-	16	17
	15,716	17,150	5,567	38,433	38,104
Less					
Current portion	167	390	760	1,317	1,700
	<u>\$15,549</u>	<u>\$16,760</u>	<u>\$ 4,807</u>	<u>\$37,116</u>	<u>\$36,404</u>

\* Includes \$74 million and \$164 million in zero-coupon bonds, shown at their discounted value at an interest rate compounded semi-annually of 10.95% and 10.67% respectively. Their par value will reach \$282 million and \$1,729 million in 2010 and 2020 respectively.



**Note 10****Long-term debt**

Continued

Hydro-Québec debentures are guaranteed by the Gouvernement du Québec. Other long-term debt of Hydro-Québec, amounting to \$251 million as at December 31, 1997 (\$266 million as at December 31, 1996), is not guaranteed.

**Repayments**

Repayments of long-term debt, including the current portion, to be made in Canadian dollars and in foreign currencies, with their Canadian dollar equivalent, are shown in the following table. Also shown are the effects of currency swaps and sinking funds allocated to repay debt, which are presented under Other financial assets on the balance sheet.

	<i>(in millions of dollars or millions of currency units)</i>		1997	1996	
	Long-term debt		Other financial assets		
	In currency units	At the closing exchange rates at the balance sheet date*	Currency swaps and Sinking funds	Total	Total
<b>Canadian dollars</b>	15,716	\$15,716	\$ 63	<b>\$15,653</b>	\$15,254
<b>United States dollars**</b>	11,967	17,150	139	<b>17,011</b>	16,154
<b>Other currencies***</b>					
Yen	90,000	1,230	61	<b>1,169</b>	1,966
Deutsche marks	1,612	1,345	175	<b>1,170</b>	1,347
Pounds sterling	600	1,448	69	<b>1,379</b>	1,305
Swiss francs	632	657	70	<b>587</b>	591
French francs	2,500	623	—	<b>623</b>	209
ECUs	125	196	39	<b>157</b>	157
Belgian francs	1,000	46	3	<b>43</b>	43
Australian dollars	25	22	—	<b>22</b>	—
Guilders	—	—	—	<b>—</b>	9
		5,567	417	<b>5,150</b>	5,627
		\$38,433	\$ 619	<b>\$37,814</b>	\$37,035

\* Includes \$442 million of financial liabilities comprised of currency swaps (\$374 million in 1996).

\*\* These repayments are 85% hedged by future revenue streams in United States dollars and 7% by currency swaps (82% and 8% as at December 31, 1996).

\*\*\* These repayments are 89% hedged by currency swaps that translate the repayments into Canadian or United States dollar equivalents (90% as at December 31, 1996).

**Note 10****Long-term debt**

Continued

**Allocation of debt by currency of issue and repayment**

The following table shows the allocation of debt converted into Canadian dollars after taking the swaps into account, according to currency of issue and currency of repayment.

<i>(in millions of dollars)</i>	1997		1996	
	Currency of issue	Currency of repayment	Currency of issue	Currency of repayment
Canadian dollars	\$15,653	\$18,705	\$15,254	\$20,902
United States dollars	17,011	18,567	16,154	15,556
Other currencies	5,150	542	5,627	577
	<b>\$37,814</b>	<b>\$37,814</b>	<b>\$37,035</b>	<b>\$37,035</b>

**Interest rates**

The Corporation's interest rates presented in the following table take into account nominal interest rates on borrowings, the related discounts and expenses, as well as the effect of interest rate swaps.

Years of maturity	1997			1996	
	Canadian dollars	United States dollars	Other currencies	Weighted average	Weighted average
1 - 5 years	7.50	7.88	7.14	<b>7.57</b>	8.88
6 - 10 years	6.81	8.29	7.39	<b>7.43</b>	7.52
11 - 15 years	10.48	10.97	7.73	<b>10.06</b>	9.96
16 - 20 years	10.44	9.17	7.18	<b>8.76</b>	9.54
21 - 25 years	10.26	9.33	–	<b>9.88</b>	10.63
26 - 30 years	8.99	8.75	–	<b>8.76</b>	9.22
31 - 35 years	9.02	9.32	–	<b>9.29</b>	9.22
36 and more	6.18	–	–	<b>6.18</b>	6.18
<b>Weighted average</b>	<b>9.12</b>	<b>8.99</b>	<b>7.32</b>	<b>8.91</b>	<b>9.13</b>

The variable-rate portion of the debt amounts to 27.7%, or 28.7% after perpetual debt, as at December 31, 1997 (23.7%, or 24.8% after perpetual debt, as at December 31, 1996). For information purposes, an increase of 1% in the interest rate would reduce net income by \$44 million (\$58 million in 1996).



## Note 10 Long-term debt

Continued

### Fair value

As at December 31, 1997, the fair value of the Corporation's debentures and other long-term debt amounted to \$46,824 million (\$44,626 million as at December 31, 1996). However, currency and interest rate swaps, used to manage financial risk resulting from long-term debt, show a positive fair value of \$994 million (\$1,024 million as at December 31, 1996).

Fair value is obtained by discounting future cash flows, based on term and closing interest rates as at the balance sheet date for similar securities available on financial markets. The fluctuation in the fair value of debentures and other long-term debt is explained by the latter's sensitivity to financial market interest rates. However, Management intends to retain these debt securities until maturity. Therefore, as at December 31, 1997, the Corporation did not foresee any significant debt repayments that could result in the realization of this fair value.

Hydro-Québec has undrawn revolving standby credits totaling U.S.\$1,800 million which expire between 2001 and 2003. Any borrowing under these lines of credit will bear interest at a rate based on the Eurodollar London Interbank Offered Rate (LIBOR).

## Note 11 Other long-term liabilities

<i>(in millions of dollars)</i>	1997	1996
Accounts payable	\$158	\$130
Other postretirement benefits	185	142
Decommissioning of nuclear generating station	56	48
	<u>\$399</u>	<u>\$320</u>

## Note 12 Perpetual debt

Perpetual notes in the amount of U.S.\$400 million bear interest at a rate based on the Eurodollar London Interbank Offered Rate (LIBOR), established twice yearly. They are guaranteed by the Gouvernement du Québec and are redeemable at Hydro-Québec's option. These notes are shown on the balance sheet at the exchange rate in effect at date of issue (\$572 million at the exchange rate in effect at balance sheet date), an amount that approximates fair value. As at December 31, 1997 and 1996, the LIBOR rate for perpetual notes was 5.94% and 6.0%, respectively.

## Note 13 Derivative instruments

Derivative instruments used by Hydro-Québec are always associated with a reverse risk position.

Hydro-Québec concludes currency swaps in order to manage the foreign exchange risk associated with repayments of principal on long-term debt and with interest payments. Some of these currency swaps allow for interest rate exchanges to change the utility's long-term exposure to interest rate risk. Interest rate swaps that do not allow for exchanges of principal are also used to manage this risk.

The valuation of these swaps, with terms until 2017, shows a positive fair value of \$955 million (positive fair value of \$1,024 million as at December 31, 1996).

## Note 13 Derivative instruments

Continued

The following table shows the notional amount of these swaps expressed in currencies.

<i>(in millions of currency units)</i>	1997	1996
<b>Canadian dollars</b>	<b>(3,052)</b>	<b>(5,648)</b>
<b>United States dollars</b>	<b>(1,012)</b>	<b>490</b>
<b>Other currencies</b>		
Yen	90,000	146,450
Deutsche marks	1,093	1,258
Pounds sterling	517	517
Swiss francs	536	536
French francs	3,175	1,675
ECUs	125	125
Belgian francs	1,000	1,000
Australian dollars	25	-
Guilders	-	15

The data in brackets represent amounts payable.

In managing short-term financial risks, Hydro-Québec makes continual comprehensive evaluations of the impact of variations in exchange rates, interest rates and prices of raw materials. In this respect, Hydro-Québec held, as at December 31, 1997 and 1996, options and forward contracts designed to hedge several needs. The fair value of these instruments was \$37 million as at December 31, 1997 (negative fair value of \$8 million as at December 31, 1996) and is allocated in the following table by specific risk. These derivative instruments mature in, or prior to December 1998.

The fair value of derivative instruments reflects the amount that Hydro-Québec would receive (*financial assets*) or pay (*financial liabilities*) as at the balance sheet date in terminating these instruments.

<i>(in millions of dollars)</i>	1997	1996
<b>Exchange risk</b>		
Forward rate agreements and options:		
Financial assets	\$20	\$23
Financial liabilities	-	(24)
	20	(1)
<b>Interest rate risk</b>		
Forward rate agreement and options:		
Financial assets	11	2
Financial liabilities	(1)	(9)
	10	(7)
<b>Risk of price change in raw materials</b>		
Forward contracts and options on aluminum:		
Financial assets	9	1
Financial liabilities	(2)	(1)
	7	-
	<b>\$37</b>	<b>\$(8)</b>



## Note 13 Derivative instruments

Continued

The fair value of derivative instruments is determined based on the spot rates or forward rates or prices available at market closing as at the balance sheet date. Without this information for a given instrument, reference is made to the available forward rate or price for an equivalent instrument. Different valuation models recognized by financial markets are used to estimate the fair value of options.

### Credit risk

Derivative instruments include an element of risk, since a counterparty might not meet its obligations. However, this risk is minimized as Hydro-Québec deals only with Canadian and international financial institutions with high credit ratings. Credit risk exposure is also reduced by applying a credit policy that limits credit risk concentrations. As at December 31, 1997, Hydro-Québec did not foresee incurring any loss due to counterparty default.

## Note 14 Restrictions on dividends

Under the *Hydro-Québec Act*, any dividends to be paid by the utility are declared once a year by the Gouvernement du Québec, which also determines the terms and conditions of payment. For a given financial year, they cannot exceed the distributable surplus, equal to 75% of operating income and the year's net investment income, less interest on debt securities and amortization of borrowing discount and expenses. This calculation is made on the basis of the Consolidated financial statements.

However, in respect of a given financial year, no dividend may be declared in an amount that would have the effect of reducing the rate of capitalization to less than 25% at the end of the year. The government declares the dividends for a given year within 30 days after the transmission by Hydro-Québec to the government of the financial data relative to the distributable surplus. On expiry of the time prescribed, any distributable surplus or part thereof which has not been subject to a dividend declaration may no longer be distributed to the shareholder as a dividend.

For 1997, the Gouvernement du Québec declared dividends of \$357 million, which is less than the maximum amount that could have been declared.

Dividends declared are deducted from the retained earnings of the year for which they were declared.

## Note 15 Interest in a joint venture

In 1997, Hydro-Québec acquired an interest in Noverco Inc., a holding company that owns Gaz Métropolitain, inc. The interest was acquired in three successive blocks, on January 10, January 31 and August 27 from the Caisse de dépôt et placement du Québec and Laurentides Investissement S.A. (Gaz de France) at exchange values supported by external appraisals. On August 27, 1997, Hydro-Québec also acquired an option from the Caisse de dépôt et placement du Québec on 32% of the common shares of Noverco Inc. which it sold to IPL Energy. In the course of the transactions between Hydro-Québec and the Caisse de dépôt et placement du Québec, the latter traded the interest previously held by the Société québécoise d'initiatives pétrolières (SOQUIP), a corporation controlled by the Gouvernement du Québec.

As at December 31, 1997, Hydro-Québec holds 41% of the outstanding common shares of Noverco Inc. and options on an additional portion of 9%.

Gaz Métropolitain and Company, Limited Partnership, the main subsidiary of Gaz Métropolitain, inc., is involved primarily in the distribution of natural gas by pipeline. Most of its operations are monitored and controlled by the Régie de l'énergie. In addition, the Régie's decisions result in the adoption of accounting methods and practices specific to the regulated entities, notably as regards rate stabilization accounts, certain deferred charges, fixed assets and related depreciation, and excess return, if any.

**Note 15 Interest in a joint venture***Continued*

The acquisition was accounted for under the purchase method. The price paid of \$482 million includes subordinate debentures of \$285 million and stock options of \$35 million. The value of the investment exceeds the carrying value of the net assets acquired, considered representative of their fair value, by \$205 million.

The Noverco Inc. shareholders' agreement provides for joint control by the principal shareholders: Hydro-Québec, IPL Energy and Laurentides Investissements S.A. (Gaz de France). The agreement also provides, under certain conditions, the granting by Hydro-Québec to the joint owners of mechanisms allowing for an eventual liquidity of their interest.

The interest is accounted for under the proportionate consolidation method. The results and cash flow items of the joint venture are included in the financial statements in accordance with the successive acquisitions of interest, from the dates of acquisition until September 30, 1997. The results accounted for and the items from the balance sheet and changes in financial position as at September 30, 1997, are as follows:

*(in millions of dollars)***In the Consolidated statement of operations**

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<b>Revenue</b>	
Sales of natural gas	302
Other operating revenue	20
<b>Expenditure and financial expenses</b>	
Operations	36
Fuel purchased	200
Depreciation and amortization	31
Taxes	14
Financial expenses	23
<b>Non-controlling interest</b>	6
<b>Net income</b>	12

**In the Consolidated balance sheet**

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<b>Assets</b>	
Fixed assets	587
Current assets	81
Other long-term assets	152
<b>Liabilities</b>	
Long-term debt	394
Current liabilities	96
Other long-term liabilities	4
<b>Non-controlling interest</b>	135

**In the Consolidated statement of changes in financial position**

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Operating activities	143
Financing activities	(110)
Investing activities	(47)



**Note 16****Pension plan**

The Hydro-Québec Pension Plan is a contributory defined benefit pension plan based on final pay, under which benefits payable are guaranteed by Hydro-Québec. At December 31, 1997, 19,994 employees were contributing to the Plan. An actuarial valuation was made in 1997 in order to determine the present value of accrued benefits based on employees' expected basic salary until retirement. The assets of the pension funds are valued at fair value.

At December 31, 1997, the date of the most recent valuation, the Pension Plan showed a surplus as follows:

*(in millions of dollars)*

Assets of the pension funds	\$7,010
Present value of accrued benefits	5,935
<b>Surplus</b>	<b>\$1,075</b>

For the year ended December 31, 1997, pension expense amounted to \$101 million (\$89 million in 1996).

**Note 17****Commitments****Electricity purchased**

On May 12, 1969, Hydro-Québec signed a contract with Churchill Falls (Labrador) Corporation [CF(L)Co] whereby Hydro-Québec undertook to purchase substantially all the power generated at the Churchill Falls generating station, which has a rated capacity of 5,428 MW. Under this agreement, Hydro-Québec could be required to provide additional funding to service the debt of CF(L)Co and to cover its expenses should CF(L)Co be unable to do so. Maturing in 2016, this contract will be automatically renewed for a further 25 years in accordance with existing terms and conditions.

On May 28, 1990, Hydro-Québec signed a firm power purchase contract with New Brunswick Power Corporation to provide Hydro-Québec with blocks of power of up to 400 MW between 1991 and 1998, 300 MW between 1998 and 2002, and 200 MW between 2002 and 2011.

As at December 31, 1997, Hydro-Québec had signed contracts with 68 private producers representing a potential capacity of 459 MW. Hydro-Québec expects to purchase approximately 370 MW of power and energy annually over the initial term of these contracts which mature through 2021. The majority of these contracts include renewal clauses.

Taking into account all of the electricity purchase contracts, Hydro-Québec expects to make the following minimum payments in each of the next five years:

*(in millions of dollars)*

1998	\$255
1999	\$254
2000	\$277
2001	\$271
2002	\$268

**Projected capital expenditures**

Hydro-Québec plans call for capital expenditures of \$1,870 million for 1998, before taking into account events subsequent to the balance sheet.

As a result of the ice storm that struck southwestern Québec from January 5 to January 9, 1998, more than one million customers were without electricity for periods ranging from a few days in the Greater Metropolitan area to several weeks in Montérégie.

A preliminary estimate has been made of the costs incurred to restore service as quickly as possible. This estimate is based on the information available to date.

We estimate the total costs related to the ice storm at just over \$800 million. This amount includes the cost of emergency measures, the investments required to promptly return power to customers and restore facilities, as well as the revenue lost on sales of electricity. The cost of the investments, or nearly two-thirds of the estimate, will be capitalized to Fixed assets.

The Gouvernement du Québec has agreed to assume the full cost of the emergency measures, estimated at \$200 million, and the portion of required investments corresponding to the net cost of restoring the network to the condition it was in prior to the disaster, estimated at \$235 million.



## Five-Year Review\*

### Consolidated Financial Information

<i>(in millions of dollars)</i>	1997	1996	1995	1994	1993
<b>Results</b>					
Revenue	\$ 8,287	\$ 7,680	\$ 7,604	\$ 7,289	\$ 7,029
<b>Expenditure</b>					
Operations	1,602	1,542	1,686	1,766	1,800
Electricity and fuel purchased	529	275	273	285	284
Depreciation, amortization and decommissioning	1,545	1,427	1,228	1,096	1,020
Taxes	770	760	731	666	650
	4,446	4,004	3,918	3,813	3,754
Operating income	3,841	3,676	3,686	3,476	3,275
Financial expenses	3,049	3,156	3,296	2,809	2,514
Income before non-controlling interest	792	520	390	667	761
Non-controlling interest	6	–	–	–	–
Net income	\$ 786	\$ 520	\$ 390	\$ 667	\$ 761

### Summary of balance sheet

Total assets	55,194	53,760	53,755	51,608	47,879
Long-term debt	37,116	36,404	36,958	36,047	33,204
Shareholder's equity	12,888	12,459	11,939	11,549	10,882

### Annual investments

Fixed assets	1,590	2,056	2,717	3,167	3,934
Other	543	(9)	51	124	96
Total investments	2,133	2,047	2,768	3,291	4,030

### Consolidated Financial Ratios

Interest coverage <sup>a</sup>	1.21	1.11	1.05	1.07	1.03
Capitalization (in %) <sup>b</sup>	25.1	24.9	23.4	23.5	23.9
Self-financing (in %) <sup>c</sup>	60.8	55.8	43.6	47.6	41.2
Return on equity (in %) <sup>d</sup>	6.2	4.3	3.3	5.9	7.2
Return on revenue (in %) <sup>e</sup>	9.5	6.8	5.1	9.1	10.8

a) Sum of operating income and net investment income divided by gross interest expense.

b) Shareholder's equity divided by sum of shareholder's equity, long-term debt, perpetual debt, short-term borrowings and current portion of long-term debt, less other financial assets.

c) Cash provided from operations less dividends paid, divided by sum of investments, maturity of long-term debt and sinking fund redemption.

d) Net income divided by average shareholder's equity.

e) Net income divided by revenue.

\* Certain figures for previous years have been revised to reflect the presentation for the current year.

## Five-Year Review

### Operating Statistics

#### Electricity sales

<i>(in millions of kilowatthours)</i>	1997	1996	1995	1994	1993
<b>In Québec</b>					
Residential and farm	51,246	50,294	48,842	49,437	49,282
General and institutional	29,560	29,158	29,108	28,315	28,358
Industrial	61,124	59,797	59,254	56,580	54,646
Other	5,361	5,261	4,832	4,670	4,692
	<b>147,291</b>	<b>144,510</b>	<b>142,036</b>	<b>139,002</b>	<b>136,978</b>
<b>Outside Québec</b>					
Firm sales	9,378	9,483	8,856	8,648	9,761
Short-term sales	5,864	9,409	15,090	10,405	5,256
	<b>15,242</b>	<b>18,892</b>	<b>23,946</b>	<b>19,053</b>	<b>15,017</b>
<b>Total sales</b>	<b>162,533</b>	<b>163,402</b>	<b>165,982</b>	<b>158,055</b>	<b>151,995</b>

#### Revenue from electricity sales

<i>(in millions of dollars)</i>					
<b>In Québec</b>					
Residential and farm	\$3,066	\$2,945	\$2,834	\$2,866	\$2,815
General and institutional	1,885	1,835	1,843	1,809	1,798
Industrial	2,148	2,061	2,041	1,839	1,706
Other	232	226	221	226	233
	<b>7,331</b>	<b>7,067</b>	<b>6,939</b>	<b>6,740</b>	<b>6,552</b>
<b>Outside Québec</b>					
Firm sales	400	337	283	274	307
Short-term sales	196	251	354	245	138
	<b>596</b>	<b>588</b>	<b>637</b>	<b>519</b>	<b>445</b>
<b>Total revenue from sales</b>	<b>\$7,927</b>	<b>\$7,655</b>	<b>\$7,576</b>	<b>\$7,259</b>	<b>\$6,997</b>

#### Number of customer accounts – Electricity

<i>(at December 31)</i>					
<b>In Québec</b>					
Residential and farm	3,157,096	3,127,136	3,099,545	3,054,270	3,017,826
General and institutional	280,396	280,570	279,447	271,317	269,640
Industrial	12,999	13,198	13,386	13,156	13,369
Other	6,225	6,308	6,525	6,846	6,828
<b>Outside Québec</b>	<b>52</b>	<b>48</b>	<b>41</b>	<b>27</b>	<b>23</b>
<b>Total customer accounts</b>	<b>3,456,768</b>	<b>3,427,260</b>	<b>3,398,944</b>	<b>3,345,616</b>	<b>3,307,686</b>



## Five-Year Review

### Operating Statistics

	1997	1996	1995	1994	1993
<b>Average annual consumption – Electricity</b>					
<i>(in kilowatthours/customer)</i>					
<b>In Québec</b>					
Residential and farm	16,309	16,154	15,874	16,283	16,437
General and institutional	105,390	104,133	105,700	104,685	105,136
Industrial	4,666,489	4,498,721	4,464,924	4,266,164	4,046,653
Other	855,501	819,917	722,758	683,048	680,691
<b>Rate increases</b>					
<i>(in %)</i>					
Average increase at May 1	1.6	1.3	0.3	1.0	1.5
Inflation rate	1.6	1.6	2.1	0.2	1.8
<b>Installed capacity*</b>					
<i>(in thousands of kilowatts)</i>					
Hydroelectric	29,203	29,220	28,932	28,207	26,896
Thermal**	2,194	2,193	2,193	2,193	2,203
Total installed capacity	31,397	31,413	31,125	30,400	29,099
* In addition to its own generating stations, Hydro-Québec has access to most of the generation of Churchill Falls power plant (nominal capacity 5,428 MW).					
** Includes Gentilly-2 nuclear power station, which has a nominal capacity of 675 MW.					
<b>Peak power requirements*</b>					
<i>(in thousands of kilowatts)</i>					
	32,305	34,642	33,594	35,443	33,600
* Total power requirements at annual peak for the winter beginning in December, including McCormick generating station and interruptible power. The annual peak for winter 1997 occurred at 5 p.m. on December 15, 1997.					
<b>Total requirements*</b>					
<i>(in millions of kilowatthours)</i>					
	182,263	182,679	185,937	178,419	171,006
* Includes McCormick generating station.					
<b>Lines (overhead and underground)</b>					
<i>(in kilometres)</i>					
Transmission and subtransmission	32,090	30,557	30,831	30,478	29,869
Distribution	104,640	104,078	102,785	101,285	100,908
	136,730	134,635	133,616	131,763	130,777
<b>Number of employees*</b>					
Permanent at December 31	17,164	19,553	20,231	20,528	21,028
Women (in %)	23.5	22.9	22.5	22.3	22.0
Temporary (year's average)	3,252	3,767	4,621	4,878	5,753
* These figures exclude employees on loan to subsidiaries and employees of the Noverco joint venture.					

## Consolidated Results by Quarter\*

	1st quarter	2nd quarter	3rd quarter	4th quarter	Twelve-month period
<i>(in millions of dollars)</i>			<i>(unaudited)</i>		<i>(audited)</i>
<b>1997</b>					
<b>Revenue</b>	\$2,391	\$1,905	\$1,751	\$2,240	\$8,287
<b>Expenditure</b>					
Operations	418	409	372	403	1,602
Electricity and fuel purchased	98	182	133	116	529
Depreciation, amortization and decommissioning	373	380	382	410	1,545
Taxes	190	200	196	184	770
	1,079	1,171	1,083	1,113	4,446
<b>Operating income</b>	1,312	734	668	1,127	3,841
<b>Financial expenses</b>	745	772	743	789	3,049
<b>Income (loss) before non-controlling interest</b>	567	(38)	(75)	338	792
<b>Non-controlling interest</b>	-	7	-	(1)	6
<b>Net income (net loss)</b>	\$ 567	\$ (45)	\$ (75)	\$ 339	\$ 786
<b>1996</b>					
<b>Revenue</b>	\$2,302	\$1,684	\$1,618	\$2,076	\$7,680
<b>Expenditure</b>					
Operations	440	391	375	336	1,542
Electricity and fuel purchased	83	59	56	77	275
Depreciation, amortization and decommissioning	334	338	359	396	1,427
Taxes	189	192	191	188	760
	1,046	980	981	997	4,004
<b>Operating income</b>	1,256	704	637	1,079	3,676
<b>Financial expenses</b>	827	785	785	759	3,156
<b>Net income (net loss)</b>	\$ 429	\$ (81)	\$ (148)	\$ 320	\$ 520

\* Certain figures have been reclassified to reflect the presentation for the current year.



# Statement by the Board of Directors on Corporate Governance

The role of the Board of Directors is to ensure that the utility is well managed in accordance with the laws and regulations that govern it, that its activities are in keeping with the Québec Energy Policy, and that managers adequately account for their management activities.

This role requires that the Board take into consideration the interests of Hydro-Québec's shareholder, employees and customers, and the communities in which the utility operates.

## Principles of Corporate Governance

The Board fully embraces the corporate governance rules set forth by the Canadian stock exchanges, even though the utility is not listed on any exchange and is therefore not legally required to adhere to these rules. By establishing formal principles of corporate governance, the Board intends to help make Hydro-Québec a model for Canadian public utilities.

## Changes in Internal Management in 1997

Fiscal 1997 was marked by radical and rapid change within Hydro-Québec and throughout the industry, especially deregulation and the opening of wholesale electricity markets in North America. The utility also undertook a large-scale restructuring of its operations to increase efficiency and profitability.

While maintaining its primary responsibility as a utility serving the Québec public, Hydro-Québec had to adapt to these changes, which had a major impact on its strategic directions, operations and management. The major changes adopted by the Board include:

- the creation, mandates and composition of new committees whose role is to optimize the organization and operation of the Board;
- the appointment of a Board Vice Chairman, whose role is to chair meetings of the Board, the Executive Committee and any other committee in the absence of the Board Chairman;

- the establishment of an approach for developing a strategic plan. Such a plan was submitted to the Québec government in October 1997, after the Board expressed its opinion at several stages. The Board intends to follow up on the plan's objectives and the means used to attain them.

All committees are primarily composed of outside directors who have no relationship with the utility. Three new committees were created: Ethics and Corporate Governance, Environment and Corporate Citizenship, and Pension Fund Management.

To assist the Board in matters of governance and to support management in the efficient exercise of its duties, the General Auditor collaborated during the year on several mandates related to corporate governance, including one on integrated risk management.

# Report on Activities of the Board of Directors and Principal Committees

## Board of Directors

The Board of Directors is composed of a maximum of 16 members appointed by the Québec government for terms of no more than five years, as well as a President and Chief Executive Officer appointed by the Board with government approval. The Deputy Minister of Natural Resources is an ex officio, non-voting member of the Board.

The positions of Chairman of the Board and President and Chief Executive Officer are held by two different incumbents. The functions, powers and responsibilities of the President and Chief Executive Officer are determined by the Board.

The Board sees to the administration of the utility's business in accordance with the *Hydro-Québec Act*, the *Québec Companies Act* and the Québec Energy Policy. It may delegate powers to the Executive Committee, except those which the law specifically reserves for the Board, such as:

- approving the utility's directions, policies, strategies, programs and general objectives, as well as its management guidelines;
- approving the Strategic Plan, which must cover a five-year period, and ensuring continuous monitoring;
- appointing senior management staff.

The Board of Directors met five times during the year, with an attendance rate of 70%. The Executive Committee held 10 meetings, while the other committees held 32 in all.

## Audit

The main role of the Audit Committee is to assure the Board of Directors that the financial statements are in order, that internal controls are adequate and effective, and that suitable mechanisms are being applied to identify and manage the major internal and external risks to which the utility is exposed. The committee reads the internal audit reports and the action plans resulting from the recommendations of the Control Unit and the General Auditor.

Issues studied by this committee in 1997 include risk management, Year 2000 readiness of automated systems, implementation of SAP software to replace 150 systems throughout the utility, and a number of major contracts. At each meeting, the committee reviews changes in receivables of more than \$1 million.

## Finance

The main role of the Finance Committee is to advise the Board on matters of finance, especially the annual financing program, borrowing, management of corporate funds, insurance, the business plan and ensuing annual budget, and the impact of interest rate, exchange rate and inflation forecasts.

In 1997, the committee examined issues relating to financial risk management, investment management policy, evaluation of pension fund performance, the borrowing and swap programs, and a comprehensive borrowing plan for fiscal 1998. It also conducted an in-depth study of the strategic and financial aspects of major transactions in connection with Noverco.

## Human Resources

The main role of the Human Resources Committee is to advise the Board on matters of hiring, total compensation, training, succession planning and other subjects, including the hiring, appointment, annual performance review and compensation of the President and Chief Executive Officer and other senior management staff.



Issues studied by the committee in 1997 include the human resources master plan for 1998-2002, compensation guidelines, and 1998 salary policies for managers and specialists.

### **Ethics and Corporate Governance**

This five-member committee, created in 1997, ensures that the utility is well managed in accordance with the highest standards of ethics and corporate governance and with laws and regulations; that its activities are in keeping with the Québec Energy Policy; and that managers adequately account for their management activities. The committee also advises the Board on the application and follow-up of the Code of Ethics for Directors and Executives of Hydro-Québec. It formulates recommendations on a number of issues, including:

- annual performance objectives for the Board of Directors, Directors and the President and Chief Executive Officer;
- criteria on the structure and composition of the Board and its committees, as well as competency criteria for directors and executives to ensure that corporate objectives are attained;
- distribution of responsibilities among the Board of Directors, the Executive Committee and senior management;

- the utility's directions, policies, strategies and general objectives with regard to rules of conduct governing the operation of its business, particularly in connection with purchases from independent power producers;
- mechanisms for periodic review of the performance of the Board of Directors, the Chairman of the Board, Directors, and the President and Chief Executive Officer.

In 1997, acting on the recommendations of the commission of inquiry into Hydro-Québec's policy on electricity purchases from independent power producers, the committee recommended that the Board approve amendments to the Code of Ethics for Directors and Executives. It also established its work schedule for 1998, which includes an evaluation of the performance and functioning of the Board of Directors.

### **Environment and Corporate Citizenship**

The primary role of this newly formed, six-member committee is to advise the Board on environmental management at Hydro-Québec, public health and safety, relations with Aboriginal communities, corporate citizenship, and corporate image. The committee receives all reports and violation notices in connection with environmental incidents.

In 1997, the committee studied Hydro-Québec's new policies on donations and sponsorships. It also reiterated its concern for the environment and set forth clear objectives in this regard. Finally, it insisted on the need to establish and maintain ongoing communications with local and Aboriginal communities and to develop productive partnerships with them.

### **Pension Fund Management**

To better fulfill its legal responsibilities as trustee and manager of the pension funds of Hydro-Québec and some of its subsidiaries, the Board created a five-member committee to advise it on investment management, portfolio performance, evaluation of portfolio managers and the management of the pension plans, including changes in pension obligations.

During the year, the committee studied a policy on the management of pension fund investments and recommended that it be adopted by the Board.

### **Future Activities**

Following the major advances made in the development of Hydro-Québec's corporate governance system, the Board intends to devote special effort to the following activities in 1998:

- establishing a process for evaluating the efficiency of the Board and its committees;
- following up on the Strategic Plan objectives.

# Board of Directors

## Board members



**Jean-Paul Beaulieu**  
Deputy Minister  
of Natural Resources  
Gouvernement du Québec



**Éric Gourdeau**<sup>2,3,7</sup>  
Director



**Michèle Poirier**<sup>5,7,8</sup>  
President  
Michèle Poirier  
et Associés



**Daniel Boulard**<sup>6</sup>  
Partner  
Martin, Boulard  
et Associés, CA



**Francine Harel  
Giasson**<sup>2,4,5,8</sup>  
Titular Professor  
École des hautes études  
commerciales  
Université de Montréal



**Serge Racine**<sup>4</sup>  
Chairman of the  
Board and Chief  
Executive Officer  
Shermag



**Pierre Bourgie**<sup>1,3,5,6,8</sup>  
Vice Chairman of  
the Board of Directors  
of Hydro-Québec  
President and Chief  
Executive Officer  
Société financière  
Bourgie 1996



**Yvon  
Lamontagne**<sup>1,2,3,5,8</sup>  
Chairman of the Board  
Groupement des assureurs  
automobiles



**Francine Ruest-  
Jutras**<sup>1,4</sup>  
Mayor of  
Drummondville



**André Caillé**<sup>1,2,3,4,6,7,8</sup>  
President and Chief  
Executive Officer  
Hydro-Québec



**L. Jacques  
Ménard**<sup>1,2,4,6,7,8</sup>  
Chairman of the  
Board of Directors  
Hydro-Québec  
Deputy Chairman  
of the Board  
Nesbitt Burns



**Charles Sirois**<sup>3,7</sup>  
Chairman of the  
Board and Chief  
Executive Officer  
Teleglobe



**Charles G. Cavell**<sup>1</sup>  
President and Chief  
Operating Officer  
Quebecor Printing



**Simon Paré**<sup>2,5,8</sup>  
Consultant



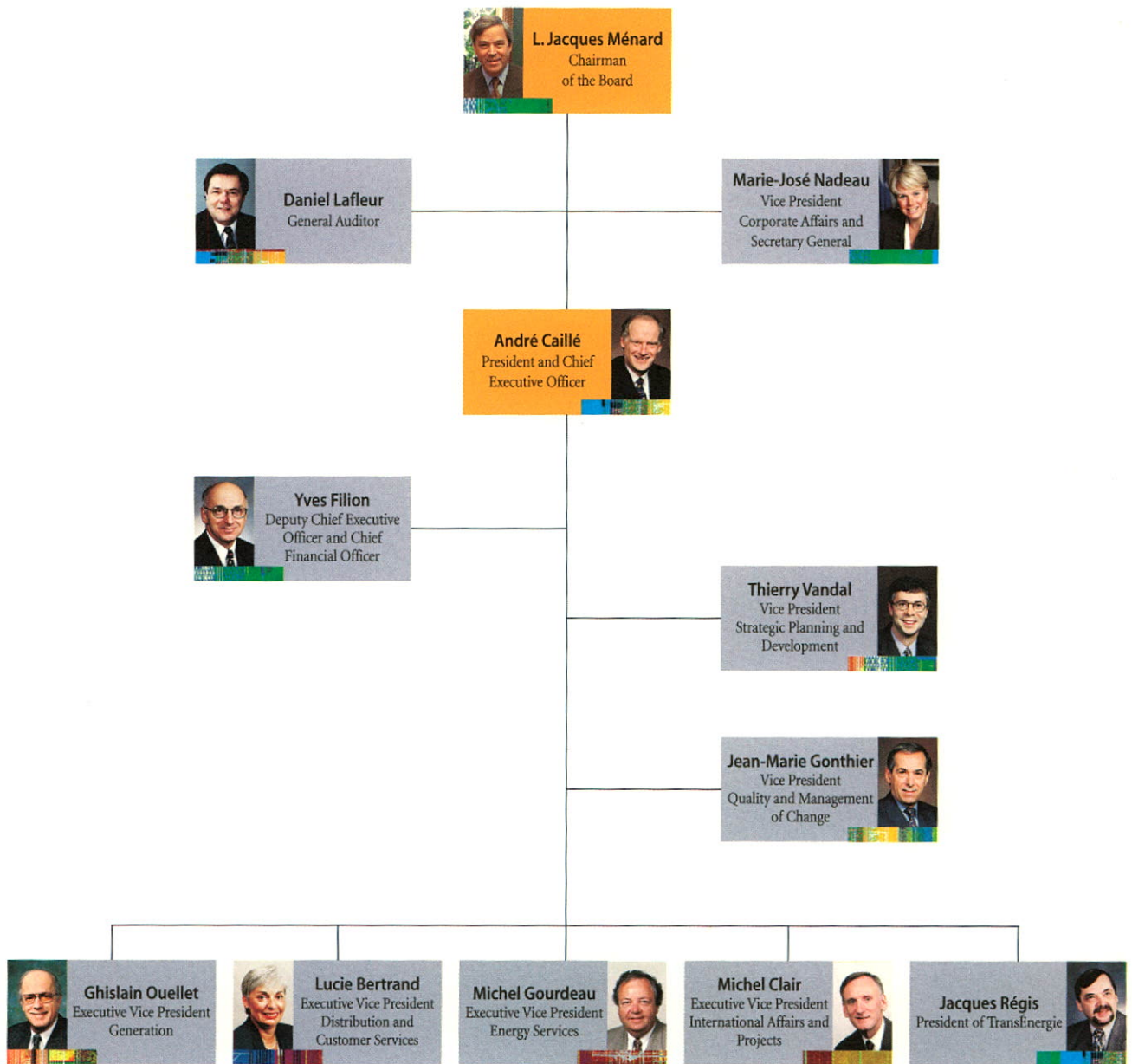
**Georges Pelletier**<sup>6</sup>  
Director  
Inter-Cité Construction

### Board Committees

- 1 Executive Committee
- 2 Environment and  
Corporate Citizenship
- 3 Finance
- 4 Human Resources
- 5 Audit
- 6 Pension Fund Management
- 7 Ethics and Corporate Governance
- 8 Ad Hoc Committee on Review  
of Signing Authorities



# Management\*



\* At March 31, 1998

## Generating Facilities

Hydroelectric generating stations	Nominal capacity (in kilowatts)	Thermal generating stations	Nominal capacity (in kilowatts)
Robert-Bourassa	5,328,000	Nuclear	
La Grande-4	2,650,500	Gentilly-2	675,000
La Grande-3	2,304,000	Oil	
La Grande-2-A	1,998,000	Tracy	600,000
Beauharnois	1,656,860	Gas-turbine	
Manic-5	1,528,000	Bécancour	428,200
La Grande-1	1,368,000	La Citière	200,880
Manic-3	1,183,200	Cadillac	162,000
Manic-5-PA	1,064,000	Diesel	
Manic-2	1,015,200	Îles-de-la-Madeleine	67,200
Bersimis-1	936,000	Blanc-Sablon*	11,200
Laforge-1	837,900	La Tabatière*	6,800
Bersimis-2	798,000	Kuujuuaq	3,935
Outardes-3	756,200	La Romaine	3,800
Carillon	654,500	Saint-Augustin*	3,600
Outardes-4	632,000	Kuujuuarapik	3,405
Outardes-2	453,900	Obedjiwan	2,900
Brisay	446,500	Povungnituk	2,870
Laforge-2	304,000	Port-Menier	2,790
Trenche	302,400	Inukjuak	2,735
Paugan	250,100	Weymontachie	2,615
Beaumont	243,000	Salluit	2,000
La Tuque	224,000	Kangiqualujuaq	2,000
Rapide-Blanc	201,600	Kangijsujuaq	1,520
Shawinigan-2	191,500	L'Île-d'Entrée	1,190
Manic-1	184,410	Ivujivik	1,050
Shawinigan-3	171,900	Kangirsuk	1,050
Les Cèdres	153,000	Umiujaq	1,050
Chelsea	150,700	Quaqtaq	975
Grand-Mère	149,575	Akulivik	850
Rapides-des-Îles	146,520	Tasiujaq	670
La Gabelle	136,580	Aupaluk	550
Première-Chute	124,200	Clova	530
Rapides-Farmers	98,250		
Rapides-des-Quinze	94,560		
Chute-des-Chats	89,300		
Bryson	61,000		
Hart-Jaune	48,450		
Rivière-des-Prairies	48,300		
Rapide-2	48,000		
Rapide-7	48,000		
Chute-Hemmings	28,800		
Hull-2	27,280		
Lac-Robertson	23,760		
Drummondville	16,200		
Saint-Narcisse	15,000		
Mitis-1	6,400		
Mitis-2	4,250		
Chute-Burroughs	1,600		

### Total installed capacity at December 31, 1997\*\*

(in kilowatts)	
Hydroelectric generating stations (49)	29,203,395
Thermal generating stations (29)	2,193,365
Total generating stations	31,396,760

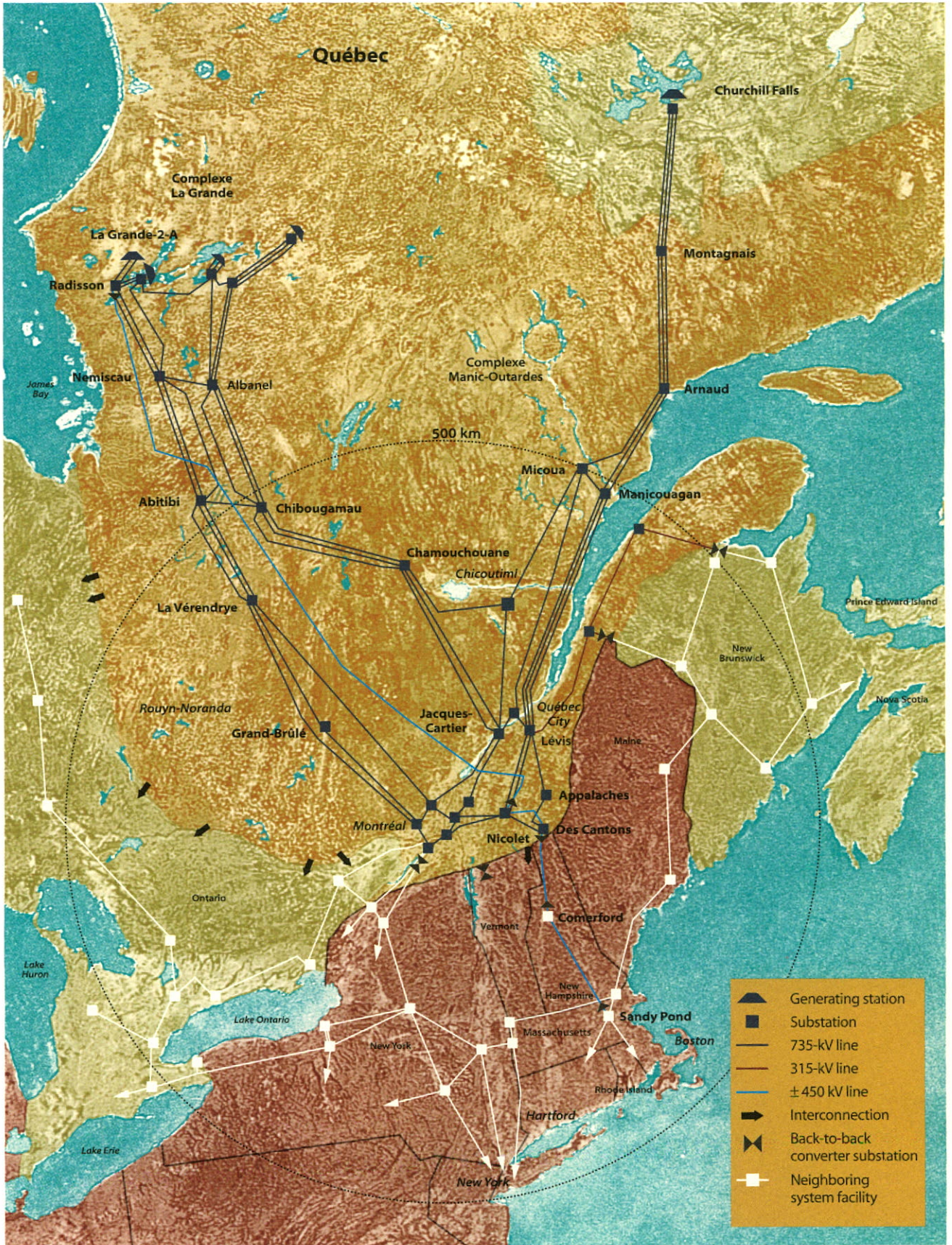
Under construction	Commissioning date	Capacity (in kilowatts)
Sainte-Marguerite-3 hydroelectric generating station	2001	882,000

\* Kept in reserve since the commissioning of Lac-Robertson generating station.

\*\* Hydro-Québec also has access to most of the generation from Churchill Falls power plant, which has a nominal capacity of 5,428 MW.



# Map Showing Major Facilities





## Glossary

### **Commercial paper**

*A promissory note issued by Hydro-Québec for its short-term financing, generally for less than one year.*

### **Corporate governance**

*A set of rules governing the organization and operation of the Board of Directors, as well as relations between the Board and management.*

### **Electric motor-wheel**

*An electric motor running on alternating current, at variable speed and with direct coupling, and supplied by a hybrid energy source: a battery and a gasoline-powered motor-generator. The motor-wheel fits directly into each of a vehicle's wheels.*

### **Federal Energy Regulatory Commission (FERC)**

*An autonomous agency of the United States Department of Energy that controls access to American energy transmission systems and wholesale electricity markets.*

### **Green energy**

*Renewable energy that is in accord with principles of sustainable development, notably with respect to the reduction of greenhouse gases.*

### **Greenhouse gases**

*Gases that absorb the energy given off by the earth (in the form of infrared radiation) and radiate it back toward earth, thereby warming the surface of the globe. The principal greenhouse gases are water vapor, carbon dioxide and methane.*

### **Integrated enhancement and development policy**

*A policy adopted by Hydro-Québec to ensure that any residual negative impacts of its projects are offset by specific positive measures: environmental enhancement, support for regional development, and development of Aboriginal communities.*

### **ISO (International Organization for Standardization)**

*An international organization responsible for developing worldwide standards and whose membership includes the national standards organizations of some 100 countries, based on one organization per country.*

### **Loop**

*A set of high-voltage lines and substations which circle a given geographic area, allowing for multiple lines to supply power and, consequently, improve security of supply and reliability of the transmission system.*

### **Outstanding**

*Said of notes or other securities representing outstanding financial commitments.*

### **Polymer-electrolyte battery (ACEP)**

*A solid battery with high energy density, which may be made of a film of polymer and a sheet of lithium rolled into strips. This battery is designed to supply electric vehicles with power and to act as a backup battery for telecommunications networks, among other applications.*

### **Sustainable development**

*A planning, intervention and management concept aimed at achieving development that meets the needs of the present without compromising the ability of future generations to meet their own needs.*

### **Swap**

*A financial operation in which two parties, for example Hydro-Québec and a bank, agree to swap interest rates (interest rate swap) or exchange rates (currency swap) as per their agreements.*

### **Watt (W)**

*A unit used to measure power.*

*Its most common multiples are:*

- kilowatt (kW) = 1,000 watts
- megawatt (MW) = 1 million watts
- gigawatt (GW) = 1 billion kilowatts
- terawatt (TW) = 1 billion kilowatts

### **Watt-hour (Wh)**

*A unit used to measure electric energy.*

*The most frequently encountered multiples are:*

- kilowatthour (kWh) = 1,000 watthours
- megawatthour (MWh) = 1,000 kilowatthours
- gigawatthour (GWh) = 1 million kilowatthours
- terawatthour (TWh) = 1 billion kilowatthours

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## Language Policy

*As a publicly owned company, Hydro-Québec is subject to the government's policy concerning the use and quality of French in public administration, which was adopted in November 1996. To fulfill its obligations under this policy, the utility established a standing committee on language in 1997. During the year, the committee developed a language policy that was approved by the Board of Directors.*



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Legal deposit: 2nd quarter 1998  
National Library of Canada  
Bibliothèque nationale du Québec  
ISBN 2-550-33066-8  
ISSN 0702-6749  
97G394A

*Ce document est également publié en français.*

 **Hydro  
Québec**