

Sustainable Energy

HYDRO-QUÉBEC generates, transmits and distributes electricity. Its sole shareholder is the Québec government. Using mainly renewable generating options, in particular hydroelectricity, it supports the development of wind energy through purchases from independent power producers. It also conducts research in energy-related fields such as energy efficiency.

The company comprises four divisions:

Hydro-Québec Production generates power for the Québec market and sells its surpluses on wholesale markets. It is also active in arbitraging and purchase/resale transactions.

Hydro-Québec TransÉnergie operates the most extensive transmission system in North America for the benefit of customers inside and outside Québec.

Hydro-Québec Distribution provides Quebecers with a reliable supply of electricity. To meet needs beyond the annual heritage pool which Hydro-Québec Production is obligated to supply at a fixed price, it mainly uses a tendering process. It also encourages its customers to make efficient use of electricity.

Hydro-Québec Équipement and Société d'énergie de la Baie James (SEBJ), a subsidiary of Hydro-Québec, are the prime contractors in construction projects for Hydro-Québec Production and Hydro-Québec TransÉnergie.

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On the cover

An Attikamek from the community of Wemotaci participates in archaeological digs on the site of the Rapides-des-Cœurs development in the Upper Mauricie region.



Sustainable Energy

Eastmain 1 reservoir, in the James Bay region.

Sustainable development meets the needs of the present without compromising the ability of future generations to meet their own needs. Founded on a long-term vision that combines environmental conservation, social progress and economic efficiency, sustainability recognizes a healthy environment as an essential condition of human well-being.

Hydro-Québec contributes to sustainability by focusing on three complementary strategies: generation and purchase of green, renewable power to protect the environment and safeguard the future; energy efficiency to reduce demand; and innovation to promote the emergence of efficient, environmentally friendly technologies.

Message from the President and Chief Executive Officer



Thierry Vandal
President and Chief Executive Officer

In 2007, as in previous years, Hydro-Québec demonstrated its commitment to sustainability. Its environmental initiatives, its relations with host communities and the role it plays in the Québec economy are clear evidence of this and show encouraging results, as this report attests. The 2007 report is based on the Global Reporting Initiative guidelines (G3) and is in keeping with the spirit of Hydro-Québec's sustainable development action plan, currently being drafted.

At a time when climate change has become an issue of global importance, Hydro-Québec enjoys a considerable advantage in that we mainly produce hydroelectricity, complemented by a supply of wind power—generating

options that are very low in greenhouse gas emissions. In 2007, we continued to develop Québec's hydropower potential, in particular with the Eastmain-1-A/Sarcelle/Rupert project in the James Bay region. This construction project of the decade, estimated at \$5 billion, includes environmental measures worth an unprecedented \$120 million.

In energy efficiency, we surpassed our objectives for the fourth year in a row, with energy savings of 866 GWh. We are well on our way to reaching the 4.7-TWh target set for 2010.

Well aware of our social responsibility, we do our utmost to ensure the acceptability of our projects. In connection with the Romaine project, for example, we signed a partnering agreement with the regional county municipality of Minganie to carry out various economic, environmental, social and cultural initiatives. In addition, the company distributed \$24.7 million in donations and sponsorships, including \$3.2 million to United Way/Centraide and \$3.4 million for research and education.

Hydro-Québec serves several categories of customers with a wide range of needs. We are proud of the collaborative relationships we have forged with consumer associations to better meet the needs of certain customer groups. In 2007, for instance, we entered into numerous special or personalized payment arrangements with low-income customers.

Our financial results improved again this year, and this will benefit all Quebecers. Income from continuing operations totaled \$2,882 million, up \$85 million from 2006, and dividends of \$2,095 million were declared. We further contributed to the province's economic vitality with our major development projects, representing regional expenditures of \$400 million, and with our technological innovation projects, in which we invested some \$100 million.

Hydro-Québec's motivated employees share its goals, and we are working harder than ever to offer them a stimulating, healthy, safe workplace. Employee satisfaction rose this year, demonstrating a growing sense of belonging. Our employees play an essential role in the company's accomplishments. We thank them for their dedication and determination.

A handwritten signature in black ink, appearing to read 'TV' or 'Thierry Vandal' in a stylized, cursive script.

Thierry Vandal
President and Chief Executive Officer

About This Report

Deeming it important to report on its performance, Hydro-Québec has published a sustainability report for the past six years. This document informs stakeholders about the company's environmental, social and economic initiatives.

The 2007 report focuses on six main themes:

- ▶ Renewable energies and energy efficiency
- ▶ Environmental protection and quality of life
- ▶ Social commitment
- ▶ Customized service
- ▶ Human resources development
- ▶ Contribution to the Québec economy

This report presents initiatives carried out in Québec. It does not, as a rule, cover sustainable development activities conducted abroad by subsidiaries, joint ventures and other partners.

Readers may also consult a summary sheet briefly outlining Hydro-Québec's sustainability performance, or visit the company's Web site, which provides further details on the subject. The printed and electronic versions of the Sustainability Report and the summary sheet, as well as the Web site, are available in both English and French.

Expert panel and focus groups

The expert panel and focus groups organized in 2007 yielded viewpoints and information on

- ▶ *the issues, topics, concerns, objectives, results and indicators that Hydro-Québec should emphasize in its Sustainability Report;*
- ▶ *the treatment and clarity of the message;*
- ▶ *improvements to consider in the short and medium term.*

The main points raised relate to

- ▶ *illustration of the connections between the concept of sustainability and Hydro-Québec's activities;*
- ▶ *the relative importance and transparency of the information provided in the report;*
- ▶ *inclusion of forward-looking and background elements.*


A shared expectation: A better report

Hydro-Québec's Sustainability Report is constantly evolving. To ensure that it continues to improve, in 2007 the company set out to learn more about stakeholder expectations.

- ▶ A dozen focus groups made up of target publics and Hydro-Québec employees were organized in four regions of the province.
- ▶ We met with an expert panel on sustainability performance reporting: academics, investors, independent organizations, etc.
- ▶ We conducted a benchmarking exercise on best practices in sustainability information disclosure.

New features

The *Sustainability Report 2007* includes some new features, several of which arise out of the consultations that took place during the year.

- ▶ Testimonials from employees in different areas of activity, reflecting their commitment to sustainable development
- ▶ New performance indicators
- ▶ A glossary
- ▶ Some facts and figures have been verified by Intertek; they are indicated by the symbol 

GRI guidelines

Since 2002, Hydro-Québec has drawn on the Global Reporting Initiative (GRI) guidelines, based on common indicators that allow comparisons, to produce its Sustainability Report. In 2006, the GRI brought out a new version of its guidelines (G3) to ensure the credibility and quality of sustainability performance reports.



For its 2007 report, Hydro-Québec has produced a self-declaration that corresponds to application level B in the six-level grid of the GRI (G3) guidelines. This declaration has been checked by the GRI.

To learn more, readers may consult the GRI index on page 38 of this report, as well as on Hydro-Québec's Web site: www.hydroquebec.com/sustainable-development/gri/index.html.

Sustainability and Our Main Areas of Activity

Generation



Some figures

- Permanent workforce as at December 31: 3,292
- Temporary workforce (annual average): 525
- 62 generating facilities connected to the grid, including 56 hydropower stations (38 run-of-river)
- 26 large reservoirs
- Revenue: \$6.8 billion
- Net income: \$2.1 billion

2007 highlights

- According to a study of greenhouse gas (GHG) emissions at Eastmain 1 reservoir, total gross GHG emissions had decreased significantly, two years after reservoir impoundment, to approximately 383,000 tonnes of CO₂ equivalent.
- The environmental follow-up program continued at Eastmain-1 powerhouse: 27,200 sturgeon fry were hatched, and 15,400 sturgeons were released into the Eastmain and Opinaca rivers.
- The Richelieu River was stocked with nearly 422,000 elvers (young eels) to help restore eel populations in Québec.
- In the rehabilitation of La Tuque generating station, the refurbishment of Unit No. 2 added 21 MW in peak capacity.

Transmission



Some figures

- Permanent workforce as at December 31: 3,136
- Temporary workforce (annual average): 310
- 33,008 km of lines
- 509 substations
- 164,918 ha of line rights-of-way to be maintained **V**
- Numerous interconnections with our neighbors in Canada and the United States
- Revenue: \$2.8 billion
- Net income: \$396 million

2007 highlights

- Under the Integrated Enhancement Program, Hydro-Québec contributed \$448,000 toward 13 local initiatives in municipalities affected by transmission line projects **V**.
- Landscaping, including the planting of 3,596 trees and shrubs, was carried out along Highway 10 to make the Hertel–Saint-Césaire line blend in better.
- New, more effective vegetation control methods (biological, mechanical or chemical) were tested in line rights-of-way and at substations.

Distribution and customer service



Some figures

- Permanent workforce as at December 31: 6,941
- Temporary workforce (annual average): 1,567
- 109,618 km of lines, 9% underground
- 3,868,972 customer accounts in Québec
- 59,485 new residential hookups, 23.2% underground **V**
- Revenue: \$10.5 billion
- Net income: \$395 million

2007 highlights

- For the fourth year in a row, we surpassed our Energy Efficiency Plan objectives, with savings of 866 GWh **V**.
- We published a guide for visual integration of service entrances on residential buildings. The suggested solutions will help preserve the architectural character of buildings.
- Promotion of online services: 56,249 customers signed up for Online Billing, a 78% increase over 2006. This service allows us to avoid printing 1.5 million bills per year.
- In response to a tender call for 2,000 MW of wind power, 30 proponents submitted 66 bids for a total of 7,724 MW in 10 different regions.

Construction



Some figures

- ▶ Permanent workforce as at December 31: 1,081
- ▶ Temporary workforce (annual average): 710
- ▶ 3 major generating projects under construction as at December 31, 2007, totaling \$7 billion and 1,417 MW
- ▶ More than 300 environmental assessments for generating and transmission projects

2007 highlights

- ▶ Eastmain-1-A/Sarcelle/Rupert: we launched the construction phase of the project, which calls for minimal flooding and environmental measures totaling about \$120 million.
- ▶ Chute-Allard and Rapides-des-Cœurs: archaeological digs uncovered signs of human presence dating back 4,500 years.
- ▶ Romaine complex: the environmental impact statement was tabled in early 2008.
- ▶ Gentilly-2: the expansion of the solid radioactive waste storage facilities at this plant will generate \$4.8 million in regional spinoffs.
- ▶ Interconnection with Ontario: we stepped up work on this project budgeted at \$57 million, mainly for the construction of Outaouais substation.

Technological innovation



Some figures

- ▶ Permanent workforce as at December 31: 2,274
- ▶ Temporary workforce (annual average): 148
- ▶ Budget of \$100 million allocated to our research institute in 2007

2007 highlights

- ▶ We developed and improved models for simulating the behavior of wind turbines and wind farms connected to the grid.
- ▶ In partnership with CANMET, we are developing a hybrid electric/diesel vehicle for the mining industry, offering potential savings of 88 GWh and a corresponding 16,000-tonne reduction in CO₂ emissions.
- ▶ We also developed a system for detecting fuel leaks, with a remote alarm connected to the Telecommunications Control Centre.


Management and support of our business units



Some figures

- ▶ Permanent workforce as at December 31: 2,735
- ▶ Temporary workforce (annual average): 650
- ▶ Supervision and follow-up activities: governance, finance, procurement, building services, transportation services, human resources, information systems, environment, communications, community relations, etc.


2007 highlights

- ▶ We set up 300 recycling stations for food containers and glass, plastic and metal in Hydro-Québec buildings.
- ▶ Donations and sponsorships totaled \$24.7 million, including \$3.2 million donated to United Way/Centraide (plus a \$2.9-million contribution from employees, pensioners and directors).
- ▶ We allocated 4.2% of the payroll to training programs .
- ▶ We cut CO₂ emissions from our vehicle fleet by 2,600 tonnes.
- ▶ We saved 123 million litres of drinking water by installing new fixtures in Hydro-Québec buildings.

Major Hydro-Québec Facilities



Generating Facilities – 2007

Facilities	Number	MW	Net output (GWh) 
Hydroelectric generating stations ^a	57	33,305	157,477 (97.2%)
Nuclear generating station	1	675	4,322 (2.7%)
Thermal generating stations ^a	28	1,665	262 (0.1%)
Wind farm	1	2	1.3 (0.0%)
Total	87	35,647	162,062 (100%)

^a One hydroelectric generating station and 24 of the 28 thermal generating stations are not connected to the main grid.
 Note: Hydro-Québec also has access to almost all the output from Churchill Falls (5,428 MW).



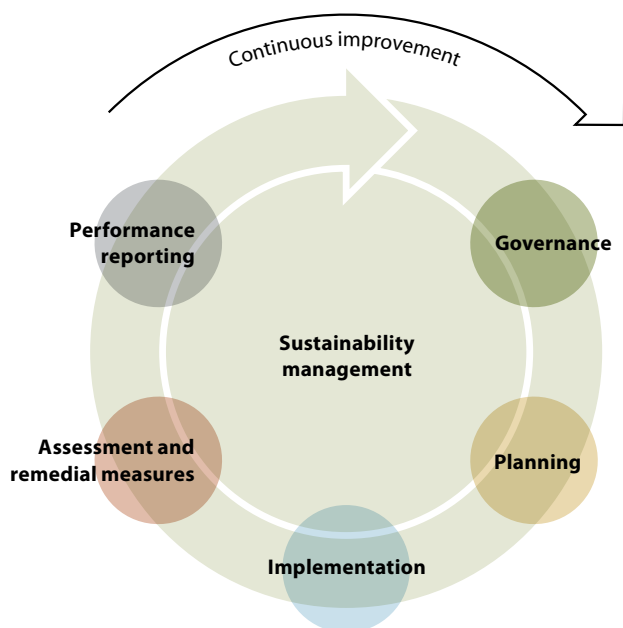
Our Approach

Peatland next to Eastmain 1 reservoir.

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10 Relations with Stakeholders

Managing Sus Turning Strat



Governance

Board of Directors

- Chairman of the Board
- Seventeen members appointed by the shareholder (the Québec government), including the Chairman of the Board and the President and Chief Executive Officer

Board committees

- Six committees, including the Environment and Public Affairs Committee

Corporate management

- Reporting to the President and Chief Executive Officer

Mission

Supply power and pursue endeavors in energy-related research and promotion, energy conversion and conservation, and any field connected with or related to power or energy.

Vision

Become a world leader in energy by working with business partners to develop the company's expertise for the benefit of its customers, employees and shareholder.

Professional ethics

- Code of ethics for directors
- Code of conduct for employees

Corporate Policies

- Our Acquisitions of Goods and Services
- Our Assets
- Our Customers
- Our Environment
- Our Finances
- Our Business Partners
- Our Management
- Our Human Resources
- Our Social Role
- Our Security
- Financial Disclosure

Planning

Strategic Plan

- Complementary development of hydroelectricity and wind power
- Energy efficiency
- Technological innovation

Division and group business plans

- Objectives and targets
- Indicators

Implementation

Sustainable development action plan

Management systems

- ISO 14001
- ISO 9001
- Etc.

Internal coordination mechanisms

- Environment
- Health, safety and security
- Community relations
- Human resources
- Training

Assessment and remedial measures

Compliance auditing

- Environmental audits
- Health and safety audits
- Facility security audits
- Internal audits

Indicators

- Internal indicators
- Global Reporting Initiative

Performance reporting

Internal

- Management reviews
- Reports to the Board of Directors

External

- Sustainability Report including verified facts and figures
- Web site

Sustainability at Hydro-Québec Strategy into Action

A Sustainability Culture

Hydro-Québec has a firmly established sustainability culture, a results-driven vision, and values, policies and guidelines that cover all aspects of sustainable development. In addition, the *Strategic Plan 2006–2010* emphasizes renewable energies, energy efficiency and technological innovation with a view to sustainability.

An action plan in preparation

Hydro-Québec is currently drawing up a sustainable development action plan in line with the *Sustainable Development Act* and the *Government Sustainable Development Strategy 2008–2013*. This action plan will include a series of indicators that will allow Hydro-Québec's evolving performance to be tracked over the years.

An Act and a strategy

The Québec government adopted the Sustainable Development Act in April 2006. The Act lists 16 principles to guide the actions of the public service in implementing the Government Sustainable Development Strategy 2008–2013, which came into effect in January 2008. As a government-owned corporation, Hydro-Québec is subject to the Act and the strategy.

Based on three fundamental issues—develop knowledge, promote responsible action, foster commitment—the Government Sustainable Development Strategy contains 9 orientations and 29 objectives. It calls on the entities concerned to publish their sustainable development action plans by March 31, 2009.

New rules of governance

In 2006, the Québec government passed the *Act respecting the governance of state-owned enterprises*. This law led to the amendment of the *Hydro-Québec Act*, which now includes new rules of governance that are in line with the best practices in this field.

To comply with the new legislative provisions, the Hydro-Québec Board of Directors reviewed the mandates of all its committees as well as the company's main bylaws. It approved rules of governance, competency profiles for its members and the President and Chief Executive Officer, and criteria for evaluating its members and its own performance.

Access to information

In accordance with the *Act respecting Access to documents held by public bodies and the Protection of personal information*, Hydro-Québec takes all necessary measures to ensure the confidentiality of personal information. Our Web site provides detailed information on this subject and on the procedure for submitting requests for access to information (www.hydroquebec.com/publications/en/index.html).

In 2007, Hydro-Québec produced an expanded edition of its guide on access to documents and the protection of personal information. The guide explains the main concepts of the Act and gives practical advice on how it applies to the company. It was distributed, in electronic format, to all of the company's employees.

Relations with Stakeholders

Hydro-Québec maintains close relations and works in partnership with organizations concerned by its projects and operations. The company also regularly surveys the expectations and concerns of groups and publics affected by its activities in order to improve its practices and management.

Stakeholders	Main collaborative mechanisms							Examples	2007 objectives and results
	Hydro-Québec and community-based committees	Agreements and partnerships	Specialized teams	Dispute settlement	External communications	Internal communications	Surveys and compilations of expectations		
Customers		●	●	●	●		●	Table of customer expectations Survey of customer satisfaction Mechanism for handling complaints and claims	Information gathered: customer concerns, expectations and priorities in 2007 (p. 30) Satisfaction index on the rise (p. 30) Details of complaints, claims and appeals (p. 31)
Communities, including Aboriginal	●	●	●	●	●		●	Liaison committees with municipal associations and the farm producers' union (Union des producteurs agricoles) Teams responsible for community and Aboriginal relations Committees to maximize economic spinoffs Support for local initiatives in connection with projects and other activities	Energy efficiency agreement with municipal associations (Fédération Québécoise des Municipalités and Union des municipalités du Québec) (p. 14) New community program to promote Home Diagnostic (p. 14) Awarding of contracts to local (p. 35) and Aboriginal (p. 27) businesses Fondation Hydro-Québec pour l'environnement (p. 29) and integrated enhancement initiatives (p. 36)
Cultural communities	●				●		●	Establishment of closer ties with social advocacy organizations	Agreement with organizations that work with new immigrants to make the bill easier to understand (p. 31)
Employees	●	●		●		●	●	Employee satisfaction survey Intranet	Satisfaction index on the rise (p. 33) Réseau relève (p. 33)
Suppliers	●	●	●		●		●	Meetings with suppliers Web site for suppliers	Use of healthy products or products made of recycled materials in our buildings (p. 24)
Governments	●	●	●				●	Partnerships and committees with various departments	Study with Department of Natural Resources and Wildlife on the impacts of wind turbines on raptors and bats (p. 13)
Investors	●		●		●		●	Publication of the Financial Profile Periodic meetings with investors on results and risk management	Corporate governance rules (pp. 8–9) Financial performance (pp. 34–35)
Educational institutions	●	●			●		●	Financial support for universities Web page for teachers	Funding of chairs and universities (p. 27) Tools for increasing youth awareness (p. 28)
Non-governmental organizations	●	●			●		●	Donations and sponsorships Cooperation with consumer associations	Breakdown of donations and sponsorships (p. 29) Payment arrangements and other measures for low-income customers (p. 31)
General public	●				●		●	Satisfaction/perception survey Web site and toll-free line (1 800 363-7443)	Steadily improving results (p. 25) Measures for safe use of electricity (p. 26)



Our Achievements

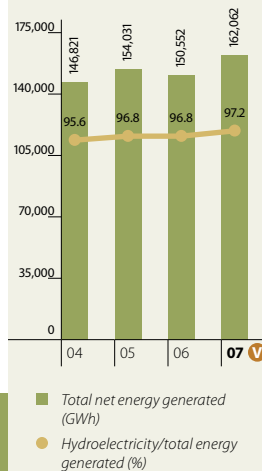
Two of our cable crew, Nadia Lavoie and Marcel Guilbert, at work on the underground distribution grid.

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- 34 Contribution to the Québec Economy**

Sustainability is...

- ▶ Relying on more environmentally friendly, green energies.
- ▶ Avoiding waste. Being ENERGY WISE.
- ▶ Leaving a rich legacy for future generations.

Hydroelectricity and total energy generated by Hydro-Québec



Renewable Energies and Energy Efficiency



At a time when rising oil prices and global warming are prime concerns, \$100 billion was invested worldwide in renewable energies and energy efficiency in 2006, compared with \$80 billion in 2005.

Hydro-Québec enjoys a sizable lead in this move toward a sustainable approach to energy. Since we use water to generate 97% of our output, Quebecers are assured of a sustainable energy future. In addition, we are turning to wind power as a complementary energy source and supporting the development of other renewables. We also encourage energy efficiency as a way to reduce demand.

Hydroelectricity

Hydropower generation accounts for 836,000 MW, or 15% of the world's installed capacity, and 2,994 TWh in output.

Hydroelectricity represents 10% of installed capacity in the United States and 59% in Canada (2005 statistics). With approximately 35,000 MW, Hydro-Québec is North America's largest hydropower producer.

Development of Québec's hydropower potential continued in 2007. In the Outaouais region, Mercier generating station is now operating at its full 51-MW capacity. In Saguenay-Lac-Saint-Jean, the first unit at the 385-MW Péribonka generating station came on stream. In the Upper Mauricie region, construction at Chute-Allard and Rapides-des-Cœurs, with a combined capacity of 139 MW, is making good progress. At James Bay, we broke ground on the 893-MW Eastmain-1-A/Sarcelle/Rupert development. All these projects, which will generate a total annual output of 11.9 TWh, represent the energy needed to supply about 600,000 residential customers.

"The Rupert diversion was planned entirely in a spirit of sustainable development. For example, we are building a transfer tunnel, 2.9 km long, that will carry water from the forebay to the tailbay on its way to Eastmain 1 reservoir. This tunnel, with a capacity of 800 m³/s, will minimize the land area that will be flooded. We are working to preserve the environment—and I'm up for the challenge!"

Éric D. Beaudet, Manager – Dikes and Dams, Société d'énergie de la Baie James

The environmental impact statement for the planned 1,550-MW Romaine complex, in the Mingan area, was tabled in January 2008.

In addition, Hydro-Québec is pursuing a program to rehabilitate and upgrade its generating fleet in order to ensure the long-term operability of its facilities and increase their output by 1%. Rehabilitating Unit No. 2 at La Tuque generating station in the Mauricie region, for example, added 21 MW in peak capacity.


Wind power

To secure a supply of wind power, the company has awarded contracts to independent power producers through a tendering process for the supply of large blocks of energy. At the same time, it is upgrading its transmission system infrastructure and conducting research with a view to integrating the output of the wind farms currently under construction or being planned. In 2007, we took delivery of 381 GWh of wind power.

2007 highlights

- The 100.5-MW L'Anse-à-Valleau wind farm went into operation, bringing Québec's installed wind power capacity to 422.3 MW. This is the second of eight such facilities, totaling 990 MW, slated for construction in the Lower St. Lawrence and Gaspé regions by the end of 2012 under a tender call issued in 2003.
- In response to our 2005 call for 2,000 MW of wind power, 30 proponents submitted 66 bids for a total of 7,724 MW in 10 different regions. The contracts are to be awarded in spring 2008.
- We contributed \$168,000 to a study program conducted by the Department of Natural Resources and Wildlife on the impact of wind farms on raptors and bats.
- A study program at the Université du Québec à Rimouski was allocated \$105,000 to assess wind development projects from a perspective of sustainable regional development.
- Funding was provided for the new McGill University Chair in Network Integration of Wind and Hydroelectric Power to study how this integration affects operations.

Net Electricity Generated and Purchased by Hydro-Québec (GWh)

	2004	2005	2006	2007 
Hydropower generated	140,353	149,119	145,730	157,477
Wind power generated	2.0	3.1	2.0	1.3
Hydropower purchased ^a	33,684	32,463	34,912	32,399
Biomass and waste reclamation power purchased	1,480	1,400	1,303	1,468
Wind power purchased ^b	185	413	421	666
Total renewables	175,704	183,399	182,368	192,011
Total energy generated	146,821	154,031	150,552	162,062
Total energy purchased	41,448	38,831	43,673	43,950
Total energy generated and purchased	188,269	192,862	194,225	206,012
Renewables/total energy generated and purchased (%)	93	95	94	93

a) Includes purchases from Churchill Falls and independent power producers, except McCormick.

b) Does not include wind energy purchases for which renewable energy certificates were sold to third parties.

Other renewable energy sources

For many years, we have sought to diversify our renewable energy sources, and we encourage customer-generators to adopt renewable options as well.

- We are committed to purchasing the output of Lachute generating station in the Laurentians, a 10-MW privately owned facility fueled by the methane biogas from a nearby landfill site. Reclaiming this biogas will cut the site's GHG emissions by 350,000 tonnes.
- We purchase the output of the 19-MW Kruger plant in Bromptonville and the 20-MW Bowater Canadian Forest Products facility in Gatineau, both biomass cogeneration plants.





Energy efficiency

Hydro-Québec promotes the wise use of electricity as a way to reduce demand. Our energy efficiency programs, which represent investments of \$1.3 billion, are increasingly popular. We surpassed our objectives for the fourth year in a row by posting energy savings of 866 GWh—the annual consumption of 43,000 residential customers. Since the Energy Efficiency Plan was launched in 2003, we have achieved savings of 2.3 TWh, or 49% of the 4.7-TWh target set for 2010.

Companies and institutions

- We initiated 152 energy efficiency projects for large-power customers in 2007, for total savings of 345 GWh. To date, 76% of customers in this category have participated in at least one of our ENERGY WISE programs.

Energy Efficiency Programs – Residential and Business Customers^{a)}

	2004	2005	2006	2007
Residential customers				
Home Diagnostic questionnaires (number)	312,375	263,978	227,119	39,450 ^{b)}
Electronic thermostats (number)	504,074	808,925	958,056	942,508 
Pool filter timers (number)	73,400	77,672	152,894	167,741 
ENERGY STAR® qualified washing machines (number)	–	–	7,733	135,278 
Business customers				
Empower programs (number of projects submitted)	229	525	636	795 

a) May be adjusted following program evaluation.

b) Drop due to program overhaul.

► Grants were awarded for 600 energy efficiency projects, which represent total energy savings of 162 GWh, under the Empower Programs for Building Optimization and for Industrial Systems, intended for medium- and small-power business customers.

► The Energy Savers' Circle welcomed six new members, including the Société immobilière du Québec for its management of the Palais de justice in Montréal. These large-power customers took steps to cut their electricity consumption by at least 5% or to save at least 50 GWh per year.

► We are a partner in the NSERC Chair in Industrial Energy Efficiency at the Université de Sherbrooke.

► A joint study with Recyc-Québec on managing compact fluorescent bulbs at the end of their useful lives proposed measures for recovering and recycling the mercury these bulbs contain.



Residential customers

► We launched a program encouraging the purchase of ENERGY STAR® qualified windows and patio doors.

► A \$34-million contract was awarded for a program to recover energy-guzzling refrigerators and freezers. The goal is to recover 230,000 appliances by 2010, for total savings of 180 GWh, and reclaim over 95% of the recovered materials.

► With community cooperation, we are running a campaign to promote the ENERGY WISE Home Diagnostic. Hydro-Québec pays municipalities \$30 for every citizen who completes the questionnaire, and \$35 for each one who completes it online. The money must be used to fund community projects. For 2007, the city of Trois-Rivières, where the campaign started, earned approximately \$150,000, which it plans to invest in its network of bicycle paths.

Energy Efficiency Plan (GWh)

	Objective				Result ^{a)}			
	2004	2005	2006	2007 	2004	2005	2006	2007 
Energy savings ^{b)}	189	321	523	661	260	462	683	866
Residential customers	91	138	257	301	216	258	335	324
Business customers	72	104	126	191	18	57	157	197
Large-power customers	25	79	140	170	25	147	190	345

a) May be adjusted following program evaluation.

b) Overall total and sum of subtotals may differ due to rounding.

Municipalities

► Our partnering agreements with the Union des municipalités du Québec and the Fédération Québécoise des Municipalités promote energy efficiency and support municipalities' efforts in this area.

Innovation projects

To help people conserve energy, Hydro-Québec is continuing to work with the Agence de l'efficacité énergétique and the Office of Energy Efficiency, as well as with manufacturers, retailers and professional associations. In 2007, we carried out 154 promotional initiatives under 42 partnering agreements.

► IDEAS (Technology Demonstration and Experimentation Initiatives) program: 11 proposals were received in 2007, for a total of 46 since the program's inception in 2004.

► AVENUES (Marketplace Testing for Energy-Efficient Technologies) program: 17 initiatives are completed or in progress and 5 are under study.

► Mont Mégantic Astrolab (2006–2008): reduction of light pollution around the observatory. Annual savings: 1.7 GWh.

► EQuilibrium home (2007–2009): construction of three zero-energy houses in Eastman, Hudson and Verdun. Examples of technologies applied: geothermal pumps and solar water heaters and panels.

► Solar pool heaters (2007): about 60 projects carried out.



Working on the
Rupert spillway.



Eastmain-1-A/Sarcelle/Rupert jobsite.



Study of carbon
stored in humus.

Building projects

EASTMAIN-1-A/ SARCELLE/RUPERT PROJECT

Project description

- Cost: \$5.0 billion
- Region: Nord-du-Québec
- Construction: 2007–2012
- Installed capacity: 893 MW
- Annual output: 8.5 TWh

The Eastmain-1-A/Sarcelle/Rupert project is a model of sustainable development. It calls for an estimated \$120 million in environmental measures, and complies with the undertakings in the agreement known as the *Paix des Braves*, as well as in the *Nadoshtin Agreement* and the *Boumhounan Agreement*.

Its main components are as follows:

- Eastmain-1-A powerhouse (768 MW), to be built near Eastmain-1, which was commissioned in 2006.
- Sarcelle powerhouse (125 MW), located at the outlet of Opinaca reservoir.
- The partial diversion of the Rupert River to Eastmain 1 reservoir, which will create two diversion bays connected by a transfer tunnel.

The water diverted from the Rupert River will flow into the Grande Rivière watershed to optimize the output of three generating stations in the La Grande complex: Robert-Bourassa, La Grande-2-A and La Grande-1. This project will increase Hydro-Québec's output by about 8.5 TWh—the consumption of 425,000 residential customers—at the extremely competitive cost of 5.1¢/kWh.

The project design incorporates a number of mitigation measures: an instream flow and a series of hydraulic structures (weirs, spurs, granular blankets) will maintain the mean summer water level in nearly half of the Rupert River, which will remain navigable and retain its recreational and scenic interest.

2007 highlights

- To facilitate land use and improve flow in the river, 21 km² of forest area, of the eventual total of 51 km², was cleared in the Rupert diversion bays. The work was carried out by Cree companies and tallymen.

- We continued to work with the Crees on archaeological inventories (2002–2009) at sites affected by the project. In 2007, digs went on at 30 sites and remains dating back 4,650 years were uncovered. This work is intended to preserve Cree cultural heritage and improve understanding of the life of the people who have occupied this land over the millennia.

- The Hydro-Québec–Cree Committee instituted an extensive environmental follow-up program for the biophysical and human environments (2007–2023).

- The Follow-up Committee conducted an information tour of six Cree communities and worked with the ComaxNord committee to optimize economic spinoffs.

- Jobs created: 16,689 person-years; 15% of the workforce is Cree.

- Total expenditure: \$945 million.

- Regional expenditure: \$194 million.



Péribonka spillway.



Rapides-des-Cœurs jobsite.

PÉRIBONKA DEVELOPMENT

Project description

- Cost: \$1.4 billion
- Region: Saguenay–Lac-Saint-Jean
- Construction: 2004–2008
- Installed capacity: 385 MW
- Annual output: 2.2 TWh

2007 highlights

- The station's first generating unit started up in November.
- Water quality was monitored during the reservoir filling phase.
- We monitored sport fishing by workers (average workforce: 1,055) to ensure that the presence of the jobsite does not interfere with fishing activities by cottagers and vacationers.
- Jobs created: 835 person-years.
- Total expenditure: \$322 million.
- Regional expenditure: \$107 million.

CHUTE-ALLARD AND RAPIDES-DES-CŒURS DEVELOPMENTS

Project description

- Cost: \$960 million
- Region: Mauricie
- Construction: 2005–2008
- Installed capacity: 139 MW
- Annual output: 0.9 TWh

2007 highlights

- We developed 1,552 m² of brook trout breeding habitat in six streams.
- Walleye spawning grounds were also built: 1,664 m² in four streams and 6,600 m² below the generating stations.
- Archaeological digs uncovered the remains of human presence dating back 4,500 years. The artifacts have been transferred to the province's archaeological reserve.
- Jobs created: 976 person-years, with 59% of the workforce coming from the region, particularly the Attikamek community of Wemotaci.
- Total expenditure: \$326 million.
- Regional expenditure: \$98.5 million.

ROMAINE COMPLEX

Project description

- Cost: \$6.5 billion
- Region: North Shore
- Construction: 2009–2020
- Installed capacity: 1,550 MW
- Annual output: 8.0 TWh

2007 highlights

- The planned Romaine complex is expected to generate province-wide economic spinoffs of \$3.5 billion, including \$1.3 billion for the North Shore, and create more than 2,000 jobs per year.
- The environmental impact statement was tabled in early 2008. It covers such subjects as the biophysical and human environments, archaeology and mitigation measures.
- In January 2008, we signed a partnering agreement with the regional county municipality of Minganie to fund various economic, environmental, social and cultural projects.



Romaine River.



Nuclear waste storage facilities under expansion.



Construction of Outaouais substation.

GENTILLY-2 NUCLEAR GENERATING STATION Expansion of nuclear waste storage facilities

Project description

- Cost: \$12.8 million
- Region: Central Québec
- Construction: 2007–2008

2007 highlights

- Concreting was completed on 17 storage bays for low- and medium-activity waste, and a 50-tonne gantry crane was designed, supplied and installed.
- A pump water sedimentation basin was built and handled 16,000 m³ of water in compliance with environmental standards.
- Steps were taken to control the work noise level in order to maintain quality of life for area residents. No noise in excess of this level was noted.
- Jobs created: 60 jobs on average, with 78% of the workforce coming from the region.
- Regional spinoffs: \$4.8 million.

INTERCONNECTION WITH ONTARIO

Project description

- Cost: \$654 million
- Region: Outaouais
- Transfer capacity: 1,250 MW
- Construction:
 - Phase 1 (2007–2009): Construction of Outaouais substation and extension of the 230-kV Outaouais–Ontario line, including a crossing over the Ottawa River.
 - Phase 2 (2010): Construction of the 315-kV Chénier–Outaouais line in the existing Chénier–Vignau line corridor.

2007 highlights

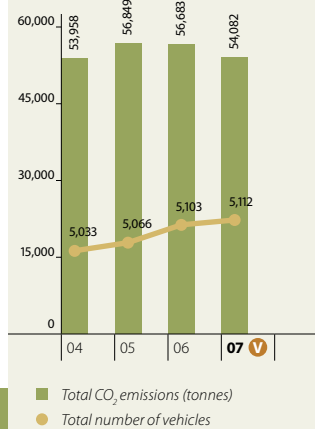
- 315/230-kV Outaouais substation (under construction): material excavated during earthwork was reused on the site for grading and for building the embankment, thereby reducing truck traffic. Trees and shrubs will be planted to create visual screens.
- 230-kV Outaouais–Ontario line (under construction): the environmental impact assessment was updated in January and tabled with the government authorities.

- 315-kV Chénier–Outaouais line (under study): we conducted an inventory of the biophysical and human environments, surveyed the landscape, met and consulted with the host communities, and tabled the environmental impact assessment in October.

Sustainability is...

- Taking care of what we use, for the benefit of future generations.
- Maintaining and even improving quality of life.

CO₂ emissions from Hydro-Québec's vehicle fleet



Environmental Protection and Quality of Life



Hydro-Québec has demonstrated respect for the environment during its operations and development projects for over 35 years. In so doing, it calls upon more than 250 environmental specialists and managers. The majority of our employees whose activities have an environmental impact are governed by an ISO 14001–certified environmental management system.

For Hydro-Québec, climate change, wise resource management and environmentally responsible practices are daily concerns. With operations throughout Québec, the company takes steps to ensure that its projects are both favorably received by the communities affected and well integrated into the environment. It further considers soil and water conservation to be an environmental priority, along with protecting plant and animal life.

Climate change

Electricity industry

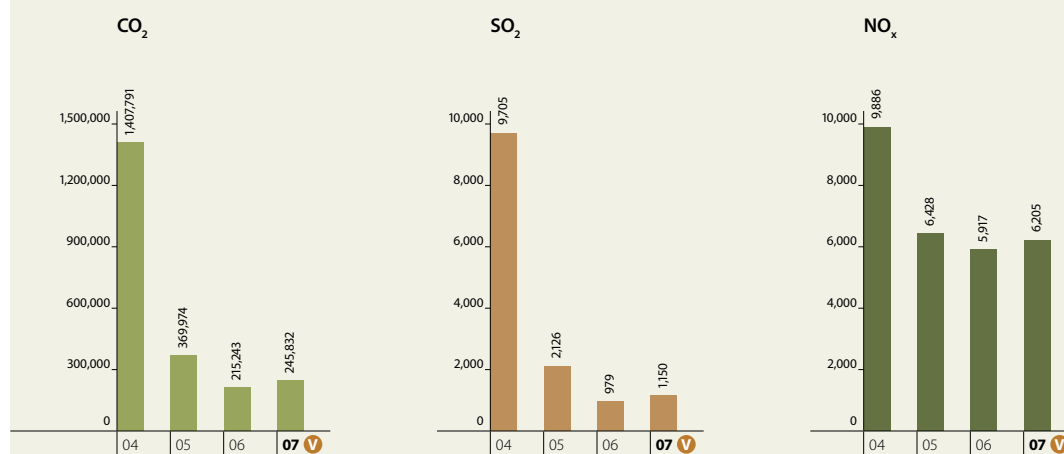
The electricity industry in Québec, which relies mainly on hydropower, helps maintain the province's excellent greenhouse gas (GHG) emissions record. According to 2005 statistics, this industry accounts for only 1.7% of GHG emissions in Québec, versus 39.0% for transportation and 36.3% for industry.^a Through its energy choices, Hydro-Québec contributes to the fight against climate change.

^a Source: Inventaire québécois des gaz à effet de serre, MDDEP, 2006.

“There are various ways of reducing our environmental footprint in the workplace. In Chicoutimi, leftover food from the cafeteria and used paper towels from the bathrooms are now recovered and sent to a composting site. In 2007, this added up to about three tonnes of waste that was recovered at minimal cost. To get this result, we worked closely with the eco-advisory chair at the Université du Québec à Chicoutimi, a trucking company, a compost producer and our subcontractors. We're proud of what we've accomplished, and are already thinking of introducing this practice elsewhere in the company.”

Éric Morin, Environmental Advisor – Shared Services Centre

Atmospheric emissions from Hydro-Québec power generation operations (tonnes)^{a)}



a) Most of our emissions are from thermal generating stations supplying off-grid systems.

Emissions from Hydro-Québec power generation operations rose slightly in 2007 as a result of more extensive use of Tracy thermal power plant. CO₂ emissions consequently totaled 245,832 tonnes, compared with 215,243 tonnes in 2006 (or 0.02% of Canadian power industry emissions). Electricity produced by Hydro-Québec nevertheless generated 17 times less CO₂, 16 times less SO₂ and 12 times less NO_x than the average for neighboring jurisdictions in Canada and the United States.

Because climate change is an issue for Hydro-Québec, the company is working with the Ouranos consortium to study regional climatology and climate change adaptation.

Hydro-Québec is also participating in a wide-ranging study conducted by McGill University, the Université du Québec à Montréal, Environment Canada and Environnement Illimité to determine net GHG emissions from Eastmain 1 reservoir. This project involves measuring emissions before, during and after reservoir impoundment, and comparing the rate of new emissions with emissions from natural ecosystems (forests, peat bogs, lakes, rivers). Achievements in 2007:

- Measuring instruments were optimized to monitor CO₂ emitted or absorbed by the forest ecosystem or reservoir
- A Web site was created for the study (<http://www.eastmain1.org>)

This study has already yielded some important observations. For example, before the impoundment of Eastmain 1 reservoir, total gross GHG emissions from natural water bodies were approximately 95,000 tonnes of CO₂ equivalent. In 2007, two years after reservoir impoundment, total gross emissions from the reservoir had decreased significantly from their peak, to about 383,000 tonnes.

Transportation industry

Hydro-Québec is taking steps to reduce transportation-related GHG emissions. One example is our ongoing environmental program (2006–2010) to reduce emissions from our vehicle fleet by 5%. In 2007, we cut CO₂ emissions by 2,600 tonnes—as much as is emitted by 650 vehicles. Among other measures implemented:

- We are testing Canada's first hybrid (electric/diesel) bucket truck. This initiative of the Hybrid Truck Users Forum is intended to speed up the commercialization of hybrid specialized trucks. Used for work on the system, the new vehicle should yield fuel savings of 40% to 60% compared with conventional models, with a corresponding reduction in GHG emissions. Altogether, 24 of the trucks will be tested by 13 American companies and Hydro-Québec.
- We replaced 210 of our light-duty vehicles, 49% of the vehicles replaced during the year, with more energy-efficient models. The result is a 71,000-litre reduction in fuel consumption and a 166-tonne reduction in CO₂ emissions.
- An awareness video promoting energy-efficient driving habits to reduce GHG emissions has been shown to one-third of our employees so far.



The Cleanova III Plus currently being tested at Hydro-Québec.



Measuring ice thickness at Eastmain 1 reservoir to ensure safe access.

We are also working to develop environmentally friendly transportation technologies.

- Projects for developing electricity use in mass transit are being analyzed, to ensure that the power system can meet this new demand.
- Through TM4, our joint venture with Groupe Industriel Marcel Dassault, we are involved in developing electric drive-trains for the automotive industry. Over 30 Cleanova vehicles with TM4 engines are currently being market-tested, including five at Hydro-Québec.

Industry

New electric technologies for industry are yet another focus of our efforts. Some innovations are:

- A plasma-assisted wet oxidation system installed at the municipal water treatment plant in Valleyfield. Developed by our researchers, this process uses a rotary kiln equipped with a plasma torch to trigger a reaction that destroys the organic matter in biological sludge, enabling the municipality to cut its annual CO₂ emissions by 3,000 tonnes.
- A partnership with CANMET to develop a hybrid electric/diesel vehicle for the mining industry. The goal is to reduce ventilation and exhaust gas extraction needs, and thereby cut energy consumption and the related GHG emissions. One mine is currently testing the vehicle, which could be tapped for use in 12 Québec mines. Potential benefits are
 - annual electricity savings: 88 GWh;
 - other annual energy savings: equivalent to 67 GWh;
 - resulting reduction in CO₂ emissions: 16,000 tonnes.

Environmental and sustainability achievement

At the first Montréal gala recognizing environmental and sustainable development achievement, Hydro-Québec was honored for its initiatives in support of sustainable transportation and the reduction of GHG emissions associated with its employees' work-related travel. The company is making greater use of electric and hybrid vehicles, urging its employees not to let engines idle needlessly, and promoting public transit, carpooling and active modes of transport (walking and cycling).

Managing water bodies

Water is crucial to power generation in Québec, and Hydro-Québec makes every effort to conserve this collective resource. Accordingly, the company has taken steps for many years to avoid or limit reservoir bank erosion and maintain water levels compatible with various uses.

Numerous agreements have been signed with the users of our reservoirs. They cover water supply, protection of aquatic wildlife through flow management, maintenance of levels conducive to recreational activities and flood management. Some examples of other actions:

- Stabilization of the banks of the Grande Rivière near Chisasibi airport: in connection with follow-up studies begun in 2004, a Cree contractor is in charge of bank protection work.
- Navigational charts were published and information meetings were held for users of the Portneuf and Sault aux Cochons rivers, which were partially diverted in 2003.
- Follow-up of hydrological conditions in the Manouane River (partially diverted in 2003) continued. This river and the Duhamel River were stocked with 51,431 landlocked salmon fry, and the fishing success rate showed improvement over 2006.



New fuel-leak detection system.



Monitoring lake trout as part of the environmental follow-up at Péribonka reservoir.


Soil and water

Some of our facilities—thermal generating stations, gas stations and generators in remote areas, for instance—pose risks of soil or water contamination. Steps were therefore taken to prevent spills, and any such incidents are carefully managed.

Hydro-Québec manages numerous sites throughout the province, and devotes considerable resources to characterizing and rehabilitating contaminated sites. In keeping with the principle of due diligence, the company adopted a strategy for improving our knowledge of the condition of contaminated sites and limiting environmental and human health risks. This strategy includes:

- ▶ A characterization program based on the site characterization guide published by the Québec Department of Sustainable Development, Environment and Parks.
- ▶ New and ongoing rehabilitation programs, some of which have been in effect since 2004 and will continue in the coming years.

In addition, Hydro-Québec applies measures to reduce industrial wastewater from such activities as vehicle washing. Since 2000, we have conducted an annual follow-up of the performance of about 80 water-oil separators. Among other things, we compare our hydrocarbon discharges with municipal standards and take corrective action where these are exceeded. In 2007, the compliance rate stood at 84%, the same as in previous years.

The company continued to evaluate new techniques for treating runoff from treated-pole storage yards in order to reduce its impact. In 2007, 730 untreated wood (red cedar) poles  were purchased for use in sensitive areas.

Finally, we have developed a system for detecting fuel leaks, with a remote alarm connected to the Telecommunications Control Centre. This system allows more rapid detection of fuel leaks and helps prevent spills into the environment.

Summary of environmental knowledge – Line and substation projects

In 2006, Hydro-Québec began drawing up a summary of environmental knowledge related to line and substation design and operation. Made up of a series of thematic fact sheets, this summary covers research, follow-up and standardization studies carried out over the last 30 years.

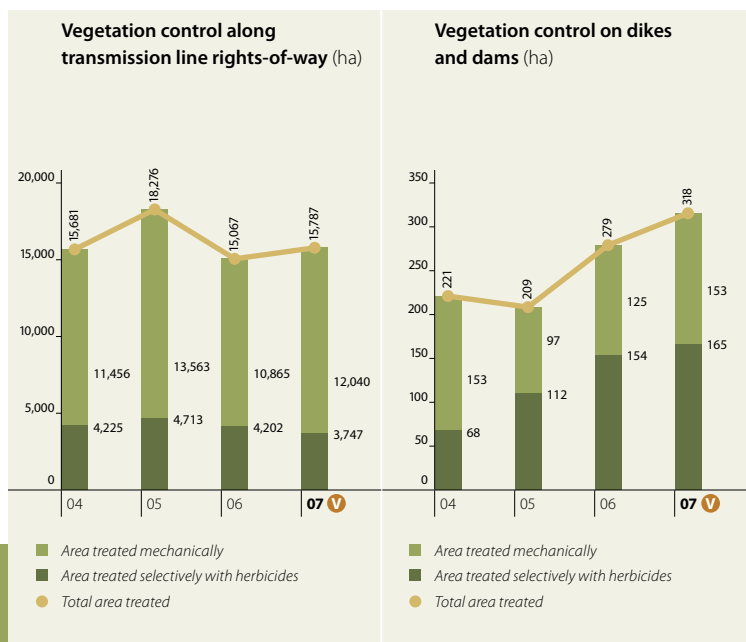
The summary of environmental knowledge is sure to become a key reference document. Two highly topical new fact sheets, on biodiversity and white-tailed deer, were added in 2007.

Plants, animals and biodiversity

Biodiversity conservation is taken into consideration in all our operations and projects. Hydro-Québec conducts environmental follow-up programs to verify the effectiveness of the measures implemented.

2007 highlights

- ▶ The effectiveness of a sound barrier installed upstream of Rivière-des-Prairies generating station (undergoing rehabilitation) was assessed; the sound barrier is intended to channel ocean-bound migrating American shad toward the spillway.



Distribution system undergrounding in Yamachiche has improved the landscape.

► Eels migrating upstream through the fish passes at Beauharnois generating station and Chambly dam are counted every year. In 2007, 52,969 eels used the fish pass on the western side of the generating station, the best result since monitoring began in 1994, for a cumulative total of over 400,000 eels. At the dam, 1,340 eels used the fish pass in 2007, for a total of about 22,000 since 1997.

► The Richelieu River was stocked with nearly 422,000 elvers (young eels) to help restore the species in Québec.

► As part of the mitigation measures for the Eastmain-1 powerhouse project, 27,200 sturgeon fry were hatched, 15,400 were released into the Eastmain and Opinaca rivers, and 11,800 were released into Eastmain 1 reservoir.

► We participated in the activities of the group committee for restoring threatened or vulnerable species, like the western chorus frog, in transmission line rights-of-way in Montérégie and along the banks of the Beauharnois canal. In 2007, the sites frequented by this amphibian were inventoried. We introduced temporary conservation measures and helped to develop conservation plans.

► To preserve plant species diversity on Île aux Tourtes, a Hydro-Québec property upstream of La Gabelle generating station (Mauricie), the company conducted an inventory that revealed the presence of exceptional stands of silver maple and threatened or endangered species. Conservation measures will be implemented.

To optimize operations and safety, Hydro-Québec controls vegetation around its facilities. For the transmission system, the company applies integrated vegetation management, using the right method in the right place at the right time. The rational, responsible and very selective use of pesticides is sometimes involved to promote the growth and maintenance of compatible vegetation (shrubs and grasses) in transmission line rights-of-way. Of course, Hydro-Québec is well aware of the issues concerning pesticide use and is constantly endeavoring to improve its methods.

► New, more effective biological, mechanical and chemical methods are being tested for controlling vegetation in power-line rights-of-way and around substations.

► A geotextile is in testing at Des Hêtres substation (Mauricie), where an annual follow-up will be conducted. This type of geotextile has proven its worth in the Beauce region, among other places, as an effective way to prevent incompatible vegetation from invading substations.

► A grass that grows easily in rights-of-way was identified in conjunction with the Université de Montréal's Plant Biology Research Institute. The grass prevents colonization of the area by certain tree species that are incompatible with system operation.

Vegetation control agreement – Montréal

Hydro-Québec and the city of Montréal have signed an agreement that is a model of cooperation for urban vegetation control. The agreement covers technical aspects of pruning operations and applicable tree-felling standards. Joint training will be provided to both parties' employees and subcontractors.

Landscape and land use

Hydro-Québec does everything possible to integrate its facilities with the environment. It promotes undergrounding of the distribution system in new neighborhoods and along public thoroughfares. To preserve the quality of life in communities near its facilities, the company implements various measures to reduce or prevent such nuisances as noise, visual clutter, excessive lighting and odors. We also encourage multipurpose use of our properties, which may serve as public parks or “park and ride” parking lots.

2007 highlights

- We updated a map of sensitive environments in Québec, which is a planning tool for our transmission system.
- Three kilometres of distribution lines were buried as part of the government undergrounding program for overhead distribution systems in heritage, cultural and tourist sites: Lévis (0.2 km), Paspébiac (0.5 km), Farnham (0.8 km), Salaberry de Valleyfield (0.7 km) and Yamachiche (0.8 km).
- A handbook was published that suggests ways to install service entrances on residential buildings in a way that does not detract from the buildings’ architectural character.
- To make the Hertel–Saint-Césaire line (Montréal) blend in better, 3,596 trees and shrubs were planted along Highway 10.
- A visual screen was created to harmonize Longue-Pointe substation with the landscape (Montréal): a berm was built, and trees and shrubs were planted.
- The company signed 139 authorizations to use rights-of-way belonging to Hydro-Québec; some were for construction of streets, water mains or scenic lookouts.

Preserving heritage

Hydro-Québec endeavors to protect Québec’s built, technological, natural and archaeological heritage, particularly when building development projects. With this in mind, we have put together a historical collection in order to preserve, study and promote our own technological heritage.



- At a conference organized by the Association québécoise pour le patrimoine industriel, we described our management of heritage technology. Hydro-Québec’s impressive collection, which illustrates its history and the development of electrical technology, was opened to the public.

- A 106-m by 45-m landscaping feature was restored at the entrance to Beauharnois generating station. Originally created in 1953, it depicts the Québec flag.

- Central-1 substation in Old Montréal was renamed Adélar-Godbout substation on the 50th anniversary of the death of former Québec Premier Adélar Godbout. The provincial toponymy commission ratified Hydro-Québec’s proposal of the new name.

Resource management – Reduction at source, reuse and recycling

Hydro-Québec utilizes many resources, especially wood and metal, and strives to use them sustainably. Residual materials are covered by a management plan.

- Since 2006, 300 recycling stations have been set up in 86 of our buildings to recover food containers, glass, plastic and metal. Almost 19,000 employees now have access to these recycling services.
- A type of rope commonly used in underground work is being recovered and reused. In the past three years, 25,200 metres of rope, valued at \$18,900, have been recovered.
- 9,433 wood poles were removed from the distribution system ; all were recovered, as in 2006, and 390  (429 in 2006) were reused in the system.
- About a hundred wooden beams, removed during rehabilitation of the Rapides-des-Quinze spillway (Abitibi-Témiscamingue), were given to Récré-eau-des-Quinze to be used to develop hiking trails.
- By 2009, equipment that consumes large amounts of drinking water will be replaced; about 123 million litres of water will be saved because of work done in 2007.
- In 2007, 46,648 kg of ozone-depleting substances (ODS) were used in all of our refrigeration, air-conditioning and fire-protection systems, representing a 44% reduction since 2002.

Distribution System Undergrounding

	2004	2005	2006	2007
Distribution system length (km) ^{a)}	107,423	108,344	108,883	109,618
Target for new residential hookups made underground (%)	–	19.0	23.0	25.1
New residential hookups made underground (%)	18.8	22.0	25.1	23.2

a) Includes off-grid systems but excludes private systems, lines under construction and the 44-kV transmission system.



Self-service bicycles provided for employees' use to encourage alternatives to single-occupant car travel.



The sign on top of the head office building has gone "green". A new device to regulate on/off cycles and the use of T-8 lamps will save 43,000 kWh annually.

Environmentally responsible practices

Hydro-Québec works to hard improve the energy performance of its equipment and buildings, reduce its resource consumption and purchase environmentally responsible products.

2007 highlights

- Sixteen of our main buildings received Go Green certification from BOMA Québec—an acknowledgment of our sound environmental practices relating to energy and drinking water consumption and hazardous products management. These practices have been extended to all our buildings.
- Environmentally friendly paper (100% postconsumer recycled fibre, FSC-certified, not bleached with chlorine) was purchased for all our printing and photocopying. In 2007, we used 591.8 tonnes of fine paper, including 517.1 tonnes of 100% recycled paper, thereby helping to save over 14,000 trees and 19 million litres of water.

- New work spaces were built with healthy products or products made from recycled materials (EcoLogo paint, furniture, carpeting). At the end of their service life, most of these products can be recycled.

2007 *Mérite* environmental award for a Hydro-Québec energy technologies laboratory team

In 2006, a team at the Laboratoire des technologies de l'énergie (LTE), our energy technologies laboratory in Shawinigan, succeeded in reducing drinking water consumption by 45% through improved water management and the use of efficient equipment. The lab also reduced its electricity bill by \$183,200 by installing a central control system that regulates ventilation and operates mechanical systems on the basis of demand.

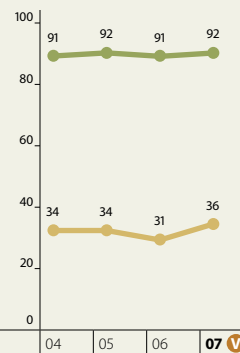
Some Statistics on the Recovery, Reuse and Recycling of Residual Materials

	Recovery				Notes
	2004	2005	2006	2007 V	
Power-line hardware (tonnes)	234	174	179	261	Recycling rate is negligible.
Electrical equipment (tonnes)	4,892	5,755	5,101	4,423	
Printer cartridges (units)	5,606	15,635	13,297	15,823	15% of the cartridges Hydro-Québec purchases are recycled cartridges.
Insulating oil (litres)	5,181,055	4,508,438	4,748 375	4,367,048	
Reuse (%)	96.6	89.9	94.5	91.4	
Metal (tonnes)	8,340	8,740	7,801	8,309	
Wooden pallets (units)	6,833	–	4,100	11,647	
Paper and paperboard (tonnes)	680	668	871	1,002	Between 2004 and 2007, our consumption of photocopy and printer paper dropped 10%, from 659 t to 592 t.
Ring binders (units)	–	12,161	12,869	12,907	More than 10,000 binders were reconditioned for reuse.

Sustainability is...

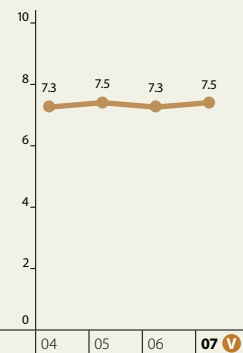
- ▶ Partnering with local organizations
- ▶ Investing in the community

Overall public satisfaction (%)

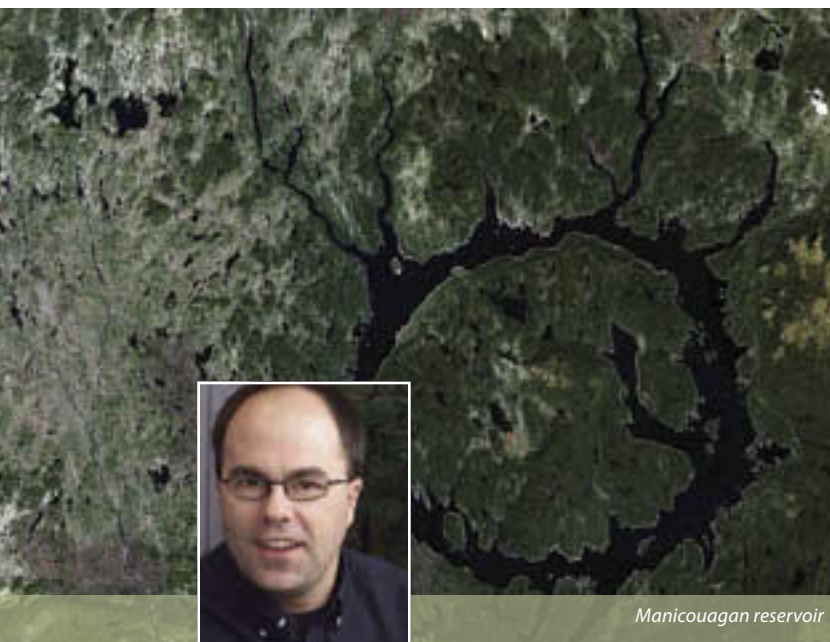


● Very and somewhat satisfied
● Very satisfied

Changes in Hydro-Québec's image (scale of 10)



Social Commitment



Manicouagan reservoir

"In 2007, the Manicouagan-Uapishka area, where Hydro-Québec operates major facilities, was designated a Biosphere Reserve under UNESCO's Man and the Biosphere program. This designation was the result of years of work by many organizations, including Hydro-Québec. In conjunction with local groups, we developed a common vision for our activities in a spirit of sustainability. In this way, we hope to contribute to the economic prosperity of this region, and to have access to the expertise and support of the international UNESCO network."

Francis Bélisle, Advisor – Environment – Manicouagan Regional Branch, Hydro-Québec Production

Hydro-Québec is a committed corporate citizen. It is sensitive to the community's needs and concerns, and pays special attention to issues like health, safety, and electric and magnetic fields. The company maintains close ties with the Aboriginal and other communities affected by its projects.

Hydro-Québec also works with universities by collaborating on research projects, awarding scholarships, funding research chairs, and so on. In addition to being the top donor to United Way/Centraide in Québec, the company sponsors many cultural, scientific, and sports events.

Needs and concerns

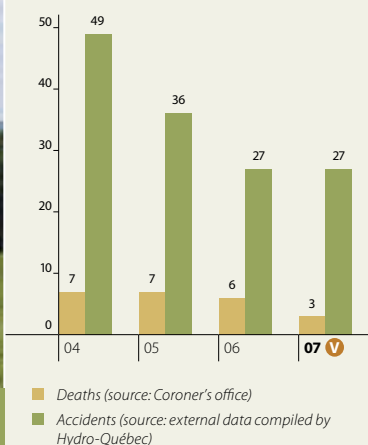
Hydro-Québec strives to determine the public's needs and concerns and take them into account in its administration. Every year, public satisfaction and perception of the company's operations and projects are measured. In 2007, the overall satisfaction rating and corporate image index rose compared to 2006.

- ▶ Overall satisfaction: 92% (91% in 2006), which reflects strong support for major hydroelectric projects
- ▶ Image perception: 7.5 (7.3 in 2006)
- ▶ Perception of sustainability performance: 7.2 (7.0 in 2006) **V**



Study of dairy cow exposure to EMFs: no harmful impacts on health or productivity.

Electricity-related accidents and deaths (number)



Electric and magnetic fields

Hydro-Québec has studied the potential health effects of electric and magnetic fields (EMFs) for some 30 years. We invest in research while practising prudent management. The studies conducted so far have not shown that EMFs have any impact on health.

Through the Électrium, Hydro-Québec's electric and magnetic fields interpretation centre, we help to disseminate information on this issue.

Health, safety and security

Hydro-Québec designs, operates and maintains its facilities with a view to safeguarding public health and safety.

The company uses various means to make information available on electrical safety, including its Web site, trade exhibitions and training for various trade associations.

In addition, potential threats to our facilities are assessed and we take steps to bolster security. Among the highlights in 2007:

- ▶ We broadcast two television campaigns on pruning safety and on the safe use of home appliances.
- ▶ Implementation of the corporate security plan continued.
- ▶ We provided a toll-free number for reporting suspicious incidents: 1 877 816-1212. Over 1,768 calls were handled in 2007 (versus 813 in 2006). This excellent employee cooperation is attributable to a security awareness campaign.
- ▶ 1,123 public safety and security compliance audits were completed at our facilities (substations and generating stations), and showed 97.2% compliance.

Reservoir creation and mercury

For 30 years, Hydro-Québec has studied the effects of naturally occurring mercury that is released when reservoirs are created. The two objectives of the program were to determine the impacts on birds and mammals of the higher mercury levels in fish, and to manage the potential health risk for fishermen. The study results show that fish mercury levels rise following reservoir impoundment, but return to natural conditions within 10 to 30 years, depending on the fish species and type of reservoir. For example, in Robert-Bourassa reservoir, mercury levels in lake whitefish (an insectivorous species) and walleye (a piscivorous species) returned to the values recorded in natural lakes after 19 and 25 years, respectively.

2007 highlights

- ▶ A survey on diet was completed and the follow-up on mercury exposure of users of Sainte-Marguerite 3 reservoir continued. It was found that the mercury exposure of local communities has not increased as a result of reservoir development and there is no risk to the public.
- ▶ We produced and distributed a fish consumption guide for people who fish in the Manouane River area, whether for subsistence or recreation.

Supporting universities


Hydro-Québec supports research and education in several ways: donations to university fund-raising campaigns, funding for research projects or chairs, research and development contracts, and so on. These contributions help universities develop and enhance their state-of-the-art expertise.

Communities

In all parts of Québec, Hydro-Québec has created community relations teams. The company has also set up liaison committees in conjunction with municipal associations and the Union des producteurs agricoles to facilitate dialogue and joint action on issues of common interest.

Hydro-Québec works with community representatives to determine their concerns and expectations. It also encourages community participation to facilitate acceptance of our projects. This participative approach can include visual presentations, bulletins, discussion and information forums, and follow-up committees.

2007 highlights

- Twenty agreements were signed on such subjects as use of a Hydro-Québec dike for a bicycle path in the municipality of Salaberry-de Valleyfield and funding for construction of a decorative lighthouse on the dock by the historic Grenville canal .
- Regional county municipalities, urban communities and other municipalities in Québec were surveyed to determine their expectations and degree of satisfaction with the company's operations in their areas. Overall satisfaction rate: 7.59 on a scale of 10. The respondents were particularly satisfied with emergency response measures during blackouts, hydroelectric equipment construction and integration practices, and information on scheduled outages.


Aboriginal communities

Areas with major hydroelectric potential are often home to Aboriginal communities. For this reason, we have maintained longstanding relations with these communities and have signed some 30 agreements that are mutually beneficial.

2007 highlights

- Eastmain-1-A/Sarcelle/Rupert Project: contracts were allocated to Cree businesses and tallymen.
- The *Boumhounan Newsletter* was distributed in Cree communities and information was broadcast on Cree radio about the company's activities in the James Bay area.
- We contributed \$260,000 to introduce an educational program on Innu traditions for young Innus in Uashat Mak Mani-Utenam.
- Contracts were awarded to three Algonquin communities—Kitcisakik, Long Point First Nation and Timiskaming First Nation—for vegetation control on dikes located on the upper Ottawa River. We want to promote the development of a skilled local workforce and generate new economic spinoffs in the communities concerned.
- \$237 million was paid to Aboriginal organizations, businesses and independent workers under contracts or for procurement of goods and services .

Contributions, Chair Endowments and Research Contracts (\$'000)

Educational institution or research group	2005	2006	2007 
Université de Montréal	502.2	631.5	536.3
HEC Montréal	142.5	248.1	306.9
École Polytechnique de Montréal	2,196.4	1,144.6	1,005.8
Université du Québec en Abitibi-Témiscamingue	19.0	20.1	22.5
Université du Québec à Chicoutimi	611.2	499.0	237.5
Université du Québec à Montréal	908.8	793.6	691.9
Université du Québec en Outaouais	–	125.0	125.0
Université du Québec à Rimouski	27.5	148.0	174.0
Université du Québec à Trois-Rivières	340.8	326.6	395.8
École de technologie supérieure	503.0	307.3	375.9
Institut national de recherche scientifique	145.0	150.0	120.0
Fondation universitaire de l'Université du Québec	120.0	120.0	50.0
McGill University	–	15.0	348.0
Concordia University	15.0	35.0	345.5
Université Laval	1,141.0	1,781.1	1,389.5
Université de Sherbrooke	430.2	738.5	923.0
Ouranos, Cirano and Institute of Electrical Power Engineering	1,820.3	1,476.2	1,179.9
Institutions outside Québec	51.6	367.9	152.8
Total	8,974.0	8,927.5	8,380.3



An event we support, *Les filles et les sciences: un duo électrisant*, encourages girls to study science.



Festival de Lanaudière amphitheatre.

Dialoguing with youth

Hydro-Québec puts a great deal of effort into educating young people about science and introducing them to hydroelectricity and other renewable energy sources. We make teaching aids available to educators to enhance children's awareness of various facets of electricity, such as energy efficiency, safe use of electricity, sustainable development and future jobs.

Educational project focused on sustainability

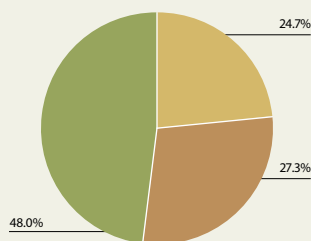
We signed an agreement with the in-plant training and recovery centre in Victoriaville on the recycling of steel structures recovered at Guy substation in Montréal.

Examples of organizations and events supported in 2007

- ▶ *Théâtre du Rideau Vert (Montréal)*
- ▶ *Liberté à Vélo (Saguenay–Lac-Saint-Jean)*
- ▶ *Rimouski regional hospital (Lower Saint Lawrence)*
- ▶ *International Forum on Applied Sustainable Development, Université de Sherbrooke (Eastern Townships)*
- ▶ *Tadoussac song festival (North Shore)*
- ▶ *Défi sportif challenge for athletes with disabilities (Montréal)*
- ▶ *Puvirnituk Snow Festival (Nord-du-Québec)*
- ▶ *Regroupement des maisons de jeunes du Québec*
- ▶ *Festival de Lanaudière*
- ▶ *Québec City 400th anniversary celebrations (Québec City)*
- ▶ *Abitibi-Témiscamingue international film festival*
- ▶ *Petite-Vallée song festival (Gaspé–Magdalen Islands)*

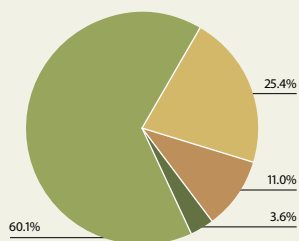
Main Youth-Oriented Activities in 2007

Activity	Description	Public
Tools and publications	<i>Envirovolt</i> game kits were distributed through the "Les Débrouillards" science clubs to teach children about hydroelectricity and the environment.	Over 1,400 pupils, age 9 to 12
	An interactive game called <i>Are you sustainable?</i> was posted on the Hydro-Québec Web site in December 2006. It explains sustainable development to youngsters age 10 to 16 and encourages them to be environmentally responsible.	10,057 visitors in 2007
	The <i>00Watt</i> Classroom Toolkit was launched for grade five and six pupils to encourage them to conserve electricity.	3,130 elementary school pupils
	A hydroelectricity contest was organized for secondary school students. The 68 winners (students and teachers) toured the La Grande complex at James Bay.	158 applications received
Presentations and tours	The <i>Blue Water = Green Energy</i> workshop was held to teach young people about renewable energy and Hydro-Québec's endeavors to reduce the environmental impacts of its projects.	Over 9,400 elementary and secondary school students
	Techno-Sciences tour in secondary schools: 13 employees met with students to talk to them about electricity-related careers.	2,200 secondary school students
Funding and mentorship	Hydro-Québec specialists participated in presentations or debates at universities to promote discussion of ideas about energy and environmental issues.	73 applications and 3,600 participants

Breakdown of donations in 2007^{a)}

■ Social and humanitarian aid, including United Way/Centraide
 ■ Health
 ■ Education

a) Excludes funding by the Fondation Hydro-Québec pour l'environnement

Breakdown of sponsorships in 2007^{a)}

■ Science and culture
 ■ Socioeconomic
 ■ Sports
 ■ Environment and sustainable development



Enhancement of a protected forest in the Sutton Mountains massif (Eastern Townships), a project funded by the Fondation Hydro-Québec pour l'environnement.

Funding for organizations and events

Hydro-Québec is active in the social economy, works with associations and supports many organizations with a variety of missions throughout Québec. In 2007, the company distributed \$24.7 million in donations (\$11.2 million) and sponsorships (\$13.5 million).

2007 highlights

- \$6.1 million was donated to United Way/Centraide, \$2.9 million of which was contributed by Hydro-Québec employees, pensioners and directors. United Way/Centraide supports community projects and organizations everywhere in the province. The Greater Montréal campaign was co-chaired by Hydro-Québec's President and Chief Executive Officer, Thierry Vandal.
- Program for employees involved in the community: \$182,400 was contributed to organizations where Hydro-Québec employees volunteer.

One of the best corporate citizens in Canada

According to Corporate Knights magazine, Hydro-Québec ranks fifth among the 50 best corporate citizens in Canada. The company was rated on its environmental performance, social commitment and governance.

Fondation Hydro-Québec pour l'environnement

The objective of the Fondation Hydro-Québec pour l'environnement is to support the preservation of Québec's environmental heritage. Since it was created in 2001, the Foundation has contributed \$6.5 million to over a hundred projects ^V. In 2007, 15 projects in eight regions shared \$1.5 million in funding. For example, the Foundation granted \$524,000 over two years to Appalachian Corridor for the enhancement of nearly 5,000 hectares of forested land in the Sutton Mountains massif; this protected area will form the future Green Mountains Nature Reserve. The Foundation's Annual Report is available on its Web site: www.hydroquebec.com/fondation-environnement/en/index.html.

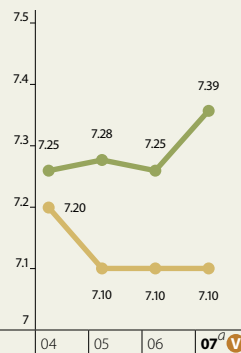
Fondation Hydro-Québec pour l'environnement

	2004	2005	2006	2007 ^V
Number of projects supported	15	20	22	15
Number of regions involved	9	13	12	8
Amount granted (\$'000)	670	860	1,009	1,493

Sustainability is...

- Serving customers' interests
- Meeting the needs of specific customer groups

Overall Customer Satisfaction Index (scale of 10)

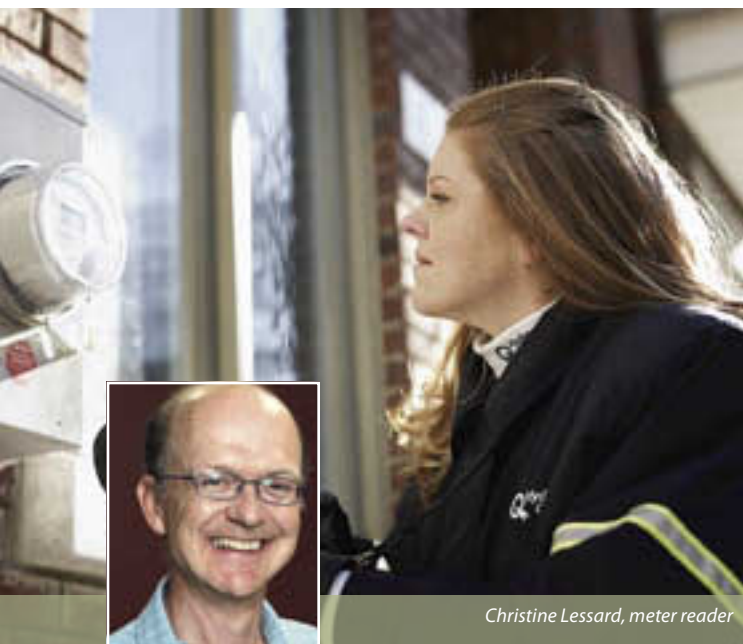


● Satisfaction index
● Target
a) Excludes large-power customers

Satisfaction Indexes (scale of 10)

- Residential customers: 7.5 (7.3 in 2006)
- Commercial and agricultural customers: 7.6 (7.3 in 2006)
- Business customers: 7.2 (7.1 in 2006)
- Large-power customers: 9.2 (9.1 in 2006)

Customized Service



Christine Lessard, meter reader

Hydro-Québec's mission is to supply electricity to the 7.7 million people in Québec, an area covering 1.7 million square kilometres.^{a)}

The company has 3,868,972 customer accounts in Québec. It serves several categories of customers with very different requirements: residential, commercial, agricultural, institutional, business and large-power customers.

Needs and concerns

Providing service that meets customers' needs and expectations is a priority for Hydro-Québec. We survey customers on a regular basis to determine their expectations and measure their satisfaction. This enables us to adjust our practices and programs. In 2007, the satisfaction indexes for all customer groups rose and exceeded our target levels.

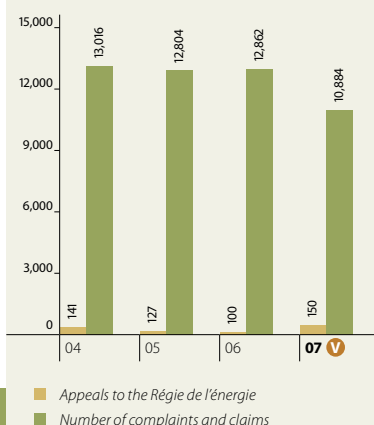
Using tools like the table of customer expectations, Hydro-Québec decides what needs to be done to improve customer satisfaction and measures its performance on an ongoing basis. Customers' top-priority expectations in 2007 remained the same as in previous years, and include facility security, rates and environmental performance.

“Through cooperation with consumer associations, our collection procedures for low-income households have become innovative. In 2000, we set up a joint committee to conduct studies and tests to get to know these customers better. We then found sustainable solutions that meet both the customers' needs and the company's financial obligations. And that's not all! To continue to improve our collection procedures, we plan to continue working with these consumer associations, because that is the key to success!”

Étienne Mailhot, Advisor – Customer Services, Hydro-Québec Distribution

a) Source: Québec Handy Numbers, 2007 Edition. Québec Government

Customer complaints and claims (number)



In January 2008, Hydro-Québec rolled out the final phase of the Customer Information System to improve service efficiency for its 2.8 million residential customers.

Good customer service involves providing quality, as well as helping people understand their bills and how to be energy wise. We follow up when customers are not satisfied.

2007 highlights

- Promotion of our online services: 56,249 customers signed up for Online Billing, a 78% increase over 2006. In all, over 236,000 electronic bills are produced every two months, meaning that 1.5 million fewer bills are printed per year.
- Payment arrangements were signed to facilitate settlement of 542,833 overdue accounts (\$638 million) V.
- 10,884 complaints and claims were recorded and dealt with (12,862 in 2006). Most complaints and claims deal with system malfunctions, collection and billing. Customers who are not satisfied with Hydro-Québec's response or settlement can appeal to the Régie de l'énergie V.
- Service agreements were reached with organizations that work with new immigrants in their language and help them understand their bills.
- A dedicated point of contact was opened to facilitate file processing for Aboriginal customers served by the Rouyn-Noranda office.
- A new action plan was implemented for people with disabilities to deal with building accessibility and other issues. Also, we continue to offer people with visual or hearing impairments ways to access our documentation and the services we provide.


Consumer associations and the community

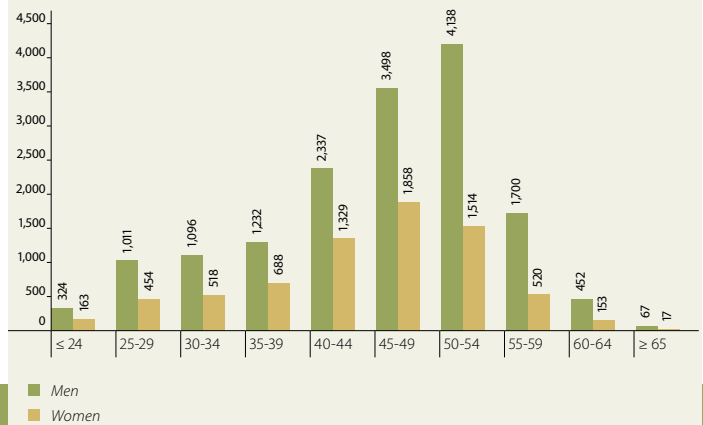
According to 2006 statistics, electricity expenditures account for an average of 3.7% of income for all residential customers. For low-income customers, this percentage is 7.5%, and as much as 20% in some cases. Hydro-Québec has created various channels of communication to serve these customers better. In 2000, we set up a joint Collection Department/consumer associations working group to try new approaches and design services that are better suited to the customers' needs. This initiative led to the development and introduction of payment agreements for low-income customers.

- A special telephone line has been set up for consumer associations and elected representatives to deal with customers whose situations are very precarious.
- 22,670 special payment arrangements were reached, totaling \$156 million V.
- In May 2006, personalized payment arrangements were introduced for cases where the special payment arrangement is insufficient. Personalized arrangements last for 48 months and incur no administration fees; they encourage debt reduction and reduce the current consumption cost, if necessary. In 2007, 391 such arrangements were reached.
- Since 2003, a day-long workshop on poverty and the prejudices it engenders has been included in the basic training given to collection employees. In 2007, 111 employees received this training (60 in 2006).
- A working group was set up with energy efficiency experts, collection specialists and community representatives to identify possible solutions for low-income customers. As a result, some 20 proposals will be implemented between 2008 and 2011, subject to Régie de l'énergie approval.

Sustainability is...

- ▶ Being a responsible employer
- ▶ Providing working conditions that promote professional and personal development
- ▶ Supporting the company's long-term viability

Employee age pyramid – 2007 (number) 




Human Resources Development





Hydro-Québec relies on its employees to achieve its business objectives, maintain its long-term viability and contribute to sustainable development in Québec. Human resources need training to develop skills in a specialized field like electricity.

The company does its utmost to provide a healthy, stimulating work environment for its employees. And they, as agents of sustainability, work for the well-being of future generations.

Workforce

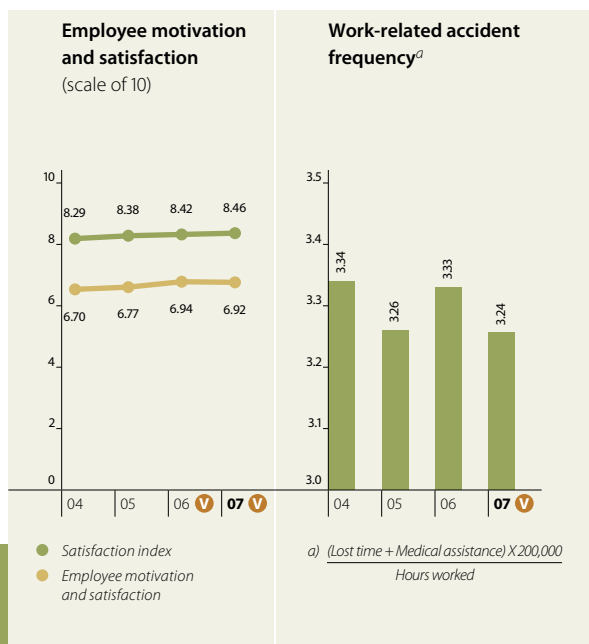
About 60% of Hydro-Québec's employees work outside the Montréal area. This means that our operations and projects throughout Québec support a considerable number of jobs in a wide variety of fields .

2007 highlights

- ▶ Female employees accounted for 31.3% of the workforce, an increase of 2.4% since 2003; 74.2% of those who are permanent employees work in the Clerical and Specialists groups .
- ▶ The percentage of the workforce in the 25 to 40 age groups is more balanced than in 2003. The average age fell for the first time in several years, to 45.7 .

“Hydro-Québec impressed me right away because of its sustainable development approach, especially its interest in energy efficiency. When I first started, I was introduced to everyone in my team and the many facets of the company were explained to me. I was given what I needed to learn, understand the issues, and develop a network. I was teamed up with experienced advisors so I had all the support I needed to fit in, and the best possible conditions!”

Catherine Gingras, Advisor – Marketing, Hydro-Québec Distribution



Health and safety

We always work very hard to give our employees a stimulating, respectful, safe workplace, as well as opportunities for professional development.

- Online training on the Workplace Hazardous Materials Information System (WHMIS) was provided to 600 employees to promote compliance with safety rules.
- Our Employee Assistance Program for personal or work-related problems was used by 1,542 employees, or 6.68% of our workforce (6.95% in 2006).
- Emergency situations were simulated to test the emergency biohazard plan. Conclusion: should a pandemic occur, we will be able to maintain service continuity while safeguarding our employees' health.

Motivation, satisfaction and a feeling of belonging

Hydro-Québec encourages its employees individually and collectively to commit to achieving the company's objectives. The results from our annual employee survey are used to develop action plans to foster motivation.

We also organize various events to stimulate creativity and encourage employees to participate in sustainability activities.

2007 highlights

- A survey of new employees rated their satisfaction with induction and integration at 8.3 (8.5 in 2006) **V**.

► The gold prize in the community contribution category of the *Mérite de l'environnement et du développement durable* contest was awarded to an employee who worked with language students affected by dysphasia to build a model of a hydropower plant with recycled materials. As a result of this project, energy saving measures, including a geothermal system, were introduced at the school.

► For the 20th anniversary of Environment Month, we held a contest for employees that drew 7,500 participants. In addition, 34 environment-themed presentations were made to 1,400 employees.

Training, development and succession planning

In view of the number of employees retiring, Hydro-Québec is managing workforce renewal carefully. It is introducing more measures to ensure that the workers, skills and knowledge needed to achieve its objectives will be available. Such measures include the Corporate Succession Support Plan, which is updated periodically, programs for student internships and various employee training programs.

A network for new hires

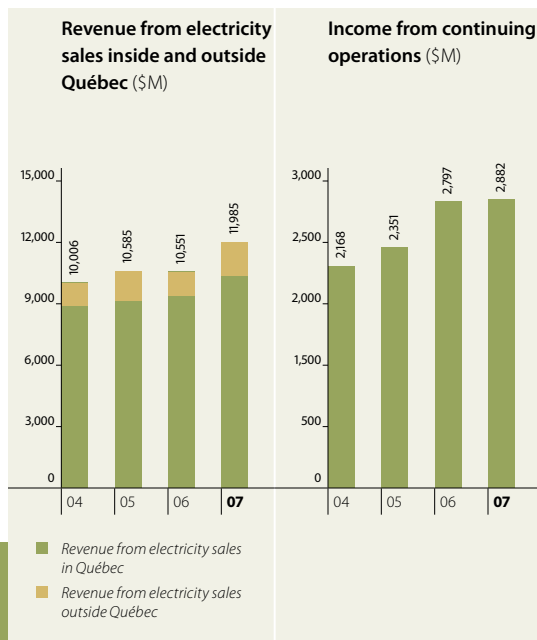
An initiative of two young employees, the Réseau relève was created in 2005 and soon attracted many new recruits. Over 600 new Hydro-Québec employees are now members of the network. Various activities are organized to promote networking and foster a feeling of belonging.

2007 highlights

- We allocated 4.2% of the payroll to training programs and 16,453 participants participated in at least one training activity; 4,659 participants received environmental training (8,451 person-hours); 162 employees received training in Hydro-Québec's Aboriginal relations **V**.
- We offered internships to 16 college students registered in co-op programs, 12 Institute of Electrical Power Engineering students and 170 university undergraduate and graduate students.
- Of 2,860 employees eligible for retirement in 2007, 758 left the company. Of the 1,151 new employees, 67% were under the age of 35.
- The support program for knowledge acquisition and preservation funded 35 early staffings and nine projects to plan group knowledge-transfer strategies.

Sustainability is...

- ▶ Creating wealth
- ▶ Contributing to Québec's prosperity
- ▶ Encouraging technological innovation



Contribution to the Québec Economy



Hydro-Québec's contribution to sustainability is founded on solid financial performance. The company is a major player in Québec's economy. Its development projects, procurement, operations and innovation make it a strong contributor to a dynamic economy throughout Québec in a number of business sectors.

Hydro-Québec purchases goods and services, pays municipal and school taxes as a property owner, creates direct and indirect jobs, and stimulates local tourism by welcoming visitors to its facilities, among other things. In short, it contributes to Québec's prosperity today while helping to reduce public debt for the greater benefit of future generations.

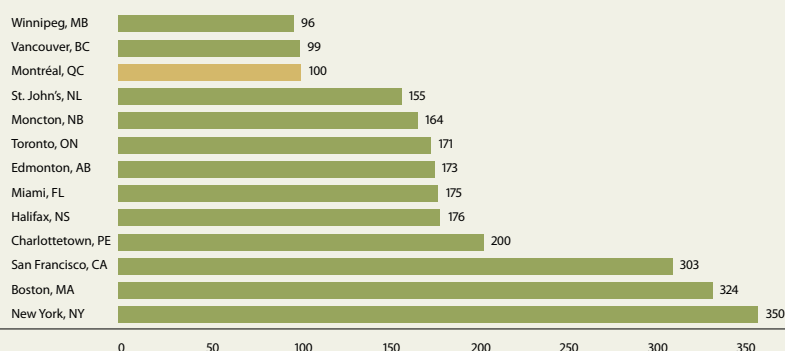
Financial performance and creation of value

Part of the profits earned by Hydro-Québec are reinvested to maintain reliable, high-quality service, and another part is paid to its sole shareholder, the Québec government.

"The volume of our annual purchases of goods and services has stimulated the growth of the electricity industry in Québec. Not only are our consulting engineering firms widely known well beyond our borders, many world-class equipment manufacturers have operations here. Their presence is an economic asset for Québec and gives Hydro-Québec direct access to quality services. Moreover, we give preference to suppliers of goods and services in the areas in which we operate, and this boosts the economy throughout the province."

Jocelyne Fortin, Director – Procurement, Shared Services Centre

Comparative index of electricity prices at April 1, 2007 – Residential customers^{a)}



a) Monthly bill (before taxes) for consumption of 1,000 kWh



Energy trading floor at Hydro-Québec

Financial results

- ▶ Net income totaled \$2,907 million. Income from continuing operations was \$2,882 million, an increase of \$85 million.
- ▶ Electricity sales were up 13.6%, reaching \$11,985 million: sales in Québec generated \$10,368 million and sales outside Québec produced \$1,617 million.
- ▶ Net exports accounted for only 5.6% of sales volume but generated 25% of income from continuing operations.
- ▶ Investments totaled \$3.6 billion. Our borrowing on financial markets in 2007 was lower than in previous years because of the substantial return on the sale of our international assets.
- ▶ We declared dividends to our shareholder of \$2,095 million, bringing the total from 2004 to 2007 to \$6.9 billion.
- ▶ We paid \$263 million in water-power royalties to the Québec government, as a contribution to the Generations Fund created to reduce the debt burden for future generations.

Major investments

Our energy choices stimulate the economy, especially in the areas where our development projects are located. For our current main projects (Eastmain-1-A/Sarcelle/Rupert, Péribonka, and Chute-Allard and Rapides-des-Cœurs), expenditures were \$1,593 million in 2007, including \$400 million in the regions concerned.

We have to deal with demand fluctuations resulting from industrial trends, demographic changes and consumer choices. For example, owing to the industrial slowdown, Hydro-Québec obtained permission from the Régie de l'énergie to suspend deliveries for one year from TransCanada Energy, which operates a 550-MW natural gas generating station in Bécancour. This decision will avoid 1.6 million tonnes of greenhouse gas emissions in 2008.

Electricity rates

Hydro-Québec supplies electricity to the Québec market at rates that are among the lowest in North America. In 2007, the average cost per kWh for residential customers was 6.68¢. Montréal ranked third in Canada, after Winnipeg and Vancouver, for the electricity prices paid by residential customers. It also ranked third for large-power customers, who pay an average 4.60¢/kWh.

Economic spinoffs

Regional development

In 2007, Hydro-Québec spent \$2,586 million (\$2,673 million in 2006) on goods and services; 94% of these purchases were in Québec, creating thousands of direct and indirect jobs. For example, goods and services purchased for the Eastmain-1-A/Sarcelle/Rupert project cost \$193 million: \$62 million in Northern Québec, \$77 million in Saguenay-Lac-Saint-Jean and \$55 million in Abitibi-Témiscamingue. Cree communities also benefited considerably, with job creation, enhancement of workforce skills, economic development, higher disposable income and improved living conditions.

We also support the growth of various industries. In 2007, for instance, the economic spinoffs from contracts awarded to private wind power producers in Matane regional county municipality and the Gaspé–Magdalen Islands region amounted to about \$185 million.



In addition, Hydro-Québec forms partnerships to promote business development and job creation. For example, a new agreement was signed in 2007 with ComaxNord, as part of the Eastmain-1-A/Sarcelle/Rupert project, to maximize job creation and contract allocation in the region.

Tourism

Opening doors to visitors generates worthwhile economic spinoffs in various parts of Québec. In 2007, 25 sites that we operate ourselves or with various partners welcomed some 147,500 visitors. Among them were Cité de l'énergie (Mauricie) with 47,500 visitors, the Sept-Chutes generating station interpretation site (Québec City) with 31,600 visitors, the Manic-Outardes complex (North Shore) with 16,100 visitors and the Électrium, Hydro-Québec's electric and magnetic field interpretation centre (Montréal), with 16,700 visitors.

Integrated Enhancement Program

Hydro-Québec encourages communities affected by its transmission projects to undertake initiatives to enhance their biophysical and human environment. In 2007, 13 initiatives received total funding of \$1.31 million; \$447,800 of this was contributed by Hydro-Québec through its Integrated Enhancement Program. Examples include:

- Construction of the Des Cantons–Hertel line: \$1 million was invested to install recreational and community equipment, and to improve drinking water quality. Municipalities concerned: Ange-Gardien, Roxton Pond and Roxton. Hydro-Québec's contribution: \$300,000 .
- Additional series compensation at Bergeronnes substation: \$243,000 was invested to install recreational and community equipment, and to enhance religious heritage. Municipalities concerned: Les Bergeronnes and Les Escoumins. Hydro-Québec's contribution: \$120,000 .

Hydro-Québec's Contribution to the Québec Economy

	2004	2005	2006	2007
Permanent workforce as at December 31	18,835	19,009	19,116	19,459
Temporary workforce (annual average)	3,567	3,577	3,799	3,910
Capital tax (\$M)	324	330	261	278
Tax on public services (\$M)	–	229	230	240
Water-power royalties (\$M)	–	–	–	263
Municipal and school taxes (\$M)	34	36	36	35
Procurement of goods and services inside and outside Québec (\$M)	2,394	2,367	2,673	2,586
Proportion procured from Québec businesses (%)	94	92	92	94
Direct jobs sustained by all procurement, including purchases outside Québec (person-years)	15,000	12,654	14,000	13,000



Radisson environmental interpretation centre, at the La Grande Complex, is a very popular destination.

Technological innovation and development

Hydro-Québec counts on its strength in innovation to maintain its technological leadership in the electricity industry.

In 2007, we invested about \$100 million in a hundred research projects. To design innovative solutions, we call upon Québec expertise, especially in universities and research centres. Our research partnerships generate spinoffs throughout the province.

Hydro-Québec's research institute now has a new high-performance computation centre which can process and exchange enormous volumes of data. This facility will enable us to improve project quality in such areas as hydrology, climate change and wind-power generation.



Rehabilitation of a weir at Gaillard generating station: a cooperation project in Haiti.

2007 highlights

- Energy efficiency technology innovation projects involved advanced refrigeration, waste heat recovery, reduction of industrial energy intensity, solar buildings and integrated energy systems. Our work has reduced the power demand of domestic water heaters by 20%.
- Licence agreements were signed with Merck and IoLiTec (Germany), Solvionic (France) and Valeo Management (Canada) to use FSI molten salts in the manufacture of lithium ion batteries for electric vehicles.
- Our partnership with the strategic committee on food packaging will result in sustainable solutions for frozen-food packaging and technology platforms to support innovation in biodegradable materials.

Sharing expertise and supporting development

We participate in the activities of various Canadian and international organizations in order to share our expertise and forge partnerships.

- The first forum for foreign companies in Québec was held to find ways to develop and maintain international business. The 40 participating companies account for 50,000 direct jobs in Québec.
- Various cooperation projects:
 - World Energy Council: we sit on the board of directors, chair the Communications Committee and are organizing the World Energy Congress to be held in Montréal in 2010.
 - e8: we chair the organization.
 - International Council on Large Electric Systems (CIGRE): we participate in various working groups on such topics as the use of geographic information systems on transmission grids.
 - International Hydropower Association: we sit on the board of directors, chair the Communications Committee and work on corporate social responsibility.
 - Funding for 13 cooperation projects: we continued to help rebuild the power industry in Haiti, funded training seminars in Benin, Switzerland, Togo and Turkey, and partnered with the Agence universitaire de la Francophonie, HEC Montréal and other institutions to introduce various educational programs.

Round table of corporate leaders in sustainable development

Hydro-Québec hosted a meeting of the round table of corporate leaders in sustainable development. Some 40 participants discussed the challenge of incorporating sustainable development principles into business objectives and management. The purpose of the round table is to stimulate joint action and promote the application of sustainability concepts within Québec companies.

Estimated Funding under the Integrated Enhancement Program

	2004	2005	2006	2007
Number of initiatives	29	37	11	13 V
Hydro-Québec grants (\$'000)	1,716.7	7,843.3	1,143.6	447.8 V
Community contribution (\$'000)	2,824.4	459.6	549.4	866.9
Project value (\$'000)	4,541.1	8,302.9	1,693.0	1,314.7

Global Reporting Initiative (GRI) Index

All G3 performance indicators are dealt with fully on the Hydro-Québec Web site at <http://www.hydroquebec.com/sustainable-development/gri/index.html>. The following list shows the indicators that are also covered in the *Sustainability Report 2007*.

Reference ^{a)}	G3 Indicator	Source
ECONOMIC PERFORMANCE INDICATORS		
EC1	Economic value generated and distributed	SR, pp. 4–5, 34–36, 39
EC2	Climate change	SR, pp. 3–5, 18–20, 35, 39
EC3	Pension plan obligations	Web
EC4	Financial assistance received from governments	Web
EC5	Wages	Web
EC6	Procurement from local suppliers	Web
EC7	Local hiring	Web
EC8	Infrastructure investments that benefit local communities	Web
EC9	Indirect economic impacts	SR, pp. 10, 13, 16–17, 26–27, 35–36, 39
ENVIRONMENTAL PERFORMANCE INDICATORS		
EN1	Materials used by weight or volume	SR, pp. 23–24
EN2	Use of recycled materials	SR, pp. 23–24
EN3	Direct energy consumption	Web
EN4	Indirect energy consumption	SR, p. 13
EN5	Internal energy efficiency	SR, p. 24
EN6	Energy efficiency of products and services	SR, pp. 13–14
EN7	Reduction of indirect energy consumption	SR, pp. 3, 19–20
EN8	Total water withdrawal	Web
EN9	Water sources affected by withdrawal	Web
EN10	Water recycled and reused	SR, p. 23
EN11	Land near biodiversity areas	SR, pp. 15–17, 21–22
EN12	Description of impacts on biodiversity	SR, pp. 15–17, 21–22
EN13	Habitats protected or restored	SR, pp. 15–17, 21–22
EN14	Management of impacts on biodiversity	Web
EN15	IUCN Red List species	Web
EN16	Greenhouse gas (GHG) emissions	SR, pp. 19, 39
EN17	Other relevant GHG emissions	SR, pp. 3, 18–19, 39
EN18	Initiatives to reduce GHG emissions	SR, pp. 3–5, 15, 19–20
EN19	Emissions of ozone-depleting substances (ODS)	SR, p. 23
EN20	Emissions of NO _x , SO ₂ and other pollutants	SR, pp. 19, 39
EN21	Water discharge by quality and destination	Web
EN22	Total quantity of waste	SR, pp. 23–24
EN23	Number and volume of spills	SR, pp. 21, 39
EN24	Hazardous waste (Basel Convention)	Web
EN25	Water bodies and habitats affected by discharges	Web
EN26	Environmental impact management	SR, pp. 4–5, 18–24, 39
EN27	Disposal of products after their useful life	Web
EN28	Noncompliance with environmental regulation	SR, p. 39
EN29	Environmental impacts of transportation	SR, pp. 18–20
EN30	Environmental expenditures	Web

Reference ^{a)}	G3 Indicator	Source
SOCIAL PERFORMANCE INDICATORS		
Labor Practices and Decent Work		
LA1	Total workforce	SR, p. 39
LA2	Rate of employee turnover	Web
LA3	Employee benefits	Web
LA4	Collective bargaining agreements	Web
LA5	Minimum notice period(s)	Web
LA6	Joint health and safety committees	SR, p. 8
LA7	Work-related injuries, diseases and absenteeism	SR, p. 33
LA8	Assistance with serious diseases	SR, p. 33
LA9	Health and safety and collective agreements	Web
LA10	Employee training	SR, p. 33
LA11	Career ending management	Web
LA12	Career development	SR, p. 33
LA13	Diversity and equal opportunity	SR, p. 32
LA14	Pay equity	Web
Human Rights		
HR1	Investment agreements	Web
HR2	Subcontracting	Web
HR3	Training	Web
HR4	Discrimination	Web
HR5	Freedom of association and collective bargaining	Web
HR6	Child labor	Web
HR7	Forced labor	Web
HR8	Security personnel	Web
HR9	Indigenous rights	Web
Society		
SO1	Management of impacts on communities	SR, pp. 3, 10, 16, 26–27
SO₂	Risks related to corruption	Web
SO3	Employee training	Web
SO4	Corruption response action	Web
SO5	Lobbying	Web
SO6	Contributions to political parties	Web
SO7	Antitrust and monopoly regulations	Web
SO8	Noncompliance with legislation	Web
Product / Service Responsibility		
PR1	Life-cycle analysis of product health and safety	SR, pp. 26, 33
PR2	Noncompliance with product-related health and safety	Web
PR3	Product information	Web
PR4	Noncompliance concerning product information	Web
PR5	Measurement of customer satisfaction	Web
PR6	Adherence to advertising standards and codes	Web
PR7	Noncompliance with advertising standards and codes	Web
PR8	Management of consumer privacy	Web
PR9	Noncompliance concerning product use	Web

a) Bold face: core indicators. Regular type: additional indicators.

Our Performance at a Glance

	2004	2005	2006	2007
ENVIRONMENT				
Electricity generated by Hydro-Québec (GWh)	146,821	154,031	150,552	162,062
Total electricity generated and purchased (GWh)	188,269	192,862	194,225	206,012
Renewable energy/Total electricity generated and purchased (%)	93	95	94	93
Atmospheric emissions of CO ₂ from electricity generation (tonnes)	1,407,791	369,974	215,243	245,832
Atmospheric emissions of SO ₂ from electricity generation (tonnes)	9,705	2,126	979	1,150
Atmospheric emissions of NO _x from electricity generation (tonnes)	9,886	6,428	5,917	6,205
Atmospheric emissions of CO ₂ from the vehicle fleet (tonnes)	53,958	56,849	56,683	54,082
Energy Efficiency Plan: energy savings (target/result) (GWh)	189/260	321/462	523/683	661/866
Employees governed by an environmental management system (number) ^a	19,784	20,513	18,292	18,469
Spills reported to the authorities (number)	510	567	574	622
Insulating oil recovered (thousands of litres)/Internal reuse (%)	5,181/96.6	4,508/89.9	4,748/94.5	4,367/91.4
Environmental noncompliance notices (number)	31	35	17	32
Area of transmission-line rights-of-way treated mechanically (%)	73.1	74.2	72.1	76.3
Area of dikes and dams treated mechanically (%)	69.1	46.7	44.7	48.0
New underground hookups (%)	17	21	25	28
Production of low- and medium- activity radioactive waste (m ³ /reactor)	21	30	40	15
SOCIAL				
Permanent workforce as at December 31	18,835	19,009	19,116	19,459
Temporary workforce (annual average)	3,567	3,577	3,799	3,910
Work-related accident frequency ^b	3.34	3.26	3.33	3.24
Employee motivation and satisfaction (scale of 10)	6.70	6.77	6.94	6.92
Percentage of payroll invested in training	4.5	3.9	3.9	4.2
Public satisfaction index (very and somewhat satisfied) (%)	91	92	91	92
Overall customer satisfaction index (scale of 10)	7.25	7.28	7.25	7.39
Special payment arrangements for low-income customers and those with payment difficulties (number)	17,968	20,964	22,475	22,670
Complaints and claims from customers (number)	13,016	12,804	12,868	10,884
Donations and sponsorships (\$M) ^c	18.2	18.5	23.0	24.7
Fondation Hydro-Québec pour l'environnement (\$'000)/ Projects funded (number)	670/15	860/20	1,009/22	1,493/15
Grants, support for chairs and research contracts (\$M)	8.4	8.9	8.9	8.4
Contracts awarded to Aboriginals (\$M)	242	235	156	237
ECONOMY				
Electricity sales in Québec (TWh)	165.9	169.2	167.3	173.2
Revenue from electricity sales inside and outside Québec (\$M)	10,006	10,585	10,551	11,985
Income from continuing operations (\$M)	2,168	2,351	2,797	2,882
Net income (\$M)	2,435	2,252	3,741	2,907
Dividends declared (\$M)	1,350	1,126	2,342	2,095
Direct jobs supported by procurement of goods and services (person-years)	14,918	12,654	14,000	13,000
Integrated Enhancement Program grants (\$M)	1.7	7.8	1.1	0.4
Total acquisitions of goods and services (\$M)/Québec only (%)	2,394/94	2,367/92	2,673/92	2,586/94
Capital tax (\$M)	324	330	261	278
Municipal and school taxes (\$M)	34	36	36	35
Public service tax (\$M)	–	229	230	240

a) Organizational adjustments in 2006 and 2007 resulted in new environmental management systems that were not yet certified as at December 31, 2007

b) (Lost time + medical assistance) x 200,000 / Hours worked

c) Includes Hydro-Québec's donation to United Way/Centraide.

Glossary

Biogas: usually combustible gas produced by the decomposition of organic matter

CH₄ (methane): greenhouse gas with a global warming potential 23 times higher than CO₂

CO₂ (carbon dioxide): principal greenhouse gas, mostly generated by fossil fuel combustion

Cogeneration: method of simultaneously producing electricity and useful thermal energy (steam, hot water, combustion gas) from a fuel (natural gas, wood chips)

Diversion bay: stretch of a river where the level has been raised by a dam to supply a hydroelectric generating station

Dividend: portion of income that Hydro-Québec is required to pay to its sole shareholder, the Québec government, which sets the amount and terms of payment annually, subject to the financial criteria in the *Hydro-Québec Act*

Due diligence: degree of care, reaction and attention that prudent corporate managers can reasonably be expected to exercise in a given situation

Environmentally responsible: refers to the consideration of environmental and social concerns in business management

Flooding: submersion of land; for example, the flooding of a valley to create a reservoir

FSC (Forest Stewardship Council): international non-profit organization that promotes forest sustainability. The FSC ecolabel appears on wood and wood products from forests managed according to the principles of sustainable development

Green energy: electricity generated with a limited impact on the environment. Sources of green energy include wind, water, biogas and sunshine

Governance: manner of directing, guiding and coordinating the operation of a country, group, or private or public organization

Herbicide: chemical or biological product that kills vegetation or inhibits its growth

Instream flow: flow that must be maintained downstream of a hydroelectric development to meet environmental obligations such as protection of fish habitat, or to maintain various water uses such as recreational activities

NO_x (nitrogen oxides): chemical compounds that contribute to the formation of smog and acidic deposits

Pesticide: chemical or biological product used to kill undesirable or harmful living organisms or to inhibit their growth

Renewable energy: energy that is renewed or regenerated naturally according to a relatively short cycle; sunshine, water power, geothermal energy and wind power are examples

Right-of-way: strip of land used for installation, operation, maintenance and protection of one or more power lines

SO₂ (sulphur dioxide): chemical compound that contributes to the formation of acid rain.

Stakeholder: group or individual that has a more or less direct interest in the life of an organization or is likely to be affected by decisions made by an organization

Temporary workforce: annual average number of employees whose relationship with the employer is not permanent, excluding personnel seconded to subsidiaries. Temporary employees are laid off when their assignment (special project, work overload, substitution, etc.) is completed




Verification Statement

To Hydro-Québec Management,

Intertek has been commissioned to carry out an independent verification of the validity of certain information in Hydro-Québec's *Sustainability Report 2007*, which covers the period starting January 1 and ending December 31, 2007.

Mandate

Our responsibility consists in expressing an opinion on the accuracy of selected quantitative data, which are identified with a check mark . In that regard, we have substantiated the origin, the collection process and the exactitude of these data. The report, as well as the environmental, social and economic performance results, remain the sole responsibility of Hydro-Québec.

Methodology

We carried out our verification exercise in accordance with the ISAE 3000 standard. We used a risk analysis and sampling method in order to obtain a reasonable assurance that the verified data did not present any major inaccuracies. Our process included interviews with the staff responsible for the collection and in-house validation of the selected information, as well as reviews of supporting documents and other procedures deemed necessary.

Opinion

In our opinion, the selected quantitative data, which are identified with a check mark  in the *Sustainability Report 2007*, give a true representation of the items covered as at December 31, 2007.



Ian Kitchin
President
Intertek System Certification
March 11, 2008

Units of Measure

\$M:	millions of dollars
\$B:	billions of dollars
kV:	kilovolt (one thousand volts)
W:	watt (unit of power)
kW:	kilowatt (one thousand watts)
kWh:	kilowatthour (one thousand watthours, a unit that quantifies electrical energy)
MW:	megawatt (one million watts)
MWh:	megawatthour (one million watthours)
GW:	gigawatt (one million kilowatts)
GWh:	gigawatthour (one million kilowatthours)
TWh:	terawatthour (one billion kilowatthours)

The following documents may be obtained from our Web site www.hydroquebec.com or by calling 1 800 ENERGIE (363-7443):

Sustainability Report 2007 (this document)
Annual Report 2007
Profil régional des activités d'Hydro-Québec – 2007
Financial Profile 2007–2008
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