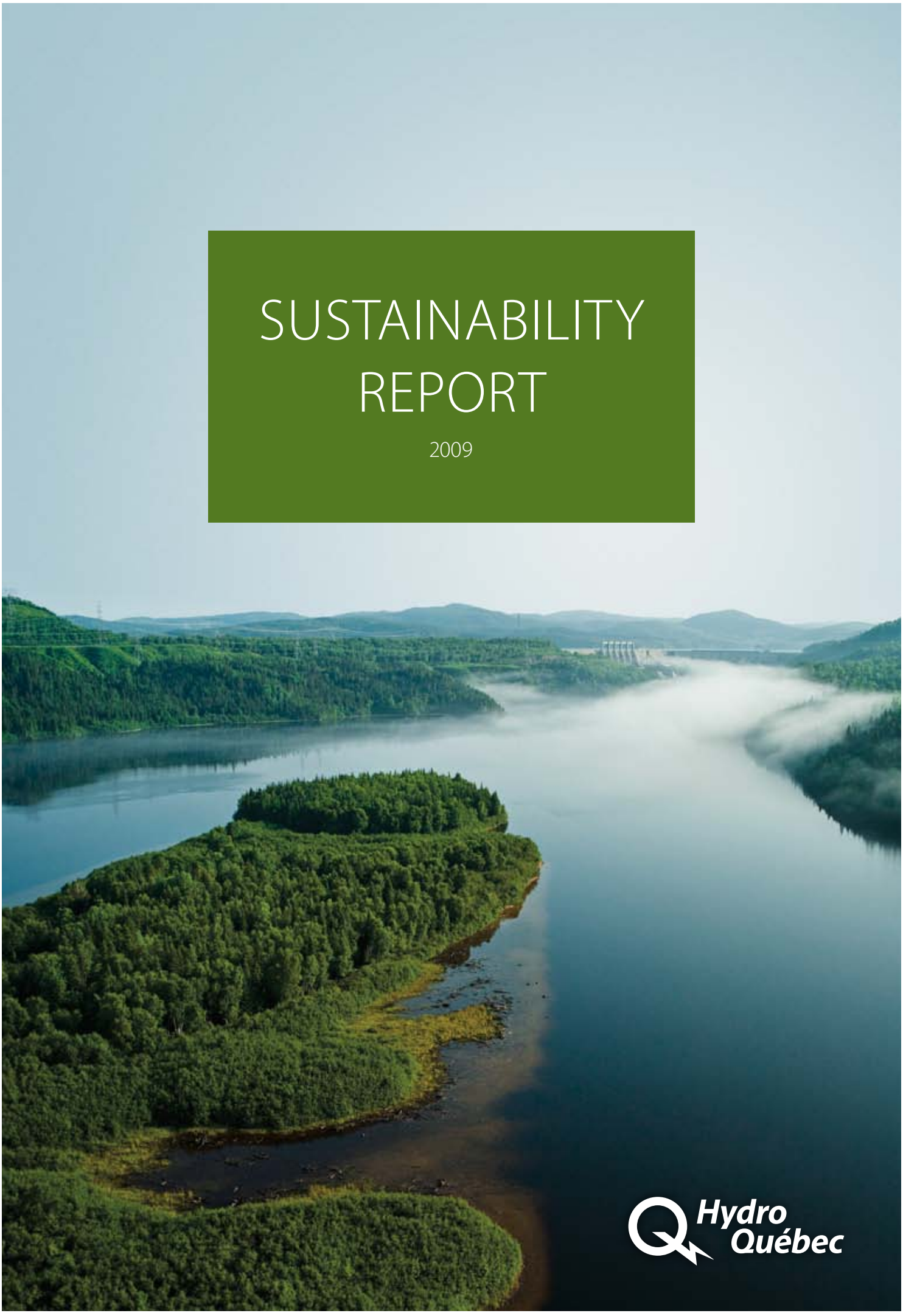
SUSTAINABILITY REPORT

2009



Hydro-Québec generates, transmits and distributes electricity. Its sole shareholder is the Québec government. It uses mainly renewable generating options, in particular hydropower, and supports the development of wind energy through purchases from independent power producers. It also conducts R&D in energy-related fields, including energy efficiency. The company has 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, design, build and refurbish generation and transmission facilities, mainly for Hydro-Québec Production and Hydro-Québec TransÉnergie.

On the cover:
In the Manicouagan-Uapishka region, a 114-km² reservoir stretches out above Manic-2 dam. The region was designated a Biosphere Reserve under UNESCO's Man and the Biosphere program. A model of sustainability in the making.

CONTENTS

MESSAGE FROM THE PRESIDENT AND CHIEF EXECUTIVE OFFICER

Few electricity companies can boast as high a level of profitability and as small an environmental footprint as Hydro-Québec. We owe this performance in large part to the abundant, powerful hydraulic resources available in Québec and the vision shown by past generations who successfully tapped this potential. Our employees are following in their footsteps, and the *Sustainability Report 2009* gives concrete evidence of their achievements in the area of sustainable development.

In keeping with the Québec government's priorities, Hydro-Québec is working to reduce its greenhouse gas emissions by focusing on the three priorities laid out in its Strategic Plan: energy efficiency, renewable energies and technological innovation.

The economic slowdown in 2009 resulted in a somewhat lower rate of participation by business customers in our energy efficiency programs. They were a great success with residential customers, however. Overall, the programs generated new energy savings of 946 GWh over the year. The challenge for 2010 will be to encourage the building industry to incorporate energy efficiency measures right from the design stage.

The year also featured the commissioning of the Rupert diversion and the launch of construction on the Romaine hydropower complex—an important addition to our energy reserves. We have completed the draft-design stages, in consultation with the host communities, and signed a number of partnering agreements with Aboriginal and other local communities. Environmental studies and measures carried out before, during and after construction will cost over $300 million altogether. In addition to generating approximately $1.3 billion in regional economic spinoffs, the Romaine complex will provide a reliable supply of electricity that will allow Hydro-Québec to increase its exports to markets outside the province.

In the ongoing refurbishment project at Gentilly-2 nuclear generating station, we proceeded with the engineering, procurement and planning activities begun in 2008. At the same time, we launched phase II of the project to build waste management facilities to store the solid radioactive waste produced during the plant's refurbishment.

As regards technological innovation, Hydro-Québec's research institute (IREQ) and the university chairs associated with it pursued their initiatives to improve overall power system performance. They also helped develop materials used to make batteries, while conducting research on the electrical infrastructure required for ground transportation electrification.

Looking forward, we plan to further step up our efforts to work, with our stakeholders, toward our common development objectives.

Thierry Vandal
President and Chief Executive Officer

The *Sustainability Report 2009* is designed to inform our stakeholders about our environmental, social and economic performance. After consulting with some of these stakeholders, we have decided to present our performance under the following six headings, which encompass our activities and challenges in terms of sustainability:

- Energy Efficiency and Renewable Energies
- Environmental Protection and Quality of Life
- Social Commitment
- High-Quality, Customer-Driven Service
- Human Resources Development
- Contribution to the Québec Economy

Scope

This report presents the issues and impacts of Hydro-Québec's activities in Québec throughout 2009. Reports from previous years are available at the following address:
www.hydroquebec.com/publications/en/enviro_performance

New features

- Integration of certain stakeholders' expectations into the Sustainability Report.
- First performance report on the *Sustainable Development Action Plan 2009–2013*. Elements that contribute to reaching Action Plan targets are identified by the 0 symbol. The number indicated refers to the specific action in the Action Plan.
- Brief description of the public-involvement process applied in conjunction with Hydro-Québec projects.
- Performance indicators accompanied by comments.

Communication tools

The Sustainability Report is Hydro-Québec's main vehicle for reporting on its performance with respect to sustainability. However, other sources of information are also available:

- A Web site on sustainable development provides further details.
- A summary sheet presents 2009 sustainability highlights.
- A section of the *Annual Report 2009* is dedicated to sustainability.

Data verification

Financial data were provided by the Vice-présidence – Comptabilité et contrôle and verified using the same auditing standards as Hydro-Québec's Annual Report. In addition, selected quantitative data were audited independently by Intertek. These facts and figures are identified by the following symbols: ✓ reasonable assurance and ✓ moderate assurance. For more information, see page 41.

Compliance with GRI guidelines

This report draws on the Global Reporting Initiative (GRI) guidelines and its new Electric Utility Sector Supplement, which Hydro-Québec helped produce. These guidelines ensure the credibility and quality of sustainability reporting. The GRI has checked that the report complies with application level B of its six-level guidelines. To learn more, readers can consult the partial GRI index on page 38 of this report or the complete index on Hydro-Québec's Web site.
www.hydroquebec.com/sustainable-development/gri

"Effective participation in decision-making processes by local communities can help them articulate and effectively enforce their common interest." This statement from the 1987 Brundtland Report of the World Commission on Environment and Development highlights the importance of processes involving the public in the search for sustainability.

Hydro-Québec has taken concrete measures to allow its stakeholders to express their expectations and concerns regarding the company's infrastructure projects and other activities. These measures are reflected in the *Sustainability Report 2009*.

Opposite: Double-circuit 230-kV line between Mont-Joli and Sainte-Angèle-de-Mérici (Bas-Saint-Laurent), used to connect wind farms to Hydro-Québec's grid.

OUR APPROACH

SUSTAINABILITY GOVERNANCE

At Hydro-Québec, all phases of governance, from planning to performance reporting, undergo a process of continuous improvement. The company's policies guide its actions and reflect its commitment to the major social, economic and environmental issues currently at play. The principles stated in its policies are defined and implemented through guidelines and codes of conduct which require each individual to be accountable.

With continuous improvement as its objective, the Board of Directors evaluated its own operations, made recommendations, such as updating the *Code of Ethics and Rules of Professional Conduct for Directors, Executives and Controllers of Hydro-Québec*, and approved the Donation and Sponsorship Policy.
www.hydroquebec.com/profile

Other mechanisms, including our environmental and quality management systems, which meet ISO 14001 and ISO 9001 standards, also ensure responsible governance.

Access to information and protection of personal information

Hydro-Québec makes every effort to protect the personal information of its employees, customers and suppliers, while fulfilling its obligations in terms of access to information. In 2009, the company received 302 requests for access to information. Of these, 49 were denied for reasons prescribed by law such as security, industrial or commercial confidentiality, or the presence of personal information.
www.hydroquebec.com/publications/en/act-access

SOCIAL RESPONSIBILITY AND GOVERNANCE

***Corporate Knights* magazine ranked Hydro-Québec as the fifth-best corporate citizen in all of Canada in 2009, based on environmental, social and governance indicators.**

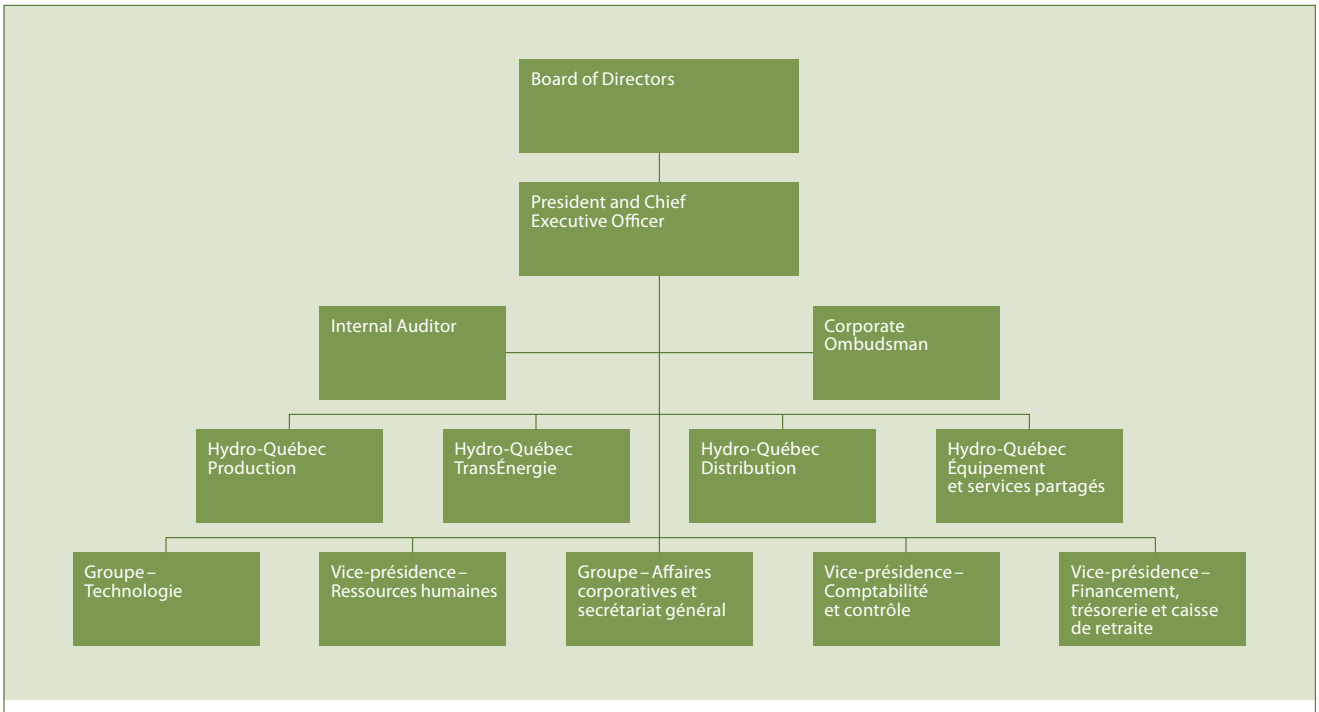
Strategic Plan

Published in July, the *Strategic Plan 2009–2013* confirms Hydro-Québec's commitment to sustainable development. Its three main areas of focus are energy efficiency, renewable energies and technological innovation.
www.hydroquebec.com/publications/en/strategic_plan

STRATEGIC PLAN 2009–2013: MAIN AREAS OF FOCUS

Energy Efficiency	Renewable Energies	Technological Innovation
Electricity is a valuable resource. That is why energy efficiency is at the heart of the company's business objectives. Hydro-Québec has set an ambitious goal: to achieve 8 TWh in energy savings by 2013, with a target of 11 TWh by 2015.	Electricity from renewable sources is an essential component of sustainable development. That is why Hydro-Québec is beginning a new phase of large-scale hydroelectric development, to finish carrying out Québec's energy strategy and to implement the Northern Plan. That is also why the company is continuing to connect wind farms of nearly 4,000 MW resulting from its tender calls of recent years.	Technological innovation is a powerful engine for growth and performance. That is why Hydro-Québec is counting on new technologies to remain on the leading edge of its industry, improve customer services and further enhance its performance. That is also why electric ground transportation is becoming a thrust of the company's growth and innovation efforts.

MAIN ACTIVITIES OF SUSTAINABILITY GOVERNANCE



This chart includes the organizational changes made in January 2010.

Board of Directors

Made up of 17 directors from various regions and industry sectors.

- Approval of 11 corporate policies
- Approval of code of ethics
- Approval or review of the following publications: Strategic Plan, Business Plan, Annual Report, Sustainability Report, semiannual reports on environmental legislative compliance

President and Chief Executive Officer

- Approval of internal guidelines
- Approval of Code of Conduct for employees
- Approval of Sustainable Development Action Plan
- Annual management reviews

Hydro-Québec Production

Hydro-Québec TransÉnergie

Hydro-Québec Distribution

Hydro-Québec Équipement et services partagés

Groupe – Technologie

- Procurement of goods and services
- Adoption and implementation of business plans
- Environmental impact studies
- Maintaining of certified management systems
- Negotiations and partnerships with government authorities
- Partnerships with universities
- Research on the environment, renewable energies and energy efficiency
- Community relations
- Customer relations

Vice-présidence – Ressources humaines

- Adoption and implementation of business plans
- Joint committees
- Supervision and coordination of training, health and safety
- Corporate succession plan
- Employment equity program
- Relations with union leadership

Groupe – Affaires corporatives et secrétariat général

- Access to information and protection of personal information
- Adoption and implementation of business plans
- Governmental affairs
- Legal affairs
- Ethics-related advice
- Supervision, coordination, training and monitoring (environment, community relations, communications)
- Evaluation of public satisfaction
- Sustainable Development Action Plan
- Regional profile of Hydro-Québec's activities
- Annual Report
- Sustainability Report
- Facility security

Vice-présidence – Comptabilité et contrôle

Vice-présidence – Financement, trésorerie et caisse de retraite

- Financial statements
- Business risk management

Corporate Ombudsman

- Mediation for dispute settlement

Sustainable Development Action Plan

Alongside our management systems and internal coordination mechanisms, the *Sustainable Development Action Plan 2009–2013*, published in March, is a tool for achieving sustainability. It expresses our commitment to Québec's Government Sustainable Development Strategy 2008–2013. This Sustainability Report describes our performance with regard to the Action Plan's objectives.

www.hydroquebec.com/publications/en/sd_action_plan

SUSTAINABLE DEVELOPMENT ACTION PLAN 2009–2013

Action	Indicator	Annual target	Achieved to date	2009 results
1 Build hydropower projects and contribute to the development of wind power.	Capacity and energy available	138 MW	138 MW	Romaine complex (p. 15, 26-27, 35) Eastmain-1-A/Sarcelle/Rupert project (p. 16, 27, 35) Chute-Allard and Rapides-des-Cœurs developments (p. 16, 35) Wind power purchased (p. 13)
2 Increase the capacity of existing hydroelectric generating stations.	Gains in peak capacity	35 MW	52 MW	Outardes-4 generating station (p. 13) La Tuque generating station (p. 17)
3 Step up energy efficiency initiatives.	Recurring energy savings	4.5 TWh	4.3 TWh	Energy Efficiency Plan (p. 11) CATVAR project (p. 12, 26) Corporate energy efficiency (p. 12)
4 Continue to help low-income customers.	Number of arrangements with low-income customers[a]	22,200	32,107	Support for low-income customers (p. 31)
5 Reduce transport-related GHG emissions.	Atmospheric emissions from the vehicle fleet	53,500 t	55,016 t	CO_2 emissions from our vehicle fleet (p. 23) Business-related travel (p. 24)
6 Promote reduction at source, reuse and recycling.	Number of at-source reduction or reclamation programs introduced or optimized	2	4	Phase II of the residual materials management program (p. 23) Recycling (p. 23)
7 Establish specifications for sustainable procurement.	Number of product purchasing guides that include sustainable specifications	1	2	Agreement for the purchase of absorbents and spill kits (p. 23) Office furniture purchasing guide (p. 23)
8 Inform and educate employees regarding sustainability and the company's approach. Help employees learn to apply sustainability principles to their daily activities.	Percentage of employees educated	40%	72%	Results (p. 33)
	Percentage of employees having sufficient knowledge about sustainability	10%	10.5%	Results (p. 33)
9 Improve vegetation control methods on the distribution system to better protect biodiversity.	Percentage of vegetation control operations per year with integrated measures for promoting biodiversity	80%	89%	Results (p. 24) Examples of measures (p. 22)
10 Organize sustainable events and promote responsible management of events sponsored by Hydro-Québec.	Average number of contributing measures implemented among those selected for the sustainable management of events	8/25	10.7/25	Result details (p. 23)

a) Including long-term arrangements.

HYDRO-QUÉBEC AND ITS STAKEHOLDERS

Collaboration with stakeholders

A credible sustainable development approach must include ongoing relations with primary stakeholders.

Over the years, Hydro-Québec has developed a variety of effective collaborative and informative mechanisms for gaining insight into its stakeholders' needs and concerns. The company's objective is to reconcile sometimes conflicting expectations, while remaining consistent in its activities and projects.

COLLABORATIVE MECHANISMS WITH STAKEHOLDERS

Stakeholders	Sustainability issues	Examples of informative and collaborative mechanisms	2009 results
Customers	> Help for low-income customers > Customer satisfaction > Increasing energy savings	> Hydro-Québec – consumer associations working group > Table of customer expectations > Survey of customer satisfaction > Mechanism for handling complaints and claims > Partnerships for the Energy Efficiency Plan	> Number of payment arrangements with low-income customers (p. 31) > Customer expectations and priorities (p. 30) > Satisfaction indexes per customer category (p. 31) > AVENUE projects (p. 12)
Communities, including Aboriginal	> Acceptability of projects > Integration of facilities into the environment	> Liaison committees with municipal associations > Teams in charge of community and Aboriginal relations > Support for local initiatives in connection with projects and other activities	> Partnership agreement reached with the Innu community of Ekuanitshit regarding the Romaine project (p. 27) > Public involvement process (p. 25) > Go with the Flow campaign (p. 11) > Integrated Enhancement Program (p. 28)
Employees	> Education and awareness regarding sustainability > Succession > Health and safety > Employee satisfaction	> Corporate succession plan > Workplace health and safety committees > Employee satisfaction survey	> Percentage of employees educated regarding sustainability (p. 33) > Work-related accident frequency (p. 33) > Employee satisfaction index (p. 33)
Suppliers	> Introduction of sustainable specifications in procurement policies > Contribution to the development of Québec's electricity industry	> Partnerships (e.g., sustainable procurement, Energy Efficiency Plan) > Dedicated Web site for suppliers	> Creation of an office furniture buying guide (p. 23) > Partnership under the RECYC-FRIGO Environnement™ program (p. 11) > Procurement within Québec (p. 36)
Governments	> Information sharing > Contribution to Québec's Government Sustainable Development Strategy	> Partnerships and participation in joint committees	> Sustainable Development Action Plan (p. 6) > Biodiversity and protected areas (p. 22)
Investors	> Presentation of the competitive advantage offered by hydropower in the context of climate change	> Periodic meetings with investors on results and risk management > Dedicated Web site for investor relations > Financial Profile	> Financial results (p. 36)
Educational institutions	> Development of a skilled workforce	> Support for universities > Conferences and educational resource kits > Technological partnerships	> Research on greenhouse gases (p. 19) > Support for universities (p. 35) > Funding of IEPE (p. 33) > Youth awareness (p. 29)
Non-governmental organizations	> Establishment of mutually beneficial relationships	> Liaison committee with the Union des producteurs agricoles (Québec farm producers' union or UPA) > Cooperation with consumer associations > Various partnerships > Donations and sponsorships	> Partnership with the Centre québécois d'action sur les changements climatiques (p. 19) > Agreement with the UPA (p. 26) > Donations and sponsorships (p. 29)
General public	> Public satisfaction	> Satisfaction and perception survey > Web site and toll-free line (1 800 363-7443)	> General public satisfaction index (p. 27)
Unions	> Harmonious labor relations	> Health and safety committees > Joint committees	> Joint training on harassment prevention (p. 33)

Transmission line construction can have valuable regional economic spinoffs. For example, when the 230-kV Rimouski–Les Boules line was built, the municipality of Saint-Octave-de-Métis received $135,364 under Hydro-Québec's Integrated Enhancement Program.

In the historic borough of La Prairie (Montérégie), 1.4 km of distribution lines were buried as part of the Québec government program for underground distribution systems in heritage, cultural and tourist sites. This program allows municipalities to enjoy the aesthetic and additional benefits of undergrounding.

INTEGRATION OF STAKEHOLDERS' EXPECTATIONS INTO THE SUSTAINABILITY REPORT

In 2009, Hydro-Québec held meetings with various groups and individuals to understand their expectations with regard to the company's Sustainability Report.

Union des producteurs agricoles (UPA)

Expectations compiled from the Hydro-Québec – UPA liaison committee:

- Discuss self-generation and distributed generation.
- Include data on energy efficiency in the farming sector. (p. 11)
- Present the steps taken to minimize the impact on agricultural land and forests when passing transmission lines. (p. 26)
- Address the contribution and cooperation of farmers and forest product producers when passing transmission lines. (p. 26)

Employees

Expectation expressed in a meeting with employees in the Direction – Expertise et stratégies corporatives en ressources humaines:

- Establish stronger links between human resource development and sustainability. (p. 32-33)

Fédération Québécoise des Municipalités (FQM)

Expectations compiled from the Hydro-Québec – FQM liaison committee:

- Present a definition and long-term vision of sustainability specific to Hydro-Québec.
- Improve the presentation of the energy context that justifies the projects. (p. 12-14)
- Use comparisons with energy sector peers. (p. 33)
- Describe the specific nature of energy efficiency programs which target different customer categories. (p. 11-12)
- Provide more information on community-based energy development projects. (p. 13)
- Provide more information on nuclear and thermal energy. (p. 18-20)
- Discuss economic issues and regional economic spinoffs in greater depth. (p. 34-36)

Opposite: Refurbishment of the underground distribution grid in Lorraine. Cable crew: Sylvain Thériault, Richard L. Robert, Pascal Kegyes and David Filiatrault.

OUR ACHIEVEMENTS

Daniel-Johnson dam, built in 1968, is the world's largest multiple-arch dam.

ENERGY EFFICIENCY AND RENEWABLE ENERGIES

In 2009, the economic slowdown led to a decline in the demand for electricity from Québec's industrial customers. Nonetheless, the second annual progress report on the *Electricity Supply Plan 2008–2017*, submitted to the Régie de l'énergie, forecasts a rise in the need for power and energy by 2017. The increased demand is associated with new industrial projects and the growing use of electric heating. Electricity sales in Québec totaled 165.3 TWh in 2009, and are expected to reach 175.7 TWh in 2013. This forecast includes the 11-TWh target of recurring savings by 2015.

In order to meet domestic electricity requirements, Hydro-Québec is focusing on two main strategies: promoting energy efficiency, and meeting increases in the remaining demand by emphasizing renewables available in Québec. To handle very short-term electricity needs, one-time purchases of electricity and bilateral agreements have been included in the Supply Plan. For short-term power needs, the company relies on commercial measures taken with our customers. For example, we may ask customers that have signed up for the interruptible electricity option to reduce their power demand during peak periods in return for compensation.

PROMOTING EFFICIENT USE OF ELECTRICITY

Hydro-Québec's commitment to energy efficiency started over 50 years ago. Our efforts in the latter part of the 20th century led to significantly higher standards and regulations for buildings as well as for electrical systems and appliances. At the same time, major awareness campaigns helped change the consumption habits of Quebecers.

In 2003, Hydro-Québec introduced the Energy Efficiency Plan which focuses on energy conservation measures. Even though the simplest and least costly measures had already been adopted during previous decades, the programs recommended by the Energy Efficiency Plan were such a success that the targets in energy savings were revised upward several times. Our 2015 target, however, remains unchanged: 11 TWh of recurring savings.

2009 Highlights

Due to the economic situation over the past year, the energy savings generated by our energy efficiency programs in 2009 are slightly lower than those achieved in 2008. However, overall, our 2009 initiatives still led to new savings of 946 GWh. If we exclude the results associated with the CATVAR project, the savings total 912 GWh (compared with 1.1 TWh in 2008), meaning 4.3 TWh in total annual savings generated by the Energy Efficiency Plan.

> Close to 650 partnering agreements were reached with retailers, distributors, manufacturers or their agents, and consumer associations, in order to help us promote energy efficiency programs and support our stakeholders in their energy conservation efforts.

Residential customers

3 > RECYC-FRIGO Environnement™ program, in partnership with Recyclage ÉcoSolutions: Since the launch of this program in March 2008, 186,162 energy-guzzling refrigerators and freezers have been collected throughout Québec and recycled, representing energy savings of 147 GWh. All of the appliances' components are recycled in line with sustainability principles, including the motor oil, mercury and halocarbons—part of the chlorofluorocarbon (CFC) family.
www.recyc-frigo.com/en

3 > Energy Efficiency Retrofit Program for Low-Income Households: In 2009, initiatives carried out for social housing units, housing cooperatives and non-profit organizations generated 24.7 GWh in savings, compared to our objective of 12.1 GWh. The program's most popular features are the installation of electronic thermostats and the use of more efficient lighting products.

> ENERGY WISE Home Diagnostic (launched in 2004): This year, we performed our one millionth diagnostic. Since October 2007, communities located in all 17 administrative regions in Québec have worked with us to promote the Home Diagnostic as part of the Go with the Flow campaign. In exchange, they obtain financial support from Hydro-Québec for environmental, cultural, sports and recreation projects or for community initiatives. As at December 31, 2009, more than 900 communities had agreed to participate in this campaign.
www.hydroquebec.com/residential/diagnostic

Business and large-power customers

3 > Empower Program for Industrial Systems: Despite the difficulties faced by the industrial market in early 2009, the number of projects registered for this program was 17% higher than last year. In fact, with 255 new projects, we broke the record for the most registered projects, set in 2004, by more than 6%. In 2009, this program generated net savings of 42.9 GWh.
www.hydroquebec.com/business/appui_pmi

3 > Lighting component of the Efficient Products program: In the spring, we announced that, as of October 1, we would be reducing the rebate given for the installation of category 2 ballasts. The market quickly reacted to this news and, by the end of 2009, the program had generated net savings of 89.5 GWh, close to four times the target of 23.5 GWh.
www.hydroquebec.com/efficientproducts/eclairage

3 > Farm Equipment component of the Efficient Products program: We promoted the rebates offered to farmers when they buy specific farming products (heat pads, plate heat exchangers, fans) and lighting, motor and refrigeration products. In 2009, farmers saved 10.7 GWh, which is more energy saved than in 2006, 2007 and 2008 combined.
www.hydroquebec.com/efficientproducts/agricole

3 > Large-Power Customers program: 111 efficiency projects were implemented, generating total savings of 129 GWh. To date, 86.5% of customers in this category have participated in at least one of Hydro-Québec's efficiency programs.
www.hydroquebec.com/energywise

3 ENERGY EFFICIENCY PLAN (GWH)

	Target				Actual[a]			
	2006	2007	2008	2009	2006	2007	2008	2009
Energy savings[b]	**523**	**661**	**745**	**985**	**740**	**900**	**1050**	**912**
Residential customers	257	301	352	485	376	359	403	528
Business customers	126	191	222	272	177	197	222	256
Large-power customers	140	170	171	229	187	345	426	129

a) The 2009 actual results include the programs of the Agence de l'efficacité énergétique. Data from previous years may have been adjusted following program evaluation.

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

Energy efficiency of Hydro-Québec's system and facilities

3 > We pursued the CATVAR project (voltage regulation and reactive power control), whose objective is to reduce consumption and energy losses on the distribution system. Tests performed thus far at Pierre-Boucher substation (Montérégie) confirm the potential for approximately 2 TWh in overall savings by 2015. In 2009, we focused on revising the voltage setpoints in all 78 satellite substations.

3 > We finished installing efficient equipment (ventilation, lighting, etc.) in the buildings of Hydro-Québec Distribution, thus completing the second phase in a project aiming at savings of 24 GWh per year. We have moved on to the third phase, which involves installing efficient equipment in all of the company's administrative buildings.

3 > Adjusting the buildings' temperature settings, a process initiated in 2008 and continued in 2009, leads to annual energy savings of 12.3 GWh ✓.

Technological innovation

> The AVENUES (Marketplace Testing for Energy-Efficient Technologies) program continued.

- A new energy efficiency project began with the community of Mashteuiatsh. This type of project could be carried out with other Aboriginal communities in Québec.
- We participated in the creation of a common network of geothermal wells as part of a residential condominium construction project.
- Under the Abondance Montréal and Alstonvale projects, EQuilibrium™ homes were designed according to the zero-energy concept.

> Ongoing research at Hydro-Québec's energy technologies laboratory (LTE) looked at optimizing power consumption through energy management systems, lighting control systems, heating, ventilation and air conditioning systems, etc.

SUSTAINABLE GENERATION

To deal with the environmental and economic threats associated with climate change, worldwide experts agree that renewable energies must be used to supply an increasing portion of the world's energy.

In 2009, representatives of the e8, which brings together the world's 10 largest electricity companies, including Hydro-Québec, met in Rome. They suggested various solutions to fight climate change, such as promoting commercially viable generating options with low to no emissions, including hydropower, wind power, solar energy and nuclear power.

According to data from the International Energy Agency, renewables account for barely 18% of global energy consumption. In Québec, where 98% of electricity is produced from renewable sources, the figure is nearly 50%.[1]

Two renewables—hydropower and wind power—are the source of most of Québec's electricity; a third source, nuclear power, though not renewable, generates no carbon emissions. This explains why GHG emissions from the electricity sector are a mere 2% in Québec, compared to 29% in Ontario and 42% in Alberta.[2]

Hydro-Québec is also involved in research on auxiliary renewables like solar, biomass and geothermal energy, as well as other means of generation such as hydrokinetic power, salinity gradient power and deep geothermal energy.

1. Québec's energy strategy 2006–2015.
2. *National Inventory Report 1990–2007: Greenhouse Gas Sources and Sinks in Canada*, April 2009, Environment Canada.

ENERGY EFFICIENCY PROGRAMS – CUSTOMER CATEGORIES[a]

	2006	2007	2008	2009 ✓
Residential customers (ENERGY WISE Products)				
Electronic thermostats (number)	1,055,503	1,036,115	824,391	722,734
Pool filter timers (number)	165,685	181,774	208,462	147,538
Household appliances – Washers and refrigerators (number)	46,409	152,737	183,787	149,717
Lighting – Compact fluorescent lightbulbs (number)	2,405,538	3,375,387	1,618,071	1,387,184
Residential customers (other)				
Home Diagnostic questionnaires (number)	227,119	39,450[b]	93,438	151,222
Recovered energy-guzzling refrigerators and freezers (number)	not applicable	not applicable	66,493	119,669
Business customers				
Empower programs (number of projects submitted)	636	795	752	681
Large-power customers				
Industrial Analysis and Demonstration program (number of projects accepted)	53	22	23	24
Industrial Initiatives program (number of projects accepted)	157	109	82	75
Building Initiatives program (number of projects accepted)	65	51	40	36

a) May have been adjusted following program evaluation.

b) Drop due to program overhaul.

Les Brasseurs du Nord was the grand prize winner of the ENERGY WISE Competition of Excellence. The microbrewery was recognized for having integrated various energy efficiency measures when it expanded its facilities in Blainville.

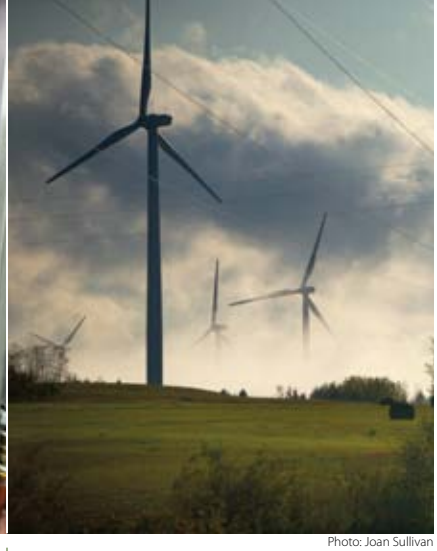
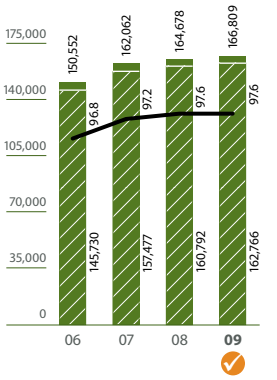


Photo: Joan Sullivan

The Saint-Ulric–Saint-Léandre wind farm delivered its first kilowatthours in November.

Hydroelectricity and total energy generated by Hydro-Québec



HYDROELECTRICITY

Hydropower accounts for approximately 16% of global output, and more than 60% of the power generated in Canada. In terms of annual output, Canada is the world's second-largest hydropower producer,[3] behind China. Hydropower generation is on the rise around the world, especially in Asia and South America. However, according to the International Energy Agency, in order to meet the growing global demand for electricity between now and 2030, 44% of the worldwide generating fleet is expected to be coal-fired, representing a 3% increase compared to 2009.

With water used to generate 98% of Hydro-Québec's output, the company is the largest hydropower producer in North America. In addition to being renewable, hydropower is clean energy. Viewed from a life-cycle perspective, GHG emissions from a generating station with a reservoir are about 40 times lower than those from a gas-fired power plant and 100 times lower than those from a coal-fired plant.

2009 Highlights

2 > Refurbishment carried out at 10 hydroelectric generating stations, including Outardes-4 and La Tuque, yielded gains of 33 MW in 2008 (14 MW at Outardes-4 and 19 MW at La Tuque) and 19 MW in 2009 (at La Tuque), for a total of 52 MW.

> We launched a program for the purchase of electricity generated by small hydro (plants of 50 MW or less), for a total of 150 MW. The goal of this program is to enable local, regional and Aboriginal communities to develop hydropower projects.
www.hydroquebec.com/distribution/en/marchequebecois

> The 33rd annual Conference of New England Governors and Eastern Canadian Premiers was held in Saint John, New Brunswick. A resolution was passed recognizing hydropower as a renewable energy and recommending that Canadian and American legislation grant similar recognition.

WIND POWER

According to statistics published by the Global Wind Energy Council, worldwide wind power capacity rose by 31% in 2009. A third of this increase is attributable to China, which doubled its capacity for the fifth consecutive year. In Canada, installed wind capacity grew by 950 MW, including 128 MW in Québec, representing an increase of 40%.

With 659 MW in installed capacity, Québec ranks second in the country, behind Ontario, in terms of wind power and accounts for close to 20% of Canada's wind farm capacity.[4]

Hydro-Québec is developing wind power to complement its hydropower assets. Given the uncertain and intermittent nature of wind generation, a balancing service is required to offset variations in output. The flexibility of hydropower provides this balance and makes the integration of large quantities of wind power possible.

2009 Highlights

1 > We issued a call for the purchase of two 250-MW blocks of Québec-generated wind power, one reserved for Aboriginal projects and one for other community projects. These projects must have a minimum Québec content corresponding to 60% of the total costs for each wind farm, and at least 30% of the cost of the turbines must be incurred in the Gaspésie–Îles-de-la-Madeleine administrative region.
www.hydroquebec.com/distribution/en/marchequebecois

1 > We received our first deliveries of 127.5 MW from the Saint-Ulric–Saint-Léandre wind farm, the fourth wind farm commissioned in Gaspésie following the 2003 tender call (1,000 MW).

1 > The construction of Le Plateau wind farm in Gaspésie (138.6 MW) was approved.

1 > Public hearings were held on the development of Des Moulins wind farm (156 MW) in the Chaudière-Appalaches region, and De L'Érable wind farm (100 MW) in the Centre-du-Québec region.

3. www.canhydropower.org

4. www.canwea.ca

OTHER RENEWABLE ENERGIES

Hydro-Québec takes an active interest in other renewables, which can be used either for heating or for power generation.

2009 Highlights

Solar energy

> We negotiated a professional services contract between the Agence de l'efficacité énergétique and our energy technologies laboratory (LTE) for the collecting of energy and capacity data from 25 residential installations of solar water heaters in Québec.

Biogas and biomass

> A pilot project is looking into power and heat generated from farm-based biogas through the anaerobic processing of swine slurry. Its goal is to evaluate the profitability and efficiency of such a project in Québec. After several weeks of trials, the mean capacity went from 25 kW to 40 kW.

> We issued a call for 125 MW of power produced in Québec by new cogeneration facilities with biomass accounting for at least 75% of the fuel used to generate the electricity. We accepted eight bids from seven proponents for a total of 60.7 MW.
www.hydroquebec.com/distribution/en/marchequebecois

Salinity gradient power, hydrokinetic power and deep geothermal energy

> Salinity gradient power: We are conducting a critical evaluation of this option and determining operating constraints.

> Hydrokinetic power: We are continuing to explore this option.

> Deep geothermal energy: Data is being collected to determine the potential for this option in Québec.

EMERGING ENERGIES

Salinity gradient power is produced by a turbine driven by the pressure that results when freshwater migrates to saltwater through a semipermeable membrane. A pilot generating station was commissioned in Norway in 2009.

Hydrokinetic power is generated by a turbine submerged in the sea or in a river. A prototype being tested in the United Kingdom has four turbines and a total capacity of 4 MW.

Deep geothermal energy involves extracting the heat accumulated in very deep rock formations (up to a dozen kilometres below ground) and converting it into electric and usable thermal energy. In Iceland, for example, boreholes are used to harness vapor in order to drive turbines and generate electricity. More than 20 countries use deep geothermal energy for power production.

NET ELECTRICITY GENERATED AND PURCHASED BY HYDRO-QUÉBEC (GWH)

	2006	2007	2008	2009
Hydropower generated	145,730	157,477	160,792	162,766
Wind power generated	2.0	1.3	0.4	0.0
Hydropower purchased[a]	36,923	34,542	37,068	31,417
Biomass and waste reclamation power purchased	1,303	1,468	1,439	1,319
Wind power purchased[b]	421	666	810	1,131
Total renewables	**184,379**	**194,154**	**200,109**	**196,633**
Total energy generated	150,552	162,062	164,678	166,809
Total energy purchased	45,684	46,094	41,925	36,372
Total energy generated and purchased	**196,236**	**208,156**	**206,603**	**203,181**
Renewables/total energy generated and purchased (%)	**94**	**93**	**97**	**97**

a) Includes purchases from Churchill Falls (Labrador) Corporation Limited and independent power producers, including McCormick generating station, in which Hydro-Québec acquired a 60% interest in December 2009.

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

1 ROMAINE COMPLEX

Installation of a fish barrier on the Romaine. The goal: to estimate the abundance of the adult salmon population migrating upstream in order to evaluate the impact of the operation of future generating stations.

In 2009, we broke ground on the Romaine complex, which is considered the project of the decade in Québec and the largest infrastructure project in Canada. It is part of the 4,500-MW portfolio of hydropower projects included in Hydro-Québec's Strategic Plan and Sustainable Development Action Plan.

The Romaine project calls for the construction of four generating stations with reservoirs and a permanent 150-km road.

Like all Hydro-Québec projects, it was evaluated on the basis of three criteria.

Profitability

- The Romaine project will yield substantial returns in the export market as well as significant economic spinoffs.

Environmental acceptability

- An ecological instream flow and an ambitious enhancement program extending over 20 years will help maintain or even increase the Atlantic salmon population.
- Close to $175 million will be allocated to studies, mitigation measures and an environmental monitoring program during construction. This number is in addition to the $145 million already invested since the beginning of the draft-design phase. The 2009 investment totals $5 million.
- Due to the steep terrain, the area of the four reservoirs (279 km^2) will be fairly small relative to the quantity of energy generated. In addition, the project will not affect the Archipel de Mingan or the aquatic environment.

Favorable reception by local communities

- Partnering agreements were reached with the regional county municipality of Minganie and the Innu communities of Ekuanitshit, Nutashkuan, Unamen Shipu and Pakua Shipi. Through these agreements, Hydro-Québec will support economic, community and cultural projects, as well as education and the practice of traditional activities.

EXPANSION OF THE TRANSMISSION GRID IN THE MINGANIE REGION

To link the Romaine complex to the main transmission grid, four transformer substations and four lines running a total length of 496 km will be built. The facilities will be commissioned in stages from 2014 to 2020. Studies were performed to determine the line routes and substation locations that would minimize the impact on valued landscapes, inhabited areas, wildlife and plant habitats of particular interest, and wetlands.

The project will cost an estimated $1.15 billion, including $850 million for the lines. The environmental impact statement was filed in 2009. The public hearing by the Bureau d'audiences publiques sur l'environnement (BAPE) is scheduled for 2010.

Project description

Status: under construction

Cost: $6.5 billion

Region: Côte-Nord

Construction: 2009–2020

Installed capacity: 1,550 MW

Planned annual output: 8.0 TWh

Overall economic spinoffs: $3.5 billion for Québec as a whole, including $1.3 billion for Côte-Nord

Complete project fact sheet: *www.hydroquebec.com/romaine* (Available in French only)

2009 Highlights

- Jobs created: 377 workers (monthly average).
- Annual expenditure: $175 million, including $74 million in the region.
- Construction of access roads and workcamps has begun.
- The *Nishipiminan Agreement 2009* was signed with the Innu community of Ekuanitshit.
- Archaeological digs have revealed numerous artifacts. The work at the Bassin des Murailles site uncovered the first signs of prehistoric human presence between the mouth of the Puyjalon and that of the Petite rivière Romaine.

ENVIRONMENTAL MONITORING AT THE ROMAINE COMPLEX – A FEW EXAMPLES

Objective	2009 activity
Maintain recreational and tourism activities	Crossing conditions of the Romaine were established to confirm the siting of a snowmobile bridge.
Maintain Innu land use	Hunting and fishing sites were studied to prevent any problems related to noise and traffic.
Maintain the woodland caribou population	The number of woodland caribou was recorded and the environment's carrying capacity was estimated. The movements of 15 females were tracked by means of transmitter collars.
Monitor greenhouse gas emissions associated with worksite activities	Emissions associated with fuel consumption by motor vehicles, helicopter flights and the life cycle of concrete were monitored.

1 EASTMAIN-1-A/SARCELLE/RUPERT PROJECT

Sarcelle powerhouse.

On November 7, 2009, the Eastmain-1-A/Sarcelle/Rupert project completed a crucial step: the commissioning of the Rupert diversion.

The project includes the construction of Eastmain-1-A (768 MW) and Sarcelle (150 MW) powerhouses, as well as the diversion of part of the Rupert's waters to these generating stations and on to Robert-Bourassa, La Grande-2-A and La Grande-1 in the La Grande complex, located further north.

Project description

Status: under construction

Cost: $5.0 billion

Region: Nord-du-Québec

Construction: 2007–2012

Installed capacity: 918 MW

Planned annual output: 8.7 TWh

Economic spinoffs: $2.9 billion for Québec as a whole, including $640 million for Nord-du-Québec

Complete project fact sheet: *www.hydroquebec.com/rupert/en*

2009 Highlights

- Jobs created: 4,209 person-years; Crees accounted for 11% of the workforce.
- Annual expenditure: $1,134 million, including $240 million in the region.
- Digs went on at 29 archaeological sites, including a major location that contains 20 areas of human occupation spanning more than four millennia.
- Spawning grounds and wetlands were developed, and water bodies were stocked with lake sturgeon.
- A new drinking-water plant was built in Waskaganish.
- Approximately 6,100 ha of land were cleared, corresponding to 30% of the flooded land area.
- An inventory was made of 189 beaver colonies. Trapping in 113 of these colonies allowed Cree tallymen to benefit from significant economic spinoffs.
- Aquatic habitats in the reduced-flow section of the Rupert and traditional use of the river by Aboriginals were maintained.
- We began carrying out our commitments with 35 tallymen (workcamp relocation, remedial works, etc.).

1 CHUTE-ALLARD AND RAPIDES-DES-CŒURS DEVELOPMENTS

Rapides-des-Cœurs generating station.

The commissioning of Chute-Allard and Rapides-des-Cœurs generating stations was completed in 2009 (last three units at Chute-Allard and last five at Rapides-des-Cœurs).

In addition to the Chute-Allard (62 MW) and Rapides-des-Cœurs (76 MW) developments, this project calls for the construction of an access road and a permanent bridge over the Saint-Maurice.

Project description

Status: in operation

Cost: $1.0 billion

Region: Mauricie

Construction: 2005–2009

Total installed capacity: 138 MW

Total annual output: 0.9 TWh

Economic spinoffs: $292 million for Mauricie

Complete project fact sheet: *www.hydroquebec.com/cardc* (Available in French only)

2009 Highlights

- Jobs created: 264 person-years; Aboriginals accounted for 9% of the workforce.
- Annual expenditure: $49 million, including $23 million in the region.
- We carried out remedial works to rebuild 1,730 m^2 of brook trout habitat which was damaged by the spring flood. We raised the weirs and used coarser aggregate to reduce the risks of gravel displacement.

INTERCONNECTION WITH ONTARIO

Outaouais substation.

In 2009, the 1,250-MW interconnection with Ontario was commissioned, enabling us to send more power to that province and onward to New York State and the U.S. Midwest. The interconnection includes Outaouais substation and the 230-kV line that links this converter substation to the Ontario grid. It also includes the 315-kV Chénier–Outaouais line, currently under construction, which will reinforce the new substation and give the region a more secure supply of power.

Project description

Status:
Part I – 315/230-kV Outaouais substation and extension of the 230-kV line to Ontario: commissioning of the substation and line was completed in November
Part II – Chénier–Outaouais line: under construction

Cost: $654 million

Region: Outaouais

Construction:
Part I: 2006–2009
Part II: 2009–2010

Interconnection capacity: 1,250 MW

Complete project fact sheet: *www.hydroquebec.com/interconnexion* (Available in French only)

2009 Highlights

- We installed a lighting system at Outaouais substation that reduces the brightness of the tall lighting masts by 50%.
- The landscaping design was completed.
- We carried out a study to better integrate Chénier substation once the Chénier–Outaouais line is connected.
- Special-status plant species were monitored after the land was cleared in winter 2008–2009 in preparation for construction of the Chénier–Outaouais line.
- We began erecting towers and installing conductors on the Chénier–Outaouais line. To improve the visual integration of the line, whenever possible we are building the towers next to those on the Chénier–Vignan line. We will also be using reduced-footprint towers on farmland.

GATINEAU SUBSTATION

Gatineau substation, returned to service in 2009.

The rebuilt Gatineau substation now comprises a control building made from prefabricated parts.

Project description

Status: in operation

Cost: $19 million

Region: Outaouais

Construction: March to December 2009

Voltage: 120 kV

2009 Highlights

- Since Gatineau substation is located in a residential area, the control building was constructed from parts that were prefabricated in a plant. This new practice cut down considerably on the noise and dust normally generated by building projects, in addition to reducing the construction time by four months.
- The switching room is located inside the building, thus limiting the noise emitted by circuit-breaker operation.
- All recyclables (paper, cardboard, plastic) were recovered with the help of the Gatineau community's services.

Osprey nest near Lemare dam (Eastmain-1-A/Sarcelle/Rupert project).

ENVIRONMENTAL PROTECTION AND QUALITY OF LIFE

Whether it is a question of reducing atmospheric emissions, complying with environmental legislation, mitigating the impacts of its operations, encouraging sustainable practices or preserving resources, heritage and biodiversity, Hydro-Québec relies on ISO 14001–compliant environmental management systems and trained, environmentally responsible employees to reduce its environmental footprint.

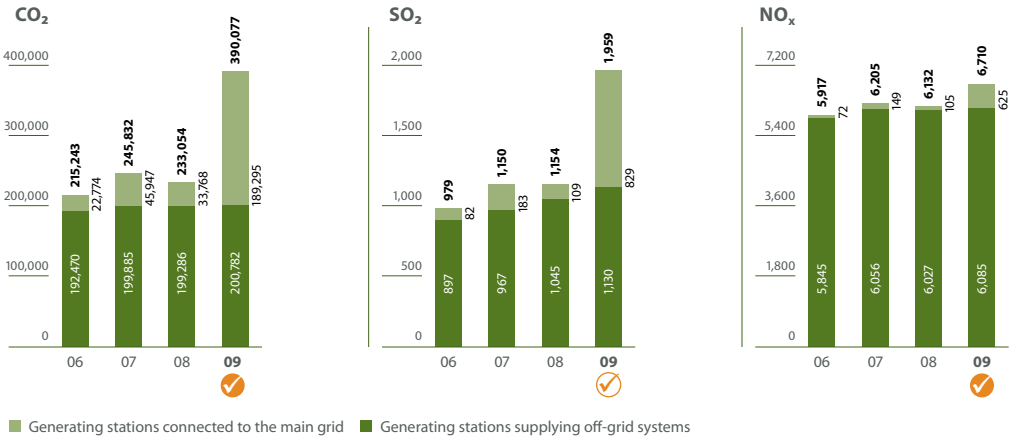
Today, global climate change is the foremost environmental challenge. The Québec government is committed to reducing GHG emissions, and Hydro-Québec plays a key role in achieving this objective. According to statistics published by the Ministère du Développement durable, de l'Environnement et des Parcs, total GHG emissions in Québec account for 11.8% of emissions across Canada. Since the majority of Quebecers heat with clean electricity, per capita emissions in Québec are half the level in the rest of the country.[1]

POWER GENERATION, PURCHASES AND EXPORTS

According to Environment Canada,[2] in 2007 Hydro-Québec generated 29% of the total electricity produced in Canada and 0.21% of the power industry's CO_2 emissions. In addition to meeting domestic electricity demand with renewable energy sources, by selling power outside Québec the company helps to reduce GHG emissions throughout northeastern North America.

1. www.mddep.gouv.qc.ca/changements/ges/2007/inventaire2007.pdf (Available in French only)
2. *National Inventory Report 1990-2007, Greenhouse Gas Sources and Sinks in Canada*, April 2009, Environment Canada.

Atmospheric emissions from Hydro-Québec thermal generation operations (tonnes)



Most of these emissions are from thermal generating stations supplying off-grid systems. The higher emissions in 2009 are mainly related to increased use of Tracy thermal power plant (Montérégie) owing to the unavailability of two units at Churchill Falls generating station and one unit each at La Grande-3 and La Grande-4, as well as the limited winter output of some generating stations in the Manic-Outardes complex.

2009 Highlights

> Atmospheric emissions from Hydro-Québec power generation were significantly lower than the average for neighboring provinces and states in Canada and the U.S.: 65 times less CO_2 (carbon dioxide), 51 times less SO_2 (sulphur dioxide) and 35 times less NO_x (nitrogen oxides). ✓
www.hydroquebec.com/sustainable-development/documentation/pdf/etiquette_achats_en.pdf

> Net power sales outside Québec replaced thermal output, thereby avoiding nearly 9 million tonnes of CO_2 emissions.

> We continued an extensive study comparing net GHG emissions from Eastmain 1 reservoir with natural environment emissions over a 100-year period. Funded jointly with the Canadian Foundation for Climate and Atmosphere Sciences, this study is being conducted in collaboration with the Université du Québec à Montréal, McGill University, Environment Canada and Environnement Illimité. In 2009, gross emissions from the reservoir fell for the third consecutive year to 119,000 t CO_2 eq., a 44% decline from 2008 and 87% from 2006. Emissions are comparable to those from natural aquatic environments, indicating that the effect of reservoir impoundment lasts less than 10 years. The preliminary findings show that GHG emissions from Québec reservoirs are 35 to 300 times lower than those from thermal power plants of equivalent capacity. The study will run until 2012 and the first results will be known in 2010.
www.eastmain1.org

> Our voluntary declaration to Environment Canada reported 1,543 kg of sulphur hexafluoride (SF_6) emissions and 303 kg of tetrafluoromethane (CF_4) emissions for 2008. These emissions are similar to 2007 levels.

> The company provided financial support and actively participated in 11 climate change projects with the Centre québécois d'action sur les changements climatiques, an umbrella association of Équiterre, the Regroupement national des Conseils régionaux de l'environnement du Québec, the Conseil régional de l'environnement de Montréal, Enjeu, Vivre en ville and the Centre de l'environnement – Écobâtiment.

AGREEMENT WITH TWO VERMONT POWER UTILITIES

Hydro-Québec signed a memorandum of understanding with two large power utilities in Vermont in March 2010 regarding power supply to Vermont customers. This agreement will provide stable, clean, competitively priced renewable power through 2038.

Vermont plans to enact legislation to designate large-scale hydro, which would include Hydro-Québec power, as renewable. The renewable-energy credit revenues for Hydro-Québec power delivered over the Highgate Interconnection would be shared between the Vermont companies and Hydro-Québec.

At the Montreal International Auto Show 2010, the launch of Canada's largest all-electric vehicle pilot project was announced. As many as 50 Mitsubishi i-MiEVs will be tested in Boucherville.

In environmental follow-up studies for the Romaine project, substrate quality is monitored in Atlantic salmon spawning grounds.

GENTILLY-2: CLEAN, RELIABLE ELECTRICITY

Like all other nuclear power plants, Gentilly-2 generates electricity without GHG emissions. Since it is located near major load centres, the plant also supports transmission system stability and reliability. It has been operating safely for over 25 years and is kept continuously running by a staff of 750 employees.

Gentilly-2 accounts for about 5% of Canada's nuclear waste, including low- and medium-activity waste and irradiated fuel. For the short term, this waste is being stored safely on the premises, where it is carefully monitored by Hydro-Québec. Studies on long-term disposal of irradiated fuel are being conducted by the federal Nuclear Waste Management Organization.

www.hydroquebec.com/gentilly-2 (Available in French only)

2009 Highlights

> The project team was created for the power plant refurbishment scheduled for 2011 and 2012; engineering and procurement continued, as did analysis of the lessons learned from the refurbishment of Point Lepreau nuclear power plant in New Brunswick. The refurbishment project will create about 800 jobs and generate economic spinoffs of $600 million province-wide, including $200 million in the area.

> The solid radioactive waste management facility is being expanded to store waste produced during power plant refurbishment.

> Environmental radioactivity monitoring (groundwater, precipitation, ambient air, sediment, fodder, vegetables, maple syrup, etc.) shows that in many samples, the radioactivity readings are often below the detectable limit for laboratory equipment. Measurable concentrations are within regulatory limits and diminish quickly as the distance from the discharge point increases.

> Radiation exposure for members of the public most likely to be exposed to plant waste is estimated at 0.12% of the maximum exposure set by the Canadian Nuclear Safety Commission.

GROUND TRANSPORTATION ELECTRIFICATION

In Québec, 40.7% of GHG emissions come from transportation. Road transportation alone generates 32.5% of all Québec emissions.[3] In line with the province's Climate Change Action Plan, Hydro-Québec promotes greater use of electricity for personal and public transportation. A number of related initiatives in the Strategic Plan were completed in 2009.

www.hydroquebec.com/transportation-electrification

2009 Highlights

> The company is participating in a feasibility study for a trolleybus project by the Société de transport de Laval as well as a feasibility study by the Agence métropolitaine de transport to convert commuter trains to electricity. Hydro-Québec also agreed to provide financial support for phase 2 studies of Montréal's streetcar project.

> In June, Hydro-Québec signed a three-year agreement with Ford Motor Company and the Electric Power Research Institute in the U.S. under which it is participating in a North American test and demonstration program for plug-in hybrid electric vehicles. Hydro-Québec is the only Canadian company taking part in these tests.

> At the Montreal International Auto Show 2010, Hydro-Québec and Mitsubishi Canada announced the fall launch of Canada's largest all-electric vehicle pilot project. Under this $4.5-million project, to be carried out in collaboration with the city of Boucherville and local companies, as many as 50 Mitsubishi i-MiEV electric vehicles will be tested. The tests will help Hydro-Québec plan the necessary charging infrastructure for homes, offices and public places.

3. www.mddep.gouv.qc.ca/changements/ges/2007/inventaire2007.pdf (Available in French only)

Technological innovation

> The company's TM4 subsidiary produces and markets drivetrains based on technology developed by Hydro-Québec's research institute (IREQ). TM4's latest-generation electric motors, the MΦTIVE™ series, have the best power-to-weight ratio in their class, with industry-leading efficiency and autonomy. The Indian automaker Tata Motors and its Norwegian subsidiary Miljo Grenland/Innovasjon selected these motors for the hundred all-electric vehicles undergoing trials as part of a demonstration program in Europe.

ENVIRONMENTAL COMPLIANCE AND ENVIRONMENTAL FOLLOW-UPS

The company's ISO 14001–certified environmental management systems support strict compliance with environmental legislation. Hydro-Québec also conducts detailed environmental follow-ups in areas affected by its projects and operations.

2009 Highlights

> The number of noncompliance notices fell to 20 in 2009 from 31 in 2008. No major violations were reported.

> Environmental follow-ups were conducted at the Portneuf, Sault aux Cochons, Sainte-Marguerite-3, Toulnustouc and Eastmain-1 facilities. At Eastmain-1, monitoring focused on lake sturgeon in the Rivière Eastmain and Eastmain 1 reservoir: spawning and larvae drift, telemetric monitoring of sturgeons tagged from 2005 to 2008 and monitoring of fish pass use. The success rate for all fish observed at the pass entrance is nearly 64%.

> Environmental follow-ups were carried out for the Rivière Manouane diversion, Péribonka generating station (Saguenay–Lac-Saint-Jean) and Chute-Allard and Rapides-des-Cœurs generating stations (Mauricie). At Péribonka, the developed wetland has been used by waterfowl for breeding and rearing.

> This was the last year of ice-cover follow-up during operation of Rocher-de-Grand-Mère generating station (Mauricie). The follow-up showed that operations at the station had no significant impact on ice cover, even at high outputs.

WATER BODY MANAGEMENT

Québec has half a million lakes and 4,500 rivers covering about 12% of the province.[4] Hydro-Québec operates 26 large reservoirs and 571 dams and control structures to preserve the water bodies' quality and share their use.

A number of studies are conducted to ensure that the temporary increase in fish mercury levels, a consequence of reservoir impoundment, does not have any negative impact on water quality or aquatic organisms. Fish consumption guides are updated regularly in cooperation with local public health agencies, so that people can continue to eat fish safely.
www.hydroquebec.com/sustainable-development/documentation/mercury.html

2009 Highlights

> We participated in various watershed committees with other users, including those in Gatineau, Saint-Maurice, Montmorency and Les Escoumins.

> A brochure on water management in Lac Témiscouata was published for local residents and users.

> A follow-up was conducted on the drinking water project in the Eastmain Cree community in cooperation with the Cree Nation.

> The follow-up on fish mercury levels in the western part of the La Grande complex confirmed that for non-piscivorous fish of standard length, mercury levels returned to the natural average about 20 years after impoundment. For standard-length piscivorous fish, the trend in average levels indicates that mercury concentrations should return to natural levels after 20 to 30 years for walleye and after 30 to 35 years for northern pike.

> Minor changes were made to the fish consumption guide for the Rivière Manouane area as a result of the follow-up of mercury levels and concerns expressed by Health Canada regarding fish consumption by pregnant women. The new version enables pregnant women to eat fish while keeping their mercury exposure below the limits recommended by Health Canada.

SOIL AND GROUNDWATER MANAGEMENT

In addition to its ongoing contaminated site rehabilitation programs, Hydro-Québec endeavors to reduce the environmental and human-health risks of its operations when selecting and managing treated-wood poles used to carry distribution and transmission lines. When large quantities of poles are stored for a long period, leaching of wood preservatives from the poles may contaminate the soil.

2009 Highlights

> The Centre de services partagés conducted 30 operations on 26 different sites: environmental assessments, characterizations, rehabilitations and environmental follow-ups. The pole storage yard in Laval and the gas station in Anjou were rehabilitated.

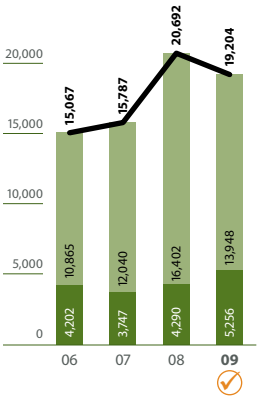
> Environmental assessment or characterization was performed at the Kuujjuarapik and Inukjuak (Nord-du-Québec) and Blanc-Sablon (Côte-Nord) thermal power stations.

> The follow-up on soil remediation by natural attenuation was completed at the Pontard telecommunications site (Nord-du-Québec). When remediation ended, a total volume of 115 m^3 of contaminated soil had been excavated. Analysis of the ditch walls indicates that the site is now free of residual contamination.

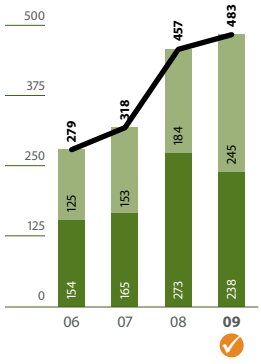
> Protective measures were implemented at the Laval and Saint-Jérôme pole storage yards. The pole storage area in Laval has a high-performance bituminous geomembrane protected by a blanket of recycled rubber. The storage area in Saint-Jérôme (Laurentides) is paved with asphalt and runoff is channeled into an underground filtration system. Two more pilot tests are scheduled in 2010.

4. www.gouv.qc.ca/portail/quebec/pgs/commun/portrait/territoire/?lang=en

Vegetation control along transmission line rights-of-way (ha)



Vegetation control on dikes and dams (ha)



Area treated mechanically
Area treated selectively with herbicides
Total area treated

Hydro-Québec uses less than 0.4% of the pesticides sold annually in Québec.

Hydro-Québec was awarded first prize in the 2009 *Leaders in Sustainable Transportation* contest organized by the Centres de gestion des déplacements de Montréal. The company encourages its employees to use more environmentally friendly modes of transportation than single-occupant cars. Among the initiatives were free bicycle tune-ups.

Technological innovation

> A prototype method developed by the Hydro-Québec research institute uses a less toxic preservative to treat wood poles; performance trials in actual weather conditions are planned. This method will be marketed in partnership with a world leader in wood preservation.

BIODIVERSITY PRESERVATION

In its operations and projects, Hydro-Québec endeavors to preserve biodiversity and considers the physical, biological and human components of the environment as well as their regulatory protection. In accordance with the corporate biodiversity strategy, the company also helps to restore threatened and vulnerable species in Québec.

In addition, the company plays an active role in the network of protected areas in Québec and assesses sites that could become protected areas. In 2009, the Québec government increased the protected land area to 135,763 km^2, or 8.14% of the area of the province, thereby exceeding the 8% objective that had been set.

Biodiversity preservation also involves responsible maintenance of 33,244 km of transmission line rights-of-way, 120,000 hectares of which are wooded and a high percentage of which are in remote areas. In addition, more than 100,000 km of overhead distribution lines cross farmland, forests, and residential and urban areas, mainly in the southern part of the province.

Vegetation control is necessary to ensure power system reliability and worker and public safety, maintain clearance between line conductors, provide access to lines and protect equipment from forest fires. It is subject to a standard issued by the North American Electric Reliability Corporation (NERC), which governs power transmission in North America.

2009 Highlights

> Baffles were installed to increase flow velocity and prevent fine sediment accumulation in a brook trout spawning ground as part of a dike stabilization project at Bersimis-2 generating station (Côte-Nord).

> Eel migration was monitored at Beauharnois generating station (more than 61,000 eels used two fish passes) and at Chambly dam (619 eels used the fish pass). These are the best results at Beauharnois generating station (Montérégie) since 1994.

> The presence and movements of turtles in Beauharnois canal were studied.

> The identification guide for threatened and vulnerable plant species was updated. This guide is for project designers, service agents and forest technicians working on various distribution system projects.

> A vegetation-control study using competing plants was conducted by the Université de Montréal plant biology research institute. The results indicate that application of a blend of selected seeds limits tree growth in line rights-of-way. The study also revealed that cutting in rights-of-way and treating the stumps with herbicide reduces invasion by incompatible species and fosters the establishment of compatible species.
www.hydroquebec.com/vegetation/en

> The integrated vegetation control program for transmission line rights-of-way was updated to meet NERC requirements. Herbicide use still causes concern, but efforts are being made to explain Hydro-Québec's method of ensuring that these chemicals are used in a responsible manner.

9 > Measures intended to reinforce biodiversity in distribution line rights-of way were monitored (selective clearing, debris windrowing and snag preservation). The findings show that these measures are useful for maintaining and improving habitats in or near rights-of-way.
www.hydroquebec.com/trees

SUSTAINABLE PRACTICES

Through energy efficiency, reduction at source, reuse, recycling and sustainable transportation, Hydro-Québec encourages its employees to reduce the environmental footprint of their activities and the company's operations.

2009 Highlights

6 > Over 13,000 tonnes of hazardous residual materials were recovered, and 95% were recycled. ✓

6 > At Carillon generating station (Montérégie), 1,060 m^3 of chips from floating wood debris were recycled. This initiative will be expanded to other facilities in 2010.

6 > In the second phase of the residual materials management program, recycling stations for various materials have been set up in meeting and training rooms in administrative centres serviced by an outside recycling firm.

6 > An internal recovery and recycling program for compact fluorescent lightbulbs was implemented.

6 > Used or noncompliant clothing was recovered in cooperation with the business and recycling training centres (CFER) in Alma and Drummondville. The centres help youths in difficulty by enabling them to develop job skills.

6 > A recovery service was set up to recycle precious metals contained in electronic components. Parts were previously collected by scrap dealers.

7 > A three-year agreement worth $750,000 was signed with two suppliers for the purchase of absorbent materials and spill response kits. In addition to other items, we chose absorbent pads made of 100% recycled unbleached cotton fibre to replace the universal absorbents made of polypropylene, a petroleum derivative. Cotton is a renewable material and the cotton pads cost 10% less than the synthetic pads, with comparable efficiency.

CO_2 emissions from Hydro-Québec's vehicle fleet (tonnes)

Overall emissions have increased 1.1% since 2008, due to the use of more vehicles.

7 > A new office furniture procurement guide contains specifications on materials, chemical contaminant emissions that could affect ambient air quality, repossession of furniture by suppliers and recovery of packaging materials.

10 > Sustainable measures were applied at 51 internal and external events ✓. Among them were the use of electronic media for communications to reduce paper use, location selection to limit travel, promotion of public transit and active modes of transportation, reduction of food waste, and donation of surplus food to charities.

6 PROCUREMENT, RECOVERY, REUSE AND RECYCLING OF RESIDUAL MATERIALS

	Procurement	Recovery				Notes
	2009	2006	2007	2008	2009	
Printer cartridges and accessories (units)	23,728 ✓	13,297	15,823	18,040	13,199	
Cell phones and accessories Purchased (units) Recovered (kg)	2,816	not applicable	not applicable	3,737	178 ✓	Purchases equal the number of units replaced and activated The 2008 statistic includes quantities accumulated for several years
Insulating oil (litres) Internal reuse (%)	1,010 ✓	4,748,375 94.5	4,367,048 91.4	2,989,876 92.7	4,574,504 ✓ 88.4	Regenerated oil sufficed for almost all requirements
Metal (tonnes)	not available	7,801	8,309	13,123	8,227 ✓	In 2008, far more ferrous metals were sold because of dismantling projects. The 2009 statistic excludes 450 tonnes of power-line hardware
Wooden pallets (units)	not available	4,100	11,647	13,015	20,266 ✓	Employees are more aware of the importance of recycling
Paper and paperboard (tonnes)	447	871	1,002	1,474	1,166 ✓	Paper purchased: 447 tonnes Paper recycled: 425 tonnes ✓
Ring binders (units)	13,008 ✓	12,869	12,907	16,660	18,191 ✓	

5 > The Carpooling Network is an organization that works as a facilitator for people interested in carpooling for the commute to work and business-related travel. We formed 68 teams for 171 employees.

5 > Two hundred light-duty vehicles, or 44% of the light-duty vehicles replaced during the year, were replaced with more energy-efficient models ✓.

5 > Based on the results of a pilot project conducted in 2009, a switch will be installed on the bucket command console of about forty bucket trucks in 2010 to turn off the truck motor while work is in progress.

5 > Speed limiters installed to limit heavy-truck speed to 90 km/h could reduce CO_2 emissions for Hydro-Québec Distribution by about 2%.

LAND USE

Hydro-Québec wishes to maintain a pleasant, attractive living environment: its facilities visually blend in with their surroundings and measures are implemented to reduce equipment noise.
www.hydroquebec.com/municipal/hq_peut_aider.html (Available in French only)

2009 Highlights

> Systematic internal environmental assessments integrated a computer application dedicated to transmission line projects to apply mitigation measures that have been tried and tested over the past 30 years.

> The telecommunications tower on Mont Kékéko in Rouyn-Noranda (Abitibi-Témiscamingue) was dismantled and its reflector panel was converted into a nature observatory named Le Nid de l'épervier (hawk's nest).

> Vaudreuil-Soulanges substation (120/25 kV) and the Dorion–Rigaud line loop (Montérégie), which connects this substation to the grid, were designed to avoid impacts on wetlands and took farming, landscaping and noise-related concerns into account. Some rare plant species were relocated and an underpass for amphibians was constructed beneath the access road.

> In the Saint-Sacrement neighborhood in the city of Québec, we participated in Cité verte, a project of 800 housing units that incorporates sustainable urban development measures: mixed use, green spaces, walking and cycling facilities, urban heating system connected to a thermal power plant fuelled by forest biomass, use of light-emitting-diode (LED) traffic signals and innovative residual materials management.

> A dozen kilometres of distribution lines were buried in several Québec municipalities under various system undergrounding programs.
www.hydroquebec.com/municipal/programme_enfouissement_reseaux.html (Available in French only)

> Mont-Tremblant substation (Laurentides) was commissioned; it is surrounded by a 45-m buffer zone and night lighting will not interfere with operation of the neighboring astronomy observatory.

> Over $2 million was invested in the ongoing equipment noise reduction project at Lévis substation. The project will take several years to complete (Chaudière-Appalaches).

> We signed 211 contracts for public or private use of Hydro-Québec property around its facilities. In addition to road construction, development of gardens and public parks, and creation of park-and-ride lots for public transit, the company also allows the use of its rights-of-way for certain residential and business purposes.

PRESERVING HERITAGE

Hydro-Québec endeavors to protect and enhance the built, technological, natural and archaeological environment.

2009 Highlights

> In advance of the distribution system undergrounding project along the main street in the Aylmer section of Gatineau (Outaouais), archaeological digs uncovered an Aboriginal hearth dating from the mid-19th century.

> The Canada Research Chair on Built Heritage at the Université de Montréal assessed 36 of Hydro-Québec's administrative buildings that have heritage value; this is a first for the company's real-estate properties.

> The built and technological heritage of Drummondville, Chute-Hemmings and Robert-Bourassa generating stations was inventoried. These generating stations contain original equipment of great historical value; some of it is still in operation.

> The outer envelope of Chute-Hemmings generating station was refurbished: masonry was restored in keeping with the original features to retain the heritage value of the building.

9 PERCENTAGE OF VEGETATION CONTROL OPERATIONS THAT INCORPORATE BIODIVERSITY PROTECTION MEASURES (%)

	2009	2010	2011	2012	2013
Target	80	82	85	87	90
Result[a]	89 ✓				

a) The measure used in 2009 is pruning. Other measures will be adopted in 2010.

Montérégie has some 7,200 farms, and farmland covers 75% of the region. Every year, Hydro-Québec organizes meetings with local branches of the Union des producteurs agricoles to keep them informed, discuss planned projects and listen to their concerns.

SOCIAL COMMITMENT

With operations throughout the province, Hydro-Québec strives to take into account the expectations and concerns of its stakeholders in carrying out its projects and activities.

PROJECT ACCEPTABILITY AND COMPENSATION FOR IMPACTS

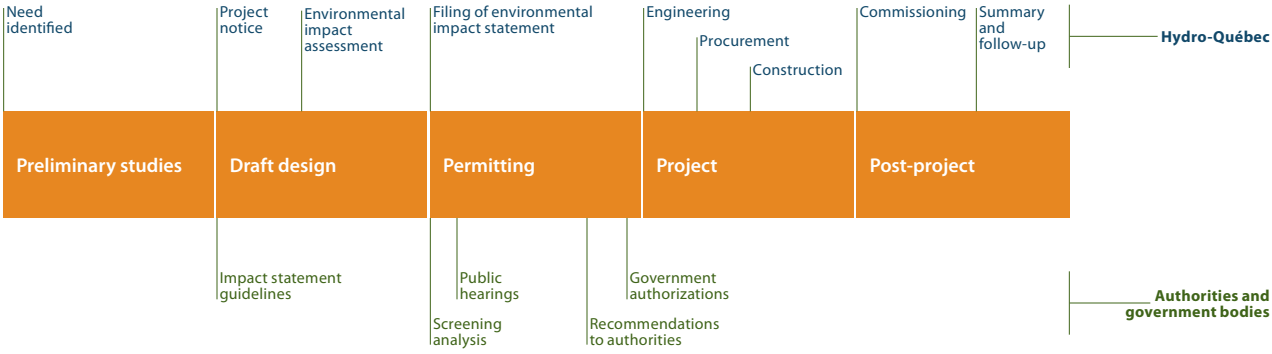
All stages of infrastructure projects undergo a voluntary public consultation process. In each region, a community relations team maintains a dialogue with stakeholders throughout the process. The company can therefore take the host community's values, interests and concerns into consideration and make desired adjustments to projects whenever possible. The voluntary public consultation process includes the following steps:

- General information – project description, rationale and planned studies
- Information and consultation regarding project variants
- Presentation of the solution with the least impact based on the social, environmental, technical and economic data compiled

Depending on the project stage and specific features, various communication methods are used, including information and discussion panels, information bulletins, technical committees, private and public meetings, and so forth. During the construction phase, communication takes the form of open-house events and distribution of information on regional economic spinoffs to designated representatives of the host community. Upon project completion, the company reviews compliance with its commitments to the host community and the results of the environmental follow-ups.

Major generation and transmission projects are also subject to an environmental assessment procedure that includes a public hearings process. After a directive is issued by the Ministère du Développement durable, de l'Environnement et des Parcs, an environmental impact assessment must be conducted. When the study is declared compliant, the Bureau d'audiences publiques sur l'environnement begins its process. If information is requested from the Minister, public hearings are held. This consultation process enables many parties to express their concerns.

Main stages of a major generation or transmission project



Hydro-Québec, with a team of specialists, endeavors to address the questions raised.

For the Romaine project, Hydro-Québec obtained government approvals within the planned time because of the meticulous studies and the experience of employees who were able to respond to concerns raised by the public and by government authorities.

2009 Highlights

> Our liaison committees with the Union des municipalités du Québec and the Fédération Québécoise des Municipalités celebrated their 10th anniversary. These committees have developed partnerships, solved problems, improved approaches and explored innovative methods in a multitude of areas related to relations between Hydro-Québec and municipalities. The anniversary was commemorated with a special edition of their annual reports outlining achievements since 1999.

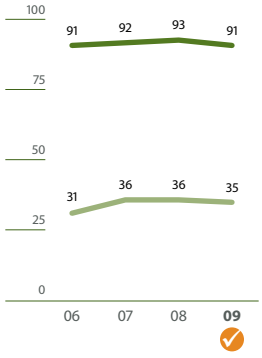
> The liaison committee with the Union des producteurs agricoles (in existence for 13 years) empowered a technical committee to review the agreement on the passage of transmission lines through farmland and forests. This agreement promotes dialogue on infrastructure siting, choice of mitigation measures for construction and maintenance impacts, and compensation method for landowners.

EXAMPLE OF COMMUNITY DIALOGUE

	Project	Region	Achievement
1	Romaine complex	Côte-Nord	Activities to make the jobsite acceptable to the community included jobsite tours by elected officials, community organizations and the media, community relations follow-up meeting, public meetings, job fair and media interviews.
	315/25-kV Saint-Bruno-de-Montarville substation and 315-kV line	Montérégie	Activities to obtain the greatest possible consensus with community representatives on the substation location and line route included the project announcement and general information, six public consultation meetings and two information bulletins.
	120-kV Beauceville–Sainte-Marie line	Chaudière-Appalaches	A technical committee was formed of community representatives to optimize the proposed solution and make it more acceptable. Hydro-Québec reviewed its project and decided to build a double-circuit line about 30 km long between Beauceville and Sainte-Marie, a solution favorably received by the community. This is also the best environmental choice because it allows an existing line to be dismantled and it affects few properties.
	230/25-kV Limoilou substation	Capitale-Nationale	Sustained cooperation with the city of Québec on the siting and design of this urban substation.
3	CATVAR Project	Montréal	Activities to make the project acceptable to the community included a project presentation to a committee of the managers of 19 Montréal boroughs and 8 cities on Montréal's West Island.
	120-kV supply line for the Canadian Malartic mining project	Abitibi-Témiscamingue	Different variants were proposed to stakeholders (municipalities, government departments, interested organizations, landowners) and information bulletins were published.
	161/25-kV Waconichi substation and 161-kV line	Nord-du-Québec	Presentation to the tallymen and their families: the project will improve the power supply to the Cree community of Mistissini.

Inauguration of the Tommy-Neeposh scenic lookout, in memory of this family man who died in 2008 and was a tallyman on land used in the Eastmain-1-A/Sarcelle/Rupert project.

Overall public satisfaction (%)



Surveys were conducted by SOM. The sample consisted of 10,837 telephone interviews. Data were collected for 13 months from December 2008 to December 2009. The margin of error for the annual results is ± 1% (19 times out of 20).

FONDS RECYCFLUO

The Fédération Québécoise des Municipalités and the company Peintures récupérées du Québec received a $100,000 grant from Hydro-Québec to establish the Fonds RecycFluo. The goal of this initiative—the first of its kind in Canada—is to help municipalities that want to enable consumers to recycle compact fluorescent lightbulbs. As at December 31, 2009, 159 municipal organizations representing 389 municipalities had taken advantage of the service and 15,722 compact fluorescents had been recovered, diverting 47,166 mg of mercury from landfill sites.

RELATIONS WITH ABORIGINAL COMMUNITIES

Québec is home to 11 Aboriginal nations in 55 communities. A number of these communities are in areas with high hydropower potential, and Hydro-Québec develops mutually beneficial partnerships with them, particularly through formal agreements. Their knowledge of the natural environment contributes to environmental inventories and the development of mitigation measures.

2009 Highlights

1 Eastmain-1-A/Sarcelle/Rupert project (Nord-du-Québec)

> Weh-Sees Indohoun Corporation, a Cree–Hydro-Québec joint venture, oversees sport hunting and fishing by workers and other users to promote wildlife and ecosystem conservation during project construction.

> Twice a year, the Environmental Monitoring Committee tours six Cree communities to meet with tallymen and land users directly affected by the project. During the meetings, other Cree community members are invited to learn about the project and environmental follow-up activities by attending public meetings or open-house events.

> The quarterly *Boumhounan Newsletter* was circulated and a radio report was broadcast to inform Cree communities about project progress.

> We met with 428 students in four Cree communities (Eastmain, Nemaska, Waskaganish and Wemindji) affected by this project to inform them about the benefits of hydroelectricity, the environmental impacts and the protective measures planned by Hydro-Québec.

1 Romaine complex (Côte-Nord)

> Committees were created to act as discussion and collaboration forums with the Innu, and carry out environmental studies and follow-up at the Romaine Complex.

> The *Nishipiminan Agreement 2009* was signed to reconcile the interests of Hydro-Québec and the Ekuanitshit Innu. This agreement provides funding for economic, cultural and community development projects, and will enable the Innu to participate in project construction and environmental follow-up, promote the practice of traditional activities and meet training needs.

> A fund established under the agreements signed with the Innu communities will be used to promote practice of the Innu way of life (*Innu Aitun*).

Employment and training

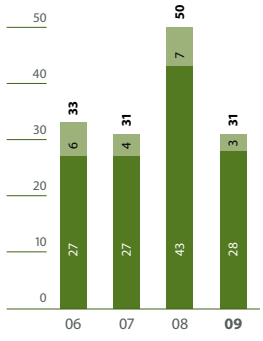
> 89 employees received training on Hydro-Québec–Aboriginal relations.

> Nine permanent Cree employees were hired, for a total of 41 Crees employed by Hydro-Québec in Baie-James.

> Hydro-Québec paid $90 million to procure goods and services from Aboriginal companies, organizations and independent workers. Work for the Société d'énergie de la Baie James was valued at $268 million.

Secondary school students working in Bois-de-Liesse nature park eradicated European buckthorn, a highly invasive shrub that was replaced with native trees and shrubs. This biodiversity restoration and enhancement project received funding from the Fondation Hydro-Québec pour l'environnement.

Electricity-related accidents among the public (number)



Deaths Electrical accidents

Deaths – source: Bureau du coroner.

Electrical accidents – source: external data compiled by Hydro-Québec.

INTEGRATED ENHANCEMENT PROGRAM

In addition to harmonizing transmission facilities with their surroundings, Hydro-Québec earmarks part of their cost for host community development as compensation for residual impacts. The Integrated Enhancement Program (IEP) provides financial support for various local initiatives involving the environment, land use or regional development. Since this program was introduced in 1985, Hydro-Québec has invested $103 million in 1,029 initiatives.

www.hydroquebec.com/municipal/pmvi.html (Available in French only)

2009 Highlights

> Wemindji substation: $142,747 was contributed to develop a baseball field in the municipality of Wemindji (Nord-du-Québec).

> Péribonka–Simard line and Simard substation: $222,308 was contributed to build a seniors' residence in the municipality of Saint-Honoré (Saguenay–Lac-Saint-Jean).

> Rimouski–Les Boules line: $74,894 was contributed to the city of Rimouski to refurbish the Rivière Rimouski pier (Bas-Saint-Laurent).

PUBLIC HEALTH AND SAFETY

Year after year, Quebecers rate security at the company's facilities at the top of their expectations for Hydro-Québec. In 2009, the importance of this aspect was rated 9.38 on a scale of 10. Public satisfaction with this item was 7.7 in 2009, compared to 7.6 in 2008.

2009 Highlights

> A security awareness campaign that invites employees and the public to report any situation that poses a risk to employee safety or the security of the company's assets resulted in 2,029 calls in 2009, compared to 1,741 in 2008.

> A message was broadcast on French and English television to promote safety near power lines and an ad campaign on precautions to take when pruning trees was continued.

www.hydroquebec.com/security

FUNDING AND FINANCIAL COMMITMENTS UNDER THE INTEGRATED ENHANCEMENT PROGRAM

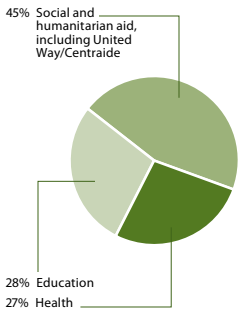
	2006	2007	2008[a]	2009
Number of initiatives	11	24	8	26
Hydro-Québec funding and commitments ($'000)	1,143.6	4,533.8	208.2	1,652.7
Community funding and commitments ($'000)	549.4	2,866.9	106.6	1,719.3
Project value ($'000)	1,693.0	7,400.7	314.8	3,372.0

a) The 2008 figures were adjusted to include an agreement signed in 2008, but recorded in 2009, for a $29,384 initiative.

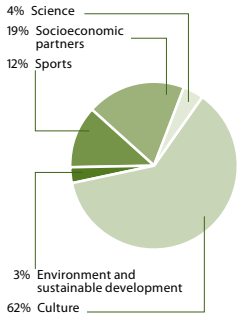
Hydro-Québec's annual funding and commitments vary depending on the number of transmission projects in progress. In 2009, nearly half of the IEP-eligible transmission projects involved connecting wind farms in the Gaspésie–Îles-de-la-Madeleine and Bas-Saint-Laurent regions to the main grid.

Lookout built with funding from Hydro-Québec by the regional county municipality of Argenteuil on the site of Carillon generating station in the Outaouais region.

Breakdown of donations



Breakdown of sponsorships[a]



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

SOCIAL, CULTURAL AND HUMANITARIAN COMMITMENT

Fondation Hydro-Québec pour l'environnement

Since it began operation in 2001, the Fondation Hydro-Québec pour l'environnement has supported communities that are implementing practical initiatives to protect, restore and enhance their natural surroundings in a spirit of sustainable development.

2009 Highlights

> In conjunction with the city of Montréal, a project was developed to restore and enhance urban biodiversity on part of Mont Royal and in the Île-de-la-Visitation and Bois-de-Liesse nature parks. These areas were threatened by an extremely invasive alien shrub, European buckthorn. After this shrub was eradicated by trained secondary school students, native trees and shrubs were planted to help restore plant and animal habitats. A buckthorn monitoring and follow-up system has been established and awareness activities were conducted to explain the impact of invasive plants on natural environments to users of the three parks. The Foundation contributed $121,300.

www.hydroquebec.com/fondation-environnement/en/index.html

FUNDING FOR ORGANIZATIONS AND THE ARTS

Hydro-Québec's efforts go beyond harmonious integration of its operations: it actively contributes to various aspects of social, cultural and community life. In 2009, the company reviewed its donation and sponsorship policy in order to take its stakeholders' expectations into account.

2009 Highlights

> Donations and sponsorships to support organizations and projects amounted to $22.5 million, including $3.2 million for the United Way/Centraide campaign, in addition to the $3.0 million contributed by company employees and pensioners.

> Hydro-Québec's art collection supports talented Québec artists working in various media. The collection acquired 27 new works of art and is displayed in recently renovated areas of the company's head office building.

Youth awareness

For many years, Hydro-Québec has offered teachers at all elementary and secondary school levels various tools to help them educate children about electricity and how to behave safely around it.

www.hydroquebec.com/teachers

2009 Highlights

> An educational kit, *Les Zénergétics – À la découverte de l'énergie et de l'environnement*, was distributed to over 47,000 children age 10 to 12.

> The *Envirovolt* game kit was distributed to more than 3,000 children age 9 to 12.

> The *00Watt* Classroom Toolkit was given to 19,000 children age 10 to 12.

COMMITMENTS OF THE FONDATION HYDRO-QUÉBEC POUR L'ENVIRONNEMENT

	2006	2007	2008	2009
Number of projects supported	22	15	20	19
Number of regions involved	12	8	12	11
Total amount of commitments ($'000)	1,009	1,493	1,302	1,021

Hydro-Québec participates in a number of events, such as energy-efficiency initiatives, to inform the public about its services.

HIGH-QUALITY, CUSTOMER-DRIVEN SERVICE

Hydro-Québec's fundamental reason for being is to provide a high-quality product and services suited to its various clienteles. The company strives to fulfill its mission with stable, competitive rates, fair treatment for its customers and a secure, reasonable return to its shareholder.

The global economic recession continued in 2009, affecting all of the company's customers to varying degrees. During the year, Hydro-Québec proposed measures to the Régie de l'énergie to support certain customer categories that are experiencing financial difficulty. Electricity is an essential service, so the company paid special attention to low-income households whose electricity bill accounts for a substantial portion of the family budget.

CUSTOMER EXPECTATIONS AND SATISFACTION

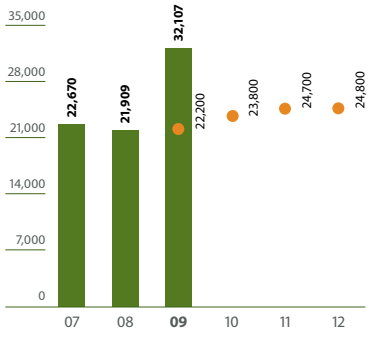
In a constantly changing market, Hydro-Québec uses various tools to determine customer expectations and detect any shifts in those expectations, identify steps to take to maintain or boost customer satisfaction, and measure its ongoing progress.

With regard to our product—electricity delivery—customers' basic expectations relate to security, reliability, metering, meter reading, the environment and future supply. Service-related expectations focus on price, telephone response, billing, respect, fairness and energy efficiency programs.

To maintain an average telephone-response time comparable to the North American industry average, Hydro-Québec is enhancing its interactive services and continuing to optimize its operations to improve the customer experience and facilitate problem solving with the first call.

Operator Sylvain Sincerny at the Saint-Jérôme distribution control centre obtains fast access to system status and keeps track of the available operating margin at all times in order to detect real-time risks. The main goal is good customer service.

4 Agreements for low-income customers (number)



2009 was a difficult year for the economy and consequently, collections activities increased.

SATISFACTION INDEXES (SCALE OF 10)

- **Residential Customers: 7.39**
- **Commercial and Agricultural Customers: 7.38**
- **Business Customers: 7.40**
- **Large-Power Customers: 9.21**

RESIDENTIAL CUSTOMERS

To improve services for low-income customers, Hydro-Québec works closely with consumer associations. A working group set up in 2000 experiments with new approaches and suggests more suitable services. It was instrumental in the development and introduction of long-term payment arrangements customized to customers' ability to pay. A dedicated telephone line enables consumer associations and elected representatives' offices to submit cases of customers in very precarious situations so that payment arrangements can be tailored to suit their circumstances.

2009 Highlights

- Improved access to our customer services reduced the average telephone-response time to 190 seconds from 379 in 2008.
- 4 32,107 payment arrangements were reached with low-income customers for a total of $189 million. Of these, 3,491 arrangements targeted debt reduction and, when necessary, lowered the current payment for energy consumption.
- For residential customers overall, payment arrangements helped to settle 257,287 overdue accounts totaling $515 million.
- 9,559 complaints and claims were recorded and dealt with in 2009 (12,826 in 2008); 219 appeals were filed with the Régie de l'énergie.
- Service agreements were maintained with organizations that help new immigrants with payment difficulties, in their own language.
- Over 82,000 customers chose to receive online bills: a total of 3,149,713 bills were not printed by Hydro-Québec this year.
- The Time It Right pilot project continued with 2,200 residential customers in Saint-Jean-sur-Richelieu, Sept-Îles, Val-d'Or and Trois-Rivières to determine whether a rate option based on time-of-day and season-of-use encourages customers to shift some of their consumption to low-demand periods. The preliminary results show that participants realize modest gains.

BUSINESS AND LARGE-POWER CUSTOMERS

Industrial, commercial and institutional customers with a power demand of 5 MW or more consume 38% of the electricity delivered in Québec.

Hydro-Québec uses various measures to personalize relations with major customers, such as designating a specific commercial officer to handle their accounts.

2009 Highlights

- The Québec government authorized Hydro-Québec to enter into special agreements with industrial customers (power consumption greater than 50 MW) affected by the recession. This measure resulted in savings of $21 million for these customers during the year.
- Hydro-Québec asked the Régie de l'énergie for authorization to create an account for deferred expenses to facilitate the application of the Load Retention Rate designed for Rate L customers experiencing financial difficulties. To be eligible, customers must demonstrate, among other things, that they obtained nonrefundable deductions from their other suppliers or partners and that steps will be taken to improve their profitability.

Technicians Carl Cyr and Robert Dubois work side by side in the telecommunications control centre. The objective is knowledge transfer.

HUMAN RESOURCES DEVELOPMENT

A company's economic, environmental and social performance depends first and foremost on having well-qualified, dedicated employees. The day-to-day activities of the people in the workforce make a significant difference. To ensure that its employees do the right thing spontaneously and enthusiastically, Hydro-Québec fosters their awareness, motivation and skills development.

The company's commitment to sustainable development is a major asset for recruiting and retaining human resources, given the labor shortage that the power industry is facing because of the many experienced workers who are retiring.[1]

EMPLOYEE MOTIVATION AND SATISFACTION

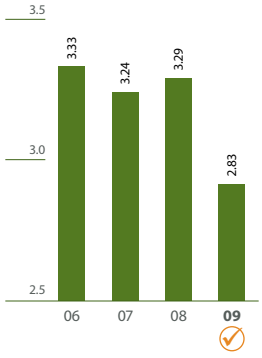
Listening to its employees enables Hydro-Québec to adapt to the expectations of the new generations of recent hires. For instance, young employees have very different expectations from baby boomers. Independence and innovation are important to them, as are an improving work/family balance and sincere recognition of personal contributions.

1. Electricity Sector Council.

Employee motivation and satisfaction (scale of 10)

In 2009, 15,052 participants representative of the job groups and units were surveyed, mostly by e-mail.

Work-related accident frequency[a]



In 2008, the frequency for all injury categories combined for corporate members of the Canadian Electricity Association was 2.88.

a) $\frac{(\text{Lost time} + \text{Medical assistance}) \times 200{,}000}{\text{Hours worked}}$

2009 Highlights

> New hires rated their satisfaction with employee induction and integration procedures at 8.4 out of 10, the same result as in the previous two years. Induction and integration of new employees are key factors in ensuring workforce renewal and employee loyalty.

> More than 550 employees participated in harassment prevention training offered by Hydro-Québec and the trade union (SCFP 1500). At least 350 managers have been trained in harassment prevention.

> The *Mérite de l'environnement et du développement durable* contest recognizes employees for their outstanding actions or accomplishments. In 2009, nine projects were rewarded; among them, Project Manager Bernard Cyr was recognized for his work on rehabilitation of the small hydroelectric generating station in Sault-Mathurine, Haiti.

HYDRO-QUÉBEC WORKFORCE

	2006	2007	2008	2009
Permanent workforce (number)	19,116	19,459	19,297	19,536
Average age	45.8	45.7	45.6	45.4
Permanent employees eligible for retirement (number)	2,845	2,860	2,835	3,036
Retirements (number)	664	758	896	1,072
New hires (number)	1,360	1,151	1,252	1,844
Percentage of new employees under age 35 (%)	64	67	66	70
Target group representation (%)				
Women	30.6	31.3	30.9	30.6
Aboriginals	0.7	0.7	0.7	0.8
Ethnic minorities	1.0	1.0	1.0	1.0
Visible minorities	1.8	1.9	2.0	2.2
People with disabilities	1.6	1.5	1.4	1.3

SKILLS DEVELOPMENT AND SUCCESSION PLANNING

Given the faster pace of retirements and the intensified demand for skilled workers, Hydro-Québec has deployed a series of measures to maintain a skilled and competent workforce and its know-how. Internships provide a way to renew skills. The company therefore intends to continue funding for the Institute of Electrical Power Engineering (IEPE), give its internship program quantitative annual targets, make diversity an integral part of Hydro-Québec's succession management strategies and prepare future managers for various management levels.

2009 Highlights

> Funding of $2 million was granted to the IEPE for 2009–2013 and 52 students received scholarships and travel funding. A total of 125 IEPE graduates were recruited by Hydro-Québec between 2002 and 2009 (18 in 2009).

8 > Annual internal survey: 72% of employees said they had an excellent or good understanding of the concept of sustainability, compared to 58% in 2006. In addition, 81% of employees consider that their work contributes to sustainable development.

> Employee training program funding was 3.9% of the payroll.

8 > The percentage of employees with specific sustainable development training or training that includes sustainable development was 10.5% as at December 31, 2009.

> There were 241 university internships in 2009, versus 163 in 2008 (excluding IEPE). In a survey, 79% of interns said they hoped to apply for a job or another internship at Hydro-Québec. Their satisfaction with their overall internship content was 8.6 out of 10.

OCCUPATIONAL HEALTH AND SAFETY

Hydro-Québec has its employees' well-being at heart, and will continue to provide a healthy and safe work environment.

2009 Highlights

> 10,715 employees participated in workplace health and safety training or awareness and health promotion activities.

> In occupational safety, there were no employee fatalities on the job. Regretfully, three employees of contractors died on construction sites.

> A confidential employee assistance service is available free of charge and is provided by experienced professionals who are always available anywhere in Québec. In 2009, the usage rate for this program fell slightly compared to 2008, from 7.88% to 7.64%.

> Early in the year, the emergency biohazard response plan instituted by Hydro-Québec was rolled out to ensure service continuity in the event of an influenza A (H1N1) pandemic.

In 2009, Hydro-Québec worked on over 1,000 projects, including 800 in the transmission sector, like the Chénier–Outaouais line project. This volume of activity represents $2.7 billion.

CONTRIBUTION TO THE QUÉBEC ECONOMY

The electricity industry is of capital importance in Québec. In the forefront of the province's industry, its economic impact is twice that of agriculture and forestry, pulp and paper or aeronautics, and eight times greater than the mining industry.[1]

The vitality of Québec's electricity industry is largely founded on Hydro-Québec's operations, which contribute an estimated 3% to the province's gross domestic product. The company's procurement policy promotes acquisition of Québec goods and services, at the best possible cost and in compliance with strict procurement criteria.

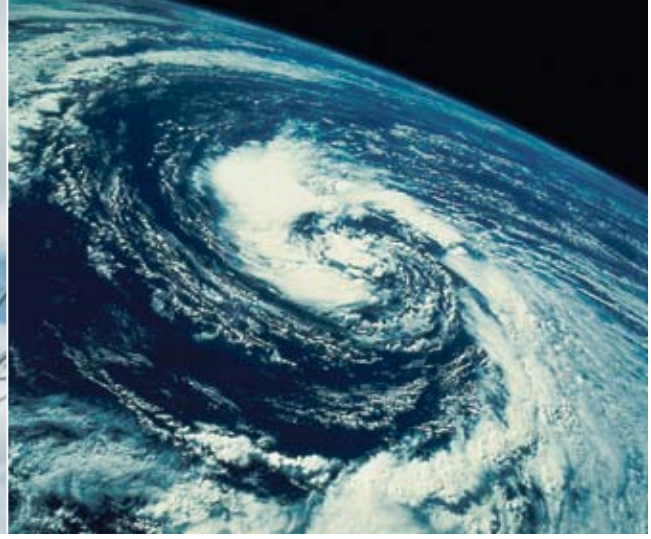
ECONOMIC SPINOFFS

In response to the severity of the financial crisis and the resulting economic slowdown, many countries decided to invest in infrastructure projects to stimulate their economies. In Québec, major power generation and transmission projects announced before the recession are generating considerable economic spinoffs throughout the province.

For example, we estimate that investments of $4 billion to $5 billion per year will be made from 2009 to 2013. These investments include generating fleet expansion and refurbishment, transmission and distribution system development, maintenance and improvement, and investments under the Energy Efficiency Plan. In all, from 2009 to 2013, Hydro-Québec's business, including these investments, as well as operating costs and purchases from private producers, will represent about 271,400 person-years in direct and indirect jobs.

1. Institut de la statistique du Québec.

The Shandong Electric Power Research Institute purchased the marketing and industrial development rights for our LineROVer robot to produce, sell or modify this technology, which has many maintenance applications.



Hydro-Québec is a founding member of the Ouranos consortium, created in 2001 to study regional climatology and adaptation to climate change. The consortium brings together some 250 experts from Québec, the rest of Canada and abroad, including a number of scientists from our research institute, IREQ. In March 2009, the company renewed its cooperation agreement with Ouranos for five years.

2009 Highlights

1 > An agreement to maximize the regional economic spinoffs of the Eastmain-1-A/Sarcelle/Rupert project was signed with ComaxNord. To date, over $188 million has been disbursed to contractors and workers in the Nord-du-Québec region, including $40 million in 2009. A contract clause motivating general contractors to consider local subcontracting generated one-third of the spinoffs.

www.comaxnord.com (Available in French only)

1 > As part of the Romaine project, a regional economic spinoff committee was set up to promote participation by Côte-Nord companies and workers, including the Innu of Ekuanitshit, Nutashkuan, Unamen Shipu and Pakua Shipi. Business practices were introduced to encourage local subcontracting, tender calls reserved for local companies and contracts negotiated directly with Innu businesses.

1 > In collaboration with the Comité de maximisation des retombées économiques régionales des grands projets du Saguenay–Lac-Saint-Jean, the regional economic spinoff optimization committee, encouraging results were achieved: 42.8% in regional economic spinoffs and 80% local hiring for the Péribonka project, 34% in regional economic spinoffs for the Chute-Allard and Rapides-des-Cœurs project and, as at December 31, 2009, over $349 million in local contracts and purchases for the Eastmain-1-A/Sarcelle/Rupert project.

SHARING OUR EXPERTISE

On the international scene, Hydro-Québec maintains close relations with a number of large organizations to contribute to knowledge development and forge business partnerships.

2009 Highlights

> As part of a research project on greenhouse gases (GHGs) coordinated by UNESCO and the International Hydropower Association, Hydro-Québec organized a workshop on methods for measuring GHG emissions from reservoirs. The workshop attracted specialists from 10 countries.

> Hydro-Québec headed up a working group of e8 experts to share experiences, knowledge and the best technical, commercial and regulatory practices on the use of electric vehicles.

> Hydro-Québec hosted the 2009 conference of the Association québécoise de la gestion de la végétation to promote the exchange of information between various vegetation-control specialists. The company was able to share the procedures it instituted following vegetation-related outages on its transmission system in 2008 and 2009. Scholarships were also awarded to university students.

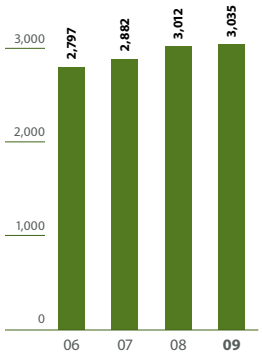
SUPPORTING UNIVERSITIES

By providing funding for universities, including research chairs, Hydro-Québec fosters student excellence, furthers the advancement of knowledge in science and technology, encourages university expertise and participates in training a highly qualified, promising workforce.

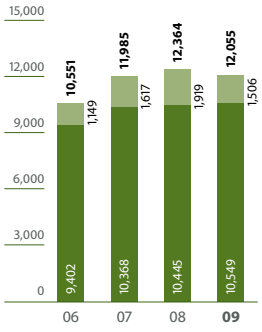
CONTRIBUTIONS, COMMITMENTS, CHAIR ENDOWMENTS AND RESEARCH CONTRACTS ($'000)

2006	2007	2008	2009 ✓
8,927.5	8,380.3	8,892.5	9,599.5

Income from continuing operations ($M)



Revenue from electricity sales ($M)



Revenue from electricity sales outside Québec
Revenue from electricity sales in Québec

Every year, over 100,000 people visit Hydro-Québec facilities and other locations operated as partnerships. Carillon generating station is one of the facilities that the general public can visit free of charge.

INDUSTRIAL TOURISM

Aware of the interest that its facilities have for tourists from Québec and elsewhere, Hydro-Québec opens its doors to visitors in 11 regions. High-quality visitor infrastructures stimulate regional tourism.

FINANCIAL RESULTS

In 2009, Hydro-Québec posted very good financial results despite a difficult economy.

> Income from continuing operations rose $23 million to $3,035 million, a new record. Net income was also $3,035 million.

> Electricity sales totaled $12,055 million, down $309 million. Sales were $10,549 million in Québec and $1,506 million outside Québec.

> Net exports accounted for 10% of sales volume and generated 22% of net income.

> Dividends declared to our shareholder were $2,168 million. Dividends for 2006 to 2009 totaled $8,857 million.

NUMBER OF VISITORS TO HYDRO-QUÉBEC FACILITIES

	2006	2007	2008	2009
Facilities for the general public[a]	60,071	60,852	62,303	66,112
Facilities for the general public operated as partnerships[b]	83,176	80,425	70,051	72,799
Research and development facilities[c]	5,157	6,266	3,234	3,038
Total	**148,404**	**147,543**	**135,588**	**141,949**

a) Facilities that the general public can visit free of charge. *b)* Sites managed in partnership that are open to the general public but charge an entrance fee.
c) Sites that have no tourism infrastructure or staff and are not open to the general public (examples are Hydro-Québec's research institute, IREQ, and its energy technologies laboratory, LTE).

HYDRO-QUÉBEC'S CONTRIBUTION TO THE QUÉBEC ECONOMY

	2006	2007	2008	2009
Capital tax ($M)	261	278	202	132[a]
Public utilities tax ($M)	230	240	302	188
Water-power royalties ($M)	not applicable	263	546	567
Municipal, school and other taxes ($M)	36	35	37	35
Procurement of goods and services (inside and outside Québec) ($M)[b]	2,673	2,586	2,660	2,925
Percentage of goods and services procured from Québec companies	92	94	89	87
Direct jobs sustained by procurement, including procurement outside Québec (person-years)	14,000	13,000	11,462	12,333

a) The lower capital tax is the result of the lower tax rate: 0.24% in 2009, versus 0.36% in 2008. *b)* Excludes procurement by Société d'énergie de la Baie James.

HYDRO-QUÉBEC GENERATING FACILITIES – 2009

Facilities	Number	MW	Net output (GWh)[b]	
Hydroelectric generating stations[a]	60	34,499	162,766	97.6%
Nuclear power plant	1	675	3,596	2.2%
Thermal power plants[a]	27	1,634	446	0.3%
Wind farm	1	2	0	0%
Total	**89**	**36,810**	**166,809**	**100%**

a) One hydroelectric generating station and 23 of the 27 thermal power plants are not connected to the main Hydro-Québec grid.

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

Hydro-Québec also has access to almost all the output from Churchill Falls generating station (5,428 MW).

All Global Reporting Initiative performance indicators, including the new Electric Utility Sector Supplement, are dealt with fully on the Hydro-Québec Web site at:
www.hydroquebec.com/sustainable-development/gri

The following list shows the indicators that are covered in the *Sustainability Report 2009*.

Disclosure Number[a]	G3 Indicator	Page
ECONOMIC PERFORMANCE INDICATORS		
EC1	Economic value generated and distributed	36, 39
EC2	Climate change	7, 12-14
EC6	Procurement from local suppliers	34-36, 39
EC7	Local hiring	27, 35
EC8	Infrastructure investments that benefit local communities	28
EC9	Indirect economic impacts	15-17, 28-29, 34-36, 39
ENVIRONMENTAL PERFORMANCE INDICATORS		
EN1	Materials used by weight or volume	23
EN2	Use of recycled materials	23
EN4	Indirect energy consumption	14
EN5	Internal energy efficiency	12
EN6	Energy efficiency of products and services	12
EN7	Reduction of indirect energy consumption	22, 24
EN11	Land near biodiversity areas	15-17, 22
EN12	Description of impacts on biodiversity	15-17, 22
EN13	Habitats protected or restored	15-17, 22
EN14	Management of impacts on biodiversity	15-17, 22
EN16	Greenhouse gas (GHG) emissions	19, 39
EN17	Other relevant GHG emissions	19
EN18	Initiatives to reduce GHG emissions	19-21, 23-24
EN20	Emissions of NO_x, SO_2 and other pollutants	19
EN22	Total quantity of waste	23
EN23	Number and volume of spills	39
EN26	Environmental impact management	19-24
EN28	Non-compliance with environmental regulation	21, 39
EN29	Environmental impacts of transportation	22, 24
SOCIAL PERFORMANCE INDICATORS		
Labor Practices and Decent Work		
LA1	Total workforce	33, 39
LA6	Joint health and safety committees	33
LA7	Work-related injuries, diseases and absenteeism	33
LA8	Assistance with serious diseases	33
LA10	Training	33
LA11	Skills development and training	33
LA13	Diversity and equal opportunity	33
Society		
SO1	Management of impacts on communities	24-29
Product / Service Responsibility		
PR1	Life-cycle analysis for health and safety of products/services	28
PR5	Measurement of customer satisfaction	31
PR8	Customer privacy	4

Disclosure Number[a]	G3 Indicator	Page
ELECTRIC UTILITY SECTOR SUPPLEMENT		
Company Profile		
EU1	Installed capacity	37
EU2	Net energy output	37
Economy – Management Approach		
EU7	Demand-side management programs	11-12
EU8	Research and development activity and expenditure	12, 14, 20, 22
Social – Society – Management Approach		
EU19	Stakeholder participation in decision-making process	25-26
Social – Product Responsibility – Management Approach		
EU23	Access to electricity and customer support services	30-31
EU24	Practices to address language and cultural barriers	31
Social – Product Responsibility – Performance Indicator		
EU25	Injuries and fatalities involving company assets	28

a) Disclosure number in bold: core indicator
Disclosure number in regular type: additional indicator

	2006	2007	2008	2009
ENVIRONMENT				
Net electricity generated by Hydro-Québec (GWh)	150,552	162,062	164,678	166,809
Total net electricity generated and purchased (GWh)	196,236	208,156	206,603	203,181
Renewable energy/Total energy generated and purchased (%)	94	93	97	97
Atmospheric emissions of CO_2 from thermal electricity generation (tonnes)	215,243	245,832	233,054	390,077
Atmospheric emissions of SO_2 from thermal electricity generation (tonnes)	979	1,150	1,154	1,959
Atmospheric emissions of NO_x from thermal electricity generation (tonnes)	5,917	6,205	6,132	6,710
Atmospheric emissions of CO_2 from the vehicle fleet (tonnes)	56,683	54,082	54,426	55,016
Production of low- and medium-activity radioactive waste (m^3/reactor)	40	16	39	90
Energy Efficiency Plan: energy savings (result/target) (GWh)	740/523	900/661	1,050/745	912/985
Employees governed by an environmental management system (number)	18,292	18,469	18,228	18,757 ✓
Environmental non-compliance notices (number)	17	32	31	20
Spills reported to the authorities (number)	574	624	583	529
Insulating oil recovered (thousands of litres)/Internal reuse (%)	4,748/94.5	4,367/91.4	2,989/92.7	4,575/88.4
Area of transmission-line rights-of-way treated mechanically (%)	72.1	76.3	79.3	72.6
Area of dikes and dams treated mechanically (%)	44.7	48.0	40.3	50.7
New underground hookups (%)	25	28	30	32
SOCIAL				
Public satisfaction index (very and somewhat satisfied) (%)	91	92	93	91
Contracts and procurement – spinoffs for Aboriginals ($M)	156	237	310	358
Funding and financial commitments under the Integrated Enhancement program ($M)	1.1	4.5	0.2	1.7
Fondation Hydro-Québec pour l'environnement ($'000)/Projects funded (number)	1,009/22	1,493/15	1,302/20	1,021/19
Donations and sponsorships ($M)[a]	23.0	24.7	25.9	22.5
Overall customer satisfaction index – other than Large-Power Customers (scale of 10)	7.25	7.39	7.42	7.39 ✓
Special payment arrangements for low-income customers (number)	22,475	22,670	21,909	32,107
Customer complaints and claims (number)	12,862	10,884	12,826	9,559
Permanent workforce as at December 31	19,116	19,459	19,297	19,536
Temporary workforce (annual average)	3,799	3,910	4,048	4,080
Work-related accident frequency[b]	3.33	3.24	3.29	2.83
Employee motivation and satisfaction (scale of 10)	6.94	6.92	6.87	6.93
Percentage of payroll invested in training	3.9	4.2	4.0	3.9
ECONOMY				
Electricity sales in Québec (TWh)	167.3	173.2	170.4	165.3
Revenue from electricity sales inside and outside Québec ($M)	10,551	11,985	12,364	12,055
Income from continuing operations ($M)	2,797	2,882	3,012	3,035
Net income ($M)	3,741	2,907	3,141	3,035
Dividends declared ($M)	2,342	2,095	2,252	2,168
Total procurement of goods and services ($M)/Québec only (%)	2,673/92	2,586/94	2,660/89	2,925/87
Direct jobs sustained by all procurement, including purchases outside Québec (person-years)[c]	14,000	13,000	11,462	12,333
Capital tax ($M)	261	278	202	132
Municipal, school and other taxes ($M)	36	35	37	35
Public utilities tax ($M)	230	240	302	188
Funding for universities – contributions, chair endowments and research contracts ($M)	8.9	8.4	8.9	9.6

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

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

c) Excludes procurement by Société d'énergie de la Baie James.

biomass
Organic matter composed of live plant matter, farm, forest or urban waste, or organic waste from water treatment or purification plants; it is a usable energy source like water, sun and wind.

CF_4 (tetrafluoromethane)
Synthetic chemical compound and potent greenhouse gas that remains in the atmosphere for a long time.

CO_2 (carbon dioxide)
The principal greenhouse gas, mostly generated by fossil fuel combustion.

cogeneration
Method of simultaneously producing electricity and useful thermal energy (steam, hot water) from a fuel (coal, natural gas, biogas, biomass).

environmental impact assessment
Study that predicts, describes, organizes and evaluates the physical, chemical, biological, aesthetic, social and cultural effects of a construction project, and proposes measures to mitigate these effects.

environmental site assessment
Process of determining whether a site needs to be decontaminated, how the decontamination should be done and the probable cost of the operation.

halocarbon
Synthetic chemical compound that is used in domestic appliances as a refrigerant and is an ozone-depleting substance and greenhouse gas.

herbicide
Chemical or biological product that destroys vegetation or inhibits its growth.

Innu Aitun
Activities relating to the Innu culture, basic values and traditional way of life, and tied to the occupation and use of ancestral lands (Nitassinan); these practices involve the use of animal and plant species and minerals, as well as water and other natural substances.

natural attenuation
Natural processes (chemical, physical, biological) that reduce pollutant concentrations in soil and groundwater.

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

public hearing
Session of the Bureau d'audiences publiques sur l'environnement (BAPE), open to the public, that is ordered by the Minister of the Environment or by the BAPE itself or requested by a person, group or municipality, involving a development project within the territory governed by Chapter I of the *Environment Quality Act*.

public involvement
Participation by the public, as a stakeholder, in project development and public decision making that have an impact on health, lifestyle or the environment.

right-of-way
Strip of land used for installation, operation, maintenance and protection of one or more power lines.

SF_6 (sulphur hexafluoride)
Chemical compound widely used in heavy industry to insulate high-voltage equipment; it is a powerful greenhouse gas.

site characterization
Investigation of contaminated environments to identify the types of contaminants and the extent of contamination, estimate potential impacts and determine remedial measures.

site rehabilitation, site remediation
Operations performed on a contaminated site to make it fit for future use.

SO_2 (sulphur dioxide)
Chemical compound that contributes to the formation of acidic deposits.

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 the organization's decisions.

tallyman
Trapper who supervises other trappers and whose primary responsibility is managing animal populations within the trapline.

weir
Low dam or wall built across a river to regulate water level.

windrow
Heaped, uniform-width row of wood debris from logging or clearing operations.

TO COMMENT ON THIS REPORT

www.hydroquebec.com/sustainable-development

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 2009*, which covers the period from January 1st to December 31st, 2009.

Mandate

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

Methodology

We carried out our verification and review in accordance with standard ISAE 3000. Consequently, our work was planned and performed in such manner as to provide reasonable or moderate assurance regarding the quantitative performance indicators selected. Since this is a combined certification mandate, our opinions are given separately.

The verification process ✓ included a risk analysis and sampling method, interviews with staff responsible for the information, analysis of the information selected, corroboration of supporting documents and other procedures deemed necessary.

The review proces ✓ included collection of information, analytical processes, review of the controls used and discussions about the data submitted.

Opinion

Verification

In our opinion, the selected quantitative data identified in the *Sustainability Report 2009* with the ✓ symbol are accurate in all material respects, according to the relevant criteria.

Review

Upon completion of our work, we had no reason to believe that the selected quantitative data identified in the *Sustainability Report 2009* with the ✓ symbol are not presented, in all material respects, according to the relevant criteria.

Calin Moldovean
President, System Certification
Intertek Testing Services NA Ltd.
March 22, 2010

UNITS OF MEASURE

$M	:	millions of dollars
$B	:	billions of dollars
V	:	volt (a unit for measuring voltage)
kV	:	kilovolt (one thousand volts)
W	:	watt (a unit for measuring power)
kW	:	kilowatt (one thousand watts)
MW	:	megawatt (one million watts)
GW	:	gigawatt (one million kilowatts)
Wh	:	watthour (a unit for measuring electric energy)
kWh	:	kilowatthour (one thousand watthours)
MWh	:	megawatthour (one million watthours)
GWh	:	gigawatthour (one million kilowatthours)
TWh	:	terawatthour (one billion kilowatthours)
kg	:	kilogram
mg	:	milligram
t	:	tonne (metric ton)
t CO_2 eq.	:	tonne of CO_2 equivalent

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

Sustainability Report 2009 (this document)

Annual Report 2009

Profil régional des activités d'Hydro-Québec – 2009

Financial Profile 2009–2010

Legal deposit – 2nd quarter 2010
Library and Archives Canada
Bibliothèque et Archives nationales du Québec
ISBN 978-2-550-58104-8
ISBN 978-2-550-58105-5 (PDF)

2009G312A

Ce document est également publié en français.

www.hydroquebec.com/sustainable-development

Hydro Québec

2009G312A