SUMMARY
2012

SUSTAINABILITY

DIRECT, SUSTAINED ACTION

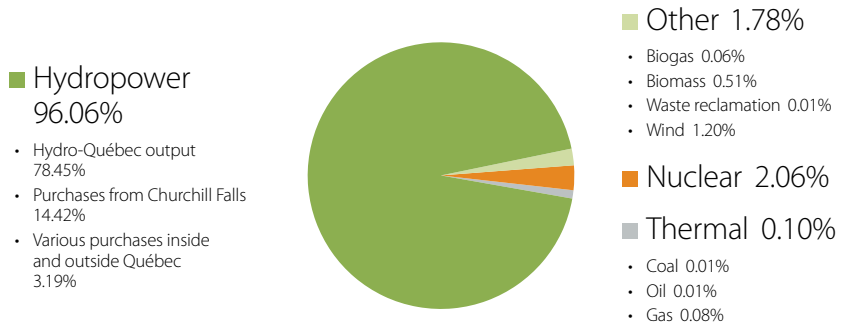
Promoting Green Energies

By opting for hydroelectricity and other renewable energies, Hydro-Québec contributes to the fight against climate change throughout North America.

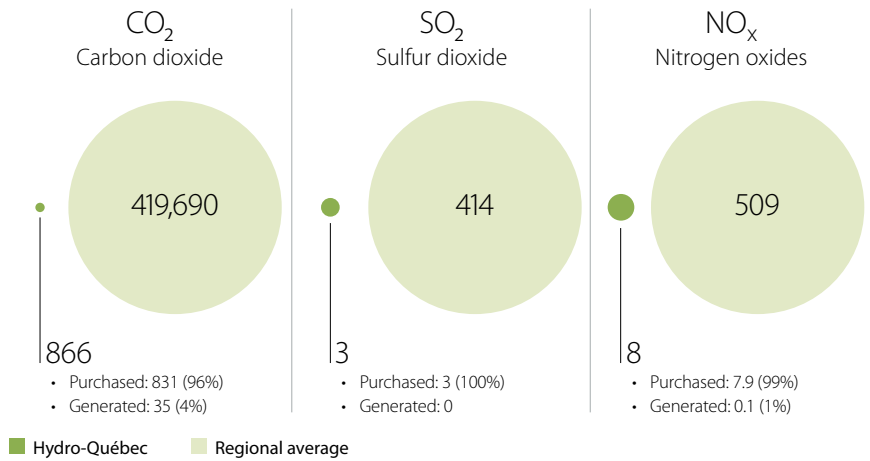
Our electricity exports in 2012 to neighboring systems in Canada and the U.S. helped avoid 16 million tonnes of CO_2 emissions. That's nearly the equivalent of annual emissions from all the cars and light trucks on Québec roads.

The La Grande-3 hydroelectric development: The result of an enlightened choice of clean, renewable energy, supported by vast hydropower resources.

We use water to generate 98% of our electricity. Factoring in our electricity purchases, water accounts for 96% of our energy portfolio. As a result of its output of clean, renewable energy, Québec has the smallest carbon footprint in Canada. In 2012, greenhouse gas emissions from our thermal power generation amounted to 215,325 tonnes.



HYDRO-QUÉBEC'S ATMOSPHERIC EMISSIONS COMPARED TO THE REGIONAL AVERAGE (t/TWh)



Regional average for electric utilities in the six New England states and New York State (2009), Ontario (2011) and New Brunswick (2011–2012).

Sources: Emissions & Generation Resource Integrated Database (eGRID2012), version 1.0, May 2012, U.S. EPA; *2011 Sustainable Development Report,* Ontario Power Generation; *NB Power 2011/12 Annual Report.*

We are working to meet today's energy needs, without overlooking the needs of the future. That is the rationale behind our hydroelectric development projects. Every project Hydro-Québec undertakes, such as a generating station or substation, must be cost-effective, environmentally acceptable and favorably received by local communities.

The development of the Romaine complex is the second-largest infrastructure project under way in Canada in 2013. It was preceded by an environmental impact assessment that lasted more than four years and yielded a 2,500-page statement, along with 50 background reports. The environmental follow-up will continue until 2040.

Romaine-1 jobsite.

1

2

3

ROMAINE PROJECT

Cost: $6.5 billion

Region: Côte-Nord

Construction: 2009–2020

Installed capacity: 1,550 MW

Planned annual output: 8.0 TWh

Total economic spinoffs:

$3.5 billion for Québec as a whole, including $1.3 billion for Côte-Nord

Unit cost: 6.4¢/kWh

(including transmission system costs)

Environmental follow-up

1 In 2012, a second inventory of forest-dwelling caribou was compiled and telemetric monitoring of 25 females continued. The objective: evaluate the effects that the construction and operation of the Romaine complex will have on these animals.

Mitigation measures

2 Under an agreement with the Havre-Saint-Pierre hunting and fishing association, we will build a snowmobile bridge.

3 We take Innu cultural heritage into consideration. Innu women are encouraged to harvest medicinal plants in the area of the future Romaine 1 reservoir. Once the plants have been processed, they will be added to the community pharmacy.

Concrete Results

The actions we take have major impacts on Québec as a whole.

Significant energy savings

Under our ongoing Energy Efficiency Plan, participating customers helped us achieve 1,007 GWh in annual savings in 2012. That represents the annual energy consumption of 37,000 Québec households that use electricity to heat their homes.

At Hydro-Québec's stand at the National Home Show, residential customers can learn about the Dare to Compare service, which lets them compare their electricity consumption against households with a similar profile.

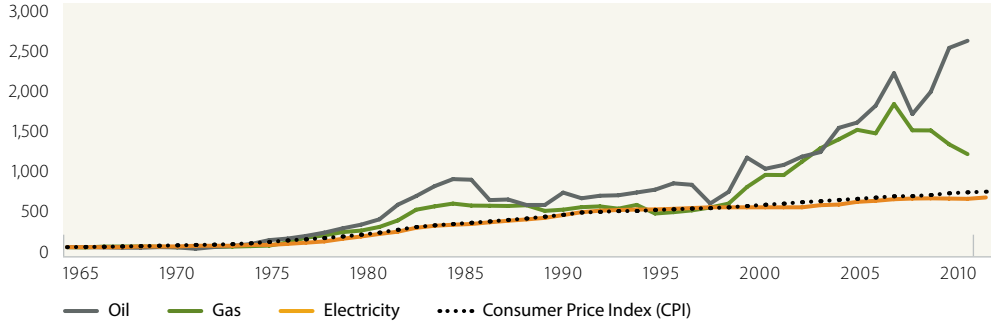
Lasting gestures

Business and recycling training centres (CFER) recycle used Hydro-Québec work clothes. This gives young people an opportunity to train for jobs while contributing to the cause of sustainability.

Affordable rates

Hydro-Québec's electricity rates are among the lowest in North America.

INFLATION AND TRENDS IN ENERGY PRICES IN QUÉBEC 1963–2013



Index (1963 = 100) Sources: Hydro-Québec, Ministère des Ressources naturelles du Québec and Statistics Canada.

Concerted decisions

Hydro-Québec consults the public about its projects, then a team of specialists makes the changes resulting from this process. For its planned 735-kV line connecting Chamouchouane substation (Saguenay–Lac-Saint-Jean) and Bout-de-l'Île substation (Montréal), over 45 meetings were organized for some 4,500 property owners, vacation leaseholders and citizens.

Spinoffs for all Quebecers in 2012

Dividend
$645 million

Public utilities tax
$252 million

Water-power royalties
$617 million

Procurement of goods and services
$3,011 million

Procurement from Québec-based companies
94%

Direct jobs sustained by procurement
12,900 person-years

Community investments
$29 million

INNOVATION

Innovation: The Way of the Future

Hydro-Québec is the only power utility in North America to have a high-calibre research centre like IREQ.

At IREQ, technician Jean-Philippe Charest-Fournier adjusts the rotor of a model generator used in the AUPALE numerical modeling project. The project is designed to increase generator capacity without compromising service life. We tested this model at Rapides-des-Quinze and Rapide-2 generating stations, in Abitibi-Témiscamingue, and assessed aspects such as potential capacity gain.

An initial series of public charging stations was installed in the parking lots of founding partners of the Electric Circuit. By the end of the year, the Electric Circuit had nearly 150 charging stations and 20 new partners.

Legal deposit – 2nd quarter 2013
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ISBN 978-2-550-66870-1 (PDF)

On the cover The beauty of Chutes à Charlie will be preserved after the Rivière Romaine has been developed. To maintain quality of life for the Atlantic salmon that spawn nearby, we are conducting extensive environmental studies.

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