Sustainability Report 2015

Setting new sights with our clean energy

Highlights

Hydro Québec | WORKING BETTER every day
Value chain

The value chain includes all activities that create value.

At Hydro-Québec, we integrate criteria for environmental protection, social progress and economic development into every link in this chain.

CONSTRUCTION

$2.1 \text{B}

Volume of activity

Through our projects, we contribute to creating jobs for local suppliers and communities, and our activities generate various other spinoffs.

GENERATION

36,912 \text{ MW}

Installed capacity

Thanks to our hydropower, companies produce goods and services with a small environmental footprint. What’s more, our neighboring provinces and states are supplied with clean, renewable energy.
Transmission

Length of transmission lines: 34,272 km

We provide high-quality, reliable power transmission and monitor the changing needs of our customers. Our interconnections allow advantageous power interchanges with neighboring systems.

Distribution and Customer Service

Customer accounts: 4,214,721

We guarantee customers reliable power—at one of the lowest rates in North America—and high-quality services. We also offer customers energy efficiency solutions to help them reduce their power consumption.

Management and Support of Our Business Units

Sums paid to the Québec government: $3.5 B

Our guidelines and objectives place great importance on dialogue with the community and promote the socioeconomic spinoffs of our activities as well as community investment.

Technological Innovation

R&D investment at IREQ: $130 M

Through our partnerships with universities, research centres and other industries, we share expertise and resources along with risks. Technological innovation is a driver of value creation for our partners and customers.
Our contribution to climate stabilization and environmental protection

We are recognized as a leader in hydropower, an energy that produces very little pollution. In this way, we make an important contribution to air quality in Québec.

By selling our electricity to our neighbors, we extend the beneficial effect of this clean energy to the entire continent. Our exports in 2015 avoided the emission of 7.4 million tonnes of GHGs—equivalent to Hydro-Québec’s total direct emissions over the last 15 years.

We make sure that the environments we develop are comparable to the surrounding natural environments.

- Reduction in GHG emissions since 1990: 88%
- Hydropower produced from a clean, renewable source: 99%
- Number of wildlife species for which a study, follow-up or survey was completed in 2015: 116
Our management of energy demand and assets

The demand for energy (quantity) and power (capacity) continues to grow. We are able to meet a third of growth needs through energy efficiency measures for our customers and in our own buildings and facilities. We fill the remaining needs with clean, renewable energies.

By optimizing the way we manage our generating and transmission facilities, we can take advantage of business opportunities on external markets.

Our exports, totaling 30,000 GWh, contribute a large share of our revenue: $1.7 billion.

Energy savings equivalent to the consumption of 500,000 households: 8.8 TWh

Power delivered to customers generated almost exclusively from renewable sources: 99%

Volume of electricity sales outside Québec: 15%
Our energy portfolio

Our energy portfolio consists essentially of renewables. More than 99% of it is provided by the hydropower we generate, but it also includes wind and biomass power purchased from independent power producers. At peak periods, we also buy electricity from neighboring systems.

Our major hydropower project, the Romaine complex, is making steady progress: two of the four generating stations are in operation.

Romaine-1 generating station adds 270 MW to the installed capacity of our generating fleet, which totals 36,912 MW.

171,000 GWh Energy generated
46,000 GWh Energy purchased
Chamouchouane–Bout-de-l’Île project

Economic spinoffs for Québec as a whole: $1B

Romaine project

Economic spinoffs for Québec as a whole, including $1.3 billion for the region: $3.5B
Our responsibility to our customers

We endeavor to offer reliable, attentive service at a competitive price. This means, among other things, that we must speed up service restoration following an outage, whether scheduled or unplanned. The measures we take for this include maintaining, strengthening and upgrading the grid.

We finished installing 3.7 million next-generation meters all across Québec three years earlier than expected. We are already noticing improvements in terms of productivity, new services offered and distribution system management.

Our residential rates are the lowest in North America. Electricity prices are twice as high in Toronto, and four times higher in New York.

Service average interruption duration index: 161 minutes per customer.
Public satisfaction with the company: 82%.
Mechanical vegetation control along transmission line rights-of-way: 94%.
Our efforts to make our projects and operations socially acceptable

We have a presence wherever there are electricity needs in Québec. We know that operating or expanding our power system has an impact on people’s living environments, and we strive to be good neighbors with the various local and Aboriginal communities near our facilities. That is why we invite stakeholders to be involved in planning our projects in order to make them mutually beneficial.

We operate a number of hydroelectric facilities on the Saint-Maurice while taking boating conditions into consideration.

Number of projects with a public participation process: more than 100.

Number of subscribers to the Bulletin des collectivités: 2,000.

Number of requests from community representatives: 5,000.
Our commitment to technological innovation and transportation electrification

In 2015, we invested $130 million in R&D. Our scientists, technicians, engineers and specialists at IREQ develop technological solutions to support our operations and create new growth opportunities.

PRIORITY R&D FIELDS

- Smart power grid
- Aging equipment and asset sustainment
- Efficient electricity use
- Renewable energies
- Battery materials and transportation electrification

With the 577 charging stations in the rapidly growing Electric Circuit, we are a leading player in the field of transportation electrification.

Number of patents held by our research institute (IREQ): 1,035

Contributions to universities and research funding: $7.9 M
Our socioeconomic contribution

In Québec, the value added by the electricity industry in 2015 is estimated at $12 billion. Hydro-Québec accounts for over 90% of this industry. Its share of the province’s economy is about 4% of GDP.

For our generation and transmission projects, we partner with communities and give them financial assistance for their development. We also contribute to improving the environment and preserving and enhancing Québec’s natural heritage. Our donations and sponsorships support organizations all across the province.

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<tr>
<th>HYDRO-QUÉBEC’S CONTRIBUTION TO THE QUÉBEC ECONOMY IN 2015</th>
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<tbody>
<tr>
<td>Dividend</td>
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<tr>
<td>$2,360 M</td>
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<tr>
<td>Procurement from Québec-based companies</td>
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<td>$2,827 M</td>
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<td>Public utilities tax</td>
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<td>$268 M</td>
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<tr>
<td>Municipal and school taxes</td>
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<td>$37 M</td>
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<tr>
<td>Water-power royalties</td>
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<td>Community investments</td>
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<tr>
<td>Procurement of goods and services in Québec</td>
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<tr>
<td>$27 M</td>
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<tr>
<td>Amount donated to United Way/Centraide</td>
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<td>$5 M</td>
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