

QUÉBEC HYDROELECTRICITY

A win-win solution for the Northeast

As the fourth largest producer of hydroelectricity in the world—and with over 97% of its total net electricity production coming from hydro power—Québec boasts installed power exceeding 47,110 MW as well as major, unexploited hydroelectric potential. A number of projects with a capacity of over 2,400 MW are currently under construction.

QUÉBEC HYDROELECTRICITY: CLEAN, RENEWABLE ENERGY

Québec is committed to developing its hydroelectric potential while respecting local and regional communities. Native nations, including the Cree and Innu, are active partners in the development of Northern Québec and its energy potential. The Plan Nord is an initiative by the Government of Québec to develop the considerable resources from Northern Québec in a perspective of economic and social progress.

Québec hydroelectricity is a source of clean, renewable energy produced in a manner consistent with sustainable development. Hydroelectric plants emit, on average, 35 times less GHGs than natural gas-fired plants and approximately 70 times less than coal-fired plants. This is why Québec has one of the lowest GHG emission rates per capita in North America—11.5 tons per capita compared to the Canadian average of 22.7 tons and the American average of 24.1 tons.

This represents a major contribution to the fight against climate change and the emission of atmospheric pollution in the Northeast. Since 2001, over 39 million fewer tons of GHGs have been emitted in North America thanks to the export of hydroelectricity from Québec to neighbouring markets.

QUÉBEC HYDROELECTRICITY: RELIABLE, SAFE ENERGY

Hydroelectricity is a mature, time-tested, safe technology with none of the risks associated with deep sea drilling or the handling of explosive or radioactive fuels. In addition, hydroelectricity production is not affected by fluctuations in the price of fossil fuels. Long-term supplies are thus secure and prices are foreseeable.

Québec's energy transmission network is subject to strict standards developed by the *North American Electric Reliability Corporation* that apply to all the interconnected networks across the continent. In addition, Québec hydroelectric projects are subject to stringent, systematic environmental assessments imposed by both the Government of Québec and the Canadian federal government.

QUÉBEC HYDROELECTRICITY: ACCESSIBLE, FLEXIBLE ENERGY

Québec's energy policy is set out in its Energy Strategy 2006-2015 and in Hydro-Québec's Strategic Plan 2009-2013, both of which place considerable emphasis on electricity exports. Québec would like to develop its energy potential, not only to meet its own needs but also to export this green energy to its neighbours. It is therefore actively seeking to reach agreements with its Canadian and American partners and is ready to invest in new interconnections with a view to optimizing trade. The increase in Québec electricity production is very real, and there have been major investments in development projects.

Québec's electricity transmission network is extremely reliable. Québec has a long history of exchanges and partnerships with the United States in the energy sector. Hydro-Québec has been exporting electricity to the United States for decades. These exports have been made easier by the opening of the wholesale market.

Hydro-Québec exports also help promote the development of other renewable energy sources in the Northeast. Since it is constant and can be produced at will, hydroelectricity is the only renewable energy conducive to the integration of intermittent energies such as wind and solar energy, which makes it an effective complement to regional wind and solar energy projects.

Québec and Vermont signed a long-term power supply agreement in 2010 that includes a mechanism to protect against price fluctuations.

Québec provides one-third of the electricity used in Vermont.

Vermont saw fit to modify its legislation to recognize hydroelectricity as a source of renewable energy.

QUÉBEC HYDROELECTRICITY: AFFORDABLE ENERGY

By helping stabilize electricity rates, Québec's large-scale hydroelectric plants limit sudden price increases that can destabilize household budgets. In addition, a stable rate structure helps promote job growth by giving existing companies an indisputable advantage and also plays a role in attracting new investments.

By increasing sales of electricity to the Northeast, Québec is helping to improve the energy security of the region, reduce the use of fossil fuels, and make it easier to attain greenhouse gas reduction goals. It wants to work with its partners to achieve these goals, and it is—and will remain—active on short-term markets while, at the same time, seeking to reach long-term agreements.