

As the world's fith-largest producer of hydroelectricity, Québec has proven itself to be a safe and reliable partner capable of meeting the growing energy needs of North America. Over 95% of the electricity produced in Québec comes from this non-polluting source, which contributes significantly to limiting atmospheric pollutants in the entire north-eastern sector of the continent and to a parallel reduction in greenhouse gases. Drawing on Québec's extensive resources and expertise, Hydro-Québec plans to increase its production capacity by nearly 15% in the next decade, largely through hydroelectric and wind

power, consolidating its leadership position in terms of the production of renewable energy and allowing it to increase its exports.

As a partner, Québec makes an extensive contribution to the diversification and securitisation of energy sources in North America. At the same time, Hydro-Québec pays particular attention to the reliability of the power transmission system and is an active partner of both the North American Electric Reliability Council (NERC) and the Northeast Power Coordinating Council (NPCC).

Contributing to North American energy security				
Facts	Potential			
Québec produces a total of 43,000 MW of electric power, 40,250 MW of which come from hydroelectric power. In 2004, Hydro-Québec sold 180.8 TWh of electricity.	Hydroelectric projects under construction or under study represent approximately 3,400 MW of installed power and an annual production of 22 TWh. Unexploited hydroelectric resources are estimated at 10,000 to 15,000 MW, which presents a very attractive economic potential. In 2015, installed wind power will have reached 3,500 MW, making Québec a leader in the wind energy sector. Wind generating component manufacturing facilities are currently under construction.			
Hydro-Québec has been exporting electricity to the United States for several decades. These exports have increased since deregulation and the opening of the wholesale market in 1997.	With the projects it has underway and under study, Hydro-Québec plans to invest more than \$15 billion, for the addition of 22 TWh of electricity. These investments will provide Hydro-Québec with operational flexibility as well as enabling it to increase its electricity exports.			
Existing interconnections between Québec and the United States allow the direct exchange of energy with two regions: NEW YORK: 1,500 MW NEW ENGLAND: 1,500 MW	Extensive technology enhancement projects are underway in order to increase the transmission capacities of these interconnections: New York: 1,800 MW New England: 2,000 MW			
From 1992 to 2000, Hydro-Québec electricity exports have avoided about 130 million tons of greenhouse gases (GHG).				
Hydro-Québec's reservoir management system allows the company to export power when US demand is high and import it when demand is weak, in order to work in complement with American electricity producers.	By increasing peak supply, Hydro-Québec contributes to price stabilization and reduces charges to the American networks.			
At least CDN \$1.3 billion has been invested over the past ten years to strengthen the security of the electricity transmission system.	The reliability of the Québec electricity transmission system decreases the risk of an interruption of the power supply. It is worth noting that Québec was not affected by the major blackout that struck the north-eastern United States and Ontario in August 2003.			



Contributing to North American energy security (suite)				
Facts	Potential			
The existence of promising sedimentary basins, mainly in southern Québec, has been confirmed by numerous geological studies and the discovery of oil and natural gas deposits.	Studies are currently underway to assess hydrocarbon exploitability in suitable regions.			
New environmental standards designed to limit sulphur levels in fuel, combined with the growing demand for this particular energy source, have encouraged the refiners to invest massively in their facilities.	Since 2000, more than CDN \$1.6 billion have been invested in Québec's refineries.			

Hydro-Québec: Action Plan				
Priorities	Actions			
Complete the development of its hydroelectric potential.	Four hydro-electric projects are presently under construction. Once completed, they will produce nearly 6 TWh of electricity. Another project awaiting authorization and a second in the planning stages will enable Hydro-Québec to further increase production by 22 TWh in total.			
Diversify the supply sources, focusing mainly on renewable energy sources, especially wind power.	A call for tenders for 1,000 MW of wind energy has already taken place, and a second call for tenders for a further 2,000 MW is expected shortly.			
Contribute to the exploration and development of petroleum and natural gas resources in Québec.	A sum of CDN \$3 million will be spent on geological studies, geophysical surveys and drilling new test wells, in association with private industry.			

Hydro-Québec's Hydroelectric Projects						
Projects	MW	TWh	Investment (CDN \$M)	Commissioning expected		
Under construction						
Mercier	50	0.3	145	2006		
Eastmain-1	480	2.7	2,300	2007		
Péribonka	385	2.2	1,400	2008		
Chute-Allard and Rapides-des-Cœurs	138	0.85	700	2008		
SUB-TOTAL	1,053	6.05	4,545			
Awaiting authorization						
Eastmain-1-A/ dérivation Rupert — La Sarcelle	888	8.5	4,000	2010-2011		
Preliminary proposal						
La Romaine Complex (4 stations)	1,500	7.5	6,300	Post 2013		
SUB-TOTAL	2,388	16	10,300			
TOTAL	3,441	22.05	14,845			

Sources

Ministère des Ressources naturelles et de la Faune du Québec (Québec Department of Natural Resources and Wildlife):

www.mrnfp.gouv.qc.ca

Hydro-Québec: www.hydroquebec.com