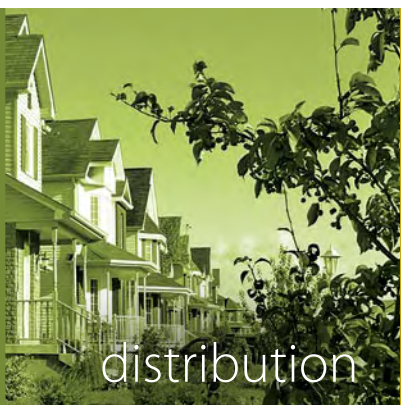
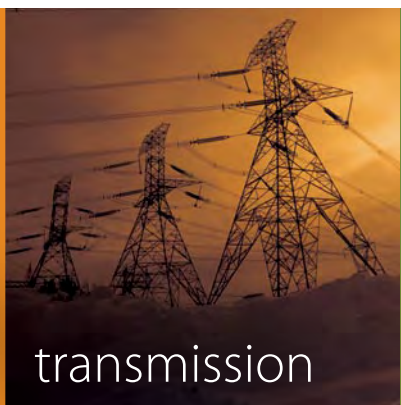




## Strategic Plan 2006–2010



Adjusted Version  
September 15, 2006

**On the cover:**

*Rocher-de-Grand-Mère generating station*

*735-kV transmission line*

*New residential area*

*Eastmain-1 generating station*

**1 Anchor Points**

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**15** Hydro-Québec Production

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**41** Corporate Activities

**45 Financial Outlook**

The *Strategic Plan 2006–2010* must be tabled with the Québec government no later than June 1, 2006. It will be reviewed by a parliamentary commission prior to approval.

*Note: Unless otherwise indicated, monetary amounts in the text are expressed in Canadian dollars.*

# Business Objectives

<p><b>Energy efficiency</b></p> <p>Electricity is a valuable resource. Everyday actions can reduce consumption growth.</p> <p>The aim is to reach 4.7 TWh in energy savings by 2010 and to work toward a target of 8 TWh by 2015.</p>	<p><b>Complementary development of hydroelectricity and wind power</b></p> <p>The major hydroelectric projects are accelerated.</p> <p>A portfolio of hydroelectric projects totaling 4,500 MW is constituted for this purpose.</p> <p>Hydroelectric development provides a basis that will facilitate the complementary development and integration of 4,000 MW of wind power by 2015.</p>	<p><b>Technological innovation</b></p> <p>With a view to sustainable development, the company's growth and performance are supported by technological innovation.</p> <p>New technologies are built into facilities. Hydro-Québec thus remains at the cutting edge of its businesses, improves its customer service and further enhances its performance.</p>
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<p><b>Hydro-Québec Production</b></p>	<ol style="list-style-type: none"> <li>1. Increase hydroelectric generating capacity by accelerating project development.</li> <li>2. Facilitate wind power integration.</li> <li>3. Ensure the efficiency and reliability of the generating fleet.</li> </ol>
<p><b>Hydro-Québec TransÉnergie</b></p>	<ol style="list-style-type: none"> <li>1. Ensure transmission system reliability.</li> <li>2. Become a world benchmark for quality and reliability in wind power integration.</li> <li>3. Deploy new technologies to enhance performance.</li> </ol>
<p><b>Hydro-Québec Distribution</b></p>	<ol style="list-style-type: none"> <li>1. Promote more efficient use of electricity.</li> <li>2. Increase customer satisfaction.</li> <li>3. Meet electricity needs by favoring renewable energy sources.</li> </ol>

The Hydro-Québec Équipement division and the Société d'énergie de la Baie James, a Hydro-Québec subsidiary, support Hydro-Québec Production and Hydro-Québec TransÉnergie by carrying out the major construction projects, which total about \$2 billion a year.

The corporate units help the divisions achieve their business objectives. They include the Technology Group, the Finance Group, the Human Resources and Shared Services Group, as well as Corporate Affairs and General Secretariat. The Shared Services Centre brings together services offered throughout the company that are essential to the efficiency of its operations, including goods and services procurement, property, material and transportation service management, and information technologies.

In the coming years, special efforts will be devoted to improving the contribution made by technological innovation, to the transparency and quality of communications, and to human resource motivation and development.

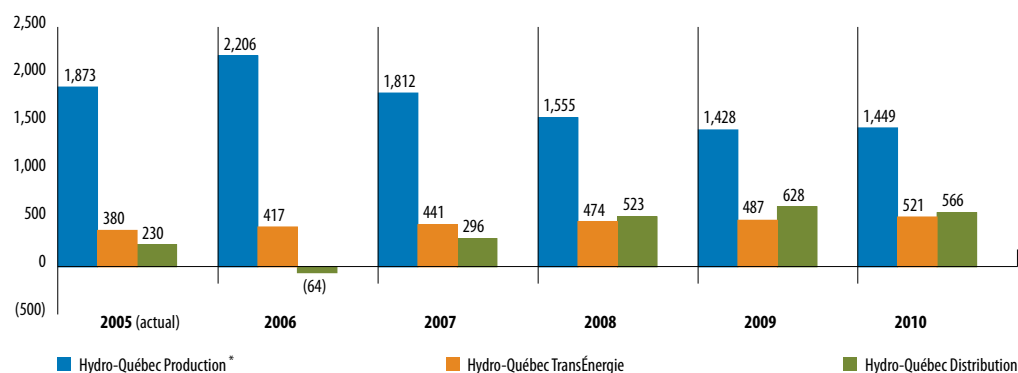
# Financial Outlook

<b>Financial Results (\$M)</b>	<b>2005</b> (actual)	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>
Net income	2,252	3,400	2,500	2,500	2,500	2,500
<i>after water-power royalties of</i>	–	–	265	545	563	596
Dividends declared	1,126	2,150	1,250	1,250	1,250	1,250
Shareholder's equity	17,376	18,626	19,876	21,126	22,376	23,626
Capital investments	3,443	3,965	3,880	3,816	3,994	3,745
Rate increases projected for April 1			2.8%	3.5%	2.5%	0.1%

From 2006 to 2010:

- Commitment to net income of \$2.5 billion a year, for a total of \$12.5 billion, a threshold set in accordance with the shareholder's expectations, with the addition of an unusual gain of \$0.9 billion on operations discontinued in 2006
- Declared dividends of \$7.2 billion, or half of net income from continuing operations and all the net income from operations discontinued in 2006
- Increase of \$6.3 billion in shareholder's equity
- Capital investments of \$19.4 billion

## Contribution of Divisions to Net Income (\$M)



\* After budget contingency: \$100 million in 2007 and 2008; \$150 million in 2009 and 2010.

## Economic Benefits for the 2006–2010 Period

- More than \$10 billion in purchases of goods and services in Québec
- Some 236,000 person-years in direct and indirect jobs
- Contribution of \$2.0 billion to the Generations Fund in the form of water-power royalties
- Municipal and provincial taxes of \$2.6 billion
- \$0.8 billion in debt guarantee fees to the Québec government
- \$7.2 billion in declared dividends

**Hydro-Québec** generates, transmits and distributes electricity, mainly using renewable energy sources, in particular hydroelectricity. It also conducts research in energy-related fields and takes an active interest in energy efficiency. In addition, it works to create value from the technologies that emerge from its research.

Its sole shareholder is the Québec government. By law, the Generator supplies the Distributor with an annual heritage pool of electricity. Above that volume, the Distributor obtains its supplies on the open market. Transmission and distribution activities are regulated on a cost basis. The company comprises four divisions:

**Hydro-Québec Production** generates and wholesales power on domestic and external markets.

**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 supplied by Hydro-Québec Production, it obtains supplies on open markets. It also works to encourage its customers to make efficient use of electricity.

**Hydro-Québec Équipement** and **Société d'énergie de la Baie James**, a subsidiary of Hydro-Québec, are the prime contractors in construction projects for Hydro-Québec Production and Hydro-Québec TransÉnergie.



# 1. Anchor Points

Hydro-Québec's operating environment is determined by the regulatory framework of the *Act respecting the Régie de l'énergie*, the company's commitments to its customers, the competitive energy market and the policies of its shareholder, the Québec government.

The company's business objectives are anchored on the expectations expressed in the Québec Energy Strategy 2006–2015, Hydro-Québec Distribution's Electricity Supply Plan 2005–2014, the recent rate decisions of the Régie de l'énergie (Québec energy board), Hydro-Québec Production's commitments, the introduction of water-power royalties, and the practices proposed in the policy statement *Modernizing the Governance of Government Corporations*.

## 1.1 Québec Energy Strategy 2006–2015

The Québec government published its energy strategy, *Using Energy To Build the Québec of Tomorrow*,<sup>1</sup> in May 2006. Objectives include strengthening the security of Québec's energy supply, making use of energy as a lever for economic development and using energy more efficiently. The strategy calls for accelerating the development of major hydroelectric projects and promoting other renewable forms of energy.

The government is calling on Hydro-Québec to contribute to this endeavor, specifically through annual energy savings of 8 TWh by 2015, a portfolio of hydroelectric projects with a total capacity of 4,500 MW, the integration of 4,000 MW in wind capacity planned by 2015, and innovation.

It has also asked the company to file a new pricing structure with the Régie de l'énergie, featuring a greater progression between rate tiers in order to encourage customers to manage their electricity consumption more effectively.

In addition, the government plans to carry on negotiations with federal authorities to reach an agreement enabling oil and gas exploration in the Gulf of St. Lawrence. It will also conduct a strategic environmental assessment of the estuary and Gulf of St. Lawrence. For its part, Hydro-Québec will identify major partners in the private sector who will be willing to invest in the development of Québec's hydrocarbon reserves.

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1. See: [www.mrnf.gouv.qc.ca/english/energy/strategy/index.jsp](http://www.mrnf.gouv.qc.ca/english/energy/strategy/index.jsp).

## 1.2 Electricity Supply Plan 2005–2014

To provide Québec with a secure supply of electricity, Hydro-Québec Distribution produces an Electricity Supply Plan every three years, which presents its customers' forecast electricity needs and proposes means to meet the demand. This plan is reviewed and approved by the Régie de l'énergie and followed up annually.

In November 2004, Hydro-Québec Distribution filed its Electricity Supply Plan 2005–2014<sup>1</sup> with the Régie de l'énergie, which approved it on October 5, 2005. The division submitted its first progress report on this plan on October 19, 2005. The next progress report will be filed by November 1, 2006.

### Needs

According to a forecast made in August 2006, electricity sales in Québec will reach 182.4 TWh in 2014, an increase of 13.2 TWh over 2005. The annual growth rate will average 0.8%, or 1.5 TWh.

#### Energy Needs (TWh)

	2005 (actual)	2006	2007	2008	2009	2010	2012	2014
<b>Electricity sales in Québec</b>	<b>169.2</b>	<b>169.8</b>	<b>173.9</b>	<b>174.9</b>	<b>176.5</b>	<b>178.4</b>	<b>181.1</b>	<b>182.4</b>
Residential and farm	57.0	57.6	59.4	60.0	60.2	60.6	61.5	61.9
General and institutional	33.6	32.9	33.7	33.9	34.0	34.4	35.0	35.6
Industrial	73.5	74.4	75.7	75.8	77.1	78.3	79.3	79.6
Other	5.0	5.0	5.1	5.2	5.2	5.2	5.3	5.3
<b>Transmission and distribution losses and other factors</b>	<b>13.4</b>	<b>12.9</b>	<b>13.2</b>	<b>13.2</b>	<b>13.4</b>	<b>13.6</b>	<b>13.7</b>	<b>13.7</b>
<b>Energy needs</b>	<b>182.6</b>	<b>182.8</b>	<b>187.1</b>	<b>188.1</b>	<b>189.9</b>	<b>192.0</b>	<b>194.8</b>	<b>196.1</b>

This forecast factors in the energy savings target proposed in the Québec Energy Strategy 2006–2015 (8 TWh annually by 2015). In August 2006, Hydro-Québec Distribution filed the 2007 budget for the Energy Efficiency Plan (EEP) with the Régie de l'énergie, raising the annual energy savings target from 4.1 to 4.7 TWh by 2010 and specifying the means and additional investments required.

Nearly half the growth in electricity sales will come from the industrial sector. Sales are expected to rise 6.1 TWh between 2005 and 2014, for an average annual increase of 0.9%. Smelting and refining will account for 3.8 TWh of this increase, mainly because the Alouette aluminum smelter in Sept-Îles will reach full production capacity in 2006.

1. See the Régie de l'énergie Web site (in French only): [www.regie-energie.qc.ca/audiences/3550-04/index3550.htm](http://www.regie-energie.qc.ca/audiences/3550-04/index3550.htm).



Sales to residential customers (residential and farm category) totaled 57.0 TWh in 2005, in spite of a 0.7-TWh decrease due to milder-than-usual temperatures. Between 2005 and 2014, sales will rise 4.9 TWh, which represents average annual growth of 0.9%. In the short term, growth will be supported by a vigorous home-building sector. After reaching highs of 58,500 in 2004 and 51,000 in 2005, housing starts will fall to 44,000 in 2006, and then gradually decline to about 30,000 by around 2014.

Between now and 2014, sales to commercial and institutional customers (general and institutional category) will increase by an average of 0.6% per year, or 2.0 TWh in all. This growth will stem largely from economic activity in the service industry.

Peak power demand will reach 37,871 MW in the winter of 2014–2015, 4,982 MW more than in winter 2005–2006, when the peak was actually about 2,600 MW lower as a result of milder-than-usual temperatures. If this factor is excluded, growth in power demand will be about 2,400 MW, an average of 0.7% per year.

**Capacity Requirements (MW)**

	Winter	2005–2006 (actual)	2006–2007	2007–2008	2008–2009	2009–2010	2010–2011	2012–2013	2014–2015
Peak demand		32,889	35,929	36,079	36,437	36,809	37,060	37,463	37,871
Reserve required to meet reliability standard		2,895	3,363	3,428	3,680	3,718	3,743	3,784	3,825
Capacity required		35,784	39,292	39,507	40,117	40,527	40,803	41,247	41,696

**Innovative technologies promoting energy efficiency**

Hydro-Québec’s research laboratories will continue to develop technologies that enable more effective electricity use by customers and allow the company to improve its own performance. The latter effort includes increasing the productivity of the generating fleet, reducing losses on the transmission and distribution systems, and making buildings more energy-efficient.

Beyond peak demand, a capacity reserve is required to handle fluctuations in demand or compensate for generating equipment outages. According to the criteria adopted by the North American Electric Reliability Council (NERC) and in effect for more than 30 years, a capacity reserve must be maintained such that domestic electricity demand can be met without the probability of load shedding as a result of insufficient power supply exceeding one day in 10 years, or 2.4 hours a year.

## Means employed

To satisfy electricity needs and manage unpredictable fluctuations in consumption, Hydro-Québec Distribution relies on a diversified portfolio of supplies. Most of the needs are met through the heritage pool contract, which requires Hydro-Québec Production to deliver 165 TWh at the price of 2.79¢/kWh. This price is set out in the *Act respecting the Régie de l'énergie*. The contract also guarantees a capacity supply of 37,442 MW, including a 3,100-MW reserve to deal with potential equipment failures and unpredictable energy needs.

In 2005, the heritage pool filled 98% of energy needs, assuring Québec customers of electricity rates that are among the lowest in North America. The relative share of the heritage pool in terms of total supplies will gradually decline in the coming years, but will remain above 90% in 2014.

### Energy Supplies (TWh)

	2005 (actual)	2006	2007	2008	2009	2010	2012	2014
<b>Energy needs</b>	<b>182.6</b>	<b>182.8</b>	<b>187.1</b>	<b>188.1</b>	<b>189.9</b>	<b>192.0</b>	<b>194.8</b>	<b>196.1</b>
Minus heritage pool electricity (165 TWh + losses)*	178.6	178.5	178.9	178.9	178.9	178.9	178.9	178.9
<b>Supplies required beyond the heritage pool</b>	<b>4.0</b>	<b>4.3</b>	<b>8.2</b>	<b>9.2</b>	<b>11.0</b>	<b>13.1</b>	<b>15.9</b>	<b>17.2</b>
<b>Minus non-heritage-pool supplies**</b>	<b>4.0</b>	<b>3.9</b>	<b>9.1</b>	<b>10.7</b>	<b>11.1</b>	<b>12.4</b>	<b>15.0</b>	<b>17.9</b>
TransCanada Energy (Bécancour) (A/O 2002-01)	–	1.4	4.1	4.1	4.1	4.1	3.7	4.1
Hydro-Québec Production – Baseload deliveries (A/O 2002-01)	–	–	2.6	3.1	3.1	3.1	3.1	3.1
Hydro-Québec Production – Cycling deliveries (A/O 2002-01)	–	–	1.8	2.2	2.2	2.2	2.2	2.2
Biomass (A/O 2003-01)	–	0.1	0.2	0.3	0.3	0.3	0.3	0.3
Wind power (contracts signed) – 990 MW (A/O 2003-02)	–	0.0	0.5	1.1	1.5	1.9	2.7	3.0
Wind power (call for tenders) – 2,000 MW (A/O 2005-03)	–	–	–	–	0.1	0.9	3.0	5.3
Short-term contracts signed (A/O 2004-01/03/04, 2005-01/02/04, 2006-01)	4.0	2.4	–	–	–	–	–	–
<b>Additional supplies required</b>	<b>0.0</b>	<b>0.4</b>	<b>(0.9)</b>	<b>(1.5)</b>	<b>(0.1)</b>	<b>0.7</b>	<b>0.9</b>	<b>(0.7)</b>

\* For 2005 and 2006, the energy supplied is less than the maximum contracted (178.9 TWh) as a result of real-time supply management.

\*\* Not including 500 MW of wind power earmarked for the regions (regional county municipalities) and First Nations. Delivery dates to be determined.

Beyond the heritage pool volume, electricity needs are filled through calls for tenders, at prices that reflect market conditions. The terms of calls for tenders and the resulting contracts must be approved by the Régie de l'énergie.

In 2002, a contract was signed with TransCanada Energy for the delivery of 4.1 TWh and 507 MW per year (plus an option for an additional 40 MW in winter). The electricity will be produced by a cogeneration facility in Bécancour for a 20-year period, starting in the fall of 2006. Also in 2002, two contracts were signed with Hydro-Québec Production for the delivery of 5.3 TWh per year, beginning in March 2007 (350 MW of baseload deliveries and 250 MW of cycling deliveries). The contract for cycling deliveries offers flexibility that will allow Hydro-Québec Distribution to adjust its volume of purchases, if necessary.

In March 2004, Hydro-Québec Distribution signed two contracts for electricity generated by biomass. Deliveries began in April 2006 and will cover a 20-year period.

In October 2004, Hydro-Québec Distribution awarded eight contracts for a block of 990 MW in wind power (3.0 TWh), to be commissioned in stages from 2006 to 2012. The division issued a second call for tenders in fall 2005 for the purchase of 2,000 MW of wind power, with deliveries scheduled to begin in 2009 (about 5 TWh by 2014).

#### Capacity Supplies (MW)

Winter	2005–2006 (actual)	2006–2007	2007–2008	2008–2009	2009–2010	2010–2011	2012–2013	2014–2015
<b>Capacity required</b>	<b>35,784</b>	<b>39,292</b>	<b>39,507</b>	<b>40,117</b>	<b>40,527</b>	<b>40,803</b>	<b>41,247</b>	<b>41,696</b>
Minus heritage pool electricity (34,342 MW + capacity reserve)	37,442	37,442	37,442	37,442	37,442	37,442	37,442	37,442
<b>Supplies required beyond the heritage pool</b>	<b>(1,658)</b>	<b>1,850</b>	<b>2,065</b>	<b>2,675</b>	<b>3,085</b>	<b>3,361</b>	<b>3,805</b>	<b>4,254</b>
<b>Minus non-heritage-pool supplies*</b>	<b>1,750</b>	<b>1,105</b>	<b>1,809</b>	<b>1,847</b>	<b>1,990</b>	<b>2,145</b>	<b>2,495</b>	<b>2,630</b>
TransCanada Energy (Bécancour) (A/O 2002-01)	–	547	547	547	547	547	547	547
Hydro-Québec Production – Baseload deliveries (A/O 2002-01)	–	–	350	350	350	350	350	350
Hydro-Québec Production – Cycling deliveries (A/O 2002-01)	–	–	250	250	250	250	250	250
Biomass (A/O 2003-01)	–	20	36	36	36	36	36	36
Wind power (contracts signed) – 990 MW (A/O 2003-02)	–	38	126	164	217	252	347	347
Wind power (call for tenders) – 2,000 MW (A/O 2005-03)	–	–	–	–	90	210	465	600
Short-term contracts signed (A/O 2004-01/03/04, 2005-01/02/04, 2006-01)	1,250	–	–	–	–	–	–	–
Interruptible electricity	500	500	500	500	500	500	500	500
<b>Additional capacity required (rounded to the nearest 10 MW)</b>	<b>–</b>	<b>750</b>	<b>260</b>	<b>830</b>	<b>1,100</b>	<b>1,220</b>	<b>1,310</b>	<b>1,620</b>

\* Not including 500 MW of wind power earmarked for the regions (regional county municipalities) and First Nations. Delivery dates to be determined.

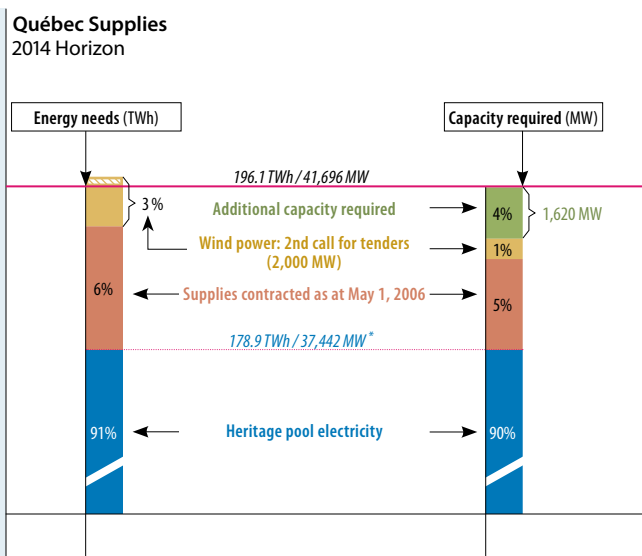
The company is counting on the complementarity of hydroelectricity and wind power to maintain a reliable supply. To deal with the variable nature of winds, Hydro-Québec Distribution signed a wind power integration agreement with Hydro-Québec Production that was approved by the Régie de l'énergie in February 2006. For the first wind power call for tenders, Hydro-Québec Production will fill the gaps in wind output in order to ensure the reliability of deliveries throughout the year and will provide 347 MW of firm capacity (i.e., 990 MW at a capacity factor of 35%) by winter 2012–2013. A similar agreement being considered for the second wind power tender call would provide an estimated 600 MW of firm capacity by winter 2014–2015.

To manage temporary fluctuations in needs, Hydro-Québec Distribution turns to short-term supplies. The extent of their use varies from one year to the next, and their average price depends on market conditions and the type of supply. By 2007, deliveries under the long-term contracts signed following Hydro-Québec Distribution's 2002 call for tenders will significantly reduce the reliance on short-term supplies.

To handle fluctuations in the very short term, Hydro-Québec Distribution may ask large-power customers that have signed up for the interruptible electricity option to reduce their power demand in return for financial compensation. In October 2004, the Régie de l'énergie approved the terms of this rate option for a two-year period ending in November 2006. A new request was filed with the Régie de l'énergie in May 2006. The Electricity Supply Plan 2005–2014 provides for the option to be renewed, yielding a contribution of 500 MW.

The energy balance indicates surpluses. Hydro-Québec Distribution will have to use the flexibility in its portfolio to rebalance the supply. It will also factor in the 500-MW contribution of additional wind power contracts earmarked, in equal shares, for the regions (regional county municipalities) and First Nations.

However, the division will have to acquire new capacity supply during the period covered by the Electricity Supply Plan 2005–2014, including 1,620 MW for the 2014–2015 winter peak. The measures planned to meet these needs were submitted to the Régie de l'énergie. They include sharing capacity reserve with neighboring systems, expanding the interruptible electricity option and instituting scheduled voltage decreases, a practice followed by other North American system operators. New tender calls for short- and long-term supplies may also be issued.



\* 165 TWh plus losses / 34,342 MW plus capacity reserve.

### 1.3 Rates

Under the regulatory framework, the Régie de l'énergie has full authority over the rates of Hydro-Québec Distribution and Hydro-Québec TransÉnergie. The Régie de l'énergie approves the two divisions' investments, rate base (essentially, their assets) and cost of service. The cost of service includes mainly operating expenses, depreciation and amortization, and financial expenses, as well as a reasonable rate of return on shareholder's equity. For Hydro-Québec Distribution, it also includes costs committed for energy supplies and transmission services.

In February 2006, the Régie de l'énergie authorized Hydro-Québec Distribution to raise its rates by 5.3%, effective April 1, 2006. This adjustment is due mainly to the substantial growth in domestic energy consumption, which leads to additional electricity supply costs as well as investments to connect new customers to the grid and provide them with electricity service. In its decision, the Régie de l'énergie expressed satisfaction with the results of the benchmarking study conducted by Hydro-Québec Distribution concerning its operating expenses and overall efficiency, and recognized the division's commitment to pursue its efforts to improve performance.

In April 2006, the Régie de l'énergie rendered its decision on Hydro-Québec TransÉnergie's application to amend the conditions of transmission service. It approved a transmission rate adjustment, retroactive to January 1, 2005.

Hydro-Québec Distribution will incorporate the transmission cost increase applicable to Québec customers into its application to the Régie de l'énergie for the rate year commencing April 1, 2007. It will propose that the deferred costs corresponding to the increase in transmission costs for 2005 and 2006 be recouped over the 2008–2010 period. This approach contributes to limiting the April 2007 rate adjustment to 2.8%. The recovery period, three years at most, would be set as of 2007. Rate changes would therefore be predictable over the term of the Strategic Plan.

In view of the foregoing and the \$182 million saved on 2006 supply costs which Hydro-Québec Distribution proposes to apply to its 2007-2008 rate application, the division has filed an application with the Régie de l'énergie to raise its rates by 2.8%, effective April 1, 2007. For 2008 to 2010, the forecast annual rate increases are estimated at 3.5%, 2.5% and 0.1%. These forecasts are detailed on page 39. Growth in Québec's electricity consumption is a major factor in the increases for 2006 to 2010. All rate applications will be filed for approval of the Régie de l'énergie, which will conduct a detailed analysis of the underlying justification and forecasts as part of a rigorous process of public hearings.

It should be noted that, in its February 2006 decision, the Régie de l'énergie stated:

“... it is desirable that consumers know the real cost of the electricity they consume, enabling them to make informed choices and encouraging them to adopt energy conservation behaviours.”<sup>1</sup>  
(p. 1)

1. For the Régie de l'énergie decision (summary in English), see: [http://www.regie-energie.qc.ca/audiences/3579-05/D-2006-34\\_summary.pdf](http://www.regie-energie.qc.ca/audiences/3579-05/D-2006-34_summary.pdf).

## 1.4 Hydro-Québec Production Commitments

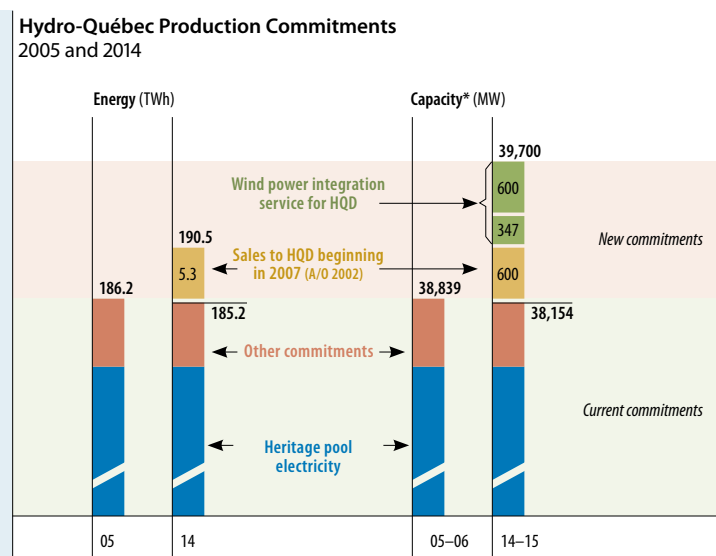
Hydro-Québec Production manages and develops its generating fleet in such a way as to meet its commitments to Hydro-Québec Distribution, fulfill its other long-term contracts and seize business opportunities that arise on markets in northeastern North America. Sales outside Québec allow it to take advantage of the flexibility of its hydroelectric facilities, especially in summer when demand is stronger south of the border and in Ontario, and consequently play a substantial role in the division's profitability. In 2005, for example, exports accounted for only 4% of the total volume of Hydro-Québec Production sales, but generated 32% of its net income. Sales outside Québec also contribute to overall market efficiency by promoting optimal use of existing facilities, such as interconnections with neighboring systems.

In 2005, Hydro-Québec Production commitments totaled 186.2 TWh: 178.6 TWh for the heritage pool, and 7.6 TWh for other commitments in Québec and contracts outside Québec with the Vermont Joint Owners and Cornwall Electric. Peak power demand in winter 2005–2006 was 38,839 MW.

In 2014, Hydro-Québec Production commitments will total 190.5 TWh, with a peak requirement of 39,700 MW. Added to the existing 2005 commitments<sup>1</sup> will be 5.3 TWh (600 MW), starting March 1, 2007, for contracts signed with Hydro-Québec Distribution in 2002, and up to 947 MW of firming-up capacity for the integration of wind power that will be supplied following Hydro-Québec Distribution's two calls for tenders.

Provided it has the necessary energy and capacity resources, Hydro-Québec Production will be able to seize business opportunities on regional markets.

1. See page 16 for the change in commitments existing in 2005.



\* Including capacity reserve.

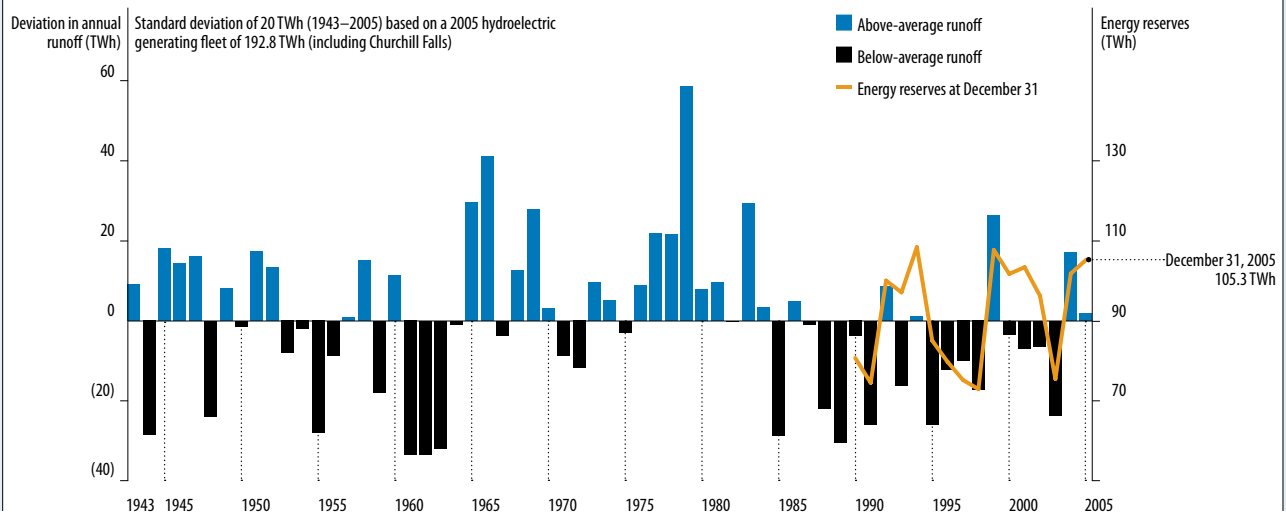
### Margin of flexibility

Generating resources stood at 192.9 TWh in 2005 (see table on page 16), just 6.7 TWh more than the division's commitments. Favorable runoff conditions and short-term purchases allowed it to add 2.5 TWh to the margin of flexibility, for a total of 9.2 TWh. However, this margin remains inadequate in terms of the company's main risk: variations in runoff, whose annual standard deviation is 20 TWh.

The annual margin of flexibility plays an essential role in managing the risk of low runoff. It must enable Hydro-Québec Production to replenish its energy reserves after a period of low runoff, without interrupting firm deliveries. This is an important factor in Québec's energy security and in the division's financial contribution to the company's results. The new generating facilities that will be commissioned in the coming years will increase the margin of flexibility to 15.0 TWh in 2010.

Energy reserves are another major component in Québec's energy security. At December 31, 2005, they stood at 105.3 TWh, an adequate level relative to contractual commitments at that date.

Variation in Annual Runoff (1943–2005) and Energy Reserves (1990–2005)



## 1.5 Water-power royalties

In its 2006–2007 budget, the Québec government announced the creation of the Generations Fund,<sup>1</sup> dedicated to reducing the provincial debt. Hydro-Québec Production will help finance this fund, specifically by paying water-power royalties (water-rental charges). These royalties, which are laid out under the *Watercourses Act*, already apply to other Québec hydropower producers. They consist of a statutory royalty and a contractual royalty which, in 2006, totaled 0.328 cents per kilowatthour of electricity generated. They are indexed annually in line with the consumer price index.

The water-power royalties applicable to Hydro-Québec Production will be introduced gradually, beginning in 2007. They are estimated at \$265 million in 2007, according to the division's calculations and energy balance, and will rise to \$545 million in 2008. Subsequent increases will be based on changes in consumer prices and hydroelectric output.

The royalties paid by Hydro-Québec Production will not have any impact on Hydro-Québec Distribution's electricity rates. The heritage pool contract between these two divisions is governed by the *Act respecting the Régie de l'énergie*, which sets the price at 2.79¢/kWh for a volume of 165 TWh. In addition, in view of the balance established by Hydro-Québec Distribution's Electricity Supply Plan 2005–2014, Hydro-Québec Production does not foresee any new energy sales in Québec for the 2014 horizon. However, in the event of stronger growth in Québec consumption around the 2014 horizon, Hydro-Québec Production would likely bid on the calls for tenders issued by Hydro-Québec Distribution.

The water-power royalties will not affect the cost of new capacity supplies, either. The integration service for the second wind power tender call (600 MW) will be offered by Hydro-Québec Production at essentially the same terms as the service for supplies under the first wind power tender call (347 MW). The remaining capacity supplies will be provided under market conditions, subject to the approval of the Régie de l'énergie.

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1. See: [www.budget.finances.gouv.qc.ca/budget/2006-2007/en/pdf/GenerationsFund.pdf](http://www.budget.finances.gouv.qc.ca/budget/2006-2007/en/pdf/GenerationsFund.pdf).



## 1.6 Governance

The company's operations are governed by the *Hydro-Québec Act*, which defines such aspects as its mission and rules of governance. In this regard, the practices of the Board of Directors comply with the principles of independence, transparency and accountability advocated in the policy statement *Modernizing the Governance of Government Corporations*,<sup>1</sup> published by the Québec government in April 2006. The Board's practices are also based on the Canadian Securities Administrators' guidelines even though, legally speaking, it is not bound by them because Hydro-Québec is not a publicly traded company.

The Board's independence from the company's corporate management is ensured by the separation of the function of Chairman of the Board from that of President and Chief Executive Officer, and by a clear definition of their responsibilities. The Board is made up of a maximum of 15 members appointed by the government. They come from outside the company, with the exception of the President and Chief Executive Officer. The Deputy Minister of Natural Resources and Wildlife sits on the Board.

The directors have clearly defined roles and responsibilities. They work on nine committees, including the Human Resources Committee, Audit Committee, and Environment and Corporate Governance Committee. In addition, the Board is responsible for compliance with the *Code of Ethics and Rules of Professional Conduct for Directors, Executives and Controllers of Hydro-Québec*.

Hydro-Québec applies the principles of transparency and accountability in its planning exercises. The Board analyzes and approves the Strategic Plan—the form, content and frequency of which are set by the government. It also analyzes the annual Business Plan, examines the financial and management results, and ensures effective risk management.

The company has adopted strict audit and reporting practices. Its Annual Report, which is approved by the Board and tabled in the National Assembly, includes financial statements audited by two outside firms and a discussion and analysis by management.

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1. See: [www.finances.gouv.qc.ca/en/documents/publications/pdf/modernizing\\_governance.pdf](http://www.finances.gouv.qc.ca/en/documents/publications/pdf/modernizing_governance.pdf).



## 2. Business Objectives

The *Strategic Plan 2006–2010* confirms Hydro-Québec’s commitment to sustainable development<sup>1</sup> by emphasizing energy efficiency, complementary development of hydroelectricity and wind power, and technological innovation.

Hydro-Québec  
Production



Hydro-Québec  
TransÉnergie

Hydro-Québec  
Distribution



Corporate  
Activities

1. To consult the Sustainability Report 2005, go to: [www.hydroquebec.com/publications/en/enviro\\_performance/2005/index.html](http://www.hydroquebec.com/publications/en/enviro_performance/2005/index.html).





# Hydro-Québec Production

## Objectives

1. Increase hydroelectric generating capacity by accelerating project development.
2. Facilitate wind power integration.
3. Ensure the efficiency and reliability of the generating fleet.

## Financial Outlook (\$M)

	2005 (actual)	2006	2007	2008	2009	2010	Total 2006–2010
Contribution to net income	1,873	2,206	1,812	1,555	1,428	1,449	8,450
<i>after water-power royalties of</i>	–	–	265	545	563	596	1,969
<i>and a budget contingency of</i>	–	–	100	100	150	150	500
Capital investments	1,780	1,823	1,986	1,826	1,769	1,682	9,086

## Hydro-Québec Production – Energy and Capacity Balance

ENERGY RESERVES (TWh)	2005 (actual)	2006	2007	2008	2009	2010	2012	2014	Growth 2005–2014
<b>At December 31</b>	105.3	105.3	105.1	105.3	106.7	110.0	112.1	113.5	8.1
ANNUAL ENERGY (TWh)	2005 (actual)	2006	2007	2008	2009	2010	2012	2014	Growth 2005–2014
<b>Current resources</b>									
Hydroelectric generation	153.6	155.1	155.1	155.1	155.1	155.1	155.1	155.1	
Conventional thermal generation	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	
Nuclear generation – Gentilly-2	4.8	4.6	4.5	4.4	4.4	3.7	0.0	5.2	
Long-term purchases (including Churchill Falls)	34.3	35.6	35.9	35.7	35.7	35.7	35.7	35.7	
	<b>192.9</b>	<b>195.5</b>	<b>195.7</b>	<b>195.4</b>	<b>195.4</b>	<b>194.7</b>	<b>191.0</b>	<b>196.2</b>	<b>3.3</b>
<b>Commitments</b>									
<b>In Québec</b>									
Planned deliveries of heritage pool electricity	178.6	178.5	178.9	178.9	178.9	178.9	178.9	178.9	
Deliveries to Hydro-Québec Distribution – call for tenders A/O 2002			4.4	5.3	5.3	5.3	5.3	5.3	
Deliveries to Hydro-Québec Distribution – other contracts, 2005 and 2006	0.3	0.7							
Other (deliveries under agreement, station service)	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	
<b>Outside Québec</b>									
Short- and long-term contracts	3.4	3.0	2.9	2.9	2.9	2.9	2.8	2.5	
	<b>186.2</b>	<b>186.1</b>	<b>190.0</b>	<b>190.9</b>	<b>190.9</b>	<b>190.9</b>	<b>190.8</b>	<b>190.5</b>	<b>4.3</b>
<b>Current resources minus commitments</b>	<b>6.7</b>	<b>9.4</b>	<b>5.7</b>	<b>4.5</b>	<b>4.5</b>	<b>3.8</b>	<b>0.1</b>	<b>5.7</b>	<b>(1.0)</b>
<b>Variation in energy reserves and electricity purchases</b>									
Runoff (deviation from average)	1.7								
Drawdown (increase) in energy reserves: leveraging, filling and adjustment of reserves	(3.9)	0.6	0.5	(0.3)	(1.3)	(3.3)	(1.1)	(0.2)	
Purchases from independent power producers	0.0	0.1	0.7	1.5	1.5	1.5	1.5	1.5	
Short-term purchases	4.7								
	<b>2.5</b>	<b>0.7</b>	<b>1.2</b>	<b>1.3</b>	<b>0.2</b>	<b>(1.7)</b>	<b>0.4</b>	<b>1.3</b>	<b>(1.2)</b>
<b>New generating projects in the 2006–2014 horizon</b>									
Refurbishment + turbine optimization projects (MATH)		0.1	0.3	0.6	0.7	0.9	0.9	0.9	<b>0.9</b>
Mercier		0.1	0.3	0.3	0.3	0.3	0.3	0.3	<b>6.1</b>
Eastmain-1*		0.5	2.7	2.7	2.7	3.4	2.7	2.7	
Chute-Allard			0.0	0.3	0.4	0.4	0.4	0.4	
Rapides-des-Cœurs			0.0	0.4	0.5	0.5	0.5	0.5	
Péribonka				0.6	2.2	2.2	2.2	2.2	<b>8.5</b>
Rupert diversion (gains at LG-1, LG-2-A and Robert-Bourassa)						5.3	5.3	5.3	
Eastmain-1-A							2.3	2.3	
Sarcelle							0.9	0.9	
First Romaine complex generating station (commissioning in November 2014)								0.4	<b>0.4</b>
	<b>–</b>	<b>0.7</b>	<b>3.4</b>	<b>5.0</b>	<b>6.8</b>	<b>13.0</b>	<b>15.5</b>	<b>15.8</b>	<b>15.8</b>
<b>Margin of flexibility for managing runoff risk and short-term sales</b>	<b>9.2</b>	<b>10.8</b>	<b>10.2</b>	<b>10.8</b>	<b>11.6</b>	<b>15.0</b>	<b>15.0</b>	<b>15.0</b>	<b>5.8</b>
<b>Uncommitted resources available for long-term sales</b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>1.0</b>	<b>7.8</b>	<b>7.8</b>
CAPACITY AT WINTER PEAK (MW)	2005–2006	2006–2007	2007–2008	2008–2009	2009–2010	2010–2011	2012–2013	2014–2015	Growth 2005–2014
<b>Current resources</b>	<b>38,682</b>	<b>39,155</b>	<b>39,149</b>	<b>39,139</b>	<b>39,129</b>	<b>39,119</b>	<b>39,003</b>	<b>38,754</b>	<b>71</b>
<b>Commitments</b>									
Capacity associated with heritage pool, other commitments in Québec and contracts outside Québec	35,279	35,279	35,279	35,279	35,279	35,279	35,219	34,984	<b>(296)</b>
Reserve required	3,210	3,240	3,260	3,260	3,260	3,260	3,260	3,170	<b>(40)</b>
Short-term sales to Hydro-Québec Distribution	350								<b>(350)</b>
	<b>38,839</b>	<b>38,519</b>	<b>38,539</b>	<b>38,539</b>	<b>38,539</b>	<b>38,539</b>	<b>38,479</b>	<b>38,154</b>	<b>(686)</b>
Sales to Hydro-Québec Distribution			600	600	600	600	600	600	<b>600</b>
Firm capacity for wind integration (contracted and planned)		38	126	164	307	462	812	947	<b>947</b>
	<b>38,839</b>	<b>38,557</b>	<b>39,265</b>	<b>39,303</b>	<b>39,446</b>	<b>39,602</b>	<b>39,891</b>	<b>39,700</b>	<b>861</b>
<b>Current resources minus commitments</b>	<b>(157)</b>	<b>598</b>	<b>(116)</b>	<b>(164)</b>	<b>(317)</b>	<b>(482)</b>	<b>(887)</b>	<b>(946)</b>	<b>(789)</b>
<b>Electricity purchases (from private producers and short-term)</b>	<b>159</b>	<b>19</b>	<b>60</b>	<b>102</b>	<b>102</b>	<b>102</b>	<b>102</b>	<b>102</b>	<b>(57)</b>
<b>New generating projects in the 2006–2014 horizon (net of capacity reserve)</b>	<b>–</b>	<b>461</b>	<b>734</b>	<b>1,317</b>	<b>1,420</b>	<b>1,420</b>	<b>2,268</b>	<b>2,848</b>	<b>2,848</b>
<b>Uncommitted capacity</b>	<b>2</b>	<b>1,078</b>	<b>678</b>	<b>1,255</b>	<b>1,205</b>	<b>1,040</b>	<b>1,483</b>	<b>2,004</b>	<b>2,002</b>

\* Output at Eastmain-1 generating station is 2.7 TWh, except in 2010 and 2011, when inflows from the Rupert diversion temporarily increase it to 3.4 TWh until Eastmain-1-A powerhouse is commissioned.

## Objective 1: Increase hydroelectric generating capacity by accelerating project development

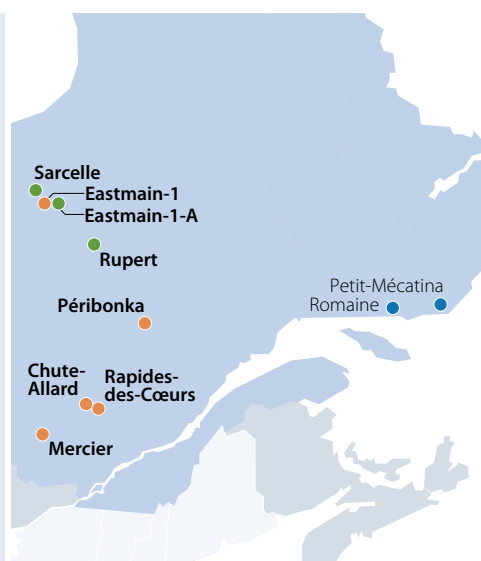
Hydro-Québec's major hydroelectric developments are central to Québec's power system. They are in accordance with the principles of sustainability. They also form the foundation for integrating the output of the wind farms planned under Hydro-Québec Distribution's Electricity Supply Plan.

Annual hydroelectric output will increase by 15.8 TWh<sup>1</sup> between now and 2014. The Eastmain-1-A/Sarcelle/Rupert project is of key importance in this regard: on its own, it will supply 8.5 TWh, at a favorable cost of under 5¢/kWh. The projects already under construction will generate 6.1 TWh, while the refurbishment of existing facilities will add about 1 TWh. These undertakings should yield a 15-TWh margin of flexibility by the beginning of the next decade, which will contribute to Québec's energy security and allow the company to pay water-power royalties while maintaining its profitability.

By 2014, Hydro-Québec Production plans to add 2,848 MW to its peak generating capacity: 986 MW from generating stations under construction, 888 MW from Eastmain-1-A and Sarcelle powerhouses, and 600 MW from the first facility in the Romaine complex. The division is also counting on the refitting and refurbishing of generating stations, including Beauharnois, La Tuque, Outardes-3 and Outardes-4.

Hydro-Québec Production evaluates its projects on the basis of three criteria: they must be profitable, environmentally acceptable and favorably received by local communities. In keeping with these criteria, the division will create a portfolio of projects totaling 4,500 MW.

1. For details on power generation projects, see: [www.hydroquebec.com/projects](http://www.hydroquebec.com/projects).



Projects	Energy (TWh)	Installed capacity (MW)	Project costs (\$B)	Cost of electricity* (¢/kWh)
● Under construction	6.1	1,055**	4	6–8
● Eastmain-1-A/Sarcelle/Rupert	8.5	888	4	4.4
<b>Total</b>	<b>14.6</b>	<b>1,943</b>	<b>8</b>	<b>–</b>

\* Generating costs only.

\*\* Normal peak operating constraints will limit capacity generated to 986 MW.

Portfolio of projects	MW
● Romaine	1,500
● Petit-Mécatina	1,500
Other projects	1,500
<b>Total</b>	<b>4,500</b>

## Strategy 1 – Commission projects under construction in the shortest time possible

Together with Hydro-Québec Équipement and SEBJ, Hydro-Québec Production is continuing its efforts to optimize the construction schedules of projects already under way. The commissioning of Toulnostouc generating station five months ahead of schedule is a model in this regard.

The new facilities must be made available as soon as possible. The dates shown in the following table take the optimization efforts into account.

Projects under construction	Energy (TWh)	Installed capacity (MW)	Commissioning
Mercier	0.3	51	October 2006 to February 2007
Eastmain-1	2.7	480	September 2006 to February 2007
Chute-Allard	0.4	62	November 2007 to May 2008
Rapides-des-Cœurs	0.5	77	December 2007 to June 2008
Péribonka	2.2	385	March to July 2008
<b>Total</b>	<b>6.1</b>	<b>1,055*</b>	

\* Normal peak operating constraints will limit capacity generated to 986 MW: Mercier (32 MW), Chute-Allard (57 MW) and Péribonka (340 MW).

## Strategy 2 – Build the Eastmain-1-A/Sarcelle/Rupert project in the shortest time possible

The Eastmain-1-A/Sarcelle/Rupert project<sup>1</sup> will add 888 MW in capacity and 8.5 TWh in annual energy—more than half of the new output planned by 2014. It will be commissioned in stages between the end of 2009 and winter 2012.

The project comprises:

- Eastmain-1-A powerhouse, located next to Eastmain-1 generating station
- Sarcelle powerhouse, at the outlet of Opinaca reservoir (built in the 1970s as part of Phase 1 of the La Grande complex)
- structures built to partially divert the Rupert River

1. For project details, see: [www.hydroquebec.com/eastmain1a/en](http://www.hydroquebec.com/eastmain1a/en).



The water from the Rupert River will be turbinéd at Eastmain-1 or Eastmain-1-A before flowing naturally on to Sarcelle powerhouse and the three generating stations in the lower La Grande complex: Robert-Bourassa, La Grande-2-A and La Grande-1. As a result, 2.3 TWh will come from Eastmain-1-A and Eastmain-1, 0.9 TWh from Sarcelle and 5.3 TWh from the total increase in output at the three downstream generating stations.

With a capital budget in excess of \$4 billion and job estimates totaling 27,000 person-years over the 2002–2012 period, building Eastmain-1-A and Sarcelle powerhouses and the partial diversion of the Rupert River represents the biggest project of the decade in Hydro-Québec’s construction program. In December 2004, the company submitted an approximately 2,500-page environmental impact statement, together with 30 background studies, to the authorities in charge of the environmental review of the project.<sup>1</sup> These studies are the result of several years of consultation and data collection. Environmental specialists spent some 120,000 hours on field studies, for example.

Between October 2005 and January 2006, Hydro-Québec Production responded to 384 requests for additional information on the project. Public hearings held from March 15 to June 6, 2006, should result in the necessary approvals being received by the end of 2006, and construction could then begin immediately.

The government approvals requested include the certificate of authorization specified in Chapter II of the *Québec Environment Quality Act* and in the *James Bay and Northern Québec Agreement*, as well as the Fisheries and Oceans Canada and Transport Canada permits. The company must also obtain area-specific authorizations, such as the certificates issued for quarry and sandpit operation and the construction of roads and workcamps.

1. For the complete project file, go to the Canadian Environmental Assessment Agency Web site: [www.ceaa-acee.gc.ca/010/0001/0001/0017/index\\_e.htm](http://www.ceaa-acee.gc.ca/010/0001/0001/0017/index_e.htm).



### ***Strategy 3 – Create a portfolio of projects totaling 4,500 MW***

Hydro-Québec Production is continuing its efforts to identify and develop other hydroelectric projects that would be commissioned after the period covered by the *Strategic Plan 2006–2010*.

In this connection, Hydro-Québec will create a portfolio of projects totaling 4,500 MW. Technical and environmental draft-design studies and the environmental assessment process will be conducted at the same time as discussions with First Nations communities and municipal partners. Depending on market conditions, construction could begin on one or more of these projects around 2010.

The project that is the farthest along at the moment is an approximately 1,500-MW complex consisting of four hydropower developments on the Romaine River, in the Minganie region, which would have an annual output of 7.7 TWh.

The Romaine draft design began in spring 2004 and will be completed in spring 2007. It will specify the project's characteristics, determine its environmental impacts, establish mitigation measures, define environmental monitoring, follow-up and compliance assurance programs, and optimize overall concepts and costs.

If the studies confirm the profitability and environmental acceptability of the project, and if it is favorably received by local communities, construction could commence as early as 2009, after the necessary approvals are obtained. The first generating station could be commissioned in winter 2014–2015.

A similar 1,500-MW project is being considered on the Petit Mécatina River, about 300 kilometres east of the Romaine River. Studies and surveys to establish the exact configuration and cost of the developments will begin in 2006.

The balance of the project portfolio, totaling 1,500 MW, remains to be determined. Various options will be analyzed in the near future. Preliminary studies will be needed to define the technical, economic and environmental characteristics of the prospective projects.

## Objective 2: Facilitate wind power integration

Wind power is a generating option that offers attractive potential in Québec. In 2004 and 2005, Hydro-Québec Production signed new contracts for the purchase of wind power, bringing wind capacity contracted to date to over 500 MW. About 200 MW has already been connected and integrated into overall generating fleet management, which has led to a better understanding of wind integration issues.

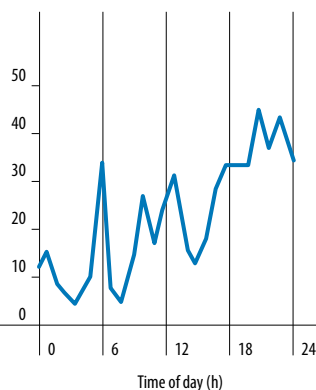
### *Strategy 1 – Offer wind power integration service*

Hydro-Québec Production will offer services to offset fluctuations in wind output and so facilitate the integration of this type of energy.

It has reached an integration agreement with Hydro-Québec Distribution for the contracts signed in February 2005 for the purchase of 990 MW of wind power.

This agreement, approved by the Régie de l'énergie in February 2006, provides for balancing and firming-up capacity services. The balancing service will help maintain a reliable supply to Hydro-Québec Distribution in spite of fluctuations in wind output (see figure below). For the 990 MW in wind power resulting from Hydro-Québec Distribution's first call for tenders, the firming-up capacity service will guarantee 347 MW, at an overall estimated cost of 0.5¢/kWh.

**Example of output from a 50-MW wind farm (MW)**



## ***Strategy 2 – Contribute to the development of wind power in tandem with hydroelectricity***

Hydro-Québec Distribution's second call for tenders, for the purchase of 2,000 MW of wind power, will create the need for about 600 MW of firming-up capacity. Hydro-Québec Production has incorporated these capacity requirements into the planning and management of its generating fleet. However, the approval of the Régie de l'énergie must be obtained before this new commitment between Hydro-Québec Production and Hydro-Québec Distribution is confirmed.

It should be noted that development of Québec's hydroelectric potential is what provides firm capacity and the flexibility needed to integrate wind power.

## **Objective 3: Ensure the efficiency and reliability of the generating fleet**

Hydro-Québec Production's facilities are heavily solicited and will remain so for the foreseeable future, given the current activity on energy markets. The efficiency and reliability of the generating fleet are therefore major issues; ongoing improvement will be based on the company's ability to innovate. Specific initiatives will be undertaken to enhance the generating fleet's performance, extend its useful life, reduce repair and maintenance time and costs, and limit the risks involved in predicting runoff.

In addition, in 2006, Hydro-Québec Production will complete most of the security measures required to protect its strategic facilities. Different levels of security have been defined, depending on the risks and the facilities' importance. Each generating station has specific protection measures, such as guards on duty, camera surveillance and patrols. The division will also maintain efforts to ensure public safety.

### **Complementary development of hydroelectricity and wind power**

By its very nature, wind output fluctuates over time, depending on wind speeds. Hydroelectric output, for its part, varies from one year to the next, according to runoff conditions. However, the water needed to generate hydroelectricity can be held in reservoirs, while wind energy cannot be stored.

Québec is fortunate in having a highly flexible, clean and renewable basic form of energy: hydroelectricity.

Wind power is not a substitute for hydroelectricity, but a complement.

### ***Strategy 1 – Improve generating fleet efficiency through technological innovation***

The primary goal of technological innovation is to improve the performance of the generating fleet and extend its useful life. The following means will be applied:

- Continuous data acquisition systems will be developed to monitor equipment behavior and condition in order to optimize maintenance operations and increase generating station availability.
- New tools will be designed for surveillance, modeling of thermal and hydraulic behavior, non-destructive monitoring and radar detection of the behavior of dams and control structures.
- Development will be continued on robotic tools for maintenance of hydraulic turbines, the Gentilly-2 nuclear reactor, dams and control structure gates.
- Tools such as MATH simulation technology will also be improved to enhance the efficiency and capacity of hydraulic generating units.

In addition, technological innovation will help increase the profitability of the division's other operating activities. For example, hydrometeorological data acquisition systems will be developed to improve the quality of runoff prediction and optimize real-time forecasting of wind output.

### ***Strategy 2 – Begin refurbishment of Gentilly-2, if appropriate***

Gentilly-2 nuclear generating station was commissioned in 1983, with an estimated useful life of 30 years. At the 2011 horizon, this 675-MW facility, which generates nearly 5 TWh a year, must undergo refurbishment to extend its useful life until 2035; otherwise, it will have to be shut down.

To maintain the plant's generating capability until 2011, a new radioactive-waste storage facility is already needed. In May 2005, the BAPE recommended that the Québec government authorize this work. The federal government, for its part, chose to examine the refurbishment aspect before announcing a decision on the storage facility. Public hearings are being held in 2006.

Hydro-Québec Production must decide whether to refurbish Gentilly-2. However, it is still too early to make this decision, since all the technical, economic and environmental data is not yet available. The refurbishment of the Point Lepreau facility in New Brunswick will provide useful information for decision-making, as that plant, built in 1981, is similar to Gentilly-2.

### ***Strategy 3 – Optimize sales and purchases on wholesale markets while complying with reliability criteria***

Since 1999, Hydro-Québec Production has been active in trading on energy markets in the U.S. Northeast: sale of electricity generated in Québec, purchase for resale, and price arbitrage transactions.

The commissioning of the hydroelectric facilities currently under construction or in the permitting process will increase the division's margin of flexibility. With this new generating capacity and the long-term transmission commitments contracted in 2006, it will be in a position to make the most of business opportunities that arise on markets outside Québec.

Hydro-Québec Production has equipped itself with generation optimization tools that are of benefit in its merchant operations. These decision-making tools provide real-time measurement of the degree of optimization of generating fleet management. They also are used to simulate various strategies on the basis of sale and purchase opportunities and of routine generating facility maintenance requirements. The division plans to adapt these tools to the requirements of managing the wind power integration service.

Hydro-Québec Production's merchant operations outside Québec do not compromise the energy security of Québec. To meet its commitments on the Québec market and its long-term contracts outside Québec, the division maintains a sufficient energy reserve to offset a runoff deficit of 64 TWh over two consecutive years and 98 TWh over four consecutive years. It also ensures that it has sufficient installed capacity to fulfill its commitments in Québec and limit the probability of load shedding to one day every 10 years, or 2.4 hours per year. These energy reliability criteria will not change over the term of the *Strategic Plan 2006–2010*.



# Hydro-Québec TransÉnergie

## Objectives

1. Ensure transmission system reliability.
2. Become a world benchmark for quality and reliability in wind power integration.
3. Deploy new technologies to enhance performance.

## Financial Outlook (\$M)

	2005* (actual)	2006	2007	2008	2009	2010	Total 2006–2010
Contribution to net income	380	417	441	474	487	521	2,340
Capital investments	740	990	844	948	1,145	982	4,909
Rate base	14,571	14,871	15,312	15,763	16,084	16,751	–

\* Excludes telecommunications and the retroactive impact of the decision of the Régie de l'énergie of April 2006.

## Objective 1: Ensure transmission system reliability

Hydro-Québec TransÉnergie operates the largest power transmission system in North America, with over 32,000 kilometres of lines and interconnections with New Brunswick, Ontario and the U.S. Northeast.<sup>1</sup> The system is supported by Hydro-Québec's telecommunications network to ensure stability and efficient operation.

The division will continue to develop the transmission system to maintain service reliability and quality while meeting the growth in power transmission needs.

### *Strategy 1 – Meet the growing need for power transmission*

Hydro-Québec TransÉnergie will invest \$5 billion between 2006 and 2010 to keep up with consumption growth in Québec, integrate new hydroelectric and wind power generation capacity, replace equipment and incorporate new technologies that deliver better performance. Integrated planning of transmission system development over a 10-year horizon will enable cost-effective completion of the right projects at the right time.

System development requires long-term vision because of the new complexity of planning, which involves technology issues, development of scenarios for the 4,500-MW portfolio of future hydroelectric projects, and integration of wind power.

Between 2006 and 2010, Hydro-Québec TransÉnergie will invest \$500 million per year on average to increase the transmission capacity of its system. The division will add transformation capacity at more than 50 substations and build about ten more substations to handle consumption growth in Québec. Five new hydroelectric generating stations will be connected to the grid, along with the wind farms whose owners have supply contracts with Hydro-Québec Distribution.

Once Hydro-Québec Production confirms the need for transmission services to Ontario, Hydro-Québec TransÉnergie will build the planned 1,250-MW interconnection and bring it on stream for the 2009 horizon. The division will also assess the capacity of its other interconnections with neighboring systems and look at potential ways to increase it.

To carry out this ambitious capital program, the division will work with Hydro-Québec Équipement to streamline the project planning and execution processes with two main objectives in mind: reduction of lead times, especially for connection of wind farms, and better consideration of operating, maintenance and useful-life requirements.

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1. For more information on the transmission system, see [www.hydroquebec.com/transenergie/en/reseau/bref.html](http://www.hydroquebec.com/transenergie/en/reseau/bref.html).



## **Strategy 2 – Maintain transmission system reliability**

Hydro-Québec TransÉnergie operates its system in compliance with recognized North American standards of reliability.

In 2005, in the wake of the August 2003 blackout that affected 50 million people in Ontario and the states of New York, Michigan and Ohio, the U.S. government adopted the *Energy Policy Act*. This law provides for the creation of mandatory reliability standards with fines for noncompliance. A new entity called the Electric Reliability Organization (ERO) will be responsible for developing the standards and enforcing compliance by all North American systems. This organization will have to obtain certification in the United States and recognition in Canada and Mexico. In April 2006, the North American Electric Reliability Council (NERC) applied for certification by the Federal Energy Regulatory Commission (FERC) to obtain ERO status and begin operation in January 2007. NERC has filed similar applications with various regulatory bodies in Canada.

Hydro-Québec TransÉnergie is collaborating in the development of a regulatory framework that will enable the Régie de l'énergie to oversee implementation of the mandatory reliability standards for the transmission system in Québec.

The division will also continue to strengthen the bulk transmission system through projects authorized following the 1998 ice storm. By securing strategic substations and lines to reinforce regional systems, it will ensure that transmission capacity can be restored very quickly after a power failure.

In 2006, Hydro-Québec TransÉnergie will complete the deployment of most of the security measures needed to protect strategic facilities. Surveillance cameras and systems for access control and intruder detection will be installed and connected to remote monitoring centres. The division will continue to ensure public safety and conduct training and prevention activities in order to improve safety for employees and contractors.

## Objective 2: Become a world benchmark for quality and reliability in wind power integration

For Hydro-Québec TransÉnergie, wind power development in Québec presents challenges but also provides an opportunity to become a world benchmark in bringing wind power onto a major grid. The division will develop its expertise in conjunction with Hydro-Québec's other units and partners in the wind power industry.

### *Strategy 1 – Ensure the reliable integration of wind power*

Work to integrate wind farms began with the gradual connection of 500 MW purchased by Hydro-Québec Production from private producers and will continue with a block of 990 MW. This block, generated in the Gaspé region under contracts signed in 2005 by Hydro-Québec Distribution, will be connected at a capital cost of \$430 million. In 2008, Hydro-Québec TransÉnergie plans to begin integrating an additional 2,000 MW expected as a result of the call for tenders issued by Hydro-Québec Distribution in 2005.

Hydro-Québec TransÉnergie will continue to develop methods for integrating this new power supply, which will bring the installed wind capacity in Québec to 3,500 MW by 2014. An additional 500 MW is planned under the Québec Energy Strategy 2006–2015. The division will create the conditions needed for reliable system operation by providing voltage and frequency control services.

Project planning and execution methods will be adjusted to reduce lead times for connecting the wind farms. Wind power integration criteria will be updated on the basis of the penetration rate, acquired experience and technological advances.

### *Strategy 2 – Ensure an optimal and reliable contribution from wind farms in the Hydro-Québec system*

Hydro-Québec TransÉnergie will develop methods and tools to handle the variances between planned and actual wind power generation. These variances, as well as the differences between forecast and actual consumption in Québec, will be analyzed to optimize the continual adjustment of the transmission system.

Technologies for gathering, recording and processing information will be deployed for accurate assessment of hourly wind farm operation. This data will be used to review operating methods and criteria.

## Objective 3: Deploy new technologies to enhance performance

Hydro-Québec TransÉnergie is counting on new technologies and R&D to improve its performance. In 2005, the division prepared a technological evolution plan that covers the changes anticipated between 2007 and 2016 to modernize the system and thereby increase its reliability, useful life and transmission capacity.

### *Strategy 1 – Continue to implement new technologies*

The division will continue to introduce digital technologies to bolster operating and maintenance efficiency. Data capture and transmission capabilities will be deployed for remote monitoring of equipment operation.

The self-diagnostic capabilities of equipment will facilitate remote maintenance operations, reduce costs and increase transmission system reliability. These digital technologies will make it possible to measure equipment deterioration and more accurately estimate the remaining useful life.

The new technologies will be deployed whenever transmission facilities are expanded or upgraded. This gradual implementation will optimize capital outlays, but will also make it necessary to maintain expertise for both old and new technologies.

The division uses pilot projects to assess the advantages of new technologies. One such project is under way at Frégeau substation in the Mauricie region to determine the potential of remote monitoring and maintenance systems. A pilot project at Hertel substation in the Montérégie region will assess a wireless technology for transmitting operating data within the substation. The objectives of this project are to reduce the cost of wiring within facility perimeters and to assess the flexibility of the technology. The two pilot projects will cost about \$8 million.

### *Strategy 2 – Align R&D with the division's main priorities*

Hydro-Québec TransÉnergie spends over \$20 million a year on development or adaptation of technological innovations to enhance its performance. In 2005, the division refocused its R&D objectives on three main priorities:

- Make the operation and maintenance of strategic equipment more efficient, particularly by improving the accuracy and efficiency of status diagnostics
- Increase transmission capacity at the lowest cost by using new technologies such as automation, simulation and control tools
- Ensure the quality and reliability of wind power integration through research activities such as modeling and simulating wind turbine operation under network conditions

A number of projects are under way. For example, the project to improve system behavior in order to increase throughput capacities calls for development of digital components and relays for automation and control systems. Another key project consists in developing circuit-breaker diagnostic methods as well as acquisition systems and analysis software for extending useful life and reducing maintenance expenses.

The R&D projects related to these three main priorities will generate gains estimated at \$190 million by 2010.

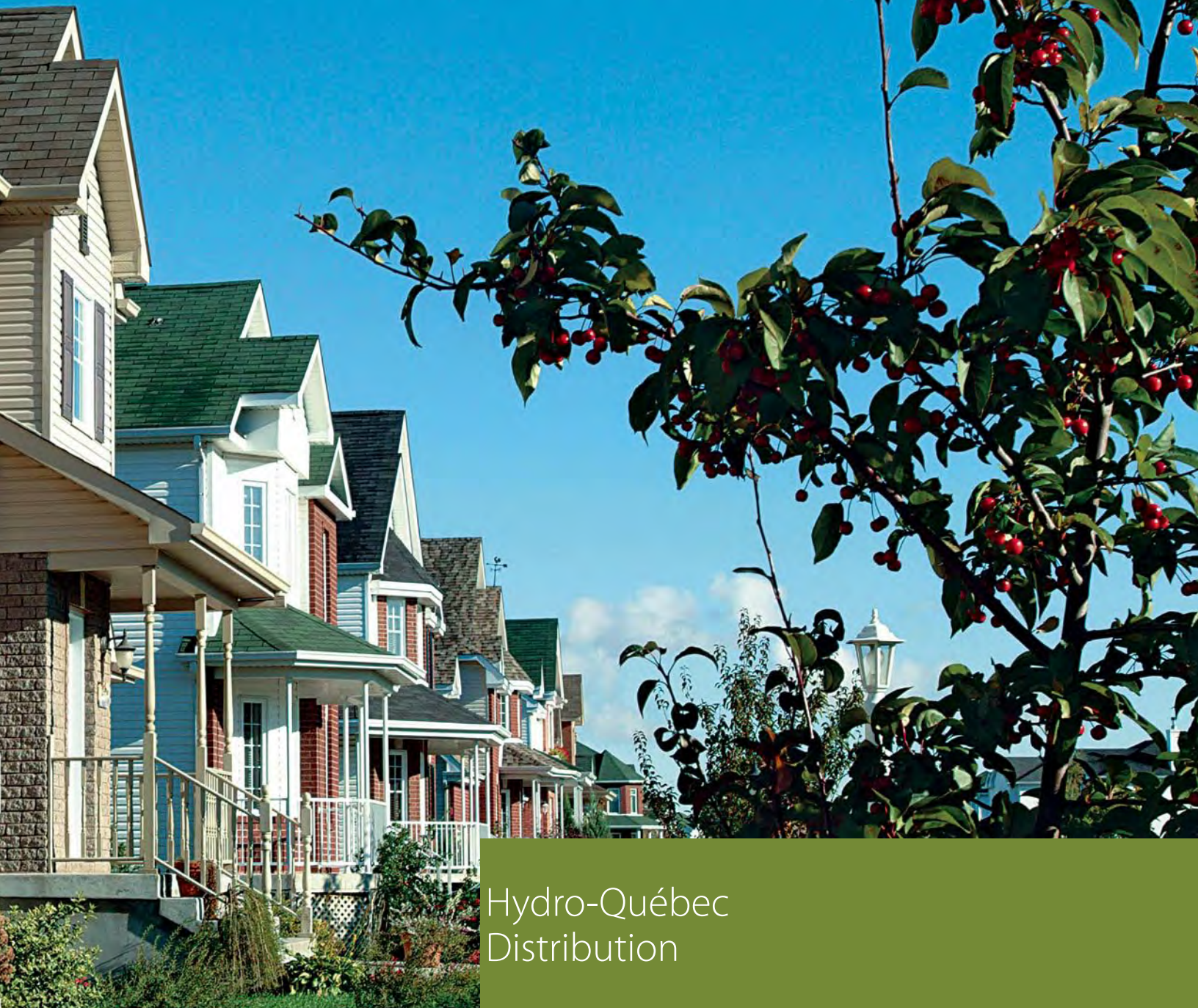
### *Strategy 3 – Upgrade work practices to improve efficiency*

Hydro-Québec TransÉnergie plans to continue improving its maintenance and operating practices and to take advantage of new technologies. Over the term of the Strategic Plan, it will target a 1% average annual improvement in the efficiency of its scheduled maintenance and supervisory control operations. These gains in efficiency will enable it to handle the increased workload caused by the growth in transmission requirements and aging equipment. They will help the division limit the increase in its operating expenses to 2% a year beginning in 2007, as forecast.

To improve its work procedures, Hydro-Québec TransÉnergie will adopt industry and business best practices, including:

- increased employee specialization for certain tasks
- deployment and optimal use of remote maintenance and monitoring technologies
- rationalization of telecontrol and data-processing centres

Hydro-Québec TransÉnergie is currently developing efficiency indicators and goals for this strategy, to be submitted to the Régie de l'énergie in 2006.



## Hydro-Québec Distribution

### Objectives

1. Promote more efficient use of electricity.
2. Increase customer satisfaction.
3. Meet electricity needs by favoring renewable energy sources.

### Financial Outlook (\$M)

	2005 (actual)	2006	2007	2008	2009	2010	Total 2006–2010
Contribution to net income	230	(64)	296	523	628	566	1,949
Capital investments	793	940	849	838	908	918	4,453
Rate base	8,463	8,919	9,446	9,940	10,181	10,408	–

## Objective 1: Promote more efficient use of electricity

Hydro-Québec Distribution will continue to promote conservation by investing in energy savings programs and stepping up efforts to make customers aware of the importance of energy efficiency. This will reduce the growth in consumption, to the benefit of all customers.

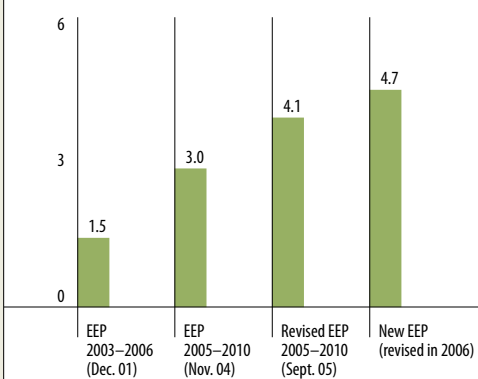
### Strategy 1 – Meet the Energy Efficiency Plan targets

In December 2001, Hydro-Québec Distribution submitted its first Energy Efficiency Plan (EEP) to the Régie de l'énergie. In November 2004, the division filed its Energy Efficiency Plan 2005–2010, which boosted the annual savings target to 3.0 TWh by 2010. In September 2005, encouraged by positive customer response to the various programs, it revised this target to 4.1 TWh. This EEP, approved by the Régie de l'énergie in March 2006, provided for total investments of \$1.9 billion, over half to be made by Hydro-Québec Distribution.<sup>1</sup>

As part of the present Strategic Plan, Hydro-Québec is setting its target higher, to 4.7 TWh of annual savings by 2010, in line with a target of 8 TWh by 2015. The related programs and investment budgets will be submitted to the Régie de l'énergie in the coming months.

1. See file R-3584-2005 on the Régie de l'énergie Web site (in French only): [www.regie-energie.qc.ca](http://www.regie-energie.qc.ca).

**Energy Efficiency Plan (EEP) –  
Growth in Projected Savings  
2010 Horizon (TWh)**



As provided for in the EEP 2005–2010, the division will step up its efforts to make customers aware of the importance of energy efficiency in order to maximize the benefits of the programs. Hydro-Québec has therefore intensified its communications efforts and Hydro-Québec Distribution has created a Web site<sup>1</sup> presenting the measures for the various categories of customers. Greater financial incentives for the purchase of a larger number of efficient products and better synergy with the activities of the Agence de l'efficacité énergétique and other partners have made the EEP 2005–2010 programs even more attractive.

While financially supporting experimentation with innovative approaches and products, Hydro-Québec Distribution will continue to push for reinforced standards and regulations on insulation and building energy performance, among other things.

In addition to new terms and conditions for customers of off-grid systems, the division is planning special assistance for low-income customers with programs tailored to their needs. Acting upon the decision of the Régie de l'énergie of March 2006, the division will encourage greater program accessibility for these customers.

### *Strategy 2 – Encourage better use of electricity to minimize supply costs*

To optimize management of its future supply, Hydro-Québec Distribution is counting on more efficient use of electricity. It is evaluating products and initiatives that could help to reduce peak demand.

The division will devote a substantial portion of its technological innovation efforts to the improvement of its distribution operations in order to deliver quality electricity at the least cost and more efficiently. Technological innovation may also result in the development of more energy-efficient processes and products. For example, a new line of electric thermal storage systems developed by Hydro-Québec's energy technologies laboratory (LTE) reached the marketing stage in 2005.

Hydro-Québec Distribution encourages self-generation from renewable energy sources, such as wind and photovoltaic solar, by small-power customers (50 kW or less). Under a program approved by the Régie de l'énergie in February 2006,<sup>2</sup> customers will be able to obtain a credit on their electricity bill for any surplus energy they inject onto the distribution grid.

1. The URL is: [www.hydroquebec.com/energywise](http://www.hydroquebec.com/energywise).

2. See file R-3551-2004 on the Régie de l'énergie Web site (in French only): [www.regie-energie.qc.ca](http://www.regie-energie.qc.ca).

The division will also study the possibility of purchasing electricity from operators of 50- to 1,000-kW facilities to encourage microgeneration from renewable energy sources. The terms and conditions of this program remain to be determined and will be submitted to the Régie de l'énergie.

Still with a view to energy efficiency and in line with recent initiatives, Hydro-Québec Distribution will propose a modified rate structure with a larger price gap between the rate tiers. It will also submit analyses that will enable the Régie de l'énergie to hand down a decision on rates that vary with the season and time of day.

## Objective 2: Increase customer satisfaction

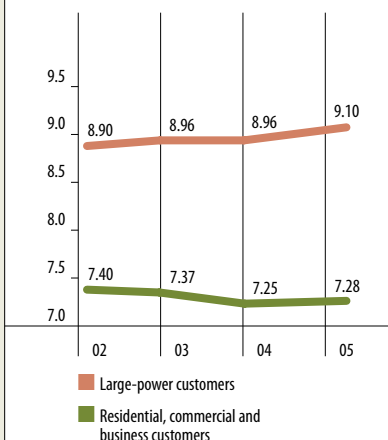
The satisfaction index for residential, commercial and business customers has remained above 7 on a scale of 10, despite a drop in satisfaction since 2003 as a result of the rate increases implemented after a five-year freeze. Hydro-Québec Distribution will step up its communication and service quality efforts to improve customer satisfaction.

### Target at 2010 Horizon

A customer satisfaction index of at least 7.5 out of 10 for residential, commercial and business customers.

For large-power customers, the satisfaction index has remained around 9 out of 10 since 2002.

**Customer Satisfaction**  
(on a scale of 10)





### ***Strategy 1 – Practise active, transparent communication***

Customer satisfaction is directly influenced by the way customers perceive the quality and price of the products and services offered by Hydro-Québec, as well as the company's actions as a whole.

Hydro-Québec Distribution plans to put forward the price-quality ratio of its product by emphasizing reliability of electricity service, the energy efficiency programs offered and how well its services meet customer expectations.

It will continue to communicate openly about the main issues related to its business, such as the source and cost of supply and rate forecasts. The more complete prospective information on rates in this plan is one example.

### ***Strategy 2 – Improve reliability of electricity service***

Reliable electricity service is very important to Hydro-Québec and its customers. Hydro-Québec Distribution will continue to endeavor to reduce the number and duration of service interruptions and the number of customers affected, through the following measures:

- use live-line work methods more often
- maintain service during work on the power grid
- comply with applicable standards on overhead and underground systems
- control vegetation and carry out preventive maintenance
- implement new practices for recalling workers
- deploy new information technologies

To reduce the number of hours of service interruption in the areas most affected, Hydro-Québec Distribution will start to implement a \$200-million system automation plan that was approved by the Régie de l'énergie in July 2005; implementation is expected to continue until 2012. Under this plan, remote-controlled equipment will be installed at strategic locations to detect power failures remotely and speed up service restoration. As a result, the proportion of customers who experience less than 240 minutes a year of service interruption should rise from 88% to 93%.

#### **Targets**

An interruption duration index of less than 60 minutes per customer per year for customers in downtown Montréal, beginning in 2008.

An interruption duration index of less than 120 minutes per customer per year for Québec as a whole, beginning in 2010.

The division's efforts will reduce the average interruption duration index to less than 60 minutes a year for customers in downtown Montréal as of 2008. Customers across Québec will experience, on average, less than 120 minutes a year of interruptions as of 2010, compared to 139 minutes in 2005.

### *Strategy 3 – Offer customers quality services suited to their needs*

Hydro-Québec Distribution plans to receive and process customer requests more efficiently and improve the quality of information given out during power failures and scheduled service interruptions. To this end, the division is in the process of updating its information systems by implementing a Customer Information System (CIS) that will transform its business practices and customer service processes.

To facilitate access to its services, the division will expand its range of self-serve options available by telephone and online: address changes, account information, signup for the Equalized Payments Plan, etc.

The conditions of service for hookups, metering and system extensions have been clarified and simplified to make them more transparent and fair. An application for this was filed with the Régie de l'énergie in April 2004, and the hearing was held in February 2006.

### *Strategy 4 – Upgrade work practices to improve efficiency*

In rate applications to the Régie de l'énergie, Hydro-Québec Distribution reports on the changes in 17 efficiency indicators. In its February 2006 decision, the Régie de l'énergie declared that it was satisfied with the results achieved. The division will continue to improve its efficiency and will keep increases in the following six key indicators below inflation:

- total cost of Distribution and Customer Services processes per account
- net operating expenses for Distribution and Customer Services processes per account
- net fixed assets in service per account
- total cost of Distribution and Customer Services processes per adjusted kilowatthour
- total cost of Customer Services processes per account
- total cost of Distribution processes per account

To achieve this goal, Hydro-Québec Distribution will continue to implement best business practices and adapt them to its context. Specifically, it will use the new information systems that are now being installed and technologies that optimize meter reading operations. It will promote greater use of its interactive voice response system and continue to deploy its Online Billing and Payment services. It will also manage overall credit exposure in an integrated manner to reduce the rate of bad debt. Lastly, it will improve productivity in distribution grid maintenance and development operations.

### ***Strategy 5 – Improve help for customers who have serious difficulty making payments***

Hydro-Québec Distribution acknowledges that electricity is an essential service, so it does not deprive residential customers of electricity during the winter if they fail to pay their bill. The division plans to maintain this practice and continue to offer personalized help and payment solutions to customers who are having financial difficulties.

New ways and means will be deployed to help the most economically disadvantaged customers. Financial support may be offered to certain households, selected on the basis of specific criteria developed in conjunction with social organizations, to facilitate payment of electricity bills or overdue amounts.

In addition, in its rate applications to the Régie de l'énergie or when amending its conditions of service, Hydro-Québec Distribution analyzes the impact of proposed changes on low-income households and ensures that negative impacts are minimized.

## **Objective 3: Meet electricity needs by favoring renewable energy sources**

Hydro-Québec Distribution's mission is to provide Québec customers with a sufficient and reliable supply of electricity at the least cost. Every year, the division reports to the Régie de l'énergie on its Electricity Supply Plan. The anticipated growth in consumption is a challenge as it will have an impact on the cost of supplying Québec customers. To deal with this growth, and in view of the company's commitment to sustainable development, the division is counting especially on wind power and on balancing and firming-up capacity to be provided by Hydro-Québec Production's hydropower fleet.

### ***Strategy 1 – Ensure the full contribution of contracted wind power***

In October 2004, Hydro-Québec Distribution signed eight 20-year contracts to purchase 990 MW of wind power. The necessary facilities will be commissioned in stages between 2006 and 2012. In October 2005, the division issued a tender call for an additional 2,000 MW to be commissioned between 2009 and 2013. Tender calls earmarked for regions (regional county municipalities) and First Nations will bring a further 500 MW onto the grid between 2010 and 2015. Over the 2006–2014 period, wind power will account for about 30% of new long-term supplies.

Hydro-Québec Distribution has signed an agreement with Hydro-Québec Production to integrate the first block of wind power (990 MW). This agreement was approved by the Régie de l'énergie in February 2006.

To maximize the wind power supply, Hydro-Québec Distribution is working with Hydro-Québec Production, Hydro-Québec TransÉnergie and industry partners to improve wind-forecasting systems and to evaluate wind farm operation.

Also, to reduce the use of diesel-fueled power plants, Hydro-Québec Distribution will analyze the use of wind power as a complementary source of supply for off-grid systems. A pilot project combining wind and diesel power is planned for the Magdalen Islands and a similar project is being studied for Inukjuak in Nunavik.

### *Strategy 2 – Ensure a reliable supply to customers at the least cost*

To maintain a reliable supply and minimize its costs, Hydro-Québec Distribution counts on both the security of long-term firm agreements and the flexibility of short-term purchasing.<sup>1</sup>

The division has signed an agreement with Hydro-Québec Production that enables it to adjust in real time to fluctuations in consumption or to unforeseen unavailability of its suppliers' generating facilities. This agreement was approved by the Régie de l'énergie in November 2005.

In its choice of generating options, the division considers costs and the principles of sustainable development, as evidenced by the increased use of wind power and hydroelectricity. The division also counts on its customers' contribution—especially through the interruptible electricity option offered to large-power customers—to manage peak demand.

The long-term supply contracts signed with Hydro-Québec Production (A/O 2002-01), with deliveries to begin in March 2007, and the wind power contracts will supply Hydro-Québec Distribution with power at predictable, reasonable costs. This is a considerable advantage given the high prices and volatility in the natural gas market. These factors have an impact on long-term electricity supplies from cogeneration, such as the power purchased under the contract with TransCanada Energy (A/O 2002-01). They also have an impact on the conditions of short-term supply, which the division will resort to less often.

1. See the report on the Electricity Supply Plan 2005–2014 on the Régie de l'énergie site (in French only): [www.regie-energie.qc.ca/audiences/EtatApproHQD/Etat-avancement2005\\_19oct05.pdf](http://www.regie-energie.qc.ca/audiences/EtatApproHQD/Etat-avancement2005_19oct05.pdf).

# Customer Rate Outlook

Growth in consumption in Québec will cause an increase in Hydro-Québec Distribution's costs, particularly because of additional supply costs and the capital investments required for transmission and distribution system development.

## Change in Regulated Costs – Hydro-Québec Distribution (\$M)

Year-over-year change	2006	2007	2008	2009	2010
Electricity supply	503	(223)	32	296	177
Rate impact	5.79%	(2.4%)	0.3%	3.0%	1.7%
Transmission costs	–	170	114	53	(37)
Deferred costs	–	–	114	(61)	(90)
Deferral of transmission costs not included in 2005 and 2006	–	–	113	–	–
Transmission service	–	170	341	(8)	(127)
Rate impact	–	1.9%	3.6%	(0.1%)	(1.2%)
Distribution service	178	217	92	78	104
Rate impact	2.05%	2.4%	1.0%	0.8%	1.0%
<b>Total costs</b>	<b>681</b>	<b>164</b>	<b>465</b>	<b>366</b>	<b>154</b>
Rate impact	7.84%	1.9%	4.9%	3.7%	1.5%
Minus additional income before increase*	218	(92)	130	118	144
Rate impact	2.51%	(1.0%)	1.4%	1.2%	1.4%
<b>Shortfall</b>	<b>463</b>	<b>256</b>	<b>335</b>	<b>248</b>	<b>10</b>
Projected rate increase	5.33%	2.8%	3.5%	2.5%	0.1%

\* Including the regulatory provision.

Rate adjustment applications are filed each year for approval of the Régie de l'énergie. As part of a rigorous public hearings process, the latter conducts a detailed analysis of the justification and forecasts underlying the applications. In August 2006, the division filed an application with the Régie to raise its rates by 2.8% on April 1, 2007, which if approved will lead to the filing of an application for an estimated increase of 3.5% on April 1, 2008. For 2009 and 2010, the projections are 2.5% and 0.1% respectively. Supply alone will account for over 40% (\$785 million) of the total cost increase over the 2006–2010 period.

Cost adjustments for transmission services are expected to be incorporated into Hydro-Québec Distribution's rate applications in the year after they come into effect, which means that deferred costs must be posted.

The decision of the Régie de l'énergie of April 2006 on transmission service conditions will have a \$170-million impact on distribution rates as of April 1, 2007. The anticipated impacts of future changes to transmission service conditions are estimated at \$114 million in 2008, \$53 million in 2009 and -\$37 million in 2010.

The changes in deferred costs arising from transmission cost adjustments will have an impact of \$114 million in 2008, -\$61 million in 2009 and -\$90 million in 2010.

Moreover, because the decision of the Régie de l'énergie of April 2006 is retroactive to January 1, 2005, Hydro-Québec Distribution will have to recover \$170 million in increased transmission costs for 2005 and 2006. To limit the rate adjustment required on April 1, 2007, the division proposed in its 2007–2008 rate application that the recovery of these amounts, which total \$340 million, be spread over the years 2008 to 2010. Since recovery will occur over a short period, this approach offers both better rate progressiveness and a reasonable deferral cost (about \$55 million in total). This recovery, spread over three years, will have a rate impact only in 2008, i.e., \$113 million for a three-year period.

To limit rate increases to the projected levels, Hydro-Québec Distribution will carefully control expenses. It monitors 17 cost-of-service indicators and the results are submitted to the Régie de l'énergie. The division plans to keep the growth of these indicators within the rate of inflation.

# Hydro-Québec Distribution's Net Income in the Corporate Financial Statements and Its Regulated Income

Because of differences in accounting procedures, the net income of Hydro-Québec Distribution, as shown in the corporate financial statements, does not match its regulated income, which is the rate of return authorized by the Régie de l'énergie and applied to shareholder's equity. In the interest of transparency, the two accounting methods have been reconciled in the table below.

## Variance Between Regulated Income of Hydro-Québec Distribution and Its Net Income in the Corporate Financial Statements (\$M)

	2006	2007	2008	2009	2010
Regulatory rate base	8,919	9,446	9,940	10,181	10,408
x Authorized capitalization rate	35%	35%	35%	35%	35%
Shareholder's equity	3,122	3,306	3,479	3,563	3,643
x Rate of return*	7.96%	8.15%	8.45%	8.95%	9.25%
<b>Regulated income</b>	<b>249</b>	<b>269</b>	<b>294</b>	<b>319</b>	<b>337</b>
<b>Variance</b>					
Deferred supply costs	(182)	–	–	–	–
<i>Change in transmission costs</i>	<i>(170)</i>	<i>(114)</i>	<i>(53)</i>	<i>37</i>	<i>(9)</i>
<i>Deferred costs from previous year</i>	<i>–</i>	<i>–</i>	<i>114</i>	<i>53</i>	<i>(37)</i>
<i>Recovery of deferred costs for 2005 and 2006</i>	<i>–</i>	<i>–</i>	<i>113</i>	<i>113</i>	<i>113</i>
Total impact of transmission costs	(170)	(114)	174	203	67
Impact of regulatory provision	(112)	61	(25)	27	75
Impact of financial expenses and other items	151	80	80	79	87
	<b>(313)</b>	<b>27</b>	<b>229</b>	<b>309</b>	<b>229</b>
<b>Net income in corporate financial statements</b>	<b>(64)</b>	<b>296</b>	<b>523</b>	<b>628</b>	<b>566</b>

\* For 2006, rate authorized by the Régie de l'énergie. For 2007 to 2010, estimated rate based on projected interest rates for long-term Canadian bonds, plus a risk premium of 3.4%.

According to the current forecast, supply costs for 2006 will be lower than planned in the 2006–2007 rate application. The savings will be posted as deferred costs in the 2006 financial statements to reduce the supply costs that are included in the 2007–2008 rate application.

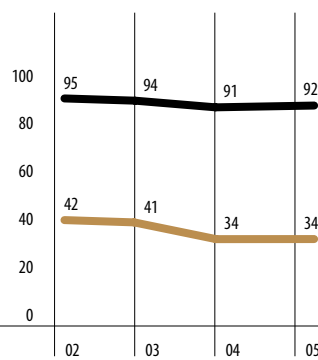
In the financial statements, the transmission costs charged to Hydro-Québec Distribution are posted in the year they are incurred, but for the regulatory approach, they are posted when they are included in the division's rate application. Therefore, every year, the increase in transmission costs is recorded as a deferred cost until it is included in the rate application, generally the following year. Furthermore, the \$340 million representing the transmission costs not included in the 2005–2006 and 2006–2007 rate applications will exceptionally be spread over the rate applications for 2008 to 2010, in the amount of \$113 million per year.

The regulatory approach provides a regulatory provision mechanism to take into account the difference between the financial year (January 1 to December 31) and the rate year (April 1 to March 31). There are also divergent accounting methods for certain other items, in particular financial expenses.



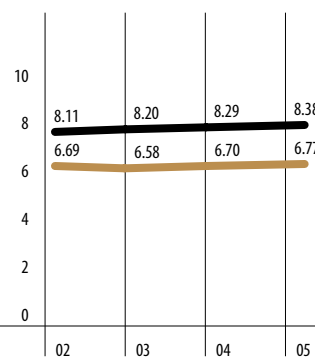
## Corporate Activities

**Public Satisfaction Index (%)**



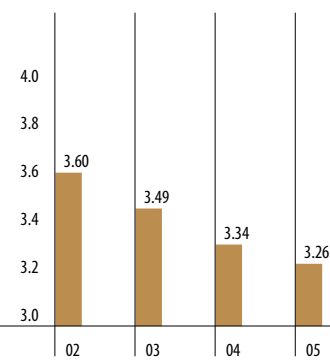
Very and quite satisfied  
 Very satisfied

**Employee Motivation and Satisfaction (scale of 10)**



Satisfaction index  
 Employee motivation and satisfaction

**Work-Related Accident Frequency Rate**



$$\frac{(\text{time lost} + \text{medical assistance}) \times 200,000}{\text{hours worked}}$$

Hydro-Québec plays a strategic role in the Québec economy. Its mandate and the related expectations are clear: ensure the security of electricity supply in Québec efficiently and with a view to sustainable development, provide quality service to customers, make capital investments to maintain and develop its assets, and ensure the profitability of its operations.

To this end, Hydro-Québec relies on the employees in its four divisions and its corporate units. The latter encompass the Technology Group, the Finance Group, the Human Resources and Shared Services Group, as well as Corporate Affairs and General Secretariat. The Shared Services Centre brings together services offered throughout the company that are essential to the efficiency of its operations, including goods and services procurement, property, material and transportation service management, and information technologies.

The corporate units, working closely with the company's divisions, will continue to improve the contribution made by technological innovation, the transparency and quality of communications, and human resource motivation and development.

## **Technological Innovation**

Hydro-Québec's innovative strength makes it a prominent technological leader in the power industry.

The company contributes about \$100 million a year to the activities of its research institute, IREQ. The institute will promote partnerships, particularly with electrical equipment manufacturers. New alliances will be formed for certain specializations. For example, to create solutions that will facilitate wind power integration, IREQ will rely on Québec know-how—mainly that of Québec universities—and on Canadian institutions and international associations. The research institute will also continue its joint initiatives in areas such as climate change and simulation systems. University expertise in energy efficiency will contribute to projects concerning, in particular, advanced refrigeration, waste heat recovery, lower unit consumption of energy by industry, solar buildings and integrated energy systems.

Hydro-Québec's research institute will continue to develop new technologies to enhance the performance of facilities. For example, it will participate in automating the distribution system, converting the transmission system to digital technology and optimizing hydraulic generating units. Innovation efforts will also focus on improving services provided to customers, notably by helping them be energy-wise. This has been the aim of Hydro-Québec's energy technologies laboratory, in Shawinigan, since its inception in 1987. Other projects will have a positive impact on service continuity by optimizing maintenance.



## Communications

Given the nature of Hydro-Québec's activities, it must communicate frequently, clearly and transparently with all of its audiences to promote a proper understanding of the issues and decisions concerning both the company and its customers. Hydro-Québec recognizes that it has a very important responsibility in this respect as a business-oriented government corporation.

The company will step up its public information efforts. It will ensure the consistency of its actions and the messages delivered to its customers. It will use various means to raise awareness of its objectives: direct-to-consumer advertising, diversification of initiatives with the groups concerned, reinforcement of links with school communities and updating interpretation centres in facilities that are open to the public.

In addition, Hydro-Québec will provide more information on its issues and business decisions to employees, particularly those who have direct contact with customers. This initiative will apply first to call centre staff, and then to other customer service personnel.

## Human Resources

Achieving the company's business objectives depends on employees' skills and commitment. Hydro-Québec will therefore continue its efforts to motivate employees and develop expertise.

According to the annual survey completed in 2005, employee motivation and overall job satisfaction reached their highest levels ever. Hydro-Québec will strive to keep motivation at a high level and strengthen loyalty among employees by providing them with a safe and stimulating workplace.

Hydro-Québec's occupational health and safety performance has improved steadily every year. The company will maintain very high standards in this area.

Hydro-Québec will also act upon organizational and personal factors directly affecting work attendance. It will, among other things, provide greater support to managers with employees who are experiencing problems and make diagnostic tools available to them regarding the work environment or organizational factors that can be improved.

Given the growing number of retirements in the next few years, succession and the continuity of expertise must be managed carefully. The corporate succession support plan focuses on staff training and development as well as the deployment of change management tools.

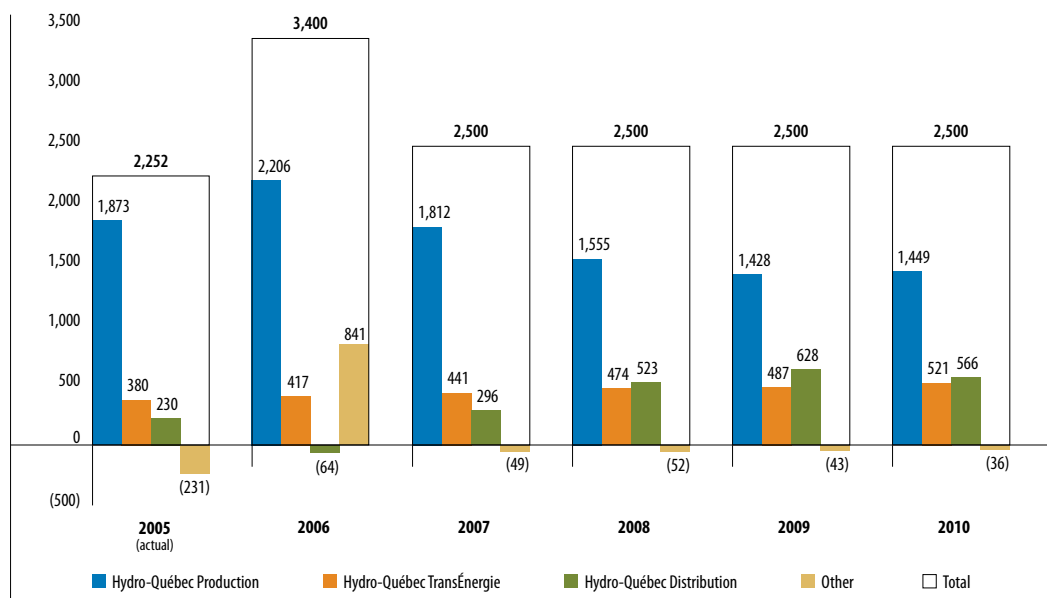
Hydro-Québec relies on training to upgrade employees' skills and prepare for succession. In 2005, it allocated 3.9% of payroll to training and will continue along the same lines in coming years.

Moreover, in compliance with the *Act respecting equal access to employment in public bodies*, the company will increase the representation of certain groups within its workforce by integrating diversity into succession management strategies. It will also improve its hiring practices and the methods designed to retain the best people. To ensure the succession of its management team, Hydro-Québec will also set up a program to identify high-potential employees and promote their advancement through a variety of methods such as training, mentoring and special assignments.



# 3. Financial Outlook

## Net Income (\$M)



## Economic Benefits for the 2006–2010 Period

Goods and services purchased in Québec	Over \$10.0B
Jobs sustained	236,000 person-years
Water-power royalties	\$2.0B
Provincial and municipal taxes	\$2.6B
Debt guarantee fees	\$0.8B
Dividends declared	\$7.2B

# Financial Results

## Statement of Operations

(\$M)	2005 (actual)	2006	2007	2008	2009	2010
<b>Revenue</b>						
Electricity sales in Québec	9,121	9,582	10,283	10,658	11,086	11,281
Electricity sales outside Québec	1,464	1,181	1,151	1,188	1,223	1,483
Other revenue	305	304	314	330	329	317
	<b>10,890</b>	<b>11,067</b>	<b>11,748</b>	<b>12,176</b>	<b>12,638</b>	<b>13,081</b>
<b>Expenses</b>						
Operating expenses	2,294	2,515	2,577	2,610	2,615	2,694
Electricity and fuel purchases <i>including budget contingency</i>	1,485	1,237	1,420	1,324	1,621	1,794
	–	–	100	100	150	150
Depreciation and amortization	2,040	1,978	1,970	2,121	2,250	2,315
Taxes	602	549	562	507	486	505
Water-power royalties	–	–	265	545	563	596
	<b>6,421</b>	<b>6,279</b>	<b>6,794</b>	<b>7,107</b>	<b>7,535</b>	<b>7,904</b>
<b>Financial expenses*</b>	<b>2,220</b>	<b>2,288</b>	<b>2,454</b>	<b>2,569</b>	<b>2,603</b>	<b>2,677</b>
<b>Income from continuing operations</b>	<b>2,249</b>	<b>2,500</b>	<b>2,500</b>	<b>2,500</b>	<b>2,500</b>	<b>2,500</b>
Discontinued operations	3	900	–	–	–	–
<b>Net income</b>	<b>2,252</b>	<b>3,400</b>	<b>2,500</b>	<b>2,500</b>	<b>2,500</b>	<b>2,500</b>
Dividends declared	1,126	2,150	1,250	1,250	1,250	1,250
Return on shareholder's equity (%)	13.4	18.9	13.0	12.2	11.5	10.9
Rate increases projected for April 1 (%)			2.8	3.5	2.5	0.1

\* Including non-controlling interest.

**Net income.** A commitment to net income of \$2,500 million per year for continuing operations. This constitutes a threshold for the entire 2006–2010 period, set in accordance with the shareholder's expectations. Given an aggregate budget contingency of \$500 million, there is an estimated 70% probability of achieving total net income for continuing operations of \$12.5 billion over the 2006–2010 period. For 2006, there will also be unusual income of \$900 million from the disposal of international holdings and from their operations up to the date of the sale.

**Return on shareholder's equity.** Other than for 2006, it will decline gradually, in proportion to the retained earnings accumulated. Note however that without water-power royalties, it would be 13.5% in 2010, a rate comparable to 2005.

**Dividends declared.** These will be \$1,250 million per year, or half of net income from continuing operations, plus all of the net income from operations discontinued in 2006. Therefore, an additional dividend of \$900 million will be declared in 2006. Dividends are paid to the shareholder in the year following the one in which they are declared.

**Electricity sales in Québec.** By 2010, they will increase by \$2,160 million. Growing consumption will push up sales volume and costs, resulting in rate increases.

**Electricity sales outside Québec.** From 2006 to 2009, they will remain relatively stable. In 2010, commissioning of the Rupert diversion will allow Hydro-Québec Production to increase its sales volume. Beyond the 2010 time frame, export sales will continue to grow as a result of accelerated hydroelectric development over the 2006–2010 period.

**Other revenue.** It includes, in particular, administration fees billed by Hydro-Québec Distribution, revenue of Hydro-Québec IndusTech and sales of the subsidiary Bucksport Energy LLC. It will remain stable over the Strategic Plan period.

**Operating expenses.** In 2006, they will comply with the freeze established in the *Strategic Plan 2004–2008*.<sup>1</sup> Commencing in 2007, strict control and targeted initiatives to enhance efficiency, which will build on efforts deployed in recent years, will cap the annual increase in operating expenses at 1.7%, despite the commissioning of a large number of new generating, transmission and distribution facilities.

**Electricity and fuel purchases.** They will rise over the Strategic Plan period as a result of Hydro-Québec Distribution's increased electricity purchases from external suppliers and Hydro-Québec Production's budget contingency to partially cover unpredictable runoff conditions.

**Depreciation and amortization.** They will increase following the commissioning of new facilities (especially generating stations) and the amortization of capital investments for the Energy Efficiency Plan 2005–2010.

**Taxes.** The progressive decrease in the capital tax rate until 2009 will be partly offset by the tax on public services, which will rise in proportion to the value of operating assets.

**Water-power royalties.** Starting on January 1, 2007, Hydro-Québec Production will pay water-power royalties, which will be contributed to the Generations Fund. The payment projected for 2007 is capped at 50% of the amount owing. Royalties will total \$596 million in 2010.

**Financial expenses.** They will rise progressively as major facilities are commissioned and the associated financial expenses are charged to operations.

**Discontinued operations.** These include all international operations, whose sale will be completed in 2006. Net income of \$900 million is anticipated for discontinued operations. Gains on asset disposal as at June 30, 2006, amounted to \$29 million for Cross-Sound Cable Company (United States) and around \$806 million for Transelec (Chile). Additional gains are expected on the disposal of the assets of Consorcio TransMantaro (Peru) and the Fortuna generating station (Panama).

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1. This objective does not include changes in pension expense and the cost of higher security to safeguard facilities.

## Contribution of Divisions

(\$M)	2005 (actual)	2006	2007	2008	2009	2010
Hydro-Québec Production *	1,873	2,206	1,812	1,555	1,428	1,449
Hydro-Québec TransÉnergie	380	417	441	474	487	521
Hydro-Québec Distribution	230	(64)	296	523	628	566
Other **	(231)	841	(49)	(52)	(43)	(36)
<b>Net income</b>	<b>2,252</b>	<b>3,400</b>	<b>2,500</b>	<b>2,500</b>	<b>2,500</b>	<b>2,500</b>

\* After water-power royalties (\$265 million in 2007, \$545 million in 2008, \$563 million in 2009 and \$596 million in 2010) and the budget contingency (\$100 million in 2007 and 2008, and \$150 million in 2009 and 2010).

\*\* Hydro-Québec Équipement and SEBJ, Technology Group (including telecommunications), Finance Group, Human Resources and Shared Services Group, Corporate Affairs and General Secretariat, and the subsidiaries Hydro-Québec International and TransÉnergie HQ.

**Hydro-Québec Production.** The decline in the division's net income as of 2007 is attributable to the payment of water-power royalties and the budget contingency.

**Hydro-Québec TransÉnergie.** The division's contribution will grow in tandem with the increase in the regulatory rate base (assets).

**Hydro-Québec Distribution.** The return authorized by the Régie de l'énergie will be achieved by the division as of 2006. Fluctuations in net income are attributable to the accounting treatment for deferred costs in the financial statements, which differs from that used for regulatory accounting.

**Other.** The results include all corporate activities, in particular international operations which generates income of \$900 million in 2006. Throughout the Strategic Plan period, results are largely attributable to research and development expenses.

## Statement of Cash Flows

(\$M)	2005 (actual)	2006	2007	2008	2009	2010	Total 2006–2010
<b>Application of funds</b>							
Capital investments*	(3,443)	(1,871)	(3,880)	(3,816)	(3,994)	(3,745)	(17,306)
Redemptions and maturities	(2,712)	(1,629)	(1,018)	(1,091)	(1,870)	(667)	(6,275)
Dividends paid	(1,350)	(1,126)	(2,150)	(1,250)	(1,250)	(1,250)	(7,026)
	<b>(7,505)</b>	<b>(4,626)</b>	<b>(7,048)</b>	<b>(6,157)</b>	<b>(7,114)</b>	<b>(5,662)</b>	<b>(30,607)</b>
<b>Source of funds</b>							
Operations	4,423	4,704	4,365	4,423	4,623	4,710	22,825
Financing**	3,082	(78)	2,683	1,734	2,491	952	7,782
	<b>7,505</b>	<b>4,626</b>	<b>7,048</b>	<b>6,157</b>	<b>7,114</b>	<b>5,662</b>	<b>30,607</b>
Self-financing (%)	56.9	102.2	45.2	64.7	57.5	78.4	67.0
Interest coverage	1.95	2.25	1.92	1.87	1.85	1.84	1.95

\* The amount shown for 2006, \$1,871 million, corresponds to capital investments (\$3,965 million), minus projected funds related to the sale of assets (\$2,094 million). Excluding the sale of assets, capital investments for the 2006–2010 period total \$19,400 million.

\*\* Including net change in cash and short-term investments. For example, for 2006, the amount of -\$78 million takes into account long-term borrowings of \$2,341 million and the variation in cash and short-term investments due to inflows from the sale of assets.

Operating activities will generate \$22.8 billion over the 2006–2010 period. Hydro-Québec will use these funds, combined with \$7.8 billion in external financing, for its capital investment program, for the repayment or redemption of \$6.3 billion of debt and for the payment of dividends to the Québec government.

Cash from operating activities will help maintain self-financing and interest coverage ratios at a high level. The self-financing ratio represents the portion of financing requirements that can be met by cash flows from the company's operating activities, less any dividends paid. Interest coverage measures the company's ability to pay interest expenses from its operating funds.

## Balance Sheet

(\$M)	2005 (actual)	2006	2007	2008	2009	2010
<b>Assets</b>						
<b>Property, plant and equipment</b>	<b>51,052</b>	<b>52,958</b>	<b>54,620</b>	<b>56,278</b>	<b>58,200</b>	<b>59,565</b>
Hydro-Québec Production	26,658	27,806	28,954	29,981	31,111	31,907
Hydro-Québec TransÉnergie	15,000	15,465	15,756	16,170	16,765	17,178
Hydro-Québec Distribution	8,246	8,484	8,644	8,791	8,960	9,094
Other *	1,148	1,203	1,266	1,336	1,364	1,386
<b>Other assets**</b>	<b>9,380</b>	<b>8,664</b>	<b>6,038</b>	<b>6,014</b>	<b>6,084</b>	<b>6,480</b>
	<b>60,432</b>	<b>61,622</b>	<b>60,658</b>	<b>62,292</b>	<b>64,284</b>	<b>66,045</b>
<b>Liabilities</b>						
<b>Long-term debt</b>	<b>31,279</b>	<b>33,039</b>	<b>32,340</b>	<b>32,447</b>	<b>34,688</b>	<b>32,938</b>
<b>Other liabilities</b>	<b>11,777</b>	<b>9,957</b>	<b>8,442</b>	<b>8,719</b>	<b>7,220</b>	<b>9,481</b>
	<b>43,056</b>	<b>42,996</b>	<b>40,782</b>	<b>41,166</b>	<b>41,908</b>	<b>42,419</b>
<b>Shareholder's equity</b>	<b>17,376</b>	<b>18,626</b>	<b>19,876</b>	<b>21,126</b>	<b>22,376</b>	<b>23,626</b>
Capitalization (%)	34.2	35.9	37.6	38.5	39.1	39.9

\* Hydro-Québec Équipement and SEBI, Technology Group (including telecommunications), Finance Group, Human Resources and Shared Services Group, and Corporate Affairs and General Secretariat.

\*\* Including all assets of the subsidiaries Hydro-Québec International and TransÉnergie HQ, short-term investments, deferred expenses and debt-related financial assets.

**Property, plant and equipment.** Given the capital investments projected over the period, property, plant and equipment will amount to \$59.6 billion in 2010, up by \$8.5 billion. Generating facilities will account for 62% of this growth.

**Other assets.** Following the sale of international holdings, other assets will decline sharply in 2006. The decrease projected for 2007 will result essentially from the sale of short-term investments and the reduction in certain financial assets related to long-term debt.

**Long-term debt.** In 2010, long-term debt will total \$32.9 billion, up \$1.7 billion from 2005. This slight rise, in relation to the \$5.6 billion increase in total assets, reflects the large amount of cash generated by operating activities.

**Other liabilities.** Over the 2006–2010 period, other liabilities will decline by close to \$2.3 billion. They include, in particular, accounts payable, dividends payable, deferred foreign exchange gains and the current portion of the long-term debt, which accounts for a large part of the anticipated changes.

**Shareholder's equity.** It will increase by \$6.3 billion—half of the net income for the period for continuing operations.

**Capitalization.** The capitalization rate will rise, in tandem with shareholder's equity, from 34.2% in 2005 to 39.9% in 2010.



## Capital Investments

(\$M)	2005 (actual)	2006	2007	2008	2009	2010	Total 2006–2010
Hydro-Québec Production	1,780	1,823	1,986	1,826	1,769	1,682	9,086
Hydro-Québec TransÉnergie	740	990	844	948	1,145	982	4,909
Hydro-Québec Distribution	793	940	849	838	908	918	4,453
Other*	130	212	201	204	172	163	952
	<b>3,443</b>	<b>3,965</b>	<b>3,880</b>	<b>3,816</b>	<b>3,994</b>	<b>3,745</b>	<b>19,400</b>

\* Hydro-Québec Équipement and SEBJ, Technology Group (including telecommunications), Finance Group, Human Resources and Shared Services Group, Corporate Affairs and General Secretariat, and the subsidiaries Hydro-Québec International and TransÉnergie HQ.

**Hydro-Québec Production.** Close to two thirds of the division's \$9.1-billion capital investments will be allocated to development projects, of which \$0.5 billion will be used to complete Eastmain-1 powerhouse, and \$3.6 billion to carry out the Eastmain-1-A/Sarcelle/Rupert project. The Péribonka hydroelectric development project will require an additional capital investment of \$0.8 billion by 2008.

**Hydro-Québec TransÉnergie.** Capital investments of \$4.9 billion will be allocated to the transmission grid. Of this amount, \$0.6 billion will be used to connect wind farms built subsequent to calls for tenders by Hydro-Québec Distribution.

**Hydro-Québec Distribution.** Nearly half of the capital program for the 2006–2010 period, or \$2.2 billion, will be used to meet growth in electricity consumption in Québec, including \$0.9 billion for the Energy Efficiency Plan 2005–2010. In addition, an envelope of \$1.0 billion will be allocated to ensure the distribution system's long-term operability.

**Other.** Capital investments of \$0.6 billion will be earmarked for the telecommunications network and \$0.3 billion for activities carried out by the Shared Services Centre.

# Sensitivity Analysis

The financial outlook is based on the prudent forecasting of economic parameters.

## Main Economic Parameters

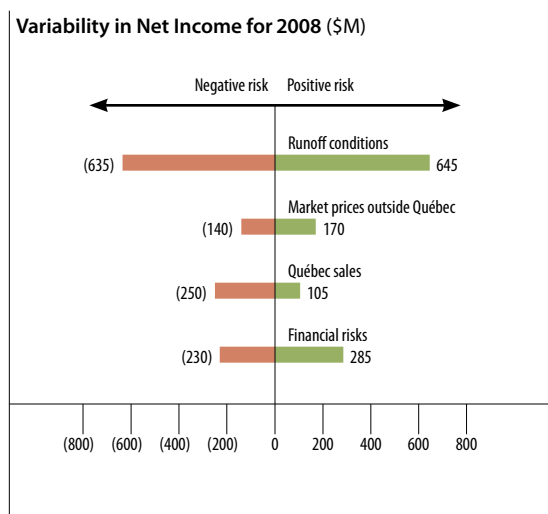
	2005 (actual)	2006	2007	2008	2009	2010
Exchange rate (US\$ to C\$)	1.21	1.15	1.15	1.15	1.16	1.16
Bankers' acceptances (3 months) Canada (%)	2.8	3.9	3.9	4.0	4.1	4.2
Hydro-Québec bonds (10 years) Canada (%)	4.5	4.7	4.9	5.2	5.5	5.8
Price of aluminum U.S. Midwest (US\$/tonne)	2,032	2,100	2,100	2,100	2,100	2,100
Price of natural gas NYMEX Henry Hub (US\$/MMBtu)	8.6	8.3	8.0	8.0	8.0	8.0

The sensitivity analysis provides an estimate of the impact of various risks on the net income projected for 2008. The results shown cover a 70% probability range. In the case of financial risks, for example, the sensitivity analysis shows that there is a 15% probability that changes in economic parameters will result in a decline of more than \$230 million in net income for 2008 or, conversely, that there is a 15% probability that such changes will result in an increase of more than \$285 million in net income.

Runoff conditions have by far the greatest impact on the company's net income. Low runoff would reduce Hydro-Québec Production's margin of flexibility, whereas high runoff would allow it to capitalize on further market opportunities. The division mitigates the runoff risk by judiciously managing its energy reserves according to variability in runoff, and if necessary, by resorting to short-term purchases.

Since the cost of new supply for Hydro-Québec Distribution is higher than the average cost used in the rates, higher-than-expected sales in the Québec market for a given year would negatively affect results. This additional cost would, however, be recouped through higher rates in subsequent years. Conversely, lower-than-expected sales would lower supply costs, and therefore limit projected rate increases.

Financial risks include the Canadian dollar's exchange rate against the U.S. dollar, short- and long-term interest rates, aluminum prices and pension expense. Integrated risk management using derivatives, for instance, will make it possible to reduce the impact of fluctuations in economic parameters on the company's results.



# Economic Benefits

## Employment Sustained by Hydro-Québec's Activities

(person-years)	2005 (actual)	2006	2007	2008	2009	2010	Total 2006–2010
Operations	21,500	22,800	22,800	22,800	22,800	23,000	114,200
Capital investments	19,800	21,200	21,100	19,800	20,000	17,900	100,000
Energy Efficiency Plan 2005–2010	1,400	1,400	1,400	1,400	1,400	1,500	7,100
Purchases from independent power producers	600	2,300	1,600	1,800	4,100	4,900	14,700
	<b>43,300</b>	<b>47,700</b>	<b>46,900</b>	<b>45,800</b>	<b>48,300</b>	<b>47,300</b>	<b>236,000</b>

Hydro-Québec sustains employment in all regions of Québec. Between 2006 and 2010, its activities will help maintain a total of 236,000 person-years in direct and indirect jobs.

More specifically, operations will support 114,200 person-years, close to a third of which will be in indirect jobs. The company's ambitious capital investment program will account for 100,000 person-years, most of them in jobs with suppliers of goods and services. Of this number, 21,500 person-years will be related to the Eastmain-1 and Eastmain-1-A/Sarcelle/Rupert projects.

The Energy Efficiency Plan 2005–2010 will support 7,100 person-years, half of them in indirect jobs. This number does not include the 4,000 person-years related to capital investments of \$0.7 billion made by partners and participating customers, which will bring the number of jobs sustained by energy efficiency initiatives to more than 11,000.

Moreover, electricity purchases from independent power producers will support 14,700 jobs over the period, up significantly as a result of the supply agreements awarded by Hydro-Québec Distribution. The vast majority of these jobs are related to the construction and maintenance of wind farms.

## Tax Contribution

Between 2006 and 2010, in addition to \$7.2 billion in declared dividends, Hydro-Québec expects to pay the Québec government \$0.8 billion in debt guarantee fees, \$1.3 billion in public utility tax and \$1.1 billion in capital tax. Hydro-Québec will also pay close to \$0.2 billion in property and school taxes to various municipalities.

The company's contribution to the Generations Fund, in the form of water-power royalties, will total \$2.0 billion over the 2006–2010 period.

## Regional Economic Spinoffs

Hydro-Québec's activities create economic spinoffs in all regions of Québec.<sup>1</sup> In 2005, the company purchased \$2.2 billion in goods and services from Québec-based businesses, helping to sustain approximately 18,000 person-years of employment.

Hydro-Québec favors products with a high Québec content and strives to spread its purchases in all regions, at the most favorable cost possible and according to strict procurement criteria.

The company has many construction sites under way, and they have a major impact on regional economies. For instance, the spinoffs from the Péribonka development project in the Saguenay–Lac-Saint-Jean region are estimated at \$350 million and some 6,000 person-years, for a capital investment of \$1.4 billion. With a total budget in excess of \$6 billion, the Eastmain-1 and Eastmain-1-A/Sarcelle/Rupert projects will also have significant spinoffs for the Nord-du-Québec region.

Lastly, the presence of Hydro-Québec's employees contributes to the economic development of all regions of Québec.

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1. A detailed analysis of the spinoffs for each region in Québec is available (in French only) at: [www.hydroquebec.com/publications/fr/profil\\_regional](http://www.hydroquebec.com/publications/fr/profil_regional).

**Units of measure**

<b>\$M:</b>	millions of dollars
<b>\$B:</b>	billions of dollars
<b>W:</b>	watt (a unit for measuring power)
<b>kW:</b>	kilowatt (one thousand watts)
<b>MW:</b>	megawatt (one million watts)
<b>GW:</b>	gigawatt (one million kilowatts)
<b>kWh:</b>	kilowatthour (a unit for measuring electrical energy)
<b>GWh:</b>	gigawatthour (one million kilowatthours)
<b>TWh:</b>	terawatthour (one billion kilowatthours)

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