Hydro Québec

Follow-Up to the Strategic Plan | **2006–2010**

generation | transmission | distribution | construction

According to Order in Council 452-2008 of May 7, 2008, which sets the format, content and frequency of Hydro-Québec's Strategic Plan, the Plan must include a follow-up on completed activities and results for the approved objectives in the previous plan.

2006–2008 Highlights

Cumulative Results

Net income	**$9,789 million**
Dividends declared to the shareholder	**$6,689 million**
Investments	**$11,125 million**
Installed capacity added	**1,858 MW**
New generating capacity connected to the transmission grid	**1,900 MW**
Energy savings achieved	**2.7 TWh from 2006 to 2008 (3.4 TWh since 2003)**
Customer satisfaction – Residential, commercial and business customers	**From 7.25 out of 10 in 2006 to 7.42 in 2008**

Hydro-Québec Production

Objective 1 Increase hydroelectric generating capacity by accelerating project development.

- As called for in the *Strategic Plan 2006–2010*, Hydro-Québec Production will add close to 16 TWh in hydroelectric generating capacity over the period from 2006 to 2014. The margin of flexibility will therefore be in line with the forecast.

Projects completed on or ahead of schedule:

- **Eastmain-1** powerhouse was commissioned in the second half of 2006, two months earlier than planned. This facility provides annual output of 2.7 TWh.
- The first unit at **Péribonka** generating station started up in November 2007, four months ahead of schedule. The other two units came on stream in the first quarter of 2008, nearly four months early. This facility provides annual output of 2.2 TWh.
- The **Eastmain-1-A/Sarcelle/Rupert** project is on track for commissioning from 2009 to 2012, as scheduled, even though construction got under way in January 2007 rather than in 2006 due to a six-month delay in the permitting process. This project will add 8.7 TWh to the division's generating capacity—0.2 TWh more than forecasted in the *Strategic Plan 2006–2010*, as a result of higher-than-expected output at Sarcelle. The installed capacity of this powerhouse was also revised upward, bringing the total peak capacity of the two facilities to 918 MW.

Generating Projects Called For in the *Strategic Plan 2006–2010*

	Energy (TWh)	**Installed capacity** (MW)	**Commissioning** relative to schedule
Construction projects			
Completed			
Eastmain-1	2.7	480	**August to December 2006** 2 months ahead
Mercier	0.3	51	**June 2007 to September 2007** 8 months behind
Péribonka	2.2	385	**November 2007 to March 2008** 4 months ahead
Under way			
Chute-Allard	0.4	62	**July 2008 to August 2009** 8 months behind
Rapides-des-Cœurs	0.5	76	**October 2008 to October 2009** 10 months behind
Eastmain-1-A/Sarcelle/Rupert	8.7	918	**2009–2012** unchanged
Romaine complex (Romaine-2 generating station)	0.7	640	**2014** unchanged
Refurbishment projects	**0.1**	**52**	**2008–2014**
Total	**15.6**	**2,664**	

Projects with revised schedules:

- Commissioning of **Chute-Allard** and **Rapides-des-Cœurs** generating stations was delayed (by eight and ten months, respectively) due to the temporary closure of the Flamand workcamp and the fact that the generator supplier went bankrupt. The first three units at Chute-Allard went into operation in July, October and December 2008, while the first unit at Rapides-des-Cœurs started up in October 2008.
- **Mercier** generating station was commissioned in summer 2007, eight months later than scheduled because of leakage problems and the need for additional work on the intakes.

- In keeping with the *Strategic Plan 2006–2010*, Hydro-Québec Production took action on several fronts to create a **portfolio of projects totaling 4,500 MW**.
  - Hydro-Québec Équipement completed the draft-design studies for the 1,550-MW Romaine complex in December 2007, and Hydro-Québec Production filed the environmental impact statement in January 2008. The public hearing on the project was held in two stages, in October and December 2008.[1]
  - Preliminary studies and surveys for the Petit-Mécatina project began in 2006. The working hypothesis calls for two generating stations (Petit-Mécatina-3 and Petit-Mécatina-4) with a total installed capacity of 1,200 MW, to be commissioned after 2015.
  - With the selection, in fall 2008, of projects with a combined capacity of 1,750 MW, we were able to complete the 4,500-MW portfolio of projects specified in the *Strategic Plan 2006–2010*.
- Over the period from 2006 to 2008, Hydro-Québec Production's investments totaled $5.3 billion.
  - In 2006, the investment program amounted to $1,615 million—$208 million less than anticipated, mainly because construction at the Eastmain-1-A/Sarcelle/Rupert jobsite commenced in January 2007, rather than in 2006, due to a delay in obtaining the necessary permits.
  - In 2007, the investment program amounted to $1,807 million, $179 million less than planned. The difference is attributable to the postponement of some refurbishment activities, such as draft-design work on Gentilly-2 generating station, and to changes in some construction project schedules.
  - In 2008, the investment program amounted to $1,894 million, exceeding the forecast by $68 million. This difference stems largely from the accelerated timetable for some projects and additional work related to the commissioning of Chute-Allard and Rapides-des-Cœurs generating stations.

1. The joint federal-provincial review panel and a commission of inquiry of the Bureau d'audiences publiques sur l'environnement rendered a favorable opinion in March 2009, the permits were issued in May 2009, and construction got under way immediately thereafter.

Objective 2 Facilitate wind power integration.

- Under an agreement approved by the Régie de l'énergie in February 2006, Hydro-Québec Production has offered balancing and firming capacity services to Hydro-Québec Distribution since November 2006.
- A wind forecasting system with a 48-hour horizon was launched in April 2007. We are continuing to develop this system in order to improve short-term planning of our generating fleet operations.
- Hydro-Québec Production currently purchases nearly 200 MW of wind power from independent producers.
- A corporate decision was taken to rely henceforth on Hydro-Québec Distribution's tendering process for the company's wind-power purchases.

Objective 3 Ensure the efficiency and reliability of the generating fleet.

- From 2006 to 2008, Hydro-Québec Production invested between $400 million and $500 million per year in refurbishing its generating stations in order to increase their efficiency and extend their service life.
  - Refitting of Outardes-4 generating station is nearly complete, while work continues at La Tuque and Beauharnois.
  - In August 2008, Hydro-Québec announced that it would move ahead with the refurbishment of Gentilly-2 nuclear generating station in 2011–2012. In addition, to maintain the facility's generating capacity until 2011, we carried out phase I of a project to expand the solid radioactive waste management facilities between July 2007 and August 2008, after receiving the necessary approvals from the Québec government in June 2007.
- Over the period from 2006 to 2008, we devoted between $18 million and $19 million per year to technological innovation. Tools to improve facility operations and efficiency were developed in close cooperation with Hydro-Québec's research institute (IREQ).
  - MIDA, a suite of seven diagnostic programs, allows us to accurately gauge the performance and degree of wear of AC generators.
  - The Scompi robot is designed to weld and repair turbine blades on-site.
  - RIT is a video inspection robot that detects anomalies in the system used to locate ruptures in the fuel cladding at Gentilly-2.
  - The GMON (Gamma MONitoring) sensor, developed with industrial partners, continuously measures snow water equivalent and transmits the data in order to improve the accuracy of spring runoff forecasts.
- Work to bolster facility security was completed in 2008.

Energy Reserves

(TWh)	2006			2007			2008			2006–2008		
	Actual	Forecast	Variance	Actual	Forecast	Variance	Actual	Forecast	Variance	Actual	Forecast	Variance
Energy reserves as at December 31	**114.3**	**105.3**	**9.0**	**116.6**	**105.1**	**11.5**	**116.5**	**105.3**	**11.2**	**116.5**	**105.3**	**11.2**
Variance factors												
Runoff (deviation from 1943–2007 average)	1.2	0.0	1.2	3.0	0.0	3.0	4.3	0.0	4.3	8.5	0.0	8.5
Sales in Québec (HQD)	177.7	179.2	1.5	184.0	183.3	(0.7)	182.7	184.2	1.5	544.4	546.7	2.3
Net reservoir drawdown	7.0	13.1	6.1	10.7	12.5	1.8	15.2	13.0	(2.2)	32.9	38.6	5.7
Electricity purchases from private producers	4.2	4.2	0.0	3.9	5.1	(1.2)	4.2	5.7	(1.5)	12.3	15.0	(2.7)
Other	–	–	0.2	–	–	(0.4)	–	–	(2.3)	–	–	(2.6)
Total	–	–	**9.0**	–	–	**2.5**	–	–	**(0.3)**	–	–	**11.2**

- Because variations in runoff remain the principal risk faced by the company, energy reserves are managed carefully. As a result, reserves were higher than forecasted at the end of 2008 (+11.2 TWh), due to the following factors:
  - Runoff from 2006 to 2008 was 8.5 TWh greater than the average forecasted in the *Strategic Plan 2006–2010*.
  - Sales to Hydro-Québec Distribution were lower than forecasted, allowing us to keep 2.3 TWh more than expected in our reservoirs.
  - High prices on export markets meant that we could limit the volume of sales in anticipation of the refurbishment of Gentilly-2. Reservoir drawdown was consequently 5.7 TWh less than forecasted.
  - However, contributions by independent project proponents were also less than anticipated.

Hydro-Québec TransÉnergie

Objective 1 Ensure transmission system reliability.

- Hydro-Québec TransÉnergie continued developing the transmission system to meet growth in demand. Among other things, we increased transformer capacity at 22 substations in order to boost system capacity, mainly in the Vallée du Saint-Laurent. We built Donnacona and Saint-Lin substations, for example, and installed additional transformers at Sainte-Thérèse-Ouest, Baie-d'Urfé and Templeton substations.
- We made the necessary investments to maintain service quality and reliability.
- From 2006 to 2008, Hydro-Québec TransÉnergie invested a total of $2.9 billion, whereas the forecasted amount was $2.8 billion.
  - System development: $1.3 billion
    - Nearly 1,900 MW brought onto the grid, including:
      - Eastmain-1 hydroelectric facility (480 MW)
      - Péribonka hydroelectric facility (385 MW)
      - Baie-des-Sables wind farm (109.5 MW)
      - Carleton wind farm (109.5 MW)
      - Bowater Canadian Forest Products biomass generating facility (23 MW)
  - Reliability and long-term operability: $1.6 billion
    - Refurbishment and upgrading of a large number of facilities, and rollout of advanced technologies. For example:
      - The project to secure strategic lines around the city of Québec and provide protection from extreme weather events was completed in December 2008 with the commissioning of de-icing equipment at Lévis substation ($183 million in total).
      - Work to ensure facility security and monitoring was completed in December 2007 ($48 million for 2006–2007).
      - Numerous line and substation refurbishment projects were carried out in various regions, for example at Hauterive substation (Côte-Nord; $31 million), Sorel substation (Montérégie; $14 million) and Rapide-2 substation (Abitibi-Témiscamingue; $2 million).
- In 2006, Hydro-Québec TransÉnergie broke ground on a 1,250-MW, $654-million interconnection with Ontario, slated for commissioning in 2009–2010.
- The system average interruption duration index (SAIDI) went from 32.5 minutes per customer in 2006 to 29.3 minutes in 2007 and to 29.8 minutes in 2008—a very good score relative to our target of 36 minutes per year.
- Hydro-Québec TransÉnergie achieved a 100% rate of compliance with North American Electric Reliability Corporation (NERC) and Northeast Power Coordinating Council (NPCC) reliability standards in 2006 and 2007. In 2008, two violations related to vegetation control were noted and corrected.
- In 2007, the Régie de l'énergie designated our Direction du contrôle des mouvements d'énergie (System Control) as Reliability Coordinator for Québec.

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

- Hydro-Québec TransÉnergie began work to integrate output from wind farms being built in the Gaspésie region until 2012 in response to Hydro-Québec Distribution's first tender call (990 MW), while taking steps to ensure system stability and reliability. Three wind farms have been connected to the grid:
  - Baie-des-Sables was connected in fall 2006.
  - Modifications were made to the transmission system to bring L'Anse-à-Valleau on stream in November 2007.
  - Carleton was brought onto the grid in November 2008.
- Because of delays by the project proponent, and as agreed with Hydro-Québec Distribution, the connection of Saint-Ulric–Saint-Léandre wind farm was postponed from 2007 to the end of 2009.
- In 2008, Hydro-Québec TransÉnergie completed the project to upgrade the Matapédia regional grid in preparation for the connection of new wind farms planned in the region.
- We continued our efforts to ensure reliable, optimal integration of wind farm output into the Hydro-Québec grid. Between 2006 and 2008, we rolled out systems for collecting and transmitting wind farm operating data. With IREQ, we also began developing models and tools for analyzing and simulating the impacts of wind farm output on the grid. In the long term, these tools will play a key role in achieving optimal grid management and security.
- Together with the other divisions, Hydro-Québec TransÉnergie implemented an action plan under which it has established relations with the world's top experts and gained recognition for its know-how in grid modeling and simulation. As a result, our experts are regularly called upon to take part in international forums on integrating wind power, where they present the strategies and technical criteria adopted by Hydro-Québec. The division's development of connection standards has sparked interest from the world's leading players in this field.
  - Since 2006, we have participated in the activities of the International Energy Agency (IEA) focusing on the complementarity of hydroelectricity and wind power. We have also been invited to contribute to the IEA's research on the impacts of bringing large quantities of wind power onto electric grids.
  - Hydro-Québec TransÉnergie was actively involved in NERC's Integration of Variable Generation Task Force (IVGTF), which is responsible for recommending reliability objectives, criteria and standards applicable in planning and operating grids that have variable generating sources such as wind power.
  - In 2006, NERC cited Hydro-Québec TransÉnergie's technical standards for connecting wind power facilities in its representations on system reliability to the Federal Energy Regulatory Commission (FERC). Some of the division's connection standards have now been widely recognized and adopted by the North American industry.

Objective 3 Deploy new technologies to enhance performance.

- From 2006 to 2008, Hydro-Québec TransÉnergie invested $53 million in developing or adapting technological innovations in order to improve the performance of the transmission system and ensure its long-term operability. These innovation initiatives were carried out in collaboration with IREQ and with specialized research centres and firms.
- We continued to deploy digital technologies for more efficient operation and maintenance. Examples:
  - Our system telecontrol centres have been equipped with GEN-4 SCADA (supervisory control and data acquisition), which offers greater flexibility in managing our facilities.
  - As part of a pilot project, we connected eight substations to our remote maintenance centre in Saint-Hubert, which uses remote monitoring, telemetering and remote diagnostic technologies to manage transmission facilities from a distance.
- In line with the objective stated in the *Strategic Plan 2006–2010*, Hydro-Québec TransÉnergie held the growth of its operating expenses at under 2% per year from 2006 to 2008.
  - Our target was a 1% average annual improvement in the efficiency of our scheduled maintenance and supervisory control operations by 2010. Achievements:
    - Recurring annual savings of $3 million associated with supervisory control operations were maintained in 2008.
    - Our scheduled-maintenance target was revised in light of the new long-term operability strategy, to take into account our increased use of condition-based maintenance.
- We submitted an efficiency plan in the rate application we filed with the Régie de l'énergie for 2008[1] and included a review of this plan in our rate application for 2009.[2] Our efforts in this regard were favorably received by the Régie.

1. See: www.regie-energie.qc.ca/audiences/3640-07/index3640.htm (in French only).
2. See: www.regie-energie.qc.ca/audiences/3669-08/mainRequete3669-08.htm (in French only).

Hydro-Québec Distribution

Objective 1 Promote more efficient use of electricity.

- In the *Strategic Plan 2006–2010*, Hydro-Québec Distribution raised its energy savings target to 4.7 TWh by 2010, in view of a target of 8 TWh by 2015.
- In February 2008, at the request of the Québec government, the division raised its target to 11 TWh by 2015, in light of the high rate of participation by Hydro-Québec customers in Energy Efficiency Plan (EEP) programs and the increased efficiency achieved by integrating new technologies into the distribution system.
- Since the launching of the EEP in 2003, energy savings of 3.4 TWh have been achieved for a total investment of $692 million.

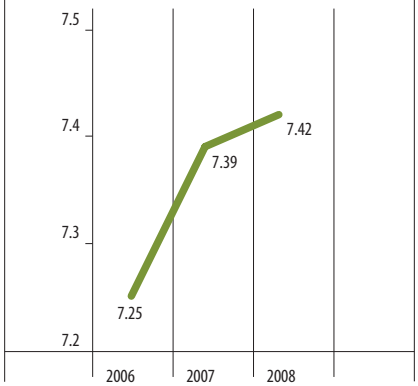
EEP	2006	2007	2008	Total 2006–2008
Additional savings targeted (TWh)	0.5	0.7	0.7	1.9
Additional savings achieved (TWh)	0.7	0.9	1.1	2.7
Investments ($M)	150	173	237	560

- In February 2008, the Régie de l'énergie approved the *Time It Right* project, which was launched in December of that year. The aim of this pilot project is to determine whether time-of-use rates might be a good way to encourage more efficient use of electricity.

Objective 2 Increase customer satisfaction.

- In 2008, the combined satisfaction index for residential, commercial and business customers rose to 7.42 on a scale of 10, the highest level recorded since 2000. Hydro-Québec Distribution was aiming for an index of at least 7.5 out of 10 by 2010.
- The satisfaction index for large-power customers has remained at 9 out of 10 since 2003.
- The final phase of the Customer Information System (CIS) was rolled out in 2008.
- The range of products and services available through self-service options has been expanded. In 2008, 21% of transactions were carried out on the company's Web site or through an interactive voice response (IVR) telephone system, compared with 16% in 2006.

Satisfaction index for residential, commercial and business customers (on a scale of 10)



- Hydro-Québec Distribution developed new solutions for low-income customers who are having trouble paying their electricity bills and continued to work with the various community organizations involved (Coalition des associations de consommateurs du Québec, Équiterre, Option consommateurs and Union des consommateurs).
- The division set new targets for system reliability, aiming to reduce the system average interruption duration index (SAIDI) to less than 120 minutes per customer per year for the province as a whole, and to less than 60 minutes for downtown Montréal, by 2010. In 2008, the SAIDI was 131 minutes per customer for the province and 58 minutes for Montréal during business hours. In Montréal, the customer satisfaction index for service reliability reached 8.6 on a scale of 10.
- As at December 31, 2008, the division had installed 30% (1,075 out of 3,750 units) of the remote-controlled equipment scheduled for installation by 2012 under its system automation program.
- In 2007, the Régie de l'énergie approved a gradual increase in the annual rate of system equipment renewal, with a ten-year target of 2%.
- In March 2008, the Régie approved the clarification and simplification of the conditions of service for hookups, metering and system extensions.
- In a February 26, 2008 decision, the Régie approved a 2.9% rate adjustment effective April 1, 2008.[1]
- In its February 2008 decision, the Régie said it was satisfied with the integrated efficiency improvement plan submitted by Hydro-Québec Distribution. Among other things, this plan calls for reducing postal charges and improving methods used to check the condition of distribution system components. These checks are made on a regular basis for safety and preventive maintenance purposes.

1. In a decision handed down in March 2009, the Régie approved a 1.2% rate adjustment that went into effect on April 1, 2009.

Objective 3 Meet electricity needs by favoring renewable energy sources.

- Three wind farms (Baie-des-Sables, L'Anse-à-Valleau and Carleton) with a total installed capacity of 319.5 MW came on stream in 2006, 2007 and 2008 respectively, as a result of the first tender call for wind power, issued in 2003. This call led to the signing of eight 20-year contracts to provide 990 MW of wind power.
- In May 2008, following the October 2005 call for 2,000 MW of wind power, the division announced the selection of 15 projects totaling 2,005 MW. The contracts were approved by the Régie de l'énergie on October 17, 2008, and the facilities will come on stream between 2011 and 2015.
- Regarding energy supplies for off-grid systems in remote areas,
  - Combined wind-diesel projects are under study at Akulivik and Kangiqsualujjuaq in Nunavik and in Cap-aux-Meules in the Îles-de-la-Madeleine region;
  - The division has abandoned the combined wind-diesel project that it was planning to carry out on Île d'Entrée in the Îles-de-la-Madeleine region since it did not receive the support of the local community.
- Under its Electricity Supply Plan, the division took various measures to balance forecasted needs and resources at the least cost:
  - Signing of an agreement with TransCanada Energy to suspend deliveries contracted for 2008 (4.3 TWh). This solution was preferred over reselling the electricity because of market risks. The measure was approved by the Régie de l'énergie on December 7, 2007.
  - Renewal for another year (2009) of the agreement to suspend deliveries by TransCanada Energy (4.3 TWh). The measure was approved by the Régie de l'énergie on September 10, 2008.
  - Signing of agreements with Hydro-Québec Production to defer a portion of baseload and cycling deliveries scheduled for 2008–2011. The measure was approved by the Régie de l'énergie on May 26, 2008.

Consolidated Financial Results

Consolidated Statements of Operations

($M)	2006			2007			2008		
	Actual	Forecast[a]	Variance	Actual	Forecast[a]	Variance	Actual	Forecast[a]	Variance
Revenue	**11,161**	**11,029**	**132**	**12,330**	**11,880**	**450**	**12,717**	**12,306**	**411**
Québec sales	9,402	9,582	(180)	10,368	10,283	85	10,445	10,658	(213)
Residential, commercial and business and large-power customers[b]	*8,622*	*8,789*	*(167)*	*9,251*	*9,305*	*(54)*	*9,376*	*9,665*	*(289)*
Special contracts	*780*	*793*	*(13)*	*1,117*	*978*	*139*	*1,069*	*993*	*76*
Sales outside Québec	1,149	1,181	(32)	1,617	1,283	334	1,919	1,318	601
Other revenue	610	266	344	345	314	31	353	330	23
Operating expenses	**2,389**	**2,469**	**(80)**	**2,541**	**2,573**	**(32)**	**2,497**	**2,604**	**(107)**
Other expenses	**3,763**	**3,763**	**0**	**4,395**	**4,353**	**42**	**4,763**	**4,633**	**130**
including budget contingency of	*0*	*0*	*0*	*0*	*100*	*(100)*	*0*	*100*	*(100)*
Financial expenses	**2,212**	**2,275**	**(63)**	**2,512**	**2,454**	**58**	**2,445**	**2,569**	**(124)**
Income from continuing operations	**2,797**	**2,522**	**275**	**2,882**	**2,500**	**382**	**3,012**	**2,500**	**512**
Income from discontinued operations	944	878	66	25	0	25	129	0	129
Net income	**3,741**	**3,400**	**341**	**2,907**	**2,500**	**407**	**3,141**	**2,500**	**641**
Dividends declared	2,342	2,150	192	2,095	1,250	845	2,252	1,250	1,002
Return on equity (%)	20.6	18.9	–	15.0	13.0	–	15.4	12.2	–
Capitalization (%)	36.1	35.9	–	37.5	37.6	–	37.7	38.5	–

a) Forecasts have been reclassified to conform to the presentation of reported results.

b) Excluding special contracts.

Results

2006 Net income totaled $3,741 million, including $944 million in gains from discontinued operations. Net income exceeded the *Strategic Plan 2006–2010* forecast by $341 million, of which $275 million was attributable to continuing operations. Dividends declared were $2,342 million, which was $192 million more than forecasted. Return on equity was 20.6% and capitalization stood at 36.1%.

The $275-million positive variance in income from continuing operations was partially due to the recognition of a non-recurring foreign exchange gain of $234 million on debts and swaps denominated in U.S. dollars. It also resulted from the recognition of a $340-million regulatory deferral for a reduction in expenditure following a decision handed down by the Régie de l'énergie in April 2006, authorizing a $170-million increase in the annual cost of native load transmission service for 2005 and 2006. These two factors were partially offset by a $342-million increase in electricity purchases on markets outside Québec, which were higher in volume than expected due to prudent management of energy reserves.

In the *Strategic Plan 2006–2010*, it was assumed that the sale of Hydro-Québec's foreign holdings would be completed in 2006, and income of $878 million was anticipated from discontinued operations, including a gain of $813 million on the sale of the interest in Transelec (Chile). In addition to the expected gains, Hydro-Québec realized a gain of $39 million on the divestiture of Consorcio TransMantaro S.A. (Peru). This gain contributed to the $66-million positive variance in income from discontinued operations.

2007 Net income was $2,907 million, exceeding the forecast by $407 million, of which $382 million was attributable to continuing operations and $25 million to gains from discontinued operations. Dividends declared, at $2,095 million, were $845 million above the forecast; the forecasted rate was about 50% of net income, but the Québec government declared dividends equal to 75% of net income calculated according to the parameters of the *Hydro-Québec Act*. Return on equity was 15.0% and capitalization, 37.5%.

The positive variance of $382 million in income from continuing operations was chiefly due to the results of Hydro-Québec Production. Sales under special contracts with some large industrial customers exceeded the forecast by $139 million, mainly because the price of aluminum was higher than expected. Net electricity exports were $31 million higher than forecasted. In addition, the $100-million budget contingency for runoff shortages was not used, as runoff conditions were satisfactory. Lastly, there was a $57-million positive variance in electricity purchases, primarily under long-term contracts.

Income from discontinued operations amounted to $25 million, mainly as a result of an $18-million gain on the sale of the company's interest in DirectLink (Australia).

2008 Net income was $3,141 million, or $641 million more than forecasted, of which $512 million was attributable to continuing operations and $129 million to gains from discontinued operations. Return on equity stood at 15.4%. Dividends declared, at $2,252 million, exceeded the forecast by $1,002 million. As in 2007, the forecasted rate was about 50% of net income, but the Québec government declared dividends equal to 75% of net income calculated according to the parameters of the *Hydro-Québec Act*. Capitalization, at 37.7%, was less than the forecasted rate of 38.5%, mainly because the dividends paid out were higher than expected.

The positive variance of $512 million in income from continuing operations was primarily due to the results of Hydro-Québec Production. Sales under special contracts with some large industrial customers exceeded the forecast by $76 million, mainly due to higher-than-expected aluminum prices. Net electricity exports exceeded the forecast by $380 million, as both volume and prices were higher than anticipated. Lastly, the $100-million budget contingency for runoff shortages was not used, since runoff conditions were satisfactory.

Income from discontinued operations amounting to $129 million resulted essentially from price adjustments provided for in the 2006 contract of sale for Hydro-Québec's interest in Transelec.

Operating expenses

Cumulative operating expenses for the 2006–2008 period were below the forecast by $219 million as a result of higher-than-expected efficiency gains throughout the period and lower pension costs in 2008 due to the actuarial effect of higher long-term corporate bond interest rates on capital markets.

Financial expenses

The fluctuations in financial expenses primarily reflected the changes in borrowing volume and favorable financing conditions on markets throughout the 2006–2008 period. In addition to these factors, capital investments, which exceeded the forecast in 2008, had a favorable impact as a result of capitalized borrowing costs.

Consolidated Statements of Cash Flows

($M)	2006			2007			2008		
	Actual	Forecast	Variance	Actual	Forecast	Variance	Actual	Forecast	Variance
Investments, net of disposals of interests	(1,468)	(1,871)	403	(3,561)	(3,880)	319	(3,775)	(3,816)	41
Disposals of interests	*2,022*	*2,094*	*(72)*	*51*	*0*	*51*	*154*	*0*	*154*
Investments[a]	*(3,490)*	*(3,965)*	*475*	*(3,612)*	*(3,880)*	*268*	*(3,929)*	*(3,816)*	*(113)*
Maturities and redemptions	(2,651)	(1,629)	(1,022)	(993)	(1,018)	25	(2,734)	(1,091)	(1,643)
Dividends paid	(1,126)	(1,126)	0	(2,342)	(2,150)	(192)	(2,095)	(1,250)	(845)
Uses of funds	**(5,245)**	**(4,626)**	**(619)**	**(6,896)**	**(7,048)**	**152**	**(8,604)**	**(6,157)**	**(2,447)**
Operations	4,005	4,704	(699)	5,159	4,365	794	5,015	4,423	592
Financing[b]	1,240	(78)	1,318	1,737	2,683	(946)	3,589	1,734	1,855
Sources of funds	**5,245**	**4,626**	**619**	**6,896**	**7,048**	**(152)**	**8,604**	**6,157**	**2,447**

a) This line item groups together investments in property, plant and equipment, intangible assets and the Energy Efficiency Plan (EEP) as well as investments in securities and deferred charges. The figures presented in the five-year review of the *Annual Report 2008* ($11,125 million for the 2006–2008 period) do not include investments in securities or deferred charges.

b) Includes the change in cash, cash equivalents and short-term investments. Long-term borrowings totaled $3,781 million in 2006, $2,026 million in 2007 and $2,027 million in 2008.

2006 Investments, which totaled $3,490 million, were $475 million less than forecasted, chiefly because the capital projects planned in the generation, transmission and distribution sectors were stretched over a longer period of time.

Debt maturities and redemptions were $1,022 million higher than forecasted. Cash from operating activities was $699 million less than forecasted because revenue from electricity sales was not as high as expected, while electricity purchases exceeded the forecast. Financing requirements were therefore greater than projected.

2007 Investments were $268 million lower than forecasted. As in 2006, the spreading-out of planned capital projects in the generation, transmission and distribution sectors accounted for this variance. Dividends paid exceeded the forecast by $192 million because net income for 2006 was higher than expected.

Cash from operating activities exceeded the forecast by $794 million, primarily because revenue from electricity sales was higher than forecasted. Financing requirements were therefore below the projected figures.

2008 Investments exceeded the forecast by $113 million. It is worth noting that investments in the Energy Efficiency Plan (EEP) were $67 million more than forecasted, owing to the increase in the energy savings target. Maturities and redemptions exceeded the forecast by $1,643 million, and dividends paid were $845 million higher than forecasted.

Cash from operations exceeded the forecast by $592 million, mainly because of higher-than-expected net electricity exports. Financing requirements were nonetheless higher than forecasted because additional funds were needed for debt maturities and redemptions as well as for dividend payments.

Economic Benefits

Spinoffs and Jobs Sustained

Hydro-Québec injects substantial amounts of money into its projects and day-to-day operations throughout Québec. Over the 2006–2008 period, procurement of goods and services[1] inside and outside Québec totaled nearly $8.0 billion and supported more than 56,700 jobs[2] in Québec.

For instance, the Péribonka hydropower development project, which was completed in 2008, had total regional economic spinoffs of $557.4 million—$200 million more than initially forecasted. This is primarily due to collaboration between Hydro-Québec and the spinoff optimization committee set up by the regional conference of elected representatives, as well as to the participation of the community of Mashteuiatsh. Jobs generated by the project represented 3,077 person-years, or 700 jobs a year on average, with 83% of the workforce coming from the Saguenay–Lac-Saint-Jean area.

In addition, the Eastmain-1-A/Sarcelle/Rupert jobsite—the largest Hydro-Québec project under construction in 2008—led to cumulative regional spinoffs of $900 million by the end of the year. In 2008, the project created 4,023 person-years of employment; Crees and Jamesians made up 16.5% of the workforce.

1. Excluding procurement by Société d'énergie de la Baie James.
2. In person-years.

Units of measure

$M:	millions of dollars
W:	watt (a unit for measuring power)
kW:	kilowatt (one thousand watts)
MW:	megawatt (one million watts)
GW:	gigawatt (one million kilowatts)
Wh:	watthour (a unit for measuring electric energy)
kWh:	kilowatthour (one thousand watthours)
MWh:	megawatthour (one million watthours)
GWh:	gigawatthour (one million kilowatthours)
TWh:	terawatthour (one billion kilowatthours)

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