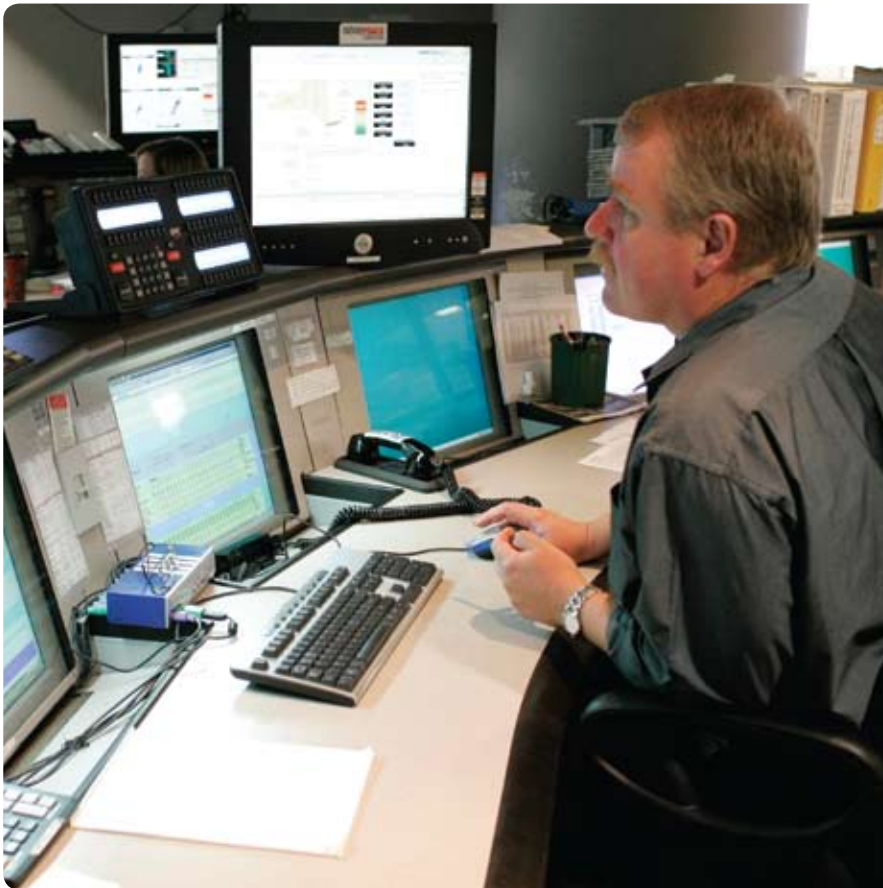


Generating Over 70% of Ontario's Electricity

It's All About Performance

REPORT ON 2008 PERFORMANCE



ONTARIOPOWER
GENERATION

Developing tomorrow's workforce, today

OPG offers high value jobs for Ontarians

OPG employs more than 12,000 highly skilled and qualified individuals committed to producing electricity to help meet the needs of Ontario families, communities and businesses. In 2008, OPG continued to create a workplace that attracts, develops and retains its employees by providing them with growth opportunities to reach their full potential both on and off the job.



President and CEO Jim Hankinson talks to new graduate employees in OPG's nuclear business about career development opportunities at OPG.



Darlington Outage Unit 1 Control Room



Megan Fairbairn, a graduate of Confederation College with a diploma in Environmental Technology, is beginning her career at OPG as an Environmental Chemical Safety Technician at the Atikokan generating station.

OPG: a top employer

OPG was recognized in 2008 for its commitment to employees by being named one of Canada's Top 100 Employers for the second year in row. The company was also named one of the top 75 Employers in the Greater Toronto Area – the third time OPG has won this award.



Sidra Abid is an Engineering and Applied Science Trainee at OPG's Darlington Nuclear station. OPG is committed to workplace diversity and is proud to attract highly qualified people like Sidra as employees.

Where to go for more information about OPG

Employment and career opportunities:
www.mypowercareer.com.

Attracting and retaining the best

OPG competes for the best and brightest employees in Canada. In 2008, OPG hired approximately 800 new employees—over 300 of whom were engineers and technicians. The following are some OPG initiatives designed to attract and retain excellent employees within the OPG organization.

- **University Graduate Recruitment:** In 2008, OPG participated in 14 career fairs and 10 information sessions in Ontario and eastern Canada. OPG's Nuclear Engineering New Grad recruitment event resulted in over 100 offers to graduates.
- **Trades Recruitment:** OPG expanded its trades recruitment to 16 colleges in 2008.
- **Student program** – OPG hired over 425 students in its co-op and summer employment programs.
- **Aboriginal Relations Outreach:** OPG participates in career fairs, information sessions and aboriginal events in support of aboriginal education.
- **Youth Outreach:** OPG works with external education partners such as school boards to encourage students to develop the right skills for rewarding careers.
- In 2008, OPG continued its strong focus on leadership development.
 - Supervisory training was expanded.
 - OPG held two Leadership Forums attended by more than 100 of its senior leaders to advance the company's strategic direction and develop initiatives to enhance performance. These Forums are now a regular feature of OPG's operations.
- OPG identified leadership development curriculum for middle managers.

Safety and environment

OPG prides itself on being a safe company in the broadest sense of the word

"[OPG's] commitment to safety and protection of the environment is uncompromising and absolute."

Jim McKinnon, President,
Safe Communities of Pickering/Ajax.

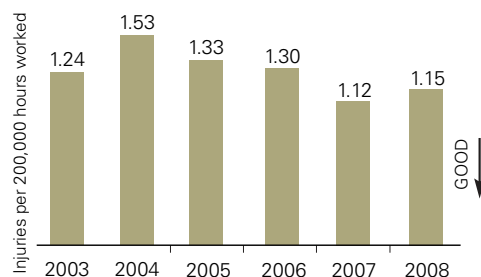
Public safety

OPG's strong public safety focus was demonstrated in 2008 when two of the company's nuclear generating stations – Darlington and Pickering B – and the Pickering Waste Management Facility all had their operating licences renewed by the Canadian Nuclear Safety Commission. The licence renewals were for the maximum time allowed by the CNSC. This reflected positively on the strong safety culture that is in place across OPG.

Workplace safety

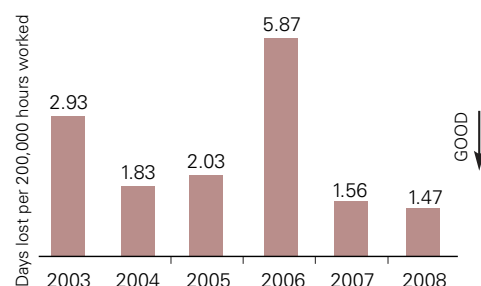
OPG's workplace safety goal is zero injuries. In 2008, many of our sites achieved significant safety milestones consisting of many hours, or years, without a lost-time injury. OPG's entire Hydro business of over 1,000 employees achieved more than three years without a lost-time injury by the end of the year.

All injury rate (AIR)



AIR measures the number of workplace injuries resulting in lost-time or medical treatment per 200,000 hours worked. OPG's 2008 AIR is the second best in its history.

Accident severity rate (ASR)

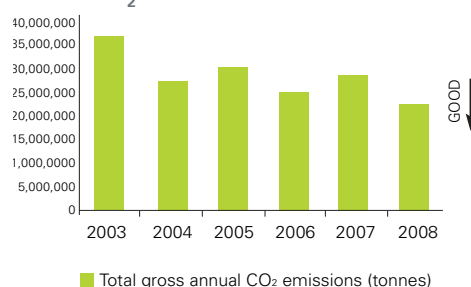


ASR measures days lost per 200,000 hours worked due to workplace injuries. OPG's 2008 ASR performance is the best in its history.

Environmental performance

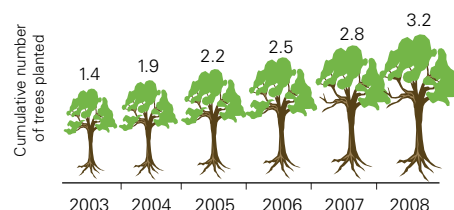
OPG's focus is to be a leading low emission energy company. In 2008, OPG's emissions from its fossil fuelled plants were among the lowest in its history – primarily due to higher production from OPG's nuclear and hydroelectric plants; lower electricity demand; and investments in environmental technologies. OPG's lower emissions included significantly reduced carbon dioxide emissions. These will decline even further going forward as we meet new, lower CO₂ emissions targets.

OPG's CO₂ emissions



OPG provided the financial support to help restore two electric buses used by the University of Ontario Institute of Technology. The buses are used for environmental research and education purposes – especially in the area of cleaner transportation.

OPG's tree planting program (millions)



OPG's tree planting program is an important part of the company's climate change strategy – helping to offset over their lifetime millions of tonnes of carbon dioxide.



Since 2000, OPG and its community partners have planted more than three million native trees and shrubs in Ontario.

OPG continues to demonstrate leadership in biodiversity. In 2008, the company planted over 400,000 trees and shrubs in key areas of southwestern Ontario.

OPG has a history of reliable production

Strong nuclear and hydro output leads the way



Darlington nuclear generating station in Clarington, Ontario

Production in 2008

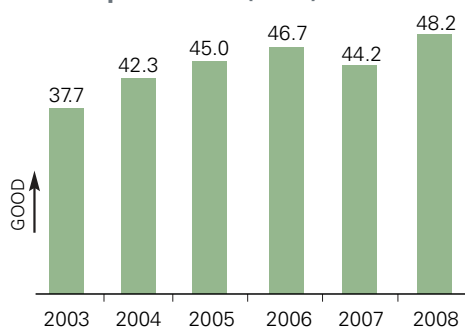
In 2008, OPG generated nearly three-quarters of the electricity consumed in Ontario. OPG is proud to have made this significant contribution to Ontario's electricity needs and will continue to do so by generating safe, reliable power to benefit families, communities, business and industry.

OPG's strong electricity production of 107.8 TWh was driven by higher generation from its nuclear and hydroelectric stations, supported by reliable performance from the fossil-fuelled fleet.

Nuclear

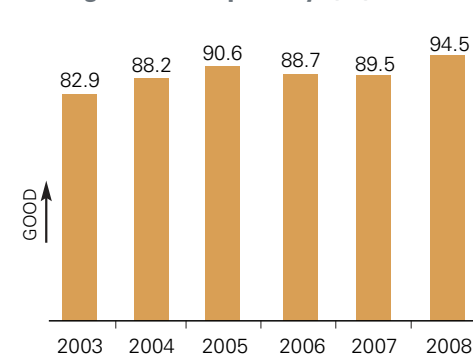
Production from OPG's existing fleet of nuclear units reached its highest level since the company was formed.

Nuclear production (TWh)



Strong performance by the Darlington nuclear generating station played a major role, with the station achieving its best unit capability factor in OPG history. OPG's nuclear generation produces virtually no emissions contributing to smog or climate change.

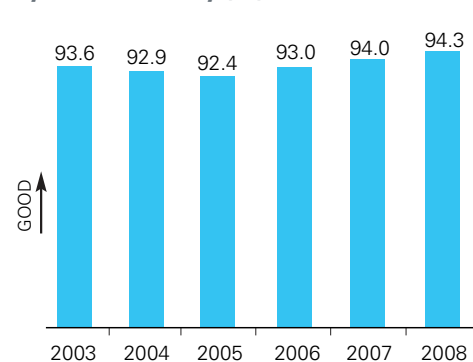
Darlington unit capability (%)



Hydroelectric

OPG's hydroelectric stations generated 36.4 TWh – the second highest production on record for the company's existing hydro fleet. Hydroelectric availability at the end of the year was 94.3%, the best performance in 24 years. This exceptional performance was the result of sound maintenance investments and the excellent efforts of OPG's hydroelectric employees.

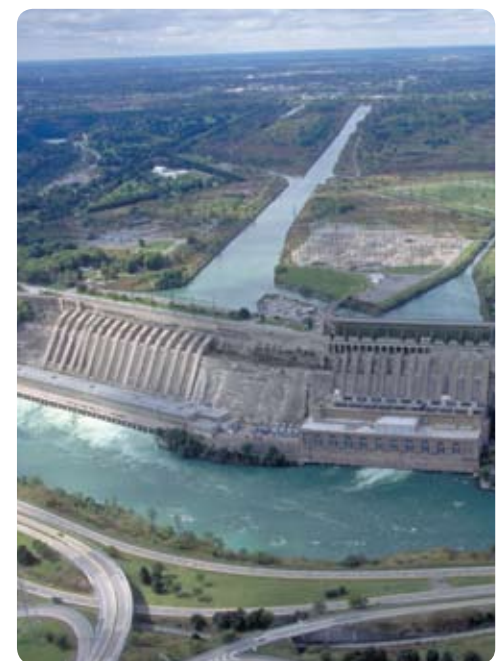
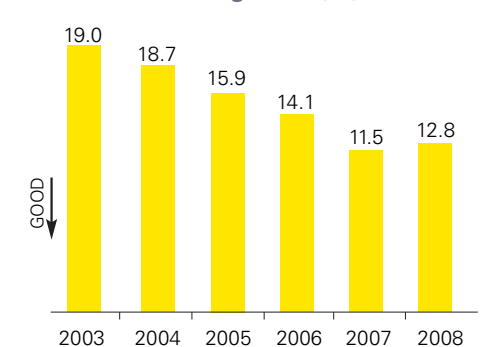
Hydro availability (%)



Fossil

OPG's fossil-fuelled stations produced just over 23 TWh of electricity in 2008, significantly lower than the 29 TWh produced in 2007. Strong nuclear and hydro production enabled OPG to operate its fossil plants less frequently during the year. Despite lower production, OPG's fossil stations continue to maintain their excellent record of reliability – especially during periods of peak demand in summer and winter when they are most needed by Ontario's families and businesses.

Fossil forced outage rate (%)



Sir Adam Beck hydroelectric stations at Niagara Falls: OPG's hydro plants are an important source of clean, emission-free, renewable power for Ontario.

Well maintained assets enhance reliability

Upgrades and improvements benefit Ontario's electricity supply

OPG operates a wide range of both newly constructed and established generating facilities across Ontario. Proactive improvement programs, regular maintenance and targeted equipment upgrades keep these assets operating at high levels of efficiency and reliability.

Nuclear planned outages

Planned outages are an important tool for maintaining and improving nuclear performance. OPG completed three major planned outages on nuclear units at Pickering and Darlington in 2008. These outages accomplished important maintenance and upgrade work, enhancing

reactor efficiency and performance. The two outages at Pickering were completed behind schedule. The Darlington outage – on Unit 1 – was completed ahead of schedule. With the completion of this outage all four units at Darlington now operate on a three year outage cycle. Most other nuclear plants worldwide operate on a two year cycle. The new cycle will help improve Darlington's reliability and output.

Hydro improvements continue

Performance upgrades also took place at OPG's hydroelectric stations. Major outages were completed at Chats Falls, Des Joachims, Abitibi Canyon, Otto Holden and Stewartville GS. Several of these outages enabled OPG to increase its hydroelectric energy output by 13.8 GWh – enough energy to power about 1,400 households for one year.

Over the next five years, OPG plans to increase the capacity of its existing hydro stations by 87 MW – as part of its ongoing program to replace existing turbine runners with more efficient equipment. Since 1999, this program has added 254 MW of clean, renewable hydropower to Ontario's electricity supply – about the same amount of capacity as a small gas-fired station.

Ensuring fossil plants are ready

In 2008, OPG continued to invest in maintaining its fossil fleet to operate safely and reliably whenever called upon to produce power. A total of 24 major planned outages took place at OPG fossil stations. Effective maintenance enabled the stations to be in a high state of readiness throughout the heat of the summer. From June through August, Fossil's Forced Outage Rate – a key reliability measure – was under eight per cent. This was a 30 per cent improvement over the same period in 2007.



This spring, all four reactors at the Darlington nuclear station will be taken off line for the Vacuum Building Outage (VBO). Occurring every 10 years, the VBO is the largest project OPG's nuclear business will undertake in 2009.

To comply with Ontario's new carbon dioxide (CO₂) emissions requirements taking effect in 2009, OPG will produce less electricity from its fossil plants. Our maintenance approach will be to ensure that the plants continue to be reliable during peak demand times in the summer and winter months – with reduced operations during periods of lower demand.

Darlington Unit 1 – anatomy of an outage

The Unit 1 outage lasted from late March to early June and was one of Darlington's most successful planned outages:

- completed two days ahead of schedule
- under budget
- almost 15,400 tasks completed
- over 400 tasks completed in one day
- 15,200 boiler tubes inspected
- 8,809 metres of cable used and 242 seals replaced

As of the end of 2008, Darlington's last four outages had all been completed either on schedule or ahead of schedule.



Lambton Unit 4 maintenance outage



Des Joachims station runner upgrade crew

Strengthening our ties to communities

In 2008, OPG contributed \$3.9 billion to Ontario's economy

OPG makes a significant and positive contribution to the communities where it operates. It includes economic benefits resulting from our day-to-day operations; support for grass-roots community initiatives through our Corporate

Citizenship Program; and numerous volunteer activities performed by individual OPG employees freely donating their time and expertise to help make Ontario communities better places to live.

OPG's economic contribution

As a large power company with a mandate to expand its generation, OPG purchases numerous products and services from Ontario-based businesses. In 2008, purchases by OPG totalled more than \$1.4 billion across Ontario.



Pickering Nuclear generating station – Tuesdays on the Trail program on the Waterfront Trail in Durham region.



OPG employees like these from the Northwest Plant Group, contribute their time and resources to help support worthy causes of their choice in OPG's annual Charity Campaign.



OPG is a proud participant in National Aboriginal Day and celebrates the event at many of its sites.



OPG helps support hundreds of Ontario youth sport teams every year.

"...the Darlington nuclear power plant generates \$4.3 million in property taxes per year; \$2.6 million of that goes to Clarington."

Jim Clapp, Commissioner of Finance,
Durham Region

OPG purchases

Region*	Spend Value **
Toronto area	\$ 723,893,541
Simcoe region	\$ 210,219,179
Niagara	\$ 160,957,158
Clarington area	\$ 106,111,499
Ottawa	\$ 80,142,408
Pickering	\$ 50,356,025
Sarnia and Lambton	\$ 42,324,017
Bruce	\$ 18,329,668
Northeast	\$ 16,005,047
Thunder Bay	\$ 9,710,832
Lennox	\$ 7,975,667
Atikokan	\$ 811,811
Northwest	\$ 281,959
#N/A	\$ 135,354
Grand Total	\$ 1,427,254,171

* "Region" refers to place of origin for purchases.

** Excludes fuel purchases



Nanticoke employees (in pink hats and T-shirts) Patti Fleming (l), and Ann Deming (r) have helped raise over \$80,000 for Breast Cancer Research in the past five years.

OPG has more than 12,000 highly qualified employees working at its sites in communities across Ontario. Many of these are highly qualified professionals and technical specialists. These talented men and women operate nuclear reactors, manage power stations on large river systems, and operate fossil-fuelled plants with large steam-driven turbines. A number of OPG employees are also skilled business professionals. They are committed to help ensure that Ontario has reliable electricity to meet its needs.

Like so many Ontarians, our employees reinvest much of the salaries back into the provincial economy – in the form of local and provincial taxes; charitable donations; and purchases of Ontario goods and services such as food, cars, homes, recreation and education for their children.

At the corporate level, OPG also contributes to Ontario in the form of income and capital taxes; municipal property taxes; debt interest and other payments. This money helps the government fund its many operations and services – including social services; and infrastructure development.

In total, OPG contributed almost \$4 billion to the Ontario economy in 2008 through purchases, salary and payments to government.

Corporate citizenship

OPG also contributes to the community through its Corporate Citizenship Program, which targets grass roots community, education and environmental initiatives. In 2008, OPG helped support nearly 1,000 such initiatives.



OPG Hydro Fun Run

Station anniversaries & proud communities

Celebrations attracted more than 15,000 people in 2008

Many OPG facilities are a source of pride for Ontarians and have been an integral part of their communities for decades, playing a key role in the social and economic life of a

region. In 2008, four major OPG generating stations celebrated important anniversaries marking their many years of service to Ontario and their communities. Thousands of local

residents attended these events, demonstrating the strong bond that exists between OPG and site communities and the pride Ontarians feel for these important and historic facilities.

DeCew generating station – 110 years – Niagara region



OPG's hydroelectric stations are part of Ontario's heritage – especially those located in the historic Niagara Region, the cradle of Ontario's electricity industry. The DeCew generating station is OPG's oldest hydro station. Operating since 1898, DeCew celebrated its 110th anniversary in November. More than 5,000 community members attended the event. Among those attending was Energy and Infrastructure Minister, George Smitherman.

R.H. Saunders generating station – 50 years – Ottawa/St Lawrence



In service since 1958, the R.H. Saunders generating station in Cornwall celebrated 50 years of operation in June. One of OPG's premier community events for 2008, the Saunders celebration attracted more than 7,000 visitors – including local municipal officials, First Nation representatives; OPG management; and former Ontario Energy Minister Gerry Phillips.

Abitibi generating station – 75 years – Northeastern Ontario



Constructed in the early 1930s, OPG's Abitibi hydroelectric generating station celebrated its 75th anniversary in October. More than 1,500 people traveled to the remote location – approximately 100 km northwest of Cochrane, Ontario – to participate in the celebrations.

Thunder Bay generating station – 45 years – Northwestern Ontario



OPG's fossil-fuelled Thunder Bay generating station celebrated its 45th anniversary in September. Over 1,500 local residents joined station employees to celebrate with tours, displays and entertainment. Built in 1963, Thunder Bay has provided reliable power to Ontario throughout its lifetime. The station has test-burned carbon-neutral biomass fuel as a possible substitute for coal.

New supply – hydroelectric

OPG's hydroelectric development projects will provide more clean energy

OPG is preserving and enhancing its hydroelectric heritage in ways that benefit all the people of Ontario.



Lac Seul is OPG's newest hydro station, entering service in early 2009.

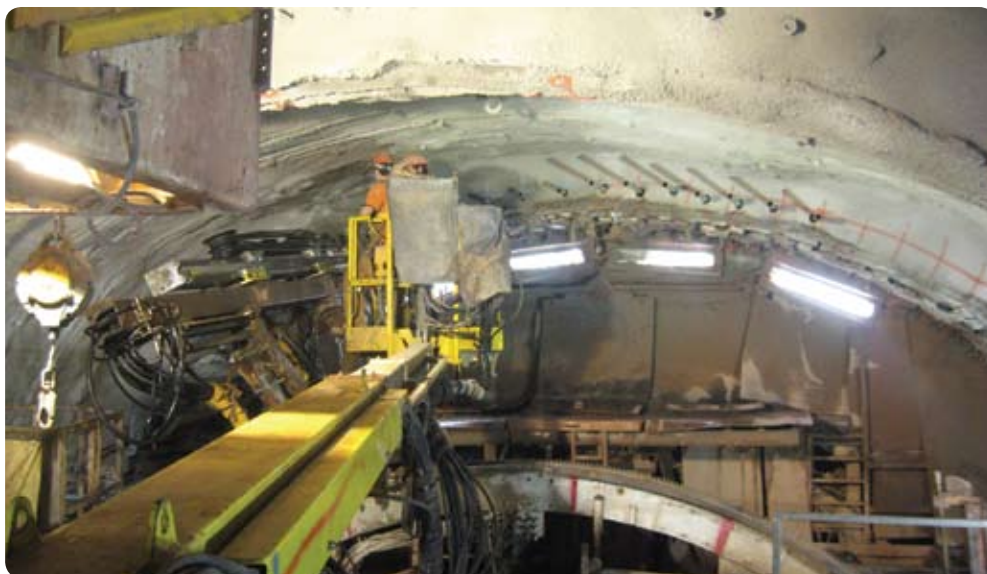
Unlocking Ontario's Hydroelectric potential

OPG continued to make progress on its mandate to expand Ontario's hydropower supply.

By the end of the year, construction of OPG's newest generating facility – the Lac Seul hydroelectric station – was complete, and it officially entered service in early 2009.

The Niagara Tunnel ended the year one-third of the way through its 10.4-kilometre journey under the City of Niagara Falls. Progress has been difficult due to unstable rock conditions, which will delay the scheduled completion date and increase project costs. When finished, the tunnel will provide Ontario with 1.6 billion KWh of additional clean energy per year for more than 90 years.

This past summer, OPG also began design and construction work on the redevelopment of four of its existing stations on the Upper Mattagami and Montreal Rivers in northeastern Ontario. Two of these stations have already been demolished. The project will increase the stations' capacity from 23MW to 44MW.



The Niagara Tunnel Boring machine, the world's largest, in operation under the City of Niagara Falls. When completed, the Tunnel will increase the output of OPG's Beck generating complex by 14 per cent.

OPG has undertaken several other new hydro projects in northern Ontario. The projects are in various stages of development and represent almost 600 MW of potential new hydroelectric supply for Ontario. This includes a major project involving four hydro stations on the Lower Mattagami River. OPG is proceeding with a development plan to increase the capacity of these stations by 450 MW.

Laying the foundation with first nations

OPG supports its hydroelectric development initiatives by forging strong relationships with Ontario First Nations

communities on whose lands many hydro sites are located. In 2008, OPG signed four agreements with First Nations groups. These agreements lay the foundation for making available new supplies of hydroelectric power for Ontarians while bringing economic benefits to aboriginal communities.

In December, OPG signed a groundbreaking equity partnership agreement with the Lac Seul First Nation in Northwestern Ontario. OPG also signed past grievance settlements with the Dalles First Nation and the Mohawk First Nation of Akwesasne. A protocol agreement for participation of six First Nations in the Little Jackfish development was also signed.



The Lac Seul equity partnership agreement was a major milestone in OPG/First Nation relations.

OPG's new hydro development DVD is now available:

To access this DVD please go to www.opg.com/hydro or order a copy at www.webmaster@opg.com

Nuclear supply – new nuclear and refurbishment

Ensuring reliable and virtually emissions-free power for Ontario

“The two new nuclear units at our Darlington site...will mean up to 3,200 MW of electricity for the Province’s future energy supply – all of it virtually free of emissions.”

Jim Hankinson, speech to Ontario Energy Network, December 8, 2008



The Darlington nuclear site is 480 hectares (1,186 acres) in size. Located in Durham Region, the site can accommodate up to four additional reactors and is adjacent to a major transmission corridor.

New nuclear at Darlington

OPG’s reputation as a capable nuclear operator was confirmed in June 2008, when the Ontario government chose OPG to operate two new nuclear units at its Darlington site. The government has set a target in-service date of mid-2018 for the first unit and mid-2019 for the second unit. OPG is participating in the government-led process to select the reactor technology and a preferred vendor to construct the new reactors. A decision is expected in late spring, 2009 – after which, OPG will apply to Canada’s nuclear regulator for a site preparation licence. The two units will generate significant new baseload energy to power Ontario’s businesses and homes.

Pickering B refurbishment

In January 2009, OPG was informed by the Canadian Nuclear Safety Commission that the refurbishment and continued operation of the Pickering B nuclear station is not likely to cause significant adverse environmental effects, taking into account the identified mitigation measures. This was an important milestone for the refurbishment project. OPG continues to assess the business case for Pickering B’s refurbishment. Factors under consideration include total costs and post-refurbishment production levels.

Darlington refurbishment

Work began on assessing the business case for refurbishing the Darlington nuclear station. By the end of 2008, OPG had completed a technical assessment of the station’s steam generators. In 2009, OPG will undertake additional activities – including more technical assessments, development of a draft refurbishment outage plan and continuation of an Integrated Safety Review. Similar to the Pickering B refurbishment process, OPG will proceed with Darlington’s refurbishment only if it is justified by a solid business case and approved by OPG’s Board of Directors. Refurbishing Darlington will enable the 3,500 MW station to continue to meet Ontario’s electricity needs decades to come.



In 2008, OPG conducted 16 community information sessions to inform the public of its “new nuclear” activities.



The OPG Community Kiosk in Bowmanville provided information to over 1,000 visitors on OPG’s “new nuclear” initiatives.

Community consultation and support

Throughout the new nuclear and refurbishment processes, OPG has kept the local community well informed. In 2008, OPG’s new nuclear information initiatives reached more than 4,000 people. An information storefront was also established. A large majority of residents in the Durham community were supportive of OPG’s new nuclear initiative. OPG is grateful for this support and will continue to consult with the community on its new build and refurbishment activities.

New supply – fossil

As coal is phased out, new energy sources are emerging

OPG has been directed by the Ontario government to stop burning coal at its fossil-fuelled stations by the end of 2014. To ensure Ontario continues to have a flexible, reliable source of energy to meet its needs, OPG is developing and exploring new opportunities in gas generation and renewable, carbon-neutral biomass fuel.

Portlands Energy Centre

In partnership with TransCanada Energy, OPG completed the first phase of the 550 MW Portlands Energy Centre in May 2008 – on line, on time, and on budget. The second, combined cycle phase of the natural gas facility is expected to be completed ahead of its scheduled in-service date of June 1. Portlands will help ensure that Toronto has the energy it needs during peak demand periods in summer and winter.



The Portlands Energy Centre helps serve Toronto's electricity needs.

New gas initiatives

The Portlands Energy Centre was named by the Ontario Power Authority (OPA) as one of four successful qualifiers to submit proposals to build a natural gas generating station in the southwest portion of the Greater Toronto Area. Portlands is currently working on submitting a competitive bid later in 2009 following the OPA's release of a request for proposals.



In January 2009, OPG hosted a Biomass Information Session in Toronto. It was attended by about 180 people including officials from agriculture, environment, transportation, forestry, energy, government and First Nations.

Biomass

Throughout 2008, OPG continued to explore the feasibility of burning biomass fuel in some of its fossil units. Successful test burns were conducted on units at OPG's Nanticoke and Atikokan stations. These included tests in which 100 per cent biomass fuel was burned for prolonged periods – proving that the fuel is technically capable of replacing coal. Tests were also conducted at the Lambton fossil station.



Biomass Monitoring, Atikokan Jan 2008

While the test results have been promising, more studies are needed to determine whether or not biomass is a practical commercial option.



In September, the Portlands Energy Centre was named "Energy Company of the Year" by the Ontario Energy Association (OEA). The OEA commended Portlands for being on time and on budget.

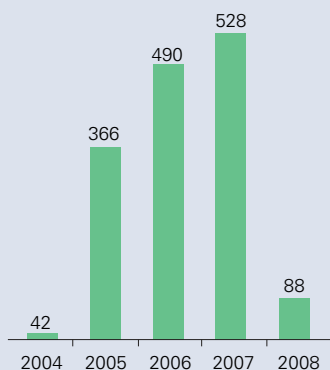
Financial performance

OPG's strong operational performance was affected by financial market turmoil

Financial performance

OPG's 2008 net income was \$88 million compared to its 2007 net income of \$528 million. The decline was primarily due to the effects of the global economic downturn, which had a negative impact on the current value of OPG's nuclear Decommissioning Fund.

OPG net income (\$ million)

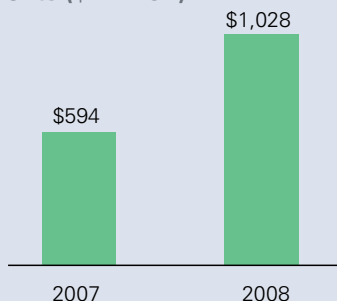


The Decommissioning Fund was established to fund the future costs of decommissioning nuclear generating stations and for the management of nuclear waste. At the end of 2008, the value of this fund declined to \$4.3 billion compared to \$5.1 billion at the end of 2007. This decrease was caused by significant reductions in global financial markets, which reduced the current market value of the Fund investment's. These funds will not be needed for 50 years. Given the long-term nature of the Fund, OPG expects its value to increase over time.

Reflecting the overall efficiency of OPG's operations in 2008, OPG's income before interest and income taxes from its electricity generating segments exceeded \$1 billion, compared to \$594 million in 2007. Several factors drove this strong performance.

- higher market prices;
- higher nuclear and hydroelectric generation; and
- an increase in gross margin due to the Ontario Energy Board's (OEB) decision regarding new payment amounts for OPG's regulated hydroelectric and nuclear facilities.

Income before interest and income taxes from electricity generating segments (\$ million)



New rate structure

In December 2008, the OEB issued new regulated prices for production from OPG's regulated baseload hydroelectric and nuclear facilities. The new regulated prices are based on a return on equity (ROE) of 8.65 per cent, which was determined by the OEB. Prior to April 1, 2008, OPG's ROE was established – on an interim basis – at about five per cent. The new rate structure will enable OPG to undertake upgrades and improvements to its low emission regulated facilities for the benefit of all Ontarians.

OPG will not seek rate increase in 2009

The current prices which OPG receives for power from its nuclear stations and baseload hydroelectric operations are set by the OEB. These regulated prices will remain at current levels for an extra year. OPG will not seek an increase for 2010 in the rates that now are in effect for electricity from its regulated assets.



Darlington Nuclear Waste Management Facility



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Design, Print, Distribution: OPG Office Services

Where to go for more information about OPG

General information, including press releases, speeches and financial, environmental and safety information: www.opg.com.

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