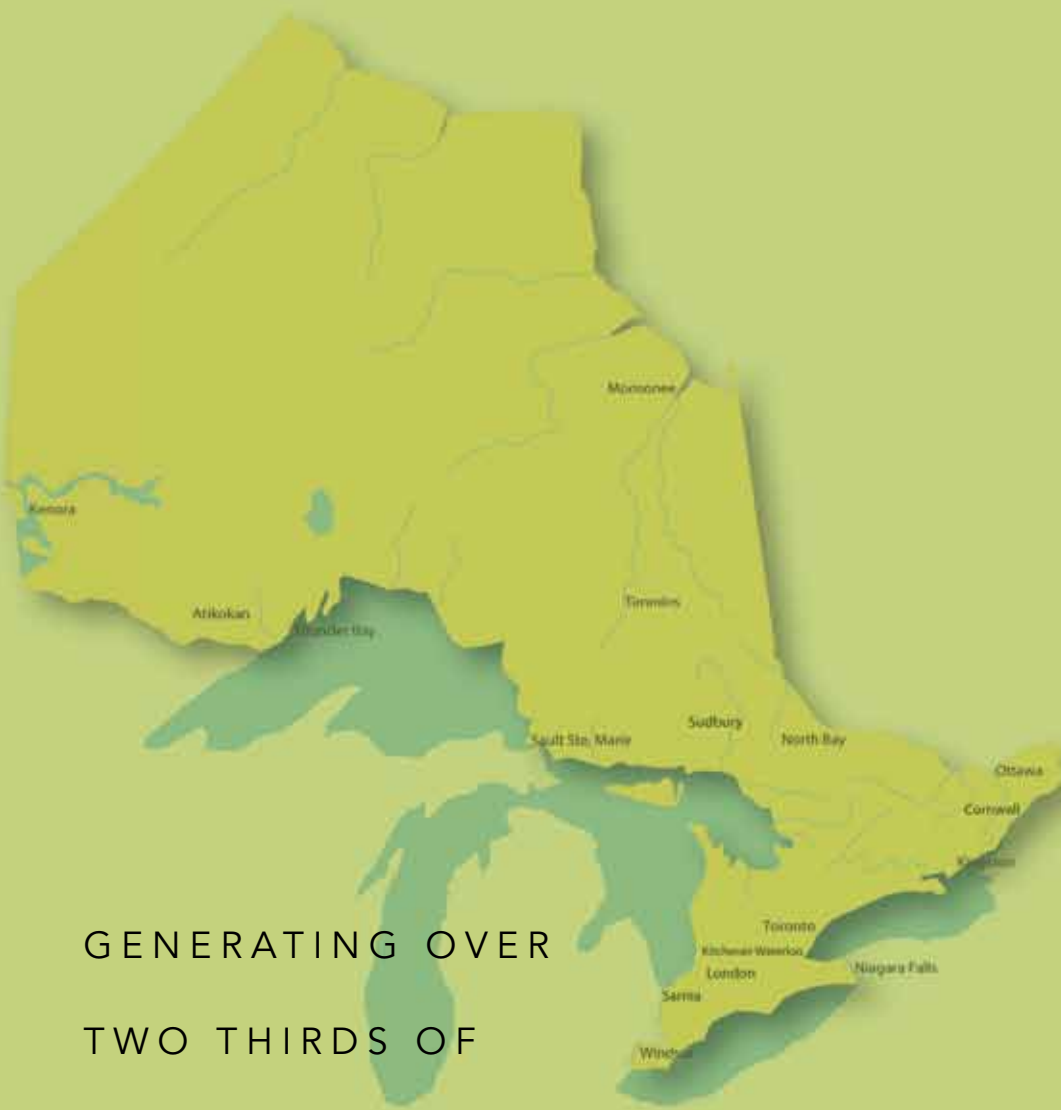


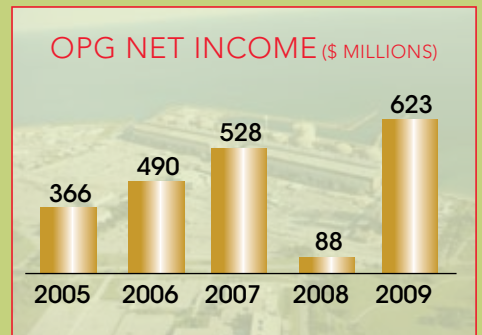


AT WORK ACROSS ONTARIO

OPG PERFORMANCE REPORT: SPRING 2010



GENERATING OVER
TWO THIRDS OF
ONTARIO'S
ELECTRICITY



Maximizing Our Value to Ontario

OPG'S ASSET IMPROVEMENT INITIATIVES AND NEW GENERATION PROJECTS ENHANCE RELIABILITY

NUCLEAR

Pickering VBO a Major Success: In mid-April, all six reactors at the Pickering nuclear complex were shut down as part of a major planned outage to inspect and maintain the stations' vacuum building. As OPG's largest nuclear project in 2010, the Pickering Vacuum Building Outage (VBO) involved over 6,000 workers, including employees, external contractors and building trades partners, performing over 30,000 individual tasks. Completed on May 24, the VBO is a regulatory requirement that takes place every 10 years. The project was finished safely and ahead of schedule and is an example of solid teamwork and effective project management on the part of OPG. Its successful completion will help ensure Pickering's strong operation over the next decade.

Darlington Planned Outage Completed: In early February, OPG took its Darlington Unit 4 reactor off-line for a planned maintenance outage that lasted over two months. Leading up to the outage, Unit 4 was one of Darlington's strong performing units, achieving a 90% unit capability factor in 2009. While the outage did not achieve all its goals, much important work was accomplished. This included: maintenance and inspection of the station's turbines and steam generators, as well as inspections of reactor components and fuel channels. Over 97% of the outage's original scope was completed, setting up Unit 4 for a 1,000 day operational run before its next planned outage.



Darlington Unit 4 during its 2010 planned outage. Unit 4 was the third best performing CANDU reactor in the world in 2008.

HYDROELECTRIC

Healey Falls Expansion Completed: OPG has added a fourth generating unit to the Healey Falls hydroelectric station, near Campbellford, Ontario. The expansion adds over 10 MW to the station's capacity.



OPG is getting more power – safely and reliably – from its existing stations: In February, Unit 8 of the Chats Falls (pronounced "Shaw" Falls) generating station on the Ottawa River returned to service on budget and ahead of schedule after a runner upgrade and major overhaul. The Chats Falls improvements involved the station's eight units and resulted in one of the most significant efficiency increases in OPG's runner upgrade program.



Niagara Tunnel Progress: As of mid-May, the tunnel boring machine (TBM) had advanced nearly 6,900 metres – over two thirds of its 10.2 km length. With improved rock conditions and following the new tunnel route, the TBM's progress has been steady. When completed, the Tunnel will last for almost 100 years and supply enough additional energy to annually power over 160,000 Ontario households.

THERMAL

In March, OPG issued a call to potential suppliers of wood-based biomass fuel for the Atikokan generating station. Supply and price of fuel will be an important consideration in making the final decision to repower the plant.



The Atikokan generating station is targeted as OPG's first biomass powered facility. Biomass fuels can help OPG and Ontario transition to a low carbon world.

Investing in Durham Region for Ontario's Energy Future



Artist's rendering of proposed multi-purpose building to support Darlington refurbishment.

"THIS IS JUST THE BEGINNING OF OPG INVESTING IN THE REGION AND IN THE CLARINGTON ENERGY BUSINESS PARK....THIS PROJECT WILL BRING IN JOBS AND ECONOMIC BENEFIT FOR THE AREA."

Clarington Mayor Jim Abernethy, commenting on OPG's planned Refurbishment Support Building.

PLANS FOR DARLINGTON'S REFURBISHMENT

OPG's commitment to Durham was reaffirmed earlier this year when the company announced it was proceeding with detailed planning for the mid-life refurbishment of the Darlington nuclear generating station.

As an experienced manager of major nuclear projects, OPG knows the value of having a clear understanding of the scope and cost of refurbishment well before construction begins. OPG will not proceed with the project, until this up-front planning process is completed and approved.

New Refurbishment Support Facility Planned: In support of the refurbishment project, OPG is proceeding with site preparation and servicing for a proposed 250,000-square foot building in the Clarington Energy Business Park. The multi-purpose building will include:

- a full size mock-up tooling and testing facility
- a training facility
- a public nuclear information centre, and
- a security processing centre.



The Pickering A and B generating stations have produced more than 672 TWh of electricity during their lifetime – enough to power Ontario for over four years.

\$300 MILLION INVESTMENT IN PICKERING'S CONTINUED OPERATION

OPG will invest \$300 million for the continued safe and reliable performance of its Pickering B station for approximately 10 years. Following this, OPG will begin the longer term decommissioning process, including the safe storage of Pickering's reactors. There will be a need for highly skilled workers over a number of years to complete the decommissioning process.

New Nuclear: OPG is continuing with the planning and regulatory processes for construction and operation of new nuclear units at the Darlington nuclear site. While the technology procurement process for this initiative has been suspended, the government remains committed to building the new nuclear units.



The business decision to move forward with an investment in Darlington is based on very positive outcomes of the plant's condition and its continued strong performance.

Darlington Refurbishment at a Glance

- Adds 30 years to the station's operating life
- 3,000 jobs during planning and construction
- Scope, cost and schedule to be determined by about 2014
- Construction expected to start in 2016

Bringing Jobs and Opportunity to Northern Ontario

SPOTLIGHT ON NORTHEAST ONTARIO



Upper Mattagami core project team at the Wawaitin GS.

OPG and its predecessors have been a presence in northeastern Ontario for over a century. With regional headquarters in Timmins, the company employs over 200 people and operates 13 generating stations that produce over 1,000 MW of clean, renewable hydroelectric power.

As part of its mandate to increase Ontario's hydroelectric supply, OPG is currently redeveloping four stations (Wawaitin, Sandy Falls, Lower Sturgeon and Hound Chute) along the Upper Mattagami and Montreal Rivers.

Construction began in April 2008 with KIEWIT-ALARIE A Partnership as the design-build contractor. The project is currently on time and on budget for completion in 2011.

LOWER STURGEON GS



Lower Sturgeon GS powerhouse under construction.

Hydroelectric energy is a core component of the electricity system. OPG's efforts in northeastern Ontario are enhancing this important infrastructure component while at the same time contributing to regional economic development.

HOUND CHUTE GS



Lowering of rotor on Unit 2.



Close up of Hound Chute powerhouse under construction.



"WHEN YOU LOOK AT THE ECONOMIC IMPACT OF THIS PROJECT...IT'S GREAT NEWS FOR TIMMINS AND NORTHEASTERN ONTARIO."

Timmins Mayor Tom Laughren, speaking in 2009 about OPG's Upper Mattagami Redevelopment Project.

Northeast Ontario is the location of OPG's Upper Mattagami Redevelopment Project.

WAWAITIN GS



Construction workers at Wawaitin GS.



Construction of Wawaitin GS penstocks.

SANDY FALLS GS



Construction of Sandy Falls intake structure, downstream.



Installing new equipment at Sandy Falls.

Impact of Upper Mattagami Redevelopment Project on Local Economy and Ontario

- \$300 million investment
- 500 employed at peak of construction
- 44 MW of clean renewable hydropower – about twice the previous capacity
- Energy to power about 22,000 households

OPG in Your Community

OPG EMPLOYEES AND INITIATIVES ARE MAKING A DIFFERENCE IN COMMUNITIES ACROSS ONTARIO

HALDIMAND & NORFOLK COUNTIES

For the past six years, OPG employee Ann Deming of Nanticoke GS led a team of station volunteers and their families and friends to raise money for cancer research. Along with fellow Nanticoke employee Patti Fleming, "Ann's Army" of 80 volunteers raised over \$100,000 for the Canadian Breast Cancer Foundation to help local women in their fight against breast cancer. A breast cancer survivor herself for many years, Ann succumbed to the disease in December 2009.



Patti Fleming and Ann Deming, shown here in 2007 participating in the CIBC Run for the Cure held in Simcoe, Ontario.

NORTHWEST ONTARIO



In early April, employees from OPG's Northwest Plant Group and Thunder Bay Generating Station participated in the National Aboriginal Achievement Foundation's Blueprint for the Future student career fair in Thunder Bay - the largest Aboriginal career fair in Canada. OPG employees helped facilitate workshops that explored power career opportunities in the skilled trades and engineering and were also available to answer questions.

OTTAWA-ST. LAWRENCE



OPG was a proud sponsor of the 7th annual South Stormont Pond Hockey Tournament that took place at Farran Park in Ingleside, Ontario in February. In 2009, OPG helped support more than 1,100 local community grass-roots initiatives - including youth sports - and has helped support about 250 community initiatives during the first three months of 2010.

DURHAM REGION



OPG's annual March Break Madness event at its Darlington and Pickering nuclear facilities attracted nearly 8,500 people. OPG staff, student volunteers and community partners welcomed local Durham residents with a host of activities.

Around the Province



In April, OPG partnered with Trees Ontario and LEAF Toronto at the Green Living Show at the CNE Grounds in Toronto. The highlight of their collaboration was a video booth where visitors gave testimonials about nature and the environment. More than 100 testimonials were recorded and will be edited and posted on www.opgbiodiversity.ca.

NIAGARA



OPG is a major supporter of science education for youth. In early 2010, OPG sponsored the District School Board of Niagara's Techknowledge Challenge for Grades 7 and 8. The competition required students to build a puck shooting machine in honour of the Olympic Games. OPG also provided mentoring and judges for the District Final competition at Brock University.

THUNDER BAY



Keeping the Community Informed: Harold Wilson (right), new president of the Thunder Bay Chamber of Commerce hears about OPG's biomass program and the possibility of repowering some of its coal-fired units with cleaner fuels like biomass.

PICKERING



The faces of 240 nuclear employees smile at passing motorists from the giant billboard near OPG's Pickering nuclear station. The billboard highlights the important contribution OPG's nearly 7,000 nuclear employees make to Durham Region and Ontario.

ONTARIO-WIDE



Science and technology play a critical role in OPG's operations. Working with educators and school boards, OPG encourages the study of these disciplines among Ontario youth. As of April, 2010, OPG had produced 9,000 electricity kits for classrooms across Ontario, reaching more than 250,000 students in grades 1, 6 and 9.

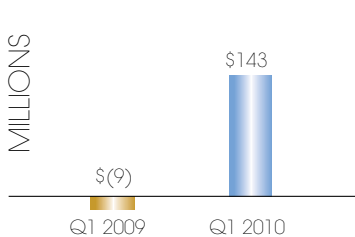
Financial and Operating Performance Highlights



"OPG'S CONTRIBUTION TO THE ONTARIO GOVERNMENT IN 2009 THROUGH TAXES, INTEREST AND OTHER CHARGES – AS WELL AS THROUGH NET INCOME – TOTALLED APPROXIMATELY \$1.4 BILLION ON REVENUES OF \$5.6 BILLION."

Tom Mitchell, March 30, 2010

OPG FIRST QUARTER NET INCOME



OPG's Q1 net income increased compared to that of Q1 2009 mainly due to increased earnings from OPG Nuclear Funds, and the recognition of a regulatory asset related to tax losses established as a result of a 2009 decision by the Ontario Energy Board.

PRODUCTION

OPG's Q1 generation was 24.5 TWh compared to 25.6 TWh in Q1 2009. This marginal decrease was primarily due to lower primary demand.

OPG'S SAFETY GOAL IS ZERO INJURIES

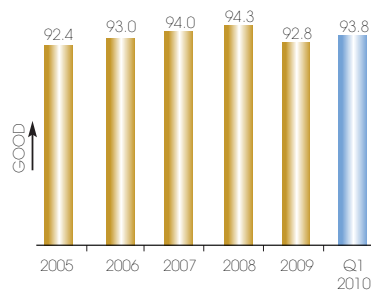
OPG's 2009 Accident Severity Rate of 1.40 days lost per 200,000 hours worked was the best in its history. OPG's 2009 All Injury Rate was 1.19 injuries per 200,000 hours worked which was not quite as good as the company's 2008 performance of 1.15.

Several OPG sites achieved major safety milestones with no lost time injuries, demonstrating OPG's progress towards reaching zero workplace injuries. The Darlington station, in Spring 2010 achieved 7 million hours without a lost time injury.

OPG CONTINUES TO MODERATE ONTARIO ELECTRICITY PRICES

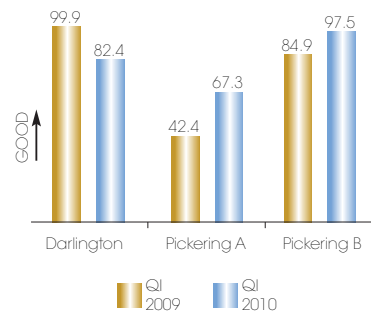
In Q1 2010, OPG continued to moderate electricity prices in Ontario while reducing CO2 emissions. The prices OPG receives for electricity from its regulated assets have remained the same since 2008. The prices OPG receives for electricity from its unregulated assets declined in Q1 2010 compared to Q1 2009. OPG is the only generator in Ontario whose rates are set through a public process, and its net income remains in Ontario.

HYDRO AVAILABILITY (%)



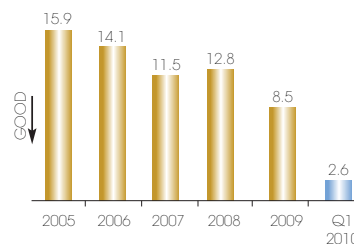
Hydroelectric reliability remains at high levels. This is a significant achievement given the many upgrades and overhauls undertaken in 2009 and an increase in planned outage durations that took place in Q1 2010.

NUCLEAR UNIT CAPABILITY FACTOR (%)



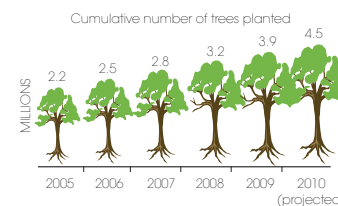
The capability factor of Darlington decreased in Q1 2010 due to a higher number of planned outage days. Capability factors at Pickering A and B increased in Q1 2010 due to a lower number of planned outage days.

THERMAL FORCED OUTAGE RATE (%)



Thermal stations continued to show improved reliability in 2009 and Q1 2010. This reflects lower demand, effective maintenance programs and changes in the operating strategy implemented by OPG at its thermal stations.

BIODIVERSITY



OPG plans to plant over 580,000 trees in Ontario in 2010. Since 2000, OPG and its partners will have planted over 4.5 million native trees and shrubs across the province. OPG's tree planting program helps address biodiversity losses and climate change.

