



SUMMER 2014

AT WORK ACROSS ONTARIO

OPG PERFORMANCE REPORT



ONTARIO'S CLEAN ENERGY PROVIDER

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Operations, Initiatives and Projects Update

“This new business relationship between Westinghouse, a powerful presence in the global nuclear market, and OPG, also a world leader in safety and operational expertise, will bring further value to Ontarians from OPG’s assets, its people and increase job creation for the sector and Ontario.”

Ontario Energy Minister Bob Chiarelli



◀ BUSY TIME FOR CANADIAN NUCLEAR PARTNERS

OPG’s subsidiary, Canadian Nuclear Partners (CNP) leverages OPG’s skills, experience and capabilities to assist business partners in the power sector.

In the first half of 2014, CNP was busy with a string of events and initiatives designed to advance this process.

- In April, CNP and Westinghouse Electric Company signed an agreement to collaborate on a range of global nuclear projects – including nuclear refurbishment, maintenance and outage services; decommissioning and remediation of existing nuclear plants; and new nuclear generating stations
- In May, CNP officially opened its new Proposal Centre at 777 Brock Road in Pickering, and provided OPG’s world-class expertise in dam safety to a New Zealand hydroelectric operator.
- In June, a CNP team successfully completed the fuel channel inspection program at the Point Lepreau nuclear station in New Brunswick.

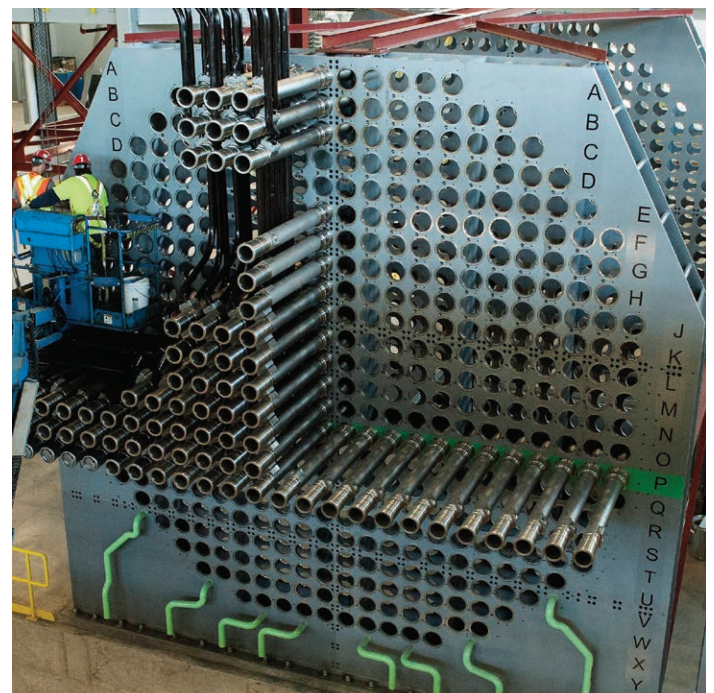
OPG’S MOCK UP REACTOR A WORLD FIRST ▶

Last year, OPG opened its Darlington Energy Complex – or the DEC – as a key support facility for the refurbishment of Darlington’s reactors. Today, more than 450 people are employed at the DEC and our new state-of-the-art training facility inside the DEC, is almost complete. With a world first full-scale reactor mock up, workers will be trained and tested on the challenges, constraints and potential hazards they may face when executing work on the reactor face.

Specialized tooling is also being designed and built to support the refurbishment. In fact, more than 90 per cent of the material and components used in the mock up reactor and tooling are sourced and made in Ontario.

The DEC also features the new Darlington Nuclear Information Centre, and when complete in 2015, it will also house a 70,000 square foot warehouse.

To learn more about OPG’s refurbishment of Darlington Nuclear, please visit opg.com/darlingtonrefurb.



Operations, Initiatives and Projects Update

“The completion of the new generating station at Harmon hydroelectric station is a testimony to the power of partnership. Through this project we are building skills, creating opportunity and facilitating economic growth across Northern Ontario.”

Moose Cree First Nation Chief Norm Hardisty Jr.



Harmon GS

◀ MORE CLEAN POWER FOR ONTARIO

Following completion in January of a new 67 MW hydroelectric unit at OPG’s Little Long station, another new hydro unit is ready for action. On June 20, OPG placed in service a new 78 MW hydroelectric unit at its Harmon Generating Station in northern Ontario. Both Little Long and Harmon are part of OPG’s and the Moose Cree First Nation’s massive 438 MW Lower Mattagami hydro project, which is currently tracking on budget and on schedule. Four remaining units are expected to come online over the next year.



Asset improvement at the Beck Pump Storage Facility

◀ HYDRO PROJECTS WILL STRENGTHEN PERFORMANCE

As Ontario’s largest generator of clean power, OPG is investing in major hydro improvement projects to ensure ongoing strong performance. Four such projects, underway or completed in 2014, took place at these facilities:

- Sir Adam Beck Pump Storage facility near Niagara Falls – turbine upgrades and rehabilitation
- Chats Falls GS, near Ottawa – dam rehabilitation
- Pine Portage GS, near Nipigon – turbine runner replacement and generator upgrade
- Des Joachims GS, on the Ottawa River, near Pembroke – overhaul and upgrade of Unit 5, part of an extensive asset improvement program to upgrade the entire station.

These asset improvements represent an investment by OPG of over \$70 million and help ensure Ontarians continue to have access to reliable, renewable and affordable electricity.

DARLINGTON OUTAGE FINISHES AHEAD OF SCHEDULE

On June 18, Darlington’s Unit 1 was returned to service after a comprehensive planned outage that was completed six days ahead of schedule. Overall, the outage involved completing more than 17,250 individual tasks and 91 work orders in preparation for Darlington’s refurbishment in 2016. This was Darlington’s last planned outage before the station’s 2015 vacuum building outage, at which time all units will be taken offline to perform maintenance on one of the key safety systems.



Darlington Unit 1

Partnering to Protect Ontario's Biodiversity



1 THUNDER BAY & TIMMINS

OPG is in its 10th year of working to maintain and enhance lake sturgeon population.

2 ATIKOKAN & THUNDER BAY

Atikokan will be the largest 100 per cent biomass plant in North America and Thunder Bay is being converted to use advanced biomass.

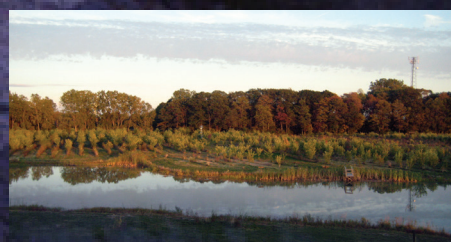


Photo courtesy of Essex Region Conservation Authority

3 SOUTHWEST ONTARIO

Along with our conservation partners, OPG has planted five million native trees and shrubs on 2,700 hectares of land. In 2014, this initiative will expand to include grassland, wetland, and lakes and rivers projects.

4 NANTICOKE

OPG has created a five-acre wetland on our Nanticoke site, along with a turtle nesting habitat in partnership with MNR Stewardship Rangers.



5 NIAGARA

Niagara is making environmental history by completing full-plant trials for a new environmentally-friendly product to control zebra and quagga mussels.

GREAT LAKES 6

OPG partnered with Earth Rangers to raise awareness and preserve the habitat of the Blandings turtle.



7 TORONTO

OPG Biodiversity supports the work of Earth Rangers, LEAF, Rouge Park, Toronto Wildlife Centre, Bruce Trail and Ontario Nature to educate and raise awareness.



8 PICKERING

A barrier net installed at Pickering Nuclear's water intake channel has deterred fish, reducing fish impingement by 92 per cent (in 2012).



9 LAKE ONTARIO

OPG has helped to stock more than two million fish since becoming lead partner in 2012 of the Bring Back the Salmon program, designed to help restore Atlantic salmon in Lake Ontario.



10 BAY OF QUINTE

In partnership with the Quinte Conservation Authority, OPG is restoring 13 hectares of wetlands.



11 CORNWALL

OPG's eel ladder allows for upstream migration of young American eels. Trap and transport programs also aid the downstream migration around dams.



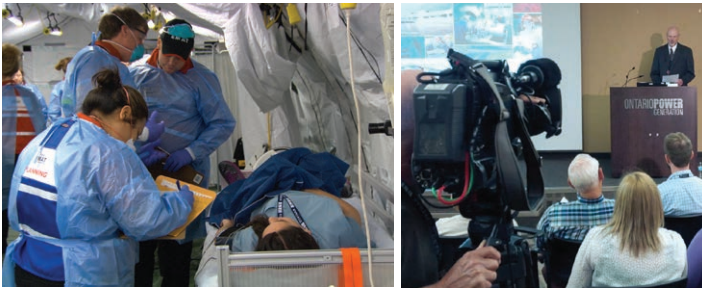
ALMOST 100 PER CENT OF THE ELECTRICITY OPG PRODUCES COMES FROM CLEAN OR RENEWABLE SOURCES.



Nuclear Safety and Performance

“Unified Response...provides us with an excellent opportunity to ensure that we are learning lessons from Fukushima and applying them at home.”

Michael Binder, President, Canadian Nuclear Safety Commission



CNSC DECISION HELPS PICKERING SUPPORT ▲ REFURBISHMENT

The Canadian Nuclear Safety Commission has approved OPG’s request to remove the hold point on the station’s operating licence. This decision allows OPG to operate the station beyond 210,000 Equivalent Full Power Hours – up to 247,000 EFPH, or to the year 2020. As a result, Pickering is now well positioned to support the upcoming Darlington refurbishment. Pickering will be a critical source of power during refurbishment, since Darlington units will be offline during this period.

▲ DARLINGTON HOSTS NATIONAL EMERGENCY DRILL

In May, OPG’s Darlington Nuclear station was the setting of one of the largest exercises of its kind ever held in Canada. Dubbed Exercise Unified Response, this multi-jurisdictional drill was designed to test response in the unlikely event of a nuclear emergency similar to what occurred at Japan’s Fukushima nuclear plant in March 2011.

The exercise involved more than 1,000 people and 54 agencies – including OPG’s Emergency Response Organization, the Canadian Nuclear Safety Commission, the Municipality of Durham and the Ontario Ministry of Community Safety and Correctional Services.

Initial results indicate the drill was a success in a number of areas – including lessons learned and improved response plans.

DARLINGTON PROVES ITS WORTH – AGAIN!

For the second time in two years, OPG’s Darlington Nuclear station received an excellent safety and performance review during a recent industry peer evaluation. This reinforces Darlington’s position as one of the best performing nuclear stations in the world and a strong candidate for success in its upcoming refurbishment, scheduled to begin in 2016. Going forward, OPG will incorporate feedback received from the evaluation to ensure its continued outstanding performance.



Environment and Community

More than 100 students and community members from the Lac Seul First Nation travelled to Ear Falls, to help celebrate the five year anniversary of OPG's and Lac Seul First Nation's commercial partnership in operating the Lac Seul hydroelectric generating station. The 12 MW station has provided clean, renewable electricity to Ontarians since February 2009.



OUT WITH THE COAL. IN WITH THE NEW.

This past April, Ontario Power Generation burned its last piece of coal to make electricity. By successfully phasing out coal, OPG has delivered the Province's commitment to cleaner air. It also happens to be North America's single largest climate change initiative.

And now, we're adding to Ontario's cleaner energy mix by expanding our hydroelectric generation and refurbishing the Darlington Nuclear station. We're also converting some of our coal stations to run on biomass – a renewable, plant-based fuel that's better for the environment and good for the North's economy.

To learn more about OPG's efforts to help build a reliable, efficient and clean electricity system for Ontario, visit opg.com.

THANK YOU!

WE COULDN'T HAVE DONE IT WITHOUT YOU.

OPG was recently recognized on the national stage for its commitment to safety, the environment, and building relationships in the communities in which we operate.

For building and growing relationships with First Nations and Métis people, the Canadian Electricity Association gave OPG the Sustainable Electricity™ Program's 2014 Social Responsibility award. And for stewardship to the environment and corporate sustainability, OPG has again been named to Corporate Knights Best 50 Corporate Citizens in Canada.

We want to share this recognition with all of the communities in which we operate. Without your support and your partnership, we could not be as proud as we are right now.

Thank you.



- OPG MARKS NATIONAL ABORIGINAL DAY**

To celebrate National Aboriginal Day (June 21), OPG held special events at its Kipling and Darlington sites. Hosted by OPG's Native Circle, consisting of First Nations and Métis staff, these annual events help foster awareness of Aboriginal history and culture and reflect OPG's commitment to Ontario's First Nations and Métis communities.



Financial and Operational Highlights

“The results of the first half of 2014...reflect our constant efforts at Ontario Power Generation to hold down our costs...At the same, we continue to reinvest in our facilities to ensure future reliability and value for the people of Ontario.”

Tom Mitchell, OPG CEO

Q1-Q2 PERFORMANCE

OPG is continuing its transition as a clean, efficient and financially sustainable organization. With the closure of its last coal burning unit in April, OPG became a generator virtually free of emissions contributing to smog or climate change. On the financial front, OPG had strong earnings for the first half of 2014 – achieving net income of \$359 million, an increase of \$258 million over the equivalent period in 2013. Operationally, the first six months of 2014 saw OPG’s Darlington nuclear station increase its capability factor to 86.7 per cent compared to 85 per cent in the first half of 2013. Darlington’s performance confirms its position as one of Ontario’s great energy and infrastructure assets. At mid-year, OPG’s hydroelectric facilities likewise performed well – achieving high availability of over 90 per cent. This is a testament to the strong reliability of these long-lived and valuable assets.

OPG’s stronger earnings and solid performance ultimately benefit all Ontarians and help create a stronger Ontario for everyone.

BUSINESS TRANSFORMATION

OPG continues to pay considerable attention to enhancing efficiency, cost effectiveness and financial strength. During the Jan. 1, 2011 to June 30, 2014 period, OPG’s headcount from

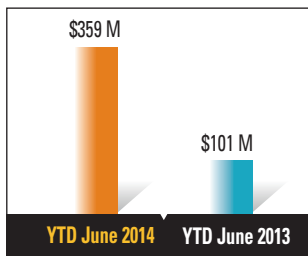
ongoing operations has been reduced by more than 1,900 – a 16 per cent reduction since January 2011. This reduction has saved OPG approximately \$400 million.

Employees are also enhancing efficiency by providing their own ideas and solutions. OPG has created a program to attract and implement these ideas, which is proving to be successful and contributing to building a culture of cost-control and efficiency across the company.

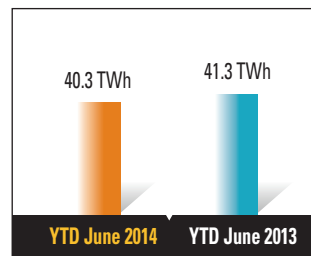
RATE HEARINGS UNDERWAY

OPG is currently applying to the Ontario Energy Board (OEB) for new regulated prices for its electricity generation. The OEB will decide on OPG’s application following a public hearing process, which is currently underway. (OPG is the only Ontario electricity generator to undergo this open and transparent process, which as a public power company it welcomes.) Included in OPG’s application is a rate request for 48 newly regulated hydroelectric stations, previously classified as non-regulated. The new rate would allow OPG to recover the costs on its stations as well as provide an appropriate return on these assets. OPG has not had an increase on its regulated base rates since 2008. If an increase is granted, OPG’s rate will still help lower the overall price of electricity in Ontario.

NET INCOME



ELECTRICITY PRODUCTION



GENERATION PERFORMANCE

FUEL TYPE %		June 2014	June 2013
NUCLEAR Unit Capability	Darlington	86.7	85.0
	Pickering	72.0	72.4
HYDRO Availability		92.2	92.6
THERMAL Equivalent Forced Outage		3.3	10.1

Where to go for more information about OPG

General information, including press releases, speeches and financial, environmental and safety information: www.opg.com Follow us on Twitter@[opg](https://twitter.com/opg)



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