ONTARIO POWER GENERATION INC.

ANNUAL INFORMATION FORM

FOR THE YEAR ENDED DECEMBER 31, 2013

MARCH 6, 2014

ONTARIO POWER GENERATION

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Table of Contents

PRESENTATION OF INFORMATION

References in this Annual Information Form (AIF) to the "Company", the "Corporation" or "OPG" are made to Ontario Power Generation Inc. Unless otherwise noted, the information contained in this AIF is at or for the year ended December 31, 2013. Amounts are expressed in Canadian dollars unless otherwise indicated. Financial information is presented in accordance with United States generally accepted accounting principles (US GAAP). This AIF is dated March 6, 2014.

All disclosures of the Management's Discussion and Analysis (MD&A) for the year ended December 31, 2013, that are incorporated herein by reference, are filed on SEDAR at www.sedar.com.

ADDITIONAL INFORMATION

The Company's MD&A and audited consolidated financial statements for the year ended December 31, 2013, provide additional information. These documents are available on SEDAR at www.sedar.com or on the Company's website at www.opg.com.

FORWARD-LOOKING INFORMATION

This AIF contains forward-looking statements that reflect OPG's current views regarding certain future events and circumstances. Any statement contained in this document that is not current or historical is a forward-looking statement. OPG generally uses words such as "anticipate", "believe", "foresee", "forecast", "estimate", "expect", "schedule", "intend", "plan", "project", "seek", "target", "goal", "strategy", "may", "will", "should", "could", and other similar words and expressions to indicate forward-looking statements. The absence of any such word or expression does not indicate that a statement is not forward-looking.

All forward-looking statements involve inherent assumptions, risks, and uncertainties, including those set out under the heading *Risk Factors*. All forward-looking statements could be inaccurate to a material degree. In particular, forward-looking statements may contain assumptions such as those relating to OPG's fuel costs and availability, generating station performance, cost of fixed asset removal and nuclear waste management, performance of investment funds, closure or conversion of coal-fired generating stations, refurbishment of existing facilities, development and construction of new facilities, pension and other post-employment benefit (OPEB) obligations, income taxes, electricity spot market prices, proposed new legislation, the ongoing evolution of the Ontario electricity industry, environmental and other regulatory requirements, health, safety and environmental developments, business continuity events, the weather, and the impact of regulatory decisions by the Ontario Energy Board (OEB). Accordingly, undue reliance should not be placed on any forward-looking statement. The forward-looking statements included in this AIF are made only as of the date of this AIF. Except as required by applicable securities laws, OPG does not undertake to publicly update these forward-looking statements to reflect new information, future events, or otherwise.

CORPORATE STRUCTURE

Summary

OPG is an Ontario-based electricity generation company focused on the efficient generation and sale of electricity from its generating assets, while operating in a safe, open, and environmentally responsible manner. OPG was established under the *Business Corporations Act* (Ontario) (OBCA) and is wholly owned by the Province of Ontario (Province). OPG's registered head office is located at 700 University Ave, Toronto, Ontario, M5G 1X6.

OPG's principal business is the generation of electricity that is sold into the markets administered by the Independent Electricity System Operator (IESO).

During 2013, OPG operated two nuclear generating stations, five thermal generating stations, 65 hydroelectric generating stations, and two wind power turbines. In December 2013, the Nanticoke and Lambton coal-fired units were removed from service as discussed below. OPG and TransCanada Energy Ltd. co-own the Portlands Energy Centre (PEC) gas-fired combined cycle generating station (GS). OPG and ATCO Power Canada Ltd. co-own the Brighton Beach gas-fired combined cycle GS. The income of the co-owned facilities is reflected in other income. OPG also owns two other nuclear generating stations, which are leased on a long-term basis to Bruce Power L.P. (Bruce Power). Income from these leased stations is included in revenue under the Regulated – Nuclear Generation segment. These co-owned facilities and leased stations are not included in the generation portfolio statistics set out in this report.

OPG's business operations are divided into the following segments:

- Regulated – Nuclear Generation
- Regulated – Hydroelectric
- Unregulated – Hydroelectric
- Unregulated – Thermal
- Regulated – Nuclear Waste Management
- Other.

Effective January 1, 2014, OPG revised the composition of its reporting segments to reflect changes in its generation portfolio and its internal reporting. These changes primarily reflect 48 of OPG's currently unregulated hydroelectric facilities being prescribed for rate regulation, effective July 1, 2014, and ceasing the use of coal at the Nanticoke and Lambton generating stations. Details regarding OPG's generating capacity by business segment can be found in the MD&A under the section, *The Company.*

Operating Principles

Core Business and Strategy

OPG's mandate is to reliably and cost-effectively produce electricity from its diversified portfolio of generating assets, while operating in a safe, open, and environmentally responsible manner. OPG's mission is to be Ontario's low-cost electricity generator through a focus on three corporate strategies:

- Operational Excellence
- Project Excellence
- Financial Sustainability.

OPG has in place a Code of Business Conduct that establishes the standards, expectations, and accountabilities for ethical behavior. All employees and parties with whom we do business are expected to abide by the Code.

Operational Excellence

OPG is committed to excellence in the areas of generation, the environment, and safety. Operational excellence at OPG's nuclear, hydroelectric, and thermal generating facilities is accomplished by generating safe, reliable, and cost-effective electricity.

Further details on OPG's operational excellence strategy refer to the Company's 2013 MD&A under the heading, *Core Business and Strategy – Operational Excellence.*

Project Excellence

OPG is pursuing several generation development projects. These projects include capacity expansion and life extension opportunities for existing stations, and the construction of new generating stations. Pursuing opportunities to leverage existing sites and assets allows OPG to realize further benefits from these assets and reduces the environmental impact of meeting Ontario's electricity demands. OPG's major projects include Darlington refurbishment, new hydroelectric generation and plant expansions, and the potential conversions of coal-fired generating units to alternative fuels.

Further details on OPG's 2013 project excellence strategy can be found in the Company's 2013 MD&A under the heading, *Core Business and Strategy – Project Excellence.*

Financial Sustainability

As a commercial enterprise, OPG's financial priority is to consistently achieve a level of financial performance that will ensure its long-term financial sustainability and maintain the value of its assets for its Shareholder, the Province of Ontario. Inherent in this priority are three objectives:

- enhancing profitability by increasing revenue
- improving efficiency and reducing costs
- ensuring a strong financial position that enhances OPG's ability to continue to finance its operations and generation development projects.

Further details on OPG's 2013 financial sustainability strategy can be found in the Company's 2013 MD&A under the heading, *Core Business and Strategy – Financial Sustainability.*

GENERAL DEVELOPMENT OF THE BUSINESS

The following is a summary of key developments in OPG's business since January 2011.

General Developments

Ontario's Long-Term Energy Plan

The 2010 Long-Term Energy Plan released in November 2010 and the Supply Mix Directive issued to the Ontario Power Authority (OPA) in February 2011 provided an outline of the Province's plan for maintaining the electricity system over the next 20 years.

Ontario's 2013 Long-Term Energy Plan was released on December 2, 2013, replacing the 2010 Long-Term Energy Plan. Key elements of the 2013 Long-Term Energy Plan that impact OPG include:

- refurbishment at the Darlington Nuclear GS is planned to begin in 2016
- the Pickering Nuclear GS is expected to be in-service until 2020. An earlier shutdown of the units may be possible depending on projected electricity demand, the progress of the fleet refurbishment program, and the timely completion of the Clarington Transformer Station
- Ontario will not proceed at this time with construction of two new nuclear reactors at the Darlington site. However, the Ministry of Energy will work with OPG to maintain the site license granted by the Canadian Nuclear Safety Commission (CNSC)
- the government will encourage OPG and Hydro One to explore new business lines and opportunities inside and outside Ontario.

Ontario will phase-in wind, solar, and bioenergy over a longer period than contemplated in the 2010 Long-Term Energy Plan, with 10,700 megawatts (MW) online by 2021. In addition, Ontario will add to the hydroelectric target, increasing the province's portfolio to 9,300 MW by 2025.

For details on OPG's response to the 2013 Long-Term Energy Plan, refer to the discussion under the section, *Description of the Business*.

OPG's Regulated Prices

The OEB sets the prices for electricity generated from OPG's currently regulated nuclear and hydroelectric facilities.

In 2012, OPG filed an application with the OEB requesting approval to recover balances in the authorized regulatory variance and deferral accounts as at December 31, 2012, and for the adoption of US GAAP for regulatory purposes.

In March 2013, OPG reached a settlement agreement with intervenors on all aspects of its 2012 application (Settlement Agreement). In a decision by the OEB in March 2013, the Settlement Agreement was approved. Subsequently, the OEB issued an order establishing new rate riders effective January 1, 2013. The OEB also approved OPG's adoption of US GAAP for regulatory purposes. Further details regarding the Settlement Agreement can be found in the Company's 2013 MD&A under the heading, *Highlights – Recent Developments – OPG's OEB Applications.*

The following are the OEB authorized regulated prices for electricity generated from these facilities for the years ended December 31:

($/megawatt hours (MWh))	**2013**	**2012**
Regulated – Nuclear Generation		
Regulated – Nuclear Generation cost of service regulated price	**51.52**	51.52
Regulated – Nuclear Generation rate riders [1]	**6.27**	4.33
	57.79	55.85
Regulated – Hydroelectric		
Regulated – Hydroelectric Generation cost of service regulated price	**35.78**	35.78
Regulated – Hydroelectric rate riders [1]	**3.04**	(1.65)
	38.82	34.13

[1] In addition to the above rate riders, in 2013, the OEB authorized interim period rate riders for the period from March 1, 2013 to December 31, 2013. This allowed for the recovery of the retroactive increase in the riders for the period from January 1, 2013 to February 28, 2013. The nuclear interim rate rider was $0.41/MWh and the regulated hydroelectric interim rate rider was $0.58/MWh.

In September 2013, OPG filed an application with the OEB for new cost of service regulated prices, proposed to be effective January 1, 2014, for production from its currently regulated nuclear and hydroelectric facilities. The requested regulated prices include the impact of the Niagara Tunnel. In addition, OPG has requested the continuation of the existing hydroelectric incentive mechanism, with some modifications. Additional details on OPG's application with the OEB can be found in the MD&A under the section, *Highlights*, and the heading, *Recent Developments.*

The decision on OPG's application will be made by the OEB following a public hearing process. This process began in the fourth quarter of 2013 and is expected to continue during 2014. New regulated prices resulting from the application are expected to remain in effect until at least the end of 2015.

In addition, OPG's application seeks new rate riders effective January 1, 2015 to recover balances in certain variance and deferral accounts as at December 31, 2013. OPG expects to request recovery of amounts recorded in other accounts in a future application.

In November 2013, the Province amended *Ontario Regulation 53/05* to prescribe 48 of OPG's currently unregulated hydroelectric generating facilities for rate regulation, effective July 1, 2014. These facilities are currently not rate-regulated and not subject to an Energy Supply Agreement (ESA) with the OPA, and provide approximately 3,110 MW of generating capacity as at December 31, 2013. The amended regulation requires the OEB to establish the prices received for the production from these facilities. OPG's application, filed in September 2013, includes proposed regulated prices for production from these facilities effective July 1, 2014.

For additional details regarding Ontario's Electricity Regulation, see *Regulation – Ontario Electricity Regulation* and *Risk Factors – Ontario Electricity Market and Rate Regulation*.

Auditor General's 2013 Annual Report

In December 2013, the Auditor General of Ontario issued a report outlining a number of findings related to a 10-year review of OPG's human resource practices. In many cases, the report highlights areas which OPG had already addressed. It also provides insights into issues for OPG to act upon. OPG accepted the findings and committed to a number of immediate actions. OPG also committed to reporting back openly and quickly. Key actions and updates can be found at http://www.opg.com/about/management/open-and-accountable/Pages/auditor-general-report.aspx

Ontario Budgets

In March 2012, the Ontario Minister of Finance presented the 2012 Ontario Budget, which included proposed changes that could impact OPG. As stated in the budget, the government initiated a review of the electricity sector and its various agencies, including OPG and Hydro One Inc., to benchmark the companies against comparable entities and to determine further efficiency opportunities. Following this review, the 2013 Ontario Budget recognized that OPG and Hydro One Inc. are driving greater efficiencies in their operations through transformation initiatives.

The 2012 Ontario Budget also set out certain objectives regarding sustainability and affordability of the broader public sector pension plans, which could result in changes to OPG's existing pension system. In the 2013 Ontario Budget, the government announced its intention to establish a working group to address pension challenges in the electricity sector.

Nuclear

OPG evaluated the options related to its Darlington Nuclear GS and Pickering Nuclear GS. OPG is in the definition phase of the refurbishment of the Darlington Nuclear GS and will continue to operate Pickering Nuclear GS to 2020. The 2013 Long-Term Energy Plan states that the Ontario government will not proceed with the construction of two new nuclear reactors at the Darlington site at this time. However, the Ministry of Energy will work with OPG to maintain the site preparation licence granted by the CNSC. As such, OPG is undertaking activities required to support the environmental assessment (EA) and the existing licence.

Darlington Refurbishment

The Darlington Refurbishment project is currently in the definition phase. The objective of the refurbishment is to extend the operating life of the station by approximately 30 years. A detailed cost and schedule estimate for refurbishment of the four units is expected to be completed in 2015. In 2016, the first unit outage will commence and OPG will start execution of the refurbishment scope on that unit.

For additional details, see *Description of the Business – Generation Operations – Nuclear – Darlington Refurbishment*.

Nuclear Generating Assets

Since 2012, the Pickering stations have operated as a single six-unit site. Efficiencies have been achieved through the operational amalgamation of the Pickering A and B nuclear generating stations. OPG successfully combined the work management, maintenance and operational planning departments fully integrating the two Pickering stations.

In 2012, OPG applied to the CNSC for a five-year operating licence, which combines the Pickering A and B generating stations' licences into a single-site licence. Following the CNSC public hearings on OPG's application, the CNSC approved this licence in August 2013. A regulatory hold point has been added to the licence related to fuel channels and the original end-of-life dates for Pickering Units 5 to 8. For details on the regulatory hold point, refer to section *Description of the Business – Generation Operations – Nuclear – Pickering Units 5 to 8 Continued Operations.*

In 2013, the Pickering GS received its best ever safety and performance industry peer review evaluation. In addition in 2013, the CNSC presented its Staff Integrated Safety Assessment of Canadian Nuclear Power Plants for 2012. Both the Pickering Nuclear GS and Darlington Nuclear GS received positive safety ratings from the CNSC staff, with the Darlington Nuclear GS achieving the highest possible safety rating.

In 2012, the Darlington Nuclear GS received its best ever safety and performance review by an industry peer group. Darlington Nuclear GS is the first Canadian Deuterium Uranium (CANDU) station, the first four-unit station, and the first station outside of the United States (U.S.) to achieve this level of industry excellence. The review found 12 different areas of strength that were noted as worthy of international benchmarking – including OPG's response to the Fukushima nuclear event of 2011.

Hydroelectric

Niagara Tunnel

In March 2013, the 10.2 kilometre Niagara Tunnel was declared in-service, approximately nine months ahead of the approved project completion date of December 2013. The tunnel provides an additional water diversion capacity of approximately 500 cubic metres per second and will increase annual generation from the Sir Adam Beck GS in Niagara Falls by an average of approximately 1.5 terawatt hours (TWh), depending on water flow. Total costs of the project after closure activities are expected to be below $1.5 billion, compared to the approved budget of $1.6 billion.

For additional details, see *Description of the Business – New Generation Development – Hydroelectric Expansion and Development – Niagara Tunnel*.

Lower Mattagami

The Lower Mattagami River project, upon completion, will add one additional generating unit at each of the existing Little Long, Harmon, and Kipling generating stations, and replace the existing generating station at the Smoky Falls site with a new three-unit station. The project will increase the capacity of the four stations on the Lower Mattagami River by 438 MW. The project is expected to be completed on schedule by June 2015, and within the approved budget of $2.6 billion.

The 67 MW incremental unit at the Little Long GS was declared in-service on January 19, 2014, ahead of its original target completion date of February 2014. This is the first incremental unit to be completed on the project. As incremental units are placed in-service, the Amisk-oo-Skow Finance Corporation, a corporation wholly owned by the Moose Cree First Nation (MCFN), may acquire up to a 25 percent interest in the assets through its investment in the Lower Mattagami Limited Partnership.

For additional details, see *Description of the Business – New Generation Development – Hydroelectric Expansion and Development – Lower Mattagami*.

New Post Creek

In June 2013, the Minister of Energy directed the OPA to negotiate a power purchase agreement for the proposed 25 MW hydroelectric generating station to be located on New Post Creek near its outlet to the Abitibi River. The station is expected to be constructed through a partnership between OPG and Coral Rapids Power L.P., a wholly owned subsidiary of the Taykwa Tagamou Nation.

Thermal

Emissions Strategy

OPG's thermal operations result in emissions of greenhouse gases (GHG). OPG is subject to regulation and Shareholder declarations and resolutions that limit its GHG emissions by curtailing the use of coal. Developments related to these coal-fired stations are discussed below.

For additional details on GHG regulations, see *Regulation – Environmental Matters – Air*. Also, see *Description of the Business – Generation Operations – Thermal*.

Ceasing Coal-Fired Generation at Thermal Stations

In 2010, OPG closed two coal-fired generating units at each of the Lambton and Nanticoke generating stations. In response to the 2010 Long-Term Energy Plan and the Supply Mix Directive issued in 2011, OPG removed from service two additional coal-fired units at the Nanticoke generating station on December 31, 2011.

The Provincial regulation, *Cessation of Coal Use – Atikokan, Lambton, Nanticoke, and Thunder Bay Generating Stations,* requires OPG to cease burning coal by December 31, 2014.

In March 2013, the Ontario Minister of Energy issued a declaration mandating that OPG cease the use of coal at the Nanticoke and Lambton generating stations by the end of 2013. This was in advance of the previous December 31, 2014 deadline. Accordingly, the Lambton GS ceased generating electricity in September 2013 and the Nanticoke GS on December 31, 2013. Both stations are being placed in a laid-up state which could facilitate potential repowering.

OPG is placing the units in such a state to preserve the option to convert them to natural gas and/or biomass in the future, should they be required. OPG will seek recovery of ongoing costs to preserve the option to convert the units at a future date. Converted thermal generating stations can provide Ontario's electricity system with the continued flexibility of daily start up and shut down, the load-following capability to meet changing system needs, and complement non-dispatchable renewable energy sources.

Unit Conversion Opportunities

OPG is in the process of converting the Atikokan GS from coal to biomass fuel. The converted station is expected to have a capacity of approximately 200 MW. The conversion project has an approved budget of $170 million, and is expected to be completed by August 2014.

In December 2013, the Minister of Energy issued a directive to the OPA to negotiate and enter into a contract for electricity from the Thunder Bay GS using advanced biomass fuel. The converted unit is expected to have an in-service capacity of 150 MW. OPG is in the process of developing detailed plans for the station modifications and fuel supply.

For details on coal-fired unit conversion initiatives, see *Description of the Business – Generation Operations – Thermal – Conversion of Coal-Fired Units.*

Lennox Generating Station Supply Agreement

In December 2012, the OPA and OPG executed a long-term Lennox ESA for the period from January 1, 2013 to September 30, 2022. The agreement allows the station to recover its costs, including a reasonable return. The agreement replaced the Lennox Generating Station Agreement, in effect from October 1, 2009 to December 31, 2012, which allowed for the recovery of station costs.

Land Sales at Lambton and Lennox

During 2012, the Province announced the relocation of the Greenfield South gas-fired station development from Mississauga to a small portion of the Lambton generating station site. In 2013, Greenfield South found a different location for the station development and thus allowed the option on the Lambton property to lapse.

During the fourth quarter of 2012, OPG and TransCanada Energy Ltd. executed an agreement of purchase and sale regarding a parcel of land on the Lennox generating station site at fair market value. Other site-specific arrangements for the development of a combined cycle, natural gas-fired generating station were also included in the agreement. OPG does not have an ownership interest in the TransCanada development.

For additional details, see *Regulation – Environmental Matters – Air – Thermal Operations* and *Description of the Business – Generation Operations – Thermal – Thermal Generation Overview.*

DESCRIPTION OF THE BUSINESS

The Electricity Industry

The electricity industry is principally comprised of four components: generation, transmission, distribution, and marketing of energy and other services in wholesale and retail markets.

Generation is the production of electricity. Transmission is the transfer of electricity across high-voltage power lines from generating facilities to local areas. Distribution is the delivery of electricity within local areas to homes and businesses using relatively low-voltage power lines. Energy marketing relates to the purchase of large amounts of electricity or equivalent financial products, and the subsequent re-selling in smaller quantities to third parties in either the wholesale or retail markets.

Electricity has traditionally been generated in large, multi-unit, centralized facilities. These facilities are usually classified by: (i) the type of fuel used at the facility; (ii) capacity, typically expressed in MW; and (iii) dispatch mode (being whether or not the electricity generated by a particular facility is dispatched to meet peak, intermediate or baseload demands). The energy produced by a facility is generally expressed as its output over the time the facility operates, typically in terms of megawatt hours (MWh). Increasingly, new supply from smaller scale renewable sources such as wind, solar, and bio-energy is being integrated into the power system, connected either to the transmission or distribution networks. The power system requires new capital expenditures and processes in order to adapt and to accommodate these intermittent generators.

Electricity is an essential commodity that cannot be stored in large volumes. Electricity supply must instantaneously match demand to maintain the stability and reliability of the system. Consequently, it is important to coordinate the supply of and demand for electricity, a responsibility typically assigned to regulated regional system operators. Electricity systems have evolved on a regional basis and are connected to neighbouring regional power grids. Such connections not only enhance system reliability, but also permit the economic purchase and sale of electricity between electricity markets.

North American Electricity Industry

Historically, the North American electricity industry was characterized by regulated, vertically integrated monopolies. During the late 1980s, several jurisdictions began a process of restructuring by moving away from vertically integrated monopolies towards more competitive market models. The need for new supply, increasing electricity rates, technological advances, and other concerns prompted governments to encourage the supply of electricity from independent power producers. The drivers for electricity restructuring have included policy objectives of decreasing government investment in the electricity sector and increasing competition, with the original intent being to reduce customer rates.

As part of the restructuring process, vertically integrated regulated utilities were unbundled to separate their generation, transmission, and distribution components, with the generation and sale of electricity being opened to competition.

The Ontario Electricity Industry

Until April 1999, Ontario Hydro was a vertically integrated electric utility in Ontario. Following the adoption of a restructuring plan for Ontario's electricity industry pursuant to the *Energy Competition Act, 1998,* five principal successors to Ontario Hydro's integrated electricity business began operating as separate entities on April 1, 1999:

- OPG, which purchased and assumed the electricity generation, wholesale energy, and ancillary services businesses of Ontario Hydro
- Hydro One Inc. (Hydro One), which purchased and assumed the transmission, distribution, and retail energy services businesses of Ontario Hydro
- the Independent Electricity Market Operator (later renamed the Independent Electricity System Operator), which was formed to act as both the independent electricity system operator and the market operator. It is responsible for the dispatch of generation to meet demand, the control of the Ontario transmission grid, and the operation of energy and ancillary markets
- the Electrical Safety Authority, which was established to carry out electrical equipment and electrical wiring safety and inspection functions
- the Ontario Electricity Financial Corporation (OEFC), which is the legal continuation of the former Ontario Hydro. It is responsible for managing its debt and certain other obligations not transferred to other successor companies of Ontario Hydro, including the non-utility generator contracts.

In 2004, the OPA was established by the *Electricity Restructuring Act, 2004* (Ontario) with a mandate to contribute to the development of a reliable and sustainable electricity system.

Overview of OPG

OPG is the largest generator of electricity in Ontario, and one of the largest in North America, with a total in-service capacity of 16,229 MW as of December 31, 2013. In 2013, OPG generated 80.3 TWh, approximately 57 percent of Ontario's primary electricity demand. All of OPG's electricity generation is offered into Ontario's real-time energy spot market that is administered by the IESO.

OPG's quarterly results are affected by changes in demand primarily resulting from variations in seasonal weather conditions. Historically, OPG's revenues are higher in the first quarter of a fiscal year as a result of winter heating demands, and in the third quarter due to air conditioning and cooling demands.

Revenue Mechanisms

OPG receives a regulated price for electricity generated from the following facilities (collectively, prescribed or regulated facilities):

- Sir Adam Beck 1, 2 and Pump GS
- DeCew Falls 1 and 2 hydroelectric facilities
- R.H. Saunders hydroelectric facilities
- Pickering Nuclear GS
- Darlington Nuclear GS.

Electricity generation from OPG's other generating assets that are unregulated receives the Ontario electricity spot market price, except where a cost recovery agreement or an ESA is in place.

In November 2013, *Ontario Regulation 53/05* was amended. The amendment requires OPG's 48 currently unregulated hydroelectric generating facilities that receive the Ontario electricity spot market price to be prescribed for rate regulation by the OEB, effective July 1, 2014.

OPG currently has hydroelectric ESA's with the OPA for the following:

- Lac Seul GS and Ear Falls GS
- Healey Falls GS
- Sandy Falls GS, Wawaitin GS, Lower Sturgeon GS, and Hound Chute GS
- Lower Mattagami River project generating stations. Payments under this ESA began when the first incremental unit was declared in-service in January 2014.

The thermal generating facilities that had an agreement in effect during 2013 are:

- Lambton GS and Nanticoke GS: Up to December 31, 2013, these coal-fired stations were subject to a Contingency Support Agreement with the OEFC. The agreement was entered into for the recovery of costs after the Shareholder's resolution and regulations pertaining to carbon dioxide (CO_2) emission reductions. On November 1, 2013, the OEFC provided written notice that it would terminate the Contingency Support Agreement, effective December 31, 2013 and triggered an amendment that allows OPG to recover certain costs for the 2014 year. For additional details see *General Development of the Business – Thermal – Ceasing Coal-Fired Generation at Thermal Stations*
- Thunder Bay GS: Capacity provided by and production from one unit at this station was subject to a Reliability Must Run contract for the period from January 1, 2013 to December 31, 2013
- Lennox GS: Capacity provided by and production from this station were subject to the Lennox Generating Station Agreement with the OPA for the period from October 1, 2009 to December 31, 2012. In December 2012, the OPA and OPG executed a long-term Lennox ESA for the period from January 1, 2013 to September 30, 2022.

For additional details on OPG's regulated prices and relevant OEB developments, see *General Development of the Business – General Developments – OPG's Regulated Prices*.

Ontario Electricity Market Activities

OPG offers its generation into the real-time energy market, or spot market, to be dispatched by the IESO. For additional details, see *Regulation – Ontario Electricity Regulation* and for details regarding IESO revenue, see *Related Party Transactions* in the Company's 2013 MD&A.

OPG receives the regulated price for the quantity of energy sold into the market from the prescribed facilities and the Hourly Ontario Energy Price (HOEP) for the quantity of energy sold into the market from the non-prescribed facilities. A portion of OPG's electricity generation from non-prescribed facilities is

fully exposed to market-based HOEP. Electricity generation from other non-regulated facilities is under bilateral contracts with the OPA and the OEFC.

In addition, OPG receives revenue from the operating reserve markets and other ancillary services that are contracted with the IESO, including regulation service, reactive support/voltage control, and black start facilities.

OPG is subject to provincial and federal legislation and regulations, including the decisions of administrative tribunals or other regulatory bodies, and to Canada's international obligations under certain international treaties. Collectively, these sources dictate many of the constraints within which OPG is permitted to operate its facilities and manage its business. For additional details, see *Regulation*.

Interconnected Markets

The interconnected markets are electricity markets in neighbouring provinces and states whose transmission systems are connected to the Ontario power grid, either directly or through other contiguous interconnected markets. Ontario's markets are interconnected with the U.S. northeast, U.S. midwest, Manitoba, and Québec. Market intermediaries wishing to sell electricity from Ontario into the interconnected markets are required to purchase the electricity from the IESO-administered spot market for resale into the interconnected markets. OPG and its subsidiaries participate in the interconnected markets.

Interconnection transmission capabilities between Ontario and these interconnected markets are subject to transmission limitations, which can be physical or weather dependent. Weather and physical aspects can also limit transmission capability and scheduling.

Generation Operations

Nuclear

Nuclear Generation Overview

Nuclear generation harnesses the energy released during controlled nuclear fission reactions to produce steam that is used to drive turbines to generate electricity. Nuclear generation has two main advantages. It is a relatively low marginal-cost generation technology, and it produces virtually no sulphur dioxide (SO_2), nitrogen oxide (NO_x), CO_2, or mercury emissions. The latter advantage has become more significant as governments implement stricter air emission standards.

However, in contrast to other facilities, notwithstanding the lower fuel costs, nuclear generating stations incur nuclear waste management and decommissioning costs, and greater operating and maintenance expenses. In addition, the construction of nuclear generating stations entails greater initial capital costs than other generation technologies. The higher initial costs reflect the complexity of the technical processes fundamental to nuclear electricity generation, and the additional design and safety precautions taken to protect the public from potential risks associated with nuclear operations. OPG's nuclear fuel is supplied by Canadian-based manufacturers that process uranium ore from both domestic and foreign sources.

Consistent with the Memorandum of Agreement (MOA) between OPG and its sole Shareholder and OPG's corporate objectives, the mission of nuclear operations is to generate clean, safe, low-cost electricity through dependable performance. With the use of external benchmarking, aggressive yet balanced targets are set under the four cornerstones of safety, reliability, human performance, and value for money.

For additional details, see *Core Business and Strategy – Operational Excellence – Nuclear Generating Assets* in the Company's 2013 MD&A.

Generating Facilities

OPG currently owns and operates nuclear generating stations at Pickering (six in-service units and two units in safe storage) and Darlington (four in-service units). Since 2012, the Pickering Nuclear generating stations have operated as a single six-unit site through the operational amalgamation of the Pickering A and B generating stations. OPG successfully combined the work management, maintenance and operational planning departments and fully integrated the two Pickering Nuclear generating stations. In 2012, the CNSC staff reviewed the Sustainable Operations Plan, which describes the strategy for the safe operation of the Pickering site in an integrated fashion. In August 2013, the CNSC approved a 5-year operating licence which combined the Pickering A and B Nuclear generating stations' licences into a single-site licence.

Pickering Units 1 to 4 were laid-up in 1997 under Ontario Hydro's Nuclear Recovery Plan. Units 4 and 1 were restarted in September 2003 and November 2005, respectively. In September 2010, Units 2 and 3 were placed in a safe storage state for the remaining life of the station.

The performance of OPG-operated nuclear generating stations during 2011, 2012, and 2013 was as follows:

Nuclear Generating Facilities and Performance (2011 to 2013)

Station	No. of In-Service Units	Net In-Service Capacity (MW)	Net Electricity Generation [1] (TWh)			Capability Factor [2] (%)		
			2013	2012	2011	2013	2012	2011
Darlington	4	3,512	**25.0**	28.3	29.0	**82.9**	93.2	95.2
Pickering	6 [3]	3,094	**19.7**	20.7	19.6	**73.7**	77.8	73.4
Total	10 [3]	6,606	**44.7**	49.0	48.6			

[1] Net electricity generation is the energy produced by the station less energy consumed by the station, as measured by the revenue meter.
[2] Capability factor is the amount of energy a generating unit is capable of producing as a percentage of its maximum output assuming no external constraints such as transmission limitations.
[3] Pickering had eight units, however, Units 2 and 3 have been placed in a safe storage state.

OPG also owns the Bruce A and Bruce B nuclear generating stations that have been leased on a long-term basis to Bruce Power.

CANDU Technology

All of OPG's nuclear generating stations use CANDU reactors. CANDU is a pressurized-heavy-water, natural-uranium power reactor, first designed in the 1960's by a consortium of Canadian government agencies and private industry. All nuclear power reactors in Canada use CANDU technology. CANDU reactors are currently operating in Ontario, New Brunswick, Argentina, Romania, South Korea and China.

CANDU reactors are unique in their use of natural-uranium fuel and deuterium oxide, or heavy water, as both a moderator to slow down the fission process and a coolant within the reactor. The refuelling system is also unique in that CANDU reactors can be refuelled at full power. This is due to the subdivision of the core into hundreds of separate fuel channels each holding a single string of natural uranium fuel bundles, allowing for greater fuel efficiency. In contrast, U.S. reactors, which use enriched uranium fuel, must be shut down during refuelling.

Fukushima Daiichi Response

In response to the Fukushima Daiichi event, OPG confirmed its stations are safe and that systems and procedures are in place to withstand significant emergencies. In 2013, a systematic review and verification of defences against external hazards was completed. The review showed that:

- the nuclear safety systems and multiple back-up power systems in place are effective
- the current design of the stations is strong and the stations are able to withstand extreme external events.

The review also provided recommendations for further opportunities to enhance the safety margin, and to be prepared for unexpected events that go beyond the extreme events that have already been considered in the design of the stations. OPG's action plan in response to the Fukushima Daiichi event is well aligned with the CNSC's Fukushima Action Plan, issued in mid-2012. In 2013, OPG submitted its plans for the majority of the Fukushima Action Plan items applicable to OPG to the CNSC. OPG expects to complete all the action items in 2015, with a small amount of residual work to be completed in 2016.

The Fukushima implementation plan includes a number of key safety enhancements on providing additional back-up capability to increase OPG's flexibility to respond to unexpected and highly unlikely external events that can impact multiple units at the same time. Portable diesel generators and pumps have been purchased and installed to provide flexibility to supply essential fuel cooling through multiple diverse paths and methods. This is in addition to OPG's existing stand-by generators, emergency generators, and auxiliary back-up power systems. Emergency response procedures have been updated and staff has been trained for enhanced preparedness.

Significant progress has been made in emergency response improvements, including the development of procedures and training for the new portable emergency water and power supplies, and enhanced drill exercises. OPG has validated its staff's capability to effectively prevent and, if necessary, manage severe accidents in response to unexpected and highly unlikely events using its new equipment and new severe accident management guidelines.

In addition, in 2012, OPG accelerated the installation of special equipment at the Pickering Nuclear GS and at the Darlington Nuclear GS to mitigate the potential build up of hydrogen during a severe accident. By year end 2013, OPG had installed 8 of its 10 operating units with Passive Autocatalytic Recombiners (hydrogen mitigation equipment), and will be completing installation on the remaining two units during planned outages in 2014. Remote boundary radiation monitors have been installed around OPG's stations to provide OPG and emergency response agencies with real-time station emissions data. Both the monitors and hydrogen mitigation equipment do not rely on any external power source to operate in an emergency. A formal mutual aid agreement has also been put in place amongst Canadian nuclear operators to provide equipment and expertise in an emergency, and work is progressing to design and build a Regional Emergency Response Support Centre that will house additional equipment and materials that may be required following an extreme event.

In August 2013, the Chief Nuclear Officers from Canada's operating nuclear power plants co-signed the Canadian Nuclear Utility Principles for Beyond Design Basis Events. The stated objective of these principles is to practically eliminate the potential for societal disruption due to a nuclear incident by maintaining multiple and flexible barriers to severe event progression. These principles provide guidance for a common philosophy for Canadian utilities in their actions to address the lessons learned from the Fukushima incident. The actions OPG is taking in response to Fukushima are aligned with these principles.

OPG continues to engage and benchmark the international nuclear industry, and has adjusted its action plan in response to lessons learned and emerging best practices.

Nuclear Generating Station Life

Service life predictions are developed by assessing the impacts of a number of operating, technical, and regulatory considerations on both unit and station economics. A decision to remove a unit from service will be primarily an economic decision that becomes more likely as the number of components requiring replacement increases, and the frequency and duration of inspections required to ensure a unit's fitness for service increases. End-of-service life predictions are continually reviewed as new information on possible degradation mechanisms becomes available and as future generation levels are revised.

Darlington Refurbishment

The Darlington generating units, based on original design assumptions, are currently forecast to reach their end of life between 2019 and 2020. The objective of the refurbishment is to extend the operating life of the station by approximately 30 years. In 2010, OPG announced its decision to begin the definition phase for the project. Activities in this phase include the establishment of the project organization, scope finalization, engineering, planning and estimating, procurement of long lead items, establishment of key contracts, and facilities and infrastructure upgrades. Refurbishment of the four Darlington units is currently estimated to cost less than $10 billion in 2013 dollars, excluding capitalized interest and escalation. The project is currently estimated to be completed by 2025. A detailed cost and schedule estimate for the refurbishment of the four units is expected to be completed in 2015. In 2016, the first unit outage will commence and OPG will start execution of the refurbishment scope on that unit.

The CNSC has set out regulatory requirements for Life Extension of Nuclear Power Plants. In line with these requirements, OPG must complete a series of assessments for the Darlington refurbishment project. Key milestones include the following:

- the CNSC issued its final Environmental Assessment Screening Report in September 2012. This formed the basis for an EA public hearing. The report was consistent with OPG's analysis concluding that, taking into account the identified mitigation measures, the Darlington refurbishment and continued operations are not likely to cause adverse effects on the environment. In March 2013, following public hearings in 2012, the CNSC issued a decision on the EA for the refurbishment of the Darlington Nuclear GS, confirming that, taking into account the identified mitigation measures, Darlington refurbishment and continued operations are not likely to cause significant environmental effect. In April 2013, the EA was subsequently challenged by way of judicial review in the Federal Court of Canada, on the grounds that the EA failed to comply with requirements of the *Canadian Environmental Assessment Act*, and that the hearing deprived the applicants certain procedural rights. A hearing is expected to be scheduled in 2014
- the Integrated Safety Review (ISR) was submitted to the CNSC in 2011. In early 2012, the CNSC completed a sufficiency review of the ISR. The CNSC found the submission sufficient to begin the detailed technical assessment. The CNSC has been actively reviewing the ISR and OPG is addressing comments and questions that were raised. In July 2013, OPG received the CNSC's staff assessment of the ISR, which confirmed that the ISR meets applicable regulatory requirements
- the results of the EA and ISR are incorporated in a Global Assessment Report (GAR), which includes an Integrated Implementation Plan (IIP). In December 2013, OPG submitted the GAR and IIP, which incorporate the significant EA and ISR results, to the CNSC. The IIP includes the schedule for implementing the improvements and gaps identified in the ISR and EA follow up program.

In 2011, OPG finalized the technical scope for the Darlington refurbishment project. In March 2012, OPG awarded the Retube Feeder Replacement (RFR) contract to a joint venture of SNC-Lavalin Nuclear Inc. and Aecon Construction Group Inc. The contract will be completed in two phases: a definition phase, which includes the planning, design and testing of tooling, design and construction of a full-scale reactor mock-up facility for testing and training, and; an execution phase, which includes the removal and replacement of major reactor components of the four reactors at the Darlington Nuclear GS. The contract value during the definition phase for the period to 2015 is estimated at over $600 million. The execution phase work, which is still to be estimated and valued, includes removal and replacement of the 480 pressure tubes and calandria tubes, and 960 feeder pipes for each of the station's four reactors.

In March 2013, OPG awarded a Turbine Generator contract for equipment supply and technical services to Alstom Power and Transport Canada Incorporated. Equipment Design phase work by the Original Equipment Manufacturer is progressing.

OPG signed a contract for the primary and secondary side cleaning of the Steam Generators in December 2013. The contract for the engineering integration and field installation portion of the Turbine Generator scope of work was signed in February 2014.

In June 2013, the Darlington Energy Complex (Complex) was placed in-service. The Complex is located on OPG-owned land in the Clarington Energy Business Park, adjacent to the Darlington Nuclear GS. The Complex will house a training and reactor mock-up facility, warehouse, and office space to support the refurbishment project. In May 2013, construction of the full-scale reactor mock-up facility began. The mock-up facility and development of specialized tooling are both integral to OPG's strategy to ensure certainty in scope, schedule and project cost. The mock-up facility was completed during the first quarter of 2014 ahead of schedule; the mock-up facility is now being prepared for tool testing and training. Retube and feeder replacement tooling design and fabrication is progressing in parallel with mock-up facility construction, and remains on track for completion in 2015.

Design and construction of facilities and infrastructure projects at Darlington required prior to refurbishment is progressing. Water and sewer upgrades, power and electrical modifications, and the addition of heavy water storage capacity, are in the construction phase. The Refurbishment Project Office and RFR Annex buildings remain in the definition phase. All prerequisite facility and infrastructure projects are expected to be completed prior to start of the first unit's refurbishment in the fourth quarter of 2016.

Pickering Units 5 to 8 Continued Operations

Pickering Units 5 to 8 were initially placed in-service between 1983 and 1986. The expected life for each unit was 30 years. Units 5 to 8 were predicted to reach their nominal end of life between 2014 and 2016.

OPG substantially completed a coordinated set of initiatives to evaluate the continued safe and reliable operation of Units 5 to 8 at the Pickering Nuclear GS for approximately an additional four to six years. In the third quarter of 2012, the CNSC agreed that OPG will, through specified monitoring, the successful completion of ongoing research and development, and specified station improvements, be capable of confirming fitness-for-service of Pickering fuel channels for the duration of the proposed continued operations period to 2020. At the end of 2012, OPG completed the necessary work to demonstrate with sufficient confidence that the pressure tubes will achieve the additional life, as predicted.

In 2012, OPG applied to the CNSC for a five-year operating licence, which combines the Pickering A and B generating stations' licences into a single-site licence. Following the CNSC public hearings on OPG's application, the CNSC approved the licence in August 2013. This supports the intention to operate the Pickering Units 5 to 8 to 2020. A regulatory hold point has been added to the licence related to fuel channels and the original end-of-life dates for Pickering Units 5 to 8. To satisfy the requirements for removal of the hold point, OPG must provide the results of additional safety assessments in a future proceeding with public participation, as required by the CNSC. Actions to clear the Pickering licence hold point are being completed as planned.

The CNSC's review of the 2012 Pickering Continued Operations Plan did not identify any new regulatory requirements. At the end of 2012, OPG submitted its annual revision of the Continued Operations Plan to the CNSC. Continued operations work related to equipment improvements and inspections will continue until the end of 2014, as planned.

When the period of continued operation nominally ends in 2020, OPG will place the units into safe storage followed by the long-term decommissioning process. The refurbishment of Units 5 to 8 at the Pickering Nuclear GS will not be pursued.

Nuclear Fuel Procurement

OPG's nuclear fuel supply chain involves the purchase of uranium concentrate, the purchase of services for the conversion of uranium concentrate to uranium dioxide, and the purchase of services for the manufacture of fuel bundles containing the uranium dioxide. OPG currently purchases each of these components separately and maintains ownership of the uranium throughout the supply chain. OPG maintains a portfolio of multi-year supply contracts for uranium concentrates with suppliers located in uranium-producing regions across the world and occasionally enters into the short-term spot market to acquire a portion of its uranium needs.

Ancillary Operations

Heavy Water Management

OPG's nuclear generating units contain approximately 6,200 tonnes of deuterium oxide, or "heavy water", not including heavy water contained at the leased Bruce stations. This heavy water is required to operate OPG's CANDU reactors. OPG's heavy water was produced by Ontario Hydro between 1973 and 1997 at two heavy water plants located on the Bruce site. In 1997, Ontario Hydro ceased the operation of the heavy water plants and OPG demolished the plants by 2006. Follow-up environmental monitoring and site remediation continue in accordance with the requirements of the CNSC-issued decommissioning licence. OPG believes that its inventory of heavy water will be sufficient to replenish supplies as a result of normal operating losses at its nuclear generating stations, including the planned refurbishment of the Darlington Nuclear GS. OPG believes sufficient quantities of heavy water are also available for changes in operating conditions or for new nuclear generating facilities. OPG has in the past sold, and intends to continue to sell, surplus heavy water.

Tritium Removal

Tritium is a radioactive substance that is created within CANDU reactors as a result of heavy water in the reactor moderator and heat transport systems. OPG operates a facility at its Darlington site that removes tritium from the tritiated heavy water used at its nuclear generating stations in order to control the occupational dose exposure to its staff and to limit the amount of tritium released to the environment. The extracted tritium is chemically immobilized, placed in special containers, and safely stored in a vault. The Tritium Removal Facility will also be used to detritiate heavy water during the decommissioning of OPG's nuclear generating stations. Some tritium is sold to government-approved organizations for authorized commercial and health industry uses.

Cobalt

Cobalt 60 produced by OPG is used mainly in the health industry to sterilize surgical and medical supplies. The cobalt is produced in Units 6, 7, and 8 at the Pickering B generating station. Cobalt 60 can be produced in reactors which, like the CANDU, use adjuster rods to regulate power. The stainless steel rod is replaced by a rod containing enriched levels of cobalt 59, which is converted into cobalt 60 after exposure to the atomic reaction in the reactor core. After 2 years, the rods are removed, cut, and packaged for sale, and new rods are inserted in the reactor to continue the production cycle.

Facility Planning

OPG uses a structured approach to identify and prioritize projects to optimize returns from nuclear station reinvestment within the constraints imposed by technical and financial requirements, while ensuring that safety, environmental, and other regulatory programs are of the highest priority. Input from predictive maintenance programs, life cycle management plans, and system health monitoring are used to determine the activities necessary to sustain and improve unit performance.

A structured framework modeled on the best practices identified by the Electric Power Research Institute (EPRI), Institute for Nuclear Power Operations (INPO), and World Association of Nuclear Operators (WANO) is used to optimize the maintenance of the nuclear generating stations and assess the health of the facilities. These practices are audited regularly by WANO and identified areas for improvement are acted upon with the highest priority.

As a result of the structured framework, predictive maintenance programs based on best practices identified by EPRI and INPO have been utilized to evaluate and maintain the health of the nuclear generating stations. Predictive maintenance is a process combining technologies and skills to perform analysis on equipment performance, maintenance, and design data to make timely decisions about maintenance requirements of major or critical equipment. The predictive maintenance program for each station is prioritized on the basis of the importance of the equipment for reactor safety and defines the scope and timing of inspections and maintenance. Life cycle management plans have been prepared for critical components and are updated annually to incorporate operating experience and new knowledge. These life cycle plans define the inspection and maintenance programs required to ensure these components perform in accordance with their design-basis.

System engineers conduct performance monitoring of station systems according to system performance monitoring plans that are based on a comparison of performance indicators against established targets to improve system performance. System performance is assessed by collecting, trending, and analyzing data from station sources. This information is reported in system health reports which are updated, at a minimum, annually.

Hydroelectric

Hydroelectric Generation Overview

Hydroelectric generating stations use the potential energy of water to drive hydraulic turbines that generate electricity. OPG's hydroelectric stations provide one of OPG's competitive advantages: a reliable, low-cost source of renewable energy free of air emissions. Through significant capital reinvestment, station automation, efficiency improvements, and effective station maintenance, OPG's hydroelectric generating stations have low operating and maintenance costs.

Prior to 2014, OPG's hydroelectric generating stations were classified as either regulated or unregulated. In November 2013, the Province amended *Ontario Regulation 53/05* to prescribe 48 of OPG's hydroelectric generating facilities for rate regulation, effective July 1, 2014. These facilities are currently not rate-regulated and not subject to an ESA with the OPA. For further information related to hydroelectric regulated and unregulated facilities, refer to the section *Regulation – Ontario Electricity Regulation.*

In 2013, these hydroelectric generating stations are included in the Regulated – Hydroelectric segment and Unregulated – Hydroelectric segment. These segments have the following objectives:

- sustain and improve the existing assets for long-term operations
- operate and maintain the facilities in an efficient and cost-effective manner
- seek to expand existing stations, where economic
- maintain and improve reliability performance where practical and economic
- maintain an excellent employee safety record and ensure all worker safety laws are met
- strive for continuous improvement in the areas of dams and waterways, public safety, and environmental performance
- build and improve relationships with First Nations and Métis.

Generating Facilities

OPG's hydroelectric generating stations are operated on a river system basis, rather than as stand-alone units, and have been grouped geographically into five plant groups: Niagara, Central Hydro, Ottawa St. Lawrence, Northeast, and Northwest. Effective 2014, the operations of its hydroelectric and thermal assets in Northwestern Ontario are being combined into one organization. OPG's 65 hydroelectric generating stations and 228 associated dams are located on 24 river systems in Ontario, comprising 7,004 MW of capacity.

Regulated – Hydroelectric and Unregulated – Hydroelectric Performance (2011 to 2013)

	Regulated - Hydroelectric			**Unregulated - Hydroelectric**			**Total Hydroelectric**		
	2013	**2012**	**2011**	**2013**	**2012**	**2011**	**2013**	**2012**	**2011**
Capacity *(MW)*	**3,321**	3,312	3,312	**3,683**	3,684	3,684	**7,004**	6,996	6,996
Net Electricity Generation *(TWh)*	**18.9**	18.5	19.5	**13.9**	12.1	12.9	**32.8**	30.6	32.4
Availability *(%)*	**90.8**	91.4	89.7	**91.8**	91.1	91.5	**91.5**	91.2	90.9
Equivalent Forced Outage Rate (EFOR) *(%)*	**1.0**	2.1	1.3	**2.2**	2.0	1.6	**1.8**	2.0	1.5

Electricity generation from hydroelectric facilities depends primarily upon the availability of water, which is affected largely by natural factors such as precipitation and evaporation.

In consideration of current and future market conditions, OPG continues to evaluate and implement plans to increase capacity, maintain performance, and extend the operating life of its hydroelectric generating assets. This is expected to be accomplished through refurbishment or replacement of existing turbine runners, generators, transformers, and protections and controls. This includes increasing the capacity and efficiency at certain stations by approximately 44 MW over the next five years. OPG is also planning to repair, rehabilitate, or replace a number of aging civil structures in the next five years.

During 2013, OPG continued to execute a number of projects and completed major equipment overhauls and rehabilitation work at several stations. These include:

- completion of a refurbishment at Unit 3 of the Sir Adam Beck 1 GS that increased the unit's capacity from 46 MW to 55 MW
- completion of a turbine runner upgrade and generator overhaul at Unit 1 of the Des Joachims GS
- replacement of control and monitoring systems at 26 stations
- continued work on the rehabilitation of the concrete dam at Chats Falls GS.

The environmental performance of OPG's hydroelectric generating stations in 2013 was the best ever. There were minimal spills to the environment and several efficiency improvement initiatives were completed.

A Dam Safety Review Panel, comprised of internationally recognized experts, concluded that OPG's Dam and Public Safety Program meets international best practices in a number of areas related to maintaining safe dam operation.

OPG continues to develop a new risk-informed approach on behalf of the Ontario Ministry of Natural Resources (MNR) to prioritize and manage risks identified through the outcomes of dam safety

assessments. This approach will result in significant benefits with respect to both safety and costs for future upgrades to existing infrastructure.

OPG's hydroelectric generating stations range in age from less than one to over 115 years and include the oldest assets in its generation portfolio. Although there is a link between the age of a facility and the capital investment required to maintain that facility, age does not establish an upper limit on the expected useful life of hydroelectric facilities and dams. Regular maintenance and the replacement of specific components typically extend station service lives for very long periods, especially for facilities built after 1925.

OPG operates seven staffed control rooms across Ontario providing remote control and monitoring for all of OPG's hydroelectric generating facilities. These control rooms are designed to minimize the number of staffed control rooms, reduce control system failures, and increase the amount of information available for production planning.

Facility Planning

OPG uses a structured portfolio approach to identify and prioritize projects for its hydroelectric investment program. Engineering reviews and station condition assessments are performed to determine short-term and long-term expenditure requirements to sustain or improve each facility. These may be followed by the preparation of a facility life cycle plan, which is performed on an as-needed basis for marginal assets or assets requiring significant expenditures relative to the value of the facility. This planning approach is designed to identify necessary capital, operating, and maintenance expenditures for each facility and to direct funds towards hydroelectric facilities that can best maintain or enhance their value. The cornerstone of this approach is that safety, environmental, and other regulatory programs are of the highest priority.

OPG utilizes a preventive maintenance program at its hydroelectric facilities that provides a consistent method of identifying, scheduling, and executing maintenance activities at its facilities. The concept of streamlined reliability-centred maintenance dictates that the type and frequency of preventive maintenance applied to an individual component is determined based on the nature and consequences of failure (i.e. balance of cost versus risk).

Partnerships with First Nations

OPG's first partnership with a First Nations community was established in early 2009 as part of the Obishikokaang Waasiganikewigamig /Lac Seul Generating Station project. In this partnership, the Lac Seul First Nation owns 25 percent of the generating station and shares the benefits and risks associated with the operation of the station. The partnership is meeting the expectations of the parties.

The signing of the "*Amisk-oo-Skow*" Agreement with the MCFN in early 2010 marked the second partnership between a First Nations community and OPG. The MCFN is benefiting significantly from employment and construction opportunities on the Lower Mattagami River project stemming from this partnership. In 2011, the Lower Mattagami Limited Partnership agreement was amended and restated to include the MCFN, and their wholly owned Amisk-oo-Skow Finance Corporation, as limited partners and to enable the MCFN to acquire up to 25 percent limited partnership interest in the Lower Mattagami River project. As incremental units of the project are placed in-service, the MCFN is expected to acquire up to a 25 percent interest in the assets through its investment in the Lower Mattagami Limited Partnership.

In November 2008, OPG and Coral Rapids Power L.P., a wholly owned subsidiary of Taykwa Tagamou Nation, negotiated a suite of agreements regarding the New Post Creek development project, including a partnership agreement. The agreements are currently being held in escrow and are expected to be executed in 2014 in advance of the necessary land exchange that will result in the transfer of park lands to the partnership. The project is undertaking activities to procure a design-build contractor for the project with a view to beginning construction in 2015 and with a planned in-service date in late 2017.

For additional details, see *Description of the Business – New Generation Development – Hydroelectric Expansion and Development – Lower Mattagami*, and *Regulation – First Nations and Métis Relations.*

Gross Revenue Charge and Water Payments for Hydroelectric Generating Stations

Hydroelectric generating stations in Ontario are subject to taxes and charges as prescribed by *Ontario Regulation 124/02* under the *Electricity Act, 1998* (Ontario) (Electricity Act). These taxes and charges, referred to as Gross Revenue Charge (GRC), are based on station gross revenue, determined as the product of annual station energy generation and the prescribed revenue rate of $40/MWh. All OPG hydroelectric generating stations are subject to GRC Property Tax, which is determined by applying graduated tax rates, ranging from 2.5 percent to 26.5 percent through four levels of production, to the station gross revenue. GRC Property Tax payments are made to either the OEFC or to the Ontario Ministry of Finance. Hydroelectric generating stations that are subject to water power lease agreements with the Ontario MNR are also subject to GRC Water Rental charges. The GRC Water Rental charge is determined as 9.5 percent of station gross revenue. GRC Water Rental payments are directed to the Ministry of Finance.

Annual land rental fees are paid to the MNR as prescribed by Crown leases and licences of occupation which authorize OPG's tenure (including flooding rights), typically at storage dam sites.

Eight OPG hydroelectric generating stations occupy lands within the federal jurisdiction (Trent River and Rideau Canal) and are subject to rental charges prescribed by licences with Parks Canada (Trent-Severn Waterway). These licences authorize OPG to occupy the lands, maintain and operate the powerhouses and dams, and utilize water that is surplus to navigation needs for the generation of electricity. Water conveyance rentals are also paid to the St. Lawrence Seaway Management Corporation, a federal agency, as prescribed by a lease agreement providing for the withdrawal of water that is surplus to navigation needs from the Welland Seaway Canal for utilization at the DeCew Falls generating stations. The water conveyance charges apply to the transport of water from Lake Erie through the Seaway Canal to OPG's intakes at Allanburg.

Water rental payments are also made to the Government of Québec, as prescribed by an agreement dated January 2, 1943, and a rate amending agreement effective January 2, 1993. These agreements pertain to the sharing of the water powers of the Ottawa River and were ratified by the Governments of Ontario and Québec. Québec water rentals are based on one-half of the energy produced at three OPG generating stations located on the Ottawa River. The GRC payments made to Ontario with respect to these three sites are also based on one-half of the energy produced at the stations.

OPG also provides compensation to Hydro Québec, under the aforementioned 1943 agreement, for the generating value at OPG's stations on the Ottawa River attributed to the water diverted through the Dozois Reservoir in Québec, into the Ottawa River. OPG also shares operation and maintenance costs pertaining to the dam enabling the Dozois diversion.

Water Management

OPG's water management strategy is to safely utilize available water for generation of electricity in conformance with legal, environmental, operational, and watershed water management plan requirements. OPG uses hydrological and meteorological data to manage water levels, flows, and water storage. OPG strives to schedule water use for optimum utilization and to minimize controlled water spills due to unusual surplus baseload generation (SBG) conditions.

Dam Safety and Waterways Public Safety Programs

OPG's Dam Safety Policy directs that dams be designed, constructed, operated, and maintained in a manner that meets all regulatory requirements, or, in the absence of regulations, the safety guidelines published by the Canadian Dam Association (CDA) or other industry best practices. OPG is one of the

first dam owners in Canada to have developed and implemented a dam safety program and is considered an industry leader in many aspects of the program.

Since 2007, OPG has engaged an advisory panel consisting of internationally recognized experts to conduct an independent review of OPG's Dam Safety Program. The Chair of the independent panel presents their observations to the Board and establishes areas for in-depth review at the next panel meeting to maintain full transparency. The Panel has consistently found that the risks associated with dams owned and operated by OPG are being managed in alignment with industry best practices and guidelines.

Since 2002, OPG has developed a number of technical documents concerning public safety around dams, as well as materials to educate the public and raise awareness of the hazards associated with the operation of its dams and hydroelectric facilities. This work was undertaken in advance of government requirements, guidelines, and industry standards in this emerging area to ensure continued due diligence in public safety. Both the MNR and CDA released their guidelines for public safety around dams in the fall of 2011. The MNR and CDA guidelines are complementary and are founded on the work developed by OPG. OPG actively participated in both of these initiatives.

OPG has developed a public safety program, including guidelines and the installation of physical control measures in the form of safety booms, buoys, fencing, signage, and audible alerts. In addition to the safety program, OPG has worked diligently to entrench a "Stay Clear - Stay Safe" message as part of its public education program for public safety around dams. OPG actively engages other agencies such as the MNR, Ontario Provincial Police, Life Saving Society, the Ontario Waterpower Association, and numerous other stakeholders in water safety education to partner in delivering this message to the public.

For additional details on the relevant regulatory regime, see *Regulation – Regulation of Water Rights*.

Thermal

Thermal Generation Overview

OPG's thermal stations operate as peaking facilities, depending on electricity demand. The thermal units are able to start up and shut down through a wide range of their installed capacity. This ability provides Ontario's electricity system with the flexibility to meet changing daily system demand and capacity requirements, and enables the system to accommodate the expansion of Ontario's renewable generation portfolio.

In October 2010, OPG closed two coal-fired generating units at each of the Lambton and Nanticoke generating stations in advance of the December 31, 2014 deadline. In response to Ontario's 2010 Long-Term Energy Plan and the Supply Mix Directive issued in 2011, OPG removed from service two additional coal-fired units at the Nanticoke generating station on December 31, 2011. In March 2013, the Minister of Energy issued a declaration mandating that OPG cease the use of coal at the Nanticoke and Lambton generating stations by the end of 2013. Accordingly, as of December 31, 2013, OPG ceased operation of the remaining coal-fired units at these stations and both stations are being placed in a laid-up state which could facilitate potential repowering. Prior to the first round of closures in 2010, the two stations employed over 1,000 staff in total. Subsequent to the asset preservation of the stations in 2013, the staff level is expected to be less than 50 staff.

For further details, see *General Development of the Business – Thermal – Ceasing Coal-Fired Generation at Thermal Stations.*

OPG continues to explore options and the feasibility to convert some of the existing coal-fired units to burn alternative fuels such as natural gas and/or biomass. Converted thermal generating stations can provide Ontario's electricity system with continued flexibility of daily start up and shut down, load-following capability to meet changing system needs, and complement non-dispatchable renewable energy sources.

Conversion of Coal-Fired Units

The strategy to convert coal-fired units to alternative fuels is reflective of the changing energy generation portfolio for Ontario. Options for alternative fuels include biomass, advanced biomass, natural gas, and gas-biomass dual-fuelled. Before OPG can proceed with unit conversions, a mechanism is required for recovery of capital and ongoing costs. This generally requires concurrence or direction from OPG's Shareholder, the Minister of Energy.

In 2011, the Minister of Energy issued a directive to the OPA to negotiate a long-term energy supply contract with OPG for the conversion of two coal-fired units at the Thunder Bay generating station to natural gas. During 2012, OPG continued the work associated with the required gas infrastructure but later suspended further work on the station conversion to natural gas, pending an OPA review of electricity needs in northwestern Ontario.

In December 2013, the Minister of Energy issued a directive to the OPA to negotiate and enter into a contract for electricity from one unit at the Thunder Bay generating station using advanced biomass fuel. OPG is in the process of developing detailed plans for the station modifications and fuel supply. Since fewer individuals are required to operate a unit on advance biomass compared to coal, OPG has notified the Power Workers' Union (PWU) and The Society of Energy Professionals (The Society), in accordance with their respective collective bargaining agreements, regarding the further staff reductions at this plant by January 2015.

As of December 31, 2013, OPG is placing the Lambton GS and Nanticoke GS in such a state to preserve the option to convert them to natural gas and/or biomass in the future, if required.

Generating Facilities

OPG currently owns and operates five thermal generating stations. A total of 19 thermal generating units were in-service up to September 30, 2010, with a combined net in-service capacity of approximately 8,177 MW, representing approximately 38 percent of OPG's total in-service capacity. After the unit closures at Nanticoke and Lambton on October 1, 2010, the net in-service capacity from OPG's thermal generating stations was reduced to 6,327 MW, representing approximately 32 percent of OPG's total in-service capacity. As of December 31, 2011, the net in-service capacity from OPG's thermal generating stations was further reduced to 5,447 MW, representing approximately 29 percent of OPG's total in-service capacity. With the Province's mandate for early coal closure at the Nanticoke and Lambton generating stations, two units at the Lambton generating station and four units at the Nanticoke generating station are being placed in a laid-up state which could facilitate potential repowering as of December 31, 2013. Total net in-service capacity from OPG's thermal generating stations, Lennox, Atikokan and Thunder Bay, is 2,617 MW, as of December 31, 2013, representing 14 percent of OPG's total in-service capacity.

Dual-fuel generating units that are capable of burning either oil or natural gas at the Lennox generating station account for approximately 2,100 MW of net in-service capacity. The Atikokan generation station has ceased using coal and is currently being converted to burn biomass fuel, scheduled for a mid-2014 in-service date. The station's total in-service capacity is expected to be 200 MW. The Thunder Bay generating station will cease burning coal by December 31, 2014 and one of the units will be converted to burn advanced biomass fuel in accordance with the Minister's directive issued in December 2013. The converted unit is expected to have an in-service capacity of 150 MW.

Unregulated – Thermal Performance (2011 to 2013)

	2013	2012	2011
Capacity *(MW)*	**2,617**	5,477	5,447
Net Electricity Generation *(TWh)*	**2.8**	4.1	3.7
Start Guarantee Rate	**98.0**	97.5	94.7 [1]
EFOR *(%)*	**8.6**	9.4	9.2

[1] Performance indicator developed in 2011 in response to the changing role of the thermal stations in the market

Thermal Fuel Procurement

In addition to the requirement to cease coal use by December 31, 2014, under *Ontario Regulation 496/07,* Shareholder directives require OPG's coal-fired generation to be limited to meet CO_2 emissions reduction requirements. OPG's fuel program is designed to conform with these CO_2 emissions requirements respecting the relevant policies and procedures to manage the process. No additional coal has been purchased by OPG since 2011 and the coal-fired generating stations are operating by consuming coal inventory that is currently at the generating station sites. Existing coal inventory at the Lambton generating station was utilized as of September 30, 2013 and the Nanticoke generating station coal inventory has been utilized as of December 31, 2013.

The conversion of the Atikokan generating station to biomass is currently underway. Agreements for the purchase of wood pellets to support this conversion were executed in 2012 and deliveries will begin in 2014.

Due to the relatively low capacity factor of the Lennox generating station, both oil and natural gas are purchased on the spot market, other than a small volume of fixed term natural gas required for operation purposes. Fuel switching is based on market and fuel economics.

Facility Planning

OPG's facility planning approach is designed to identify necessary capital and operating and maintenance expenditures for each thermal facility. This planning approach allows OPG to optimize returns from station reinvestment within constraints imposed by technical, financial, safety, and system requirements, as well as regulatory and voluntary emissions limits.

Large temperature and pressure variations experienced during cycling operation (i.e., stopping and starting the units frequently) of thermal units to meet system peaks result in more mechanical wear than continuous operation. In light of the requirement to cease burning coal, OPG modified its strategy for these stations to ensure units are available when they are required while managing equipment damage from frequent starts and stops. In addition, due to the lower demand for thermal-fuelled generation in recent periods, OPG has optimized outage duration and scope where warranted commensurate with capped unit production due to CO_2 emission limits, reduced system demands, and planned future plant operation to reduce maintenance related expenditures, including capital and asset investments, labour, and overtime. Notwithstanding this strategy, OPG's first priority is to make appropriate investments to ensure continued safe and environmentally responsible operation of its coal-fired generating stations.

OPG has recognized, and carries on its balance sheet, a liability to cover future expenditures to decommission and dismantle each of its thermal stations. This provision is not currently funded. The provision is estimated on the basis of station closure; however, certain safe shutdown costs included in the provision were incurred as a result of the advanced closure of units in 2010, 2011, and 2013. In September 2011, OPG completed a review of the liability for most of its thermal generating stations to ensure the adequacy of the provision using assumptions that are consistent with OPG's unit conversion, operating strategies, and recent experience.

Support Agreements

As a result of the Shareholder's Resolution and regulations pertaining to CO_2 emissions reductions, plant equipment investments were required to assure the reliability and availability of the Lambton and Nanticoke generating stations until their closure to meet expected operating requirements. In 2009, OPG entered into a Contingency Support Agreement with the OEFC to provide, following the implementation of CO_2 emissions targets/caps consistent with good utility practice, for OPG to be able to continue to maintain the stations for supply adequacy and system reliability by providing for OPG to receive sufficient revenue to recover the actual direct costs of the Lambton and Nanticoke generation stations, and to provide reimbursement of capital expenditures through the recapture of depreciation up to December 31, 2014. As a result of the Shareholder declaration issued in March 2013, mandating that OPG cease the use of coal at the Lambton and Nanticoke generating stations by the end of 2013, in advance of the previous December 31, 2014 deadline, OPG and the OEFC executed an amendment to the Contingency Support Agreement. The amendment allows for early termination of the agreement and for OPG to recover actual costs that cannot reasonably be avoided or mitigated during the period from the advanced date up to the end of 2014. On November 1, 2013, the OEFC provided written notice that it would terminate the Contingency Support Agreement, effective December 31, 2013, thus triggering the amendment that allows OPG to recover these costs during 2014. The cost of the conversion of units to alternate fuels and any necessary decommissioning costs are specifically excluded from the agreement.

In November 2012, OPG requested deregistration of the Thunder Bay generating station. However, in January 2013, the IESO determined that at least one unit was required in Thunder Bay to maintain reliability of the IESO-controlled grid. Accordingly, during the first quarter of 2013, OPG and the IESO executed the Reliability Must Run contract for one unit at the Thunder Bay generating station, for the period from January 1, 2013 to December 31, 2013. The contract was approved by the OEB in July 2013. As a result of the directive issued by the Minister in December 2013, OPG is expected to enter into negotiations with the OPA for a contract to procure electricity from the Thunder Bay generating station using advanced biomass fuel.

The Lennox generating station operated under the Lennox Generating Station Agreement with the OPA for the period from October 1, 2009 to December 31, 2012. The Lennox Generating Station Agreement provided the station with sufficient revenue to recover its actual costs in order to provide general adequacy to the Ontario electricity system. In December 2012, the OPA and OPG executed a long-term Lennox ESA for the period from January 1, 2013 to September 30, 2022. The agreement allows the station to recover its costs, including a reasonable return, in providing generating capacity to the Ontario electricity system over the next 10 years.

For additional details, see *General Development of the Business – Thermal – Lennox Generating Station Supply Agreement*.

Nuclear Waste Management

OPG's operating nuclear reactors generate a variety of radioactive wastes which include the following:

- used nuclear fuel bundles
- Intermediate Level Waste (ILW) - material that has come in close contact with the reactors, but is less radioactive than used fuel, such as ion exchange resins and reactor equipment and components
- Low Level Waste (LLW) - material used in connection with station operation that is not highly radioactive, such as tools and protective clothing.

OPG is responsible for the ongoing management of these waste types. In addition, OPG will have to manage radioactive waste associated with the decommissioning of its nuclear generating stations, including nuclear waste facilities after the end of their useful lives. The handling and disposal of radioactive waste in Canada is subject to federal legislation.

For additional details, see *Regulation – Nuclear Regulation* and *Discussion of Operating Results by Business Segment – Regulated – Nuclear Waste Management Segment* in the Company's 2013 MD&A.

Federal Government Policy

The *Nuclear Fuel Waste Act* (Canada) (NFWA) became effective in November 2002. The NFWA requires the owners of nuclear fuel waste in Canada to establish a waste management organization, incorporated as a separate legal entity, with a mandate to manage and coordinate the full range of activities relating to the long-term management of nuclear fuel waste. In response to the NFWA, in 2002, OPG and other Canadian nuclear waste producers incorporated the Nuclear Waste Management Organization (NWMO). The NWMO completed a study of the options available for the long-term management of used fuel in 2005, as required by the NFWA. In 2007, the federal government approved the Adaptive Phase Management plan as the long-term solution for Canada's nuclear fuel waste. At the core of this plan is the eventual long-term permanent disposal of radioactive nuclear fuel waste in a deep geologic repository (DGR) after a collaborative process of communication and engagement with Canadians aimed at selecting a suitable geological site with an informed and willing host community.

The NFWA also requires the nuclear fuel waste owners to establish and make payments into trust funds for the purpose of funding the implementation of the long-term management plan. Accordingly, OPG has established the Ontario NFWA Trust. For additional details, see *Description of the Business – Nuclear Waste Management – Provision for Future Nuclear Related Costs.*

Current Practices

Used Nuclear Fuel

Bundles of used nuclear fuel from OPG's reactors and leased reactors at the Bruce site are temporarily stored in water-filled pools known as "wet bays" at the nuclear generating stations, for a "cooling-off" period of at least ten years during which time their radioactivity is substantially reduced. Each nuclear generating station has sufficient capacity to store used nuclear fuel in wet bays for approximately 15 to 20 years of operation.

After bundles of used nuclear fuel have been stored for their cooling-off period, the used fuel bundles are transferred from the wet bays to above-ground Dry Storage Containers at the corresponding nuclear station site. Currently, used nuclear fuel is in storage at the Pickering, Darlington, and Bruce sites.

In August 2000, OPG submitted a management plan to the CNSC which revised the reference date for an in-service used fuel DGR from 2025, as included in the previous reference plans, to 2035. This forms part of the plans for nuclear waste management and decommissioning liabilities that have been accepted by the CNSC to meet requirements for a financial guarantee, as required under the *Nuclear Safety and Control Act* (Canada) (NSCA), which was established in July 2003.

Low & Intermediate Level Waste

OPG's low and intermediate level waste (L&ILW) is stored at the radioactive waste management facility at the Bruce site, known as the Western Waste Management Facility (WWMF). This facility, which continues to be owned and operated by OPG following the lease of the Bruce generating stations, operates under separate licences issued by the CNSC. OPG's planning assumption for the long-term management of L&ILW is the placement of this nuclear waste in an L&ILW DGR.

For additional details, see *Description of the Business – Nuclear Waste Management – Deep Geologic Repository for Low and Intermediate Level Waste.*

Decommissioning

OPG has adopted a deferred dismantling strategy for the decommissioning of its nuclear generating stations. Under this strategy, OPG intends to de-water and de-fuel each station immediately after it has ceased operations and prepare the station for safe storage and monitoring. Thereafter, OPG intends to monitor the station for approximately 30 years, after which it will dismantle the station over a period of approximately ten years. This deferred dismantling strategy has been communicated to the CNSC through preliminary decommissioning plans for all of OPG's nuclear generating stations and operating licences have been issued based on, amongst other things, CNSC's review of this strategy. Financial guarantees required for decommissioning liabilities are also based on this strategy.

Deep Geologic Repository for Low and Intermediate Level Waste

In 2009, OPG approved the start of the Regulatory Approval phase for a L&ILW DGR. In 2010, OPG approved the start of the detailed design phase of the project at the planned Bruce site in the Municipality of Kincardine, Ontario. In 2011, OPG, through contractors and subcontractors, commenced work on the detailed design and engineering in support of the construction of the DGR. The L&ILW DGR will be designed to manage L&ILW produced from the continued operations of OPG owned nuclear generating stations. The licensing, design, and construction phases of the work are being completed through approved Services and Engineering, Procurement, and Construction Management Agreements.

Under the NSCA, OPG will require licences from the CNSC for activities to be undertaken with respect to the L&ILW DGR project. Before the CNSC can make licensing decisions for this proposal, an EA must be conducted in compliance with the requirements of the federal *Environmental Assessment Act*. As part of the EA process, the Environmental Impact Statement (EIS), Preliminary Safety Report (PSR), and Technical Support Documents (TSDs) were submitted to the CNSC in April 2011. The purpose of these submissions was to obtain EA approval and a Site Preparation and Construction Licence from the Joint Review Panel (JRP) for the L&ILW DGR.

In January 2012, the CNSC and the Canadian Environmental Assessment Agency announced the appointment of a three-member JRP for OPG's DGR. The JRP is to examine the environmental effects of the proposed DGR to meet the requirements of the *Canadian Environmental Assessment Act.* In May 2013, an extended public review period on the EIS, PSR and TSDs ended wherein OPG provided responses to 575 information requests from the JRP. The public hearing for the EA and the site preparation and construction licence was subsequently held during the second half of 2013. Following the public hearing, OPG received additional information requests, which are required to be addressed prior to the close of the public hearing record for the proceeding. OPG expects to provide the JRP with responses during the first half of 2014. The JRP is expected to provide a report and recommendation on the EA to the federal Minister of Environment within 90 days of the close of the public hearing record. A decision from the Minister of Environment is expected within 120 days from the submission of the report.

OPG has suspended design activities pending receipt of the site preparation and construction licence from the JRP which is expected in the first half of 2015. Upon completion of the detailed design, development of a release quality estimate, and ongoing consultation with the Saugeen Ojibway Nations community, OPG will proceed with construction. The in-service date of the DGR will be approximately six to seven years from the start of construction.

Provision for Future Nuclear Related Costs

On April 1, 1999, the obligation for nuclear waste management and decommissioning was transferred to OPG. The responsibility for funding these liabilities is described in the Ontario Nuclear Funds Agreement (ONFA) between the Province and OPG. The key provisions of the ONFA are: (i) for OPG to establish two segregated funds, the Used Fuel Segregated Fund (Used Fuel Fund) to fund future costs of nuclear used fuel waste management and the Decommissioning Segregated Fund (Decommissioning Fund) to fund the future costs of nuclear fixed asset removal and L&ILW management; (ii) for the OEFC to be responsible for funding approximately $2.4 billion present value as at April 1, 1999, that had been an

accumulated liability of Ontario Hydro (the OEFC fully funded this amount by 2007); (iii) for the Province to limit OPG's financial exposure in relation to the cost of used fuel management for the initial 2.23 million bundles of used fuel; and (iv) for the Province to provide financial guarantees to the CNSC, if required by the CNSC, for OPG's nuclear waste management and decommissioning liabilities. Although the ONFA is dated April 1, 1999, it did not take effect until July 24, 2003, when OPG established the Used Fuel Fund and the Decommissioning Fund.

The Used Fuel Fund and the Decommissioning Fund are administered by a third party custodian and are kept separate from OPG's other assets. OPG granted a security interest in both the Used Fuel Fund and the Decommissioning Fund to the Province. As a result, these funds are not available to satisfy the claims of OPG's creditors.

The limits to OPG's financial exposure under the ONFA with respect to the cost of long-term storage and disposal of 2.23 million bundles of used fuel are as follows (all amounts are present value as at January 1, 1999): (i) OPG will bear all costs up to $4.6 billion; (ii) OPG and the Province will share, on an equal basis, costs incurred between $4.6 billion and $6.6 billion; (iii) OPG will be responsible for 10 percent of the costs incurred between $6.6 and $10 billion, and the Province will be responsible for the remaining 90 percent; (iv) the Province will be responsible for any costs above $10 billion. As a result, OPG's liability for these used fuel costs will be capped at $5.9 billion, assuming 2.23 million bundles of used fuel waste are produced. OPG will, however, be responsible for all incremental costs relating to the management of used fuel bundles in excess of 2.23 million. As at December 31, 2013, 2.28 million bundles of used fuel waste had been produced.

Under the ONFA, the Province guarantees OPG's annual return earned in the Used Fuel Fund at 3.25 percent, plus the change in the Ontario Consumer Price Index for funding related to the first 2.23 million used fuel bundles. Therefore, the Province is obligated to make additional contributions to the Used Fuel Fund if this fund earns a rate of return that is less than the rate of return guaranteed by the Province. If the return on the assets in the Used Fuel Fund exceeds the Province's guaranteed rate, the Province is entitled to the excess.

OPG's required contributions to the Used Fuel Fund and the Decommissioning Fund are determined based on reference plans, as approved under the ONFA. These reference plans are prepared by OPG with the assistance of external consultants and based on external practices and benchmarks. Under the reference plan, OPG has estimated the total present value of its future nuclear waste management and decommissioning costs based on cost estimates and assumptions as to the remaining useful lives of the nuclear stations and proposed methods of nuclear waste disposal. Cost estimates reflect management's views, supplemented by external advice, as well as international benchmarks.

The 2012 – 2016 ONFA Reference Plan (2012 ONFA Reference Plan) was approved by the Province effective January 1, 2012. The reference plan update required activities such as the re-estimation of all of the waste management programs that form part of the liability (decommissioning, L&ILW long-term management, used fuel disposal, used fuel storage, L&ILW operations) and updates to the many economic indices that are inherent in the present value calculation.

For purposes of the ONFA, the Ontario NFWA Trust forms part of the Used Fuel Fund.

Contributions to the Used Fuel Fund and the Decommissioning Fund

The Used Fuel Fund is funded in accordance with the ONFA, using the reference plans and associated cost estimates that have been approved by the Province and may be adjusted from time to time in accordance with the ONFA.

In regard to the Ontario NFWA Trust, a funding formula was approved by the federal Minister of Natural Resources in early 2009 and sets out the contribution requirements of OPG and the other nuclear fuel waste owners in Canada. Under the ONFA, if there is a surplus in the Decommissioning Fund beyond a minimum over-funding ratio, OPG may direct 50 percent of the surplus to the Used Fuel Fund and the

OEFC is entitled to the remaining 50 percent. OPG bears the risk and liability for cost estimate increases and fund earnings in the Decommissioning Fund.

OPG's contributions to the Used Fuel Fund or to the Decommissioning Fund are deductible under the proxy tax regime. In addition, investment income earned on these funds is exempt from both proxy income tax and taxes payable under the *Income Tax Act* (Canada) and the *Taxation Act, 2007* (Ontario). If the investment income earned on these funds is deemed taxable, OPG will bear the entire additional cost of the tax and its required contributions to the funds would increase accordingly. For additional details, see *Interest of Management and Others in Material Transactions* and *Risk Factors – Nuclear Waste Obligations*.

Changes to the estimated level of contribution to the funds will depend on any changes to the reference plans and associated cost estimates and tax treatment. OPG's required contributions could increase, for example, if cost estimates increased, if the operating life of the nuclear stations decreased, if the income earned in the funds became subject to tax, or if the NWMO is unable to receive the same sales tax treatment that OPG would be entitled to receive if the NWMO had not been established (see *Interest of Management and Others in Material Transactions – Taxation of Provisions for Future Nuclear Related Costs*). Under the ONFA, payments to the funds are recalculated each time there is a new approved or amended reference plan and in certain other events. Any new reference plan must be approved by the Province. Reference plans are required to be prepared at least every five years and more frequently if required, or if there is an underlying change in the assumptions of the reference plan that both OPG and the Province agree are significant enough to "trigger" a recalculation of the contribution levels during the five-year period. OPG submitted the final contribution profile, based on the approved 2012 ONFA Reference Plan, to the Province in October 2012 for review. In December 2012, the Province approved the contribution profile.

In the case of the Bruce A and Bruce B nuclear generating stations leased to Bruce Power, OPG has the long-term responsibility for the managed storage of used nuclear fuel and of the L&ILW generated by Bruce Power, and for the future decommissioning of the generating stations. Funding of these obligations on the part of OPG is recovered from Bruce Power through annual rent payments and through volume based payments in the case of L&ILW.

Provincial Guarantee

The CNSC requires obligations for nuclear waste and decommissioning to be subject to financial guarantees. Under the ONFA, the Province provides a guarantee to the CNSC in relation to OPG's obligations. The provincial guarantee bridges the shortfall between OPG's financial guarantee to the CNSC for long-term liabilities associated with nuclear waste and decommissioning, and the value of the Used Fuel Fund and the Decommissioning Fund. The CNSC process requires a reference plan to be set once every five years and for OPG to provide an annual report to the CNSC on the assumptions, asset values, and resulting financial guarantee requirements. The CNSC calculations differ slightly from the ONFA Reference Plan calculations as they calculate a shutdown obligation that does not take into account future waste generation. In December 2012, the CNSC approved OPG's proposed 2013 - 2017 CNSC Financial Guarantee requirement resulting in a Provincial Guarantee amount of $1,551 million for the 2013 - 2017 period. In each of January 2013 and 2014, OPG paid a guarantee fee of $8 million based on a Provincial Guarantee amount of $1,551 million.

For further details, see *Balance Sheet Highlights* in the Company's 2013 MD&A.

Other

Brighton Beach Power Venture

OPG has a 49.95 percent partnership interest in Brighton Beach Power L.P. (Brighton Beach LP), a limited partnership formed with ATCO Power Canada Ltd. (49.95 percent) and the general partner of the partnership, Brighton Beach Power Ltd. (0.1 percent). The shareholders of Brighton Beach Power Ltd.

are OPG (50 percent) and ATCO Power Canada Ltd. (50 percent). Brighton Beach LP is a 580 MW combined cycle gas turbine electricity generating facility on the site of the former J.C. Keith Generating Station site in Windsor, Ontario. The station started commercial operation in July 2004. Brighton Beach LP operates under a tolling arrangement with Shell Energy North America (Canada) Inc. (Shell Energy) under which Shell Energy owns and trades the electricity produced by the facility in return for the supply of gas and the fees payable under a tolling agreement. Shell Energy's financial obligations are guaranteed by Shell Energy North America (U.S.), L.P. (Shell L.P.) and Shell L.P.'s obligations are in turn guaranteed by Shell Oil Company.

Portlands Energy Centre Venture

OPG has a 49.95 percent partnership interest in Portlands Energy Centre L.P. (Portlands), a limited partnership formed with TransCanada Energy Ltd. (49.95 percent) and the general partner of the partnership, Portlands Energy Centre Inc. (0.1 percent). The shareholders of Portlands Energy Centre Inc. are OPG (50 percent) and TransCanada Energy Ltd. (50 percent). Portlands is a 550 MW combined cycle co-generation natural gas turbine electricity generating facility on the former R. L. Hearn Generating Station site in the port area of downtown Toronto. The station was declared in-service in a combined cycle mode in April 2009. Portlands is operating under an Accelerated Clean Energy Supply contract with the OPA and trades electricity in the Ontario electricity market.

Energy Trading Activities

OPG is engaged in wholesale energy trading activities for the purpose of generating incremental revenues. This activity includes physical and financial trading of power. Physical trading of power is limited to within Canada and the interconnection points between Canada and neighbouring markets. A wholly owned Canadian subsidiary of OPG is engaged in US-based wholesale energy trading activities in the U.S. northeast.

New Generation Development

New Nuclear Units

In the 2013 Long-Term Energy Plan, the Government of Ontario indicated that it will not proceed at this time with the construction of two new nuclear reactors at the Darlington site. However, the Ministry of Energy will work with OPG to maintain the site preparation licence granted by the CNSC. As such, OPG is undertaking activities required to support the EA and the existing licence.

Prior to the issuance of the 2013 Long-Term Energy Plan, the Government of Ontario had included the procurement of new nuclear units at Darlington in its February 2011 Supply Mix Directive to the OPA.

From 2009 to 2012, the EA for new nuclear units at the Darlington site was considered by a JRP, including public review of the materials submitted by OPG and a public hearing. The JRP reported to the federal Minister of the Environment that the construction and operation of additional new nuclear units was not likely to result in a significant adverse environmental effect, given mitigation. In May 2012, the federal government approved the Darlington New Nuclear Project EA. The assessment was subsequently challenged by way of judicial review in the Federal Court of Canada on the grounds that the JRP report failed to comply with requirements of the *Canadian Environmental Assessment Act*, and that the hearing deprived the applicants of certain procedural rights. The judicial review hearing was held in November 2013. A decision is expected in 2014.

In August 2012, the CNSC approved the application for the Power Reactor Site Preparation Licence for the new nuclear units at Darlington. Subsequently, a notice of application for a judicial review of the Power Reactor Site Preparation Licence was filed by third parties on the grounds that the CNSC's issuance of the licence is invalid and does not comply with requirements of the *Canadian Environmental Assessment Act*. This application was heard in November 2013 along with the judicial review of the EA decision. A decision is expected in 2014.

In 2012, OPG entered into service agreements with Westinghouse and SNC Lavalin/CANDU Energy to prepare construction plans, schedules, and cost estimates for potential new nuclear units at Darlington. Submissions from the two vendors were provided to a review team consisting of representatives from OPG, the Ministry of Energy, the Ministry of Finance, and Infrastructure Ontario in June 2013. The preliminary results of the submission assessment were subsequently provided to the Ministry of Energy in September 2013 and the final results in November 2013.

Hydroelectric Expansion and Development

OPG has initiated the following new hydroelectric generation initiatives in order to enhance OPG's sustainable energy component.

Niagara Tunnel

The total flow of water available to the Sir Adam Beck generating stations, pursuant to treaties between Canada and the U.S., had exceeded the combined capacities of OPG's existing water diversion facilities (the Sir Adam Beck power canal and two tunnels) about 65 percent of the time. To capitalize on this potential, a third tunnel was constructed to divert additional water from the Niagara River to the Sir Adam Beck generating stations. With the Niagara Tunnel now in operation, available Niagara River flow exceeds OPG's diversion capability only about 15 percent of the time.

In March 2013, the 10.2 kilometre tunnel was filled with water and declared in-service, approximately nine months ahead of the approved project completion date of December 2013. The tunnel provides an additional water diversion capacity of approximately 500 cubic metres per second and will increase annual generation from the Sir Adam Beck generating stations by an average of approximately 1.5 TWh, depending on water flow.

Total costs of the project after closure activities are expected to be below $1.5 billion, compared to the approved budget of $1.6 billion. The project budget of $1.6 billion includes the design-build contract with incentives and disincentives, as well as contingencies, interest, and other OPG costs, including project management and contract management.

Lower Mattagami

Construction activities on the Lower Mattagami River project commenced in June 2010 to add one additional generating unit at each of the existing Little Long, Harmon, and Kipling generating stations and replace the existing generating station at the Smoky Falls site with a new three-unit station. The project will increase the generating capacity of the four stations on the Lower Mattagami River by 438 MW. Annual electricity generation is expected to increase by 0.9 TWh to 3.2 TWh.

The incremental unit at the Little Long generating station was declared in-service on January 19, 2014, ahead of its original target completion date of February 2014. This is the first incremental unit to be completed on the project. At the Harmon site, construction was substantially completed during the fourth quarter of 2013 and the commissioning process has commenced. The incremental unit at the Harmon generating station is expected to be declared in-service during the second quarter of 2014.

In December 2012, there was a breach in one section of the installed cofferdam at the Kipling site. OPG finalized and successfully executed a remediation plan regarding the breach and construction resumed at the site in May 2013. Construction continues at the Smoky Falls and Kipling sites, with commissioning operations expected to commence at both sites during the latter half of 2014.

The project budget of $2.6 billion includes the design-build contract, as well as contingencies, interest, and other OPG costs, including project management, contract management, impact agreements with First Nations, and transmission connection costs. Life-to-date expenditures were $1,982 million as at December 31, 2013. The project is expected to be completed within the approved budget of $2.6 billion.

New Post Creek

In June 2013, the Minister of Energy directed the OPA to negotiate a power purchase agreement for the proposed 25 MW New Post Creek hydroelectric GS. The public review period for the EA closed in January 2014. OPG and Coral Rapids Power L.P. are in the process of addressing the comments received during the review period to complete the assessment process.

Thermal Development

OPG has initiated the following thermal generation initiative in order to enhance OPG's sustainable energy component.

Atikokan Conversion

OPG is in the process of converting the Atikokan generating station from coal to biomass fuel. In 2012, OPG and the OPA executed the Atikokan Biomass ESA. The converted station is expected to have a capacity of 200 MW and will provide renewable electricity generation from a sustainable fuel recognized as beneficial to climate change mitigation. The Atikokan generating station will be the largest 100 percent biomass-fueled power plant in North America and will generate renewable, dispatchable, peak capacity power. The project includes plant modifications to provide peak capacity and the construction of a fuel storage and handling system capable of sustaining full load. The ESA includes a provision for purchasing 90,000 tonnes of biomass fuel annually, which equates to approximately 140 GWh. During 2013, construction of two storage silos was completed. In addition, all 15 redesigned burners were installed and commissioning of the combustion systems began. The life-to-date capital expenditures were $144 million as at December 31, 2013. The conversion project has an approved budget of $170 million and is expected to be completed by August 2014.

People and Culture

OPG expects to meet the human resource needs of the business by leveraging attrition through realigning work and streamlining processes. OPG is also focusing on the communication and implementation of OPG's values and expected behaviours from its employees in order to bring about a corporate culture change.

While balancing the need to leverage attrition, OPG continues to focus on succession planning, leadership development, and knowledge retention programs to improve the capability of its workforce. OPG expects to develop and acquire talent as is necessary to continue to drive change and build leadership bench strength. OPG has an active succession planning program and continues to implement leadership development programs across the organization. OPG has embarked upon an organization-wide workforce planning effort and has established ongoing monitoring processes to re-assess risks, issues, and opportunities related to staffing on a regular basis.

As of December 31, 2013, OPG had approximately 10,270 full-time employees and approximately 800 seasonal, casual construction, contract, and non-regular staff. The majority of OPG's full-time employees are represented by two unions:

- The PWU, representing approximately 6,000 employees
- The Society, representing approximately 3,200 employees.

Power Workers' Union

The PWU represents 58 percent of OPG's regular workforce. Union membership includes most workers beneath the level of first line manager – from clerical staff to technicians and trades staff and station operators. The current collective agreement between OPG and the PWU has a three-year term, which expires on March 31, 2015.

The Society of Energy Professionals

The Society represents 31 percent of OPG's regular workforce. Union membership includes supervisors, professional engineers, scientists, and professionals. The Company's most recent collective agreement with The Society was established through an arbitration award issued on April 8, 2013. This collective agreement between OPG and The Society has a three-year term, which expires on December 31, 2015. The Society filed a Judicial Review Application in the second quarter of 2013 to the Superior Court of Ontario in the matter of the arbitration award. The case is expected to be heard in late 2014.

Construction Unions

In addition to the regular workforce, construction work is performed through 20 craft unions with established bargaining rights on OPG generating facilities. These bargaining rights are either through the Electrical Power Systems Construction Association (EPSCA) or directly with OPG. Collective agreements between the Company and its construction unions are negotiated either directly or through EPSCA. A common expiry date for a number of the EPSCA agreements is April 30, 2015.

There are currently two direct trade agreements at OPG. These single trade agreements are with the Canadian Union of Skilled Workers and the Brick and Allied Craft Union.

There are currently 18 agreements under EPSCA covering work performed by OPG. EPSCA is a voluntary association of owners and contractors who perform work in the electrical power systems sector. EPSCA was formed in 1972, with the primary purpose of negotiating and administrating collective agreements on behalf of employers performing work on what is now OPG property.

Health and Safety

Occupational Health and Safety

OPG is committed to achieving excellent safety performance and striving for continuous improvement with the ultimate goal of zero injuries. Safety performance is measured using two primary indicators:

- Accident Severity Rate (ASR)
- All Injury Rate (AIR).

Overall, OPG's safety performance is consistently one of the best amongst its comparator Canadian electrical utilities, with OPG achieving in 2011 the lowest ASR and AIR in its history. OPG is a member of the CEA Group 1 classification of participating utilities, which consist of 13 utilities with greater than 1,500 employees. The Canadian Electricity Association (CEA) has recognized OPG for its 2011 and 2012 ranking within the top quartile of its comparator group. Based on strong safety performance in 2013, it is expected that OPG will continue to be one of the best amongst its comparator Canadian electrical utilities.

OPG remains steadfast in its commitment to safety excellence, sustaining a strong safety culture and continuous improvement in safety management systems. In 2013, OPG completed the development work on an integrated health and safety management system and operational risk control procedures. This initiative is in alignment with OPG's business transformation objective. The initiative was achieved through leveraging best practices across OPG, streamlining safety governance, and standardizing safety requirements across the corporation.

Situational awareness, which involves assessing and controlling hazards associated with changing or unexpected conditions at the work site, was integrated into the work practices as a key area of improvement in 2012. Key deliverables in this cultural improvement initiative in 2013 included clear expectations from leadership and a comprehensive communication campaign to increase knowledge and

skills. Business leaders challenged employees to focus on situational awareness by assessing and controlling hazards associated with changing or unexpected conditions at the work site.

Oversight and reporting by corporate and site safety functions provides senior management with regular information on the effectiveness of the safety management efforts, compliance to legal and corporate requirements, and safety performance trends. Oversight activities include internal audits and assessments on specific operational risks. OPG also has a rigorous incident management system, which requires that all incidents, including near misses, be reported and investigated, and that corrective action plans are developed and completed to ensure that reoccurrences are prevented.

OPG's contractors are also expected to maintain a level of safety equivalent to that of OPG's employees. Since 2005, OPG's AIR for construction contractors has compared favourably against the Ontario construction industry as measured by the Infrastructure Health and Safety Association. In 2013, OPG retained the services of a third party service provider to strengthen the rigour of the evaluation of contractors' safety programs before they are considered eligible to work on OPG sites.

Nuclear Radiation Safety

OPG manages a radiation protection program designed to minimize detrimental health effects to employees and members of the public. OPG follows developments in the field of radiation protection as documented by the International Commission on Radiological Protection (ICRP), the United Nations Scientific Committee on the Effects of Atomic Radiation, and the U.S. National Council on Radiation Protection and Measurements. The ICRP is widely recognized as the main source of expert advice regarding protection from the harmful effects of ionizing radiation. This agency periodically issues recommendations concerning principles of radiation protection. The recommendations of the ICRP are usually adopted without significant change by most countries and are incorporated into their laws. In Canada, the CNSC is the federal agency that regulates radiation protection. The Canadian Radiation Protection Regulations are based on the recommendations of the ICRP. OPG's nuclear facilities conform to these regulations.

Radiation exposures to station personnel and the public are limited by station design and by adherence to approved operating procedures. Over the years, OPG has been a leader in the application of the principles of keeping radiation doses as low as reasonably achievable. OPG's internal operating limits for occupational exposure are set below regulatory limits to ensure that regulatory limits are not exceeded. Operating targets for radiological emissions are even more restrictive and are typically small fractions of the regulatory limits.

As a condition of receiving operating licences for its nuclear facilities, OPG has developed comprehensive emergency plans which detail its planned response to reactor accidents, as well as accidents involving the transportation of radioactive materials. These plans dictate how OPG will work with municipal, regional, provincial, and federal agencies to safeguard station personnel and members of the public in the unlikely event of a radiation emergency at one of OPG's facilities. Station staff is required to regularly participate in emergency exercises to maintain their skills and to continuously improve response capability for such events.

Waterways Public Safety

See *Description of the Business – Generation Operations – Hydroelectric – Dam Safety and Waterways Public Safety Programs*.

Environment

OPG is committed to meeting all legal requirements and any environmental commitments that it makes, with the objective of exceeding these legal requirements where it makes business sense.

Additional information on OPG's environmental performance and initiatives is included in the *Sustainable Development Report,* which is available on the Company's website at www.opg.com.

For additional details, see *Regulation – Environmental Matters*.

Intellectual Property

In connection with the reorganization of Ontario Hydro, Ontario Hydro's patents and certain other transferable intellectual property assets, including trade-marks, copyrights, and industrial design and technical information were transferred to certain successor corporations, including OPG. Certain of the intellectual property assets of OPG have, in turn, been licensed by OPG to Hydro One, the Electrical Safety Authority, and other entities. Licences of intellectual property assets among OPG, Hydro One and the Electrical Safety Authority are generally non-exclusive, royalty free, perpetual, and cannot be terminated without the written consent of the other party.

Insurance

The principal types of discretionary insurance carried by OPG include directors' and officers' liability, excess commercial general liability, all risks property, boiler and machinery breakdown, including statutory boiler and pressure vessel inspections and business interruption. In addition to covering OPG's non-nuclear facilities, this insurance applies to the conventional operations at OPG's nuclear generating stations. OPG also maintains nuclear property, including nuclear boiler and machinery breakdown insurance, for damage to the nuclear portions of its generating stations, and for perils propagating from the nuclear to conventional side assets. This coverage also complements the conventional property insurance program.

OPG purchases insurance coverage as required by statute, namely owned and leased motor vehicle liability and nuclear energy liability. The *Nuclear Liability Act* (Canada) (NLA), requires that OPG maintain $75 million per incident of nuclear energy liability insurance for each of its nuclear installations (Pickering Nuclear GS and Darlington Nuclear GS) as defined by the NLA (Pickering Units 1 - 4 and Units 5 - 8 are considered to be one nuclear installation under the Act), for which there is no deductible amount. In January 2014, the federal government introduced Bill C-22 which contains a new *Nuclear Liability and Compensation Act*. When passed, Bill C-22 would increase the nuclear liability limit from $75 million to an initial $650 million with successive annual increases to $750 million, $850 million and finally to $1 billion. For additional details, see *Regulation – Nuclear Regulation*.

OPG believes and has been advised by insurance professionals that the coverages, amounts, and terms of its insurance agreements are consistent with prudent Canadian industry practice.

REGULATION

Ontario Electricity Regulation

The prices for most of OPG's baseload hydroelectric generation and all of its nuclear generation are regulated by the OEB pursuant to the *Ontario Energy Board Act, 1998* and specifically *Ontario Regulation 53/05*. This OEB regulated generation comprises all electricity generated from the prescribed facilities.

The electricity generation from OPG's other generating assets remains unregulated and continues to receive the Ontario electricity spot market price, except where a support agreement or ESA is in place. In November 2013, the Province amended *Ontario Regulation 53/05* to prescribe 48 of OPG's unregulated hydroelectric generating facilities, effective July 1, 2014. The amended regulation requires the OEB to establish the prices received for the production from these facilities, in addition to the currently prescribed facilities.

Further details related to OPG's regulated prices and its application to the OEB are discussed under the heading *General Development of the Business – General Developments*.

In June 2013, the Court of Appeal for Ontario granted OPG's appeal of the Divisional Court of Ontario's decision regarding the March 2011 OEB ruling, which disallowed recovery in regulated prices of a portion of OPG's nuclear compensation costs. As a result, the OEB's decision in this area was set aside and the matter was to be sent back to the OEB for a re-hearing. In the third quarter of 2013, the OEB sought leave to appeal the decision to the Supreme Court of Canada. In October 2013, OPG made a submission on the matter. It is expected that the Supreme Court of Canada will decide whether leave is granted in early 2014.

Nuclear Regulation

The NSCA establishes the mandate and authority of the CNSC to make regulations governing all aspects of the development and application of nuclear energy. The NSCA grants to the CNSC the power to act as a court of record, the right to make regulations, to require financial guarantees for nuclear waste management and nuclear facility decommissioning as a condition of granting a licence, order-making powers, and the right to impose monetary penalties for licence infractions. The NSCA also grants the CNSC the power to require periodic re-certification of nuclear operators and to set requirements for various nuclear facility security measures. It also provides for regulatory authority over environmental matters, including a requirement that licence applicants make adequate provision for the protection of the environment. The NSCA grants the CNSC licensing authority for all nuclear activities in Canada, including the issuance of new licences to new operators, the renewal of existing licences, and amendments to existing licences.

A fundamental principle in nuclear regulation is that the licensee bears the responsibility for safe operation, with the CNSC setting safety objectives in areas such as radiation protection and physical security for all nuclear generating stations and the transport of radioactive materials. The CNSC verifies compliance with the licence it issues and performs audits and inspections of the licensee's performance against the objectives. The CNSC has also issued guidance documents to assist licensees in complying with regulatory requirements. Requirements specified in these guidance documents have been incorporated into the design and operating documents for OPG's nuclear generating stations.

The NLA imposes absolute liability on a licenced operator of a nuclear generating station for any damage to property of, or personal injury to, the public arising from a nuclear incident, other than damage resulting from sabotage or acts of war. As such, the NLA protects suppliers of nuclear fuel and components used in nuclear reactors.

The NLA requires all operators of nuclear generating stations in Canada to purchase nuclear liability insurance from a federal government approved insurer in specified amounts. Currently, the NLA requires a nuclear operator to maintain, for each of its nuclear installations, insurance up to a limit of $75 million per incident against the liability imposed under the NLA. Under Part I of the NLA, an operator is liable for all damages resulting from a nuclear incident. If in the opinion of the Governor in Council, an operator's liability could exceed $75 million in respect of a nuclear incident, or it would be in the public interest to do so, the Governor in Council must proclaim Part II of the NLA as applicable in respect of a nuclear incident. Under Part II of the NLA, an operator's liability would be effectively limited to the amount of such insurance and the Governor in Council may authorize additional funds to be paid by the federal government as may be specified in an order. In January 2014, the federal government introduced Bill C-22 which contains a new *Nuclear Liability and Compensation Act*. When passed, Bill C-22 would increase the nuclear liability limit from $75 million to an initial $650 million with successive annual increases to $750 million, $850 million and finally to $1 billion.

Since the regulation of nuclear energy could have transboundary impacts, Canada has become a signatory to various international conventions relating to nuclear energy and emergency responses and is bound by conventions that it has ratified. In addition, the CNSC has a bilateral information exchange and co-operation agreement with the U.S. Nuclear Regulatory Commission, which provides among other

things, for the prompt, reciprocal notification of reactor safety problems that could affect both U.S. and Canadian nuclear generation facilities.

All of OPG's nuclear power reactor operating licences and waste facility licences are current and up to date. The Pickering Nuclear GS received a five-year licence renewal in August 2013. The Darlington Nuclear GS licence will expire on December 31, 2014; OPG received a 22-month licence renewal for the Darlington Nuclear GS licence to allow time to complete the necessary refurbishment planning studies. In December 2013, OPG submitted an application for a licence renewal that will cover the refurbishment period. The CNSC hearing is scheduled for 2014. OPG also has a 10-year site preparation licence for new nuclear units at the Darlington site which will expire on August 17, 2022.

For additional details, see *Description of the Business – Generation Operations – Nuclear*, *Description of the Business – Nuclear Waste Management* and *Interest of Management and Others in Material Transactions – Taxation of Provisions for Future Nuclear Related Costs.*

Regulation of Water Rights

OPG's management of available water resources directly affects its ability to maximize generation, efficiency, and ultimately its return on investment. However, the watersheds on which OPG's hydroelectric generating facilities are located are shared by many users and are subject to various governance requirements, such as international, federal, and provincial treaties, agreements, water power leases, and regulations. Accordingly, OPG must balance the economic, environmental, social, and legal requirements associated with the watersheds when utilizing water to optimize electricity generation.

In addition, the current provincial regulatory framework requires the development of Water Management Plans (WMP) for all watersheds and rivers in Ontario except international rivers, inter-provincial rivers, or rivers under federal jurisdiction. While WMPs generally have ten year review terms, they may be subject to change as certain conditions change or new data becomes available. A major component of each WMP is the documentation of an "operating plan" for each site on the river. These plans include any limitations on flows and elevations.

International Rivers

Six of OPG's hydroelectric generating stations are directly or indirectly supplied by two major international waterways, the Niagara River and the St. Lawrence River, and are subject to treaties with the U.S. relating to water use. These stations represent approximately 47 percent of OPG's in-service hydroelectric capacity.

Through a series of agreements between the Government of Canada and the Province, and certain federal and provincial laws, OPG has been granted the right to exercise Canada's rights with respect to the construction, maintenance, and operation of generating facilities under the *Boundary Waters Treaty of 1909* and the *Niagara Diversion Treaty of 1950*. Both of these treaties continue in perpetuity but are terminable by either party with 12 months prior written notice. Given the significant importance of these treaties, OPG does not expect Canada or the U.S. to exercise their respective termination rights in the foreseeable future.

While the *Niagara Parks Act* (Ontario) gives the Niagara Parks Commission the authority to grant certain rights to use the waters of the Niagara River for purposes of power generation, by agreement with OPG, the Niagara Parks Commission has agreed not to grant any rights to third parties until after 2056.

The DeCew Falls generating stations use water that is transported along the Welland Canal from Lake Erie by the St. Lawrence Seaway Management Corporation under an agreement between OPG and the St. Lawrence Seaway Management Corporation. The agreement has been renewed through June 30, 2038.

The Province has granted OPG the right to use water from the International Rapids section of the St. Lawrence River for power generation at the R.H. Saunders generating station, subject to an agreement between Canada and the Province. Canada has the right, upon notice and after unsuccessful arbitration, to take over the operation of and title to the R.H. Saunders generating station in the event of a breach of the agreement by the Province.

Interprovincial Rivers

Four of OPG's hydroelectric stations are located on the Ottawa River, which forms part of the Ontario-Québec border. Three of OPG's Ottawa River stations are subject to 999-year leases with each of the Provinces of Ontario and Québec. The fourth is subject to a water power lease with the Province, which is renewable, subject to certain conditions, through to 2031. OPG's use of water from the Ottawa River basin is subject to guidelines established by the Ottawa River Regulations Planning Board, comprised of government and industry representatives. These four stations represent approximately 13 percent of OPG's in-service hydroelectric generating capacity.

Interior Rivers

Fifty-five of OPG's 65 hydroelectric stations, representing approximately 40 percent of OPG's in-service hydroelectric capacity are located on 20 other Ontario river systems. OPG holds water power leases, Crown leases and licences with the Province on the river systems that supply 37 of these stations. These leases and licences have expiry dates, including renewals, ranging between 2023 and 2075. Certain of these leases provide that the leased property and any fixed improvements, including the generating stations and the dams, will revert to the Province on the expiry of the lease. Eight of these stations are located on the Trent and Rideau Canals and are operated pursuant to licences from the federal government. Ten stations are not subject to leases or licences.

OPG's use of Ontario's interior watersheds is constrained by restrictions contained in certain water power leases and licences. OPG also operates within formal WMPs under the *Lakes and Rivers Improvement Act* (Ontario), established on a watershed basis in consultation with the MNR, federal fisheries authorities, and stakeholders, such as recreational and commercial users, local communities, environmental groups, and First Nations and Métis groups.

The operations of certain OPG stations in Northwestern Ontario can impact users in Manitoba and are subject to guidelines and directions provided by the Lake of the Woods Control Board, which is comprised of Ontario, Manitoba, and federal government representatives.

Dams and Waterways

In Canada, dams come under the jurisdiction of the provinces, with the exception of dams situated in boundary waters, canals, and those owned by the Government of Canada. The majority of OPG's dams fall within the jurisdiction of the Province, with approximately 20 dams associated with OPG's unregulated facilities falling within the jurisdiction of the Province of Québec, and 13 dams associated with the Trent-Severn and Rideau Canals/Waterways falling under federal jurisdiction. The International Joint Commission has an oversight role in regards to dams and associated works on boundary waters, including the St. Lawrence and Niagara Rivers.

The Province regulates dams under the *Lakes and Rivers Improvement Act,* administered by the MNR. The *Lakes and Rivers Improvement Act* requires MNR approval for activities such as the construction, alteration, improvement, or repair of dams.

In August 2011, the MNR published a revised set of Technical Guidelines following a period of public consultation. OPG was an active participant in developing the Technical Guidelines through the MNR's *Lakes and Rivers Improvement Act – Advisory Panel*. These Technical Guidelines represent the government standards for dam safety. In general, OPG practices in the area of Dam Safety and Public Safety Around Dams would exceed the minimum requirements outlined in the MNR Technical Guidelines

and, as such, OPG does not anticipate that major capital expenditures above those required by the implementation of OPG's Dam Safety Program will be required as a direct result of these Technical Guidelines.

Currently, there is no federal or provincial regulation with respect to public safety around dams that addresses dam public safety issues relating to changes in operating water levels, discharges from the hydroelectric or dam facilities, and other waterways-based hazards posed by the facilities. The *Navigable Waters Protection Act* (Canada) does, however, require OPG to obtain approvals for the installation of all in-water works, such as safety booms and buoys associated with the OPG Waterways Public Safety Program. For additional details, see *Description of the Business – Generation Operations – Hydroelectric – Dam Safety and Waterways Public Safety Programs*.

Environmental Matters

Overview

In December 2012, OPG's Board of Directors approved a revision to OPG's Environmental Policy. The policy states that OPG will meet all legal requirements and any voluntary environmental commitments that it makes, with the objective of exceeding these legal requirements where it makes business sense.

The policy commits OPG to a number of requirements, including:

- Establishing an environmental management system (EMS) and maintaining registration for this system to the ISO 14001 EMS standard
- Working to prevent or mitigate adverse effects on the environment with a long-term objective of continual improvement in its EMS and its environmental performance
- Managing its sites in a manner that strives to maintain or enhance, where it makes business sense, significant natural areas and associated species of concern. OPG will work with its community partners to support regional ecosystems and biodiversity through science-based habitat stewardship. Where disruption is required, OPG shall take reasonable steps to manage the residual impact to these areas and species
- Setting environmental performance targets and monitoring performance against these targets
- Communicating OPG's environmental performance results openly.

OPG's President and Chief Executive Officer remains accountable for the requirements set out in the Environmental Policy. The policy is reviewed regularly as part of the Management Review of the EMS to ensure that it remains relevant and appropriate to the nature, scale, and environmental impacts of OPG's activities. The Environmental Policy is implemented through the OPG ISO 14001 certified EMS. As a result of a successful audit completed during 2013, OPG achieved recommendation for ISO 14001 registration of a single OPG-wide EMS. This EMS replaced the multiple EMSs in place across the Company.

For details of OPG's environmental performance and further initiatives to fulfil the Company's Environmental Policy, see OPG's *Sustainable Development Report,* which is available on the Company's website at www.opg.com.

OPG's activities have the potential to impair natural habitat, damage aquatic or terrestrial plant and wildlife, or cause contamination to land or water that may require remediation and are therefore subject to extensive regulation. OPG monitors emissions into the air and water and regularly reports the results to various regulators, including the Ministry of Environment, Environment Canada, and the CNSC. OPG has implemented internal monitoring, assessment, and reporting programs to manage environmental risks such as air and water emissions, discharges, spills, radioactive emissions, and radioactive wastes.

In addition to the regular reports made to various regulators, the public receives frequent communications from OPG regarding OPG's environmental performance through community-based advisory groups representing communities surrounding OPG's major generating stations, annual sustainable development

and environmental performance reports, community newsletters, open houses, and the Company's website.

The generation of electricity can also directly and indirectly contribute to ecosystem stresses and potential biodiversity losses, for example, through the loss and fragmentation of terrestrial habitat, the modification of water flow regimes, or the interference with migratory species. In recognition of such potential impacts, OPG has implemented a Biodiversity program on a regional basis with the goal of demonstrating that electricity generation can co-exist with nature, without causing or contributing to the long-term decline of species or the habitats upon which they depend.

Air

In August 2007, the Province adopted *Ontario Regulation 496/07* which requires OPG to end the use of coal to generate electricity by December 31, 2014. In May 2008, the Province announced annual targets for CO_2 emissions from OPG coal-fired generating stations and issued a Shareholder declaration and a Shareholder resolution regarding CO_2 emissions. In May 2010, the Province issued an additional Shareholder declaration and Shareholder resolution directing OPG to develop a strategy to meet, on a forecast basis, targets of CO_2 emissions arising from the use of coal of 11.5 million tonnes per year for the period 2011 to 2014. In 2013, generation from OPG's coal-fired stations of 3.2 TWh was significantly less than that permitted under the regulation. With ceased operation of the remaining coal-fired units at the Nanticoke and Lambton generating stations in 2013, as mandated by the Ministry of Energy, forecast coal-fired generation for 2014 will be limited to minor generation from the Thunder Bay GS.

OPG may also be subject to additional GHG regulation arising from federal and provincial initiatives under development. As a result of the Province's regulation ceasing coal-fired generation, OPG is positioned to significantly reduce its emissions of GHG from coal and related regulatory risk.

Greenhouse Gas Regulation – Federal

While the Federal Government passed the *Reduction of Carbon Dioxide from Coal-fired Generation of Electricity Regulations* in 2012, it is not expected to impact OPG as the Lambton and Nanticoke generating stations ceased operations in 2013. Starting July 1, 2015, the new federal regulations will impose a yearly emission intensity limit of 420 Mg CO_2/GWh for coal-burning units that have reached the end of their useful life. To meet this limit, a coal-fired unit would have to be fitted with carbon-capture-and-storage technology or co-fire biomass at very high rates. This requirement is not expected to impair OPG's ability to convert coal units to burn biomass or natural gas.

In July 2013, Environment Canada released a working document describing how they plan to regulate natural gas-fired electricity generation. The planned regulation would set a GHG emissions rate standard that could be met by a combined cycle gas turbine. There is no expectation that the regulation will directly set a price for GHG emissions. The regulation would apply to gas turbines as well as gas-fired boilers, including former coal-fired boilers converted to fire natural gas. If converted, OPG's boilers would not meet the proposed standard. The timing for a final regulation is uncertain.

Greenhouse Gas Regulation – Provincial

In January 2013, the Ontario Ministry of the Environment released a discussion paper entitled Greenhouse Gas Emission Reductions in Ontario. The discussion paper initiated consultation on key elements of a provincial GHG emission reduction plan. OPG provided comments on the discussion paper to the Ministry of the Environment in April 2013. Current provincial regulations require facilities that emit 25,000 Mg or more of CO_2-equivalent emissions to monitor, measure, and report emissions. At this time, OPG's CO_2 emissions from the coal-fired units are well below established provisional targets. OPG will comply with the requirements. The Company will also continue to monitor developments of the provincial GHG emission reduction plan.

Thermal Operations

Historically, air emissions resulting from the operation of OPG's coal-fuelled generating assets have been managed through the use of lower sulphur fuels, installation of emission control technologies, and good operating practices. The Minister of Energy's announcement to advance the date to cease operation of coal-fired units at the Lambton and Nanticoke generating stations in 2013, the Province's regulation to cease burning coal by the end of 2014, and the Shareholder declarations to reduce CO_2 emissions in the interim period limit the amount of energy that will be produced by coal-fired generation assets. This results in significant reductions of all emissions to air, including NOx, SO_2, and CO_2, as well as mercury, reductions in water emissions, and reductions in the quantity of coal fly-ash produced. Coal ash produced at the thermal plants is shipped off-site for beneficial reuse such as cement manufacturing or is placed in ash disposal sites located on the generating site property. The ash disposal sites are operated in accordance with the terms and conditions of approvals issued by the Ministry of Environment.

Existing air emission control devices are expected to be maintained in good operating condition and the units will be operated in the most efficient manner given their operating pattern. With the expected reduction in coal-fired generation, there are no additional capital investments identified specifically for the control of air emissions.

With a view to leveraging the infrastructure of the coal-fired generating stations post-2014, assessments, detailed engineering, and construction for conversion of some coal-fired units to burn natural gas, biomass, and/or a combination of biomass and natural gas are currently underway. Biomass is recognized as a source of renewable electricity generation and as a climate change mitigation option. The use of these fuels also reduces other emissions of concern. The studies currently focus on:

- Managing the technical, including safety, aspects associated with unit conversions and operating on a new fuel source
- Developing a fuel delivery infrastructure including a reliable biomass supply chain
- Developing an adequate cost recovery mechanism for capital and ongoing costs
- Reviewing proposals through a public consultation process.

For further details on OPG's unit conversion, refer to the following section *Description of the Business – Generation Operations – Thermal – Conversion of Coal-Fired Units*.

Nuclear Operations

As a condition of licensing, all nuclear operations are equipped with radiation emission monitors to ensure that emissions are below regulated limits. All nuclear operating licences stipulate derived release limits that are the maximum rates at which radionuclides may be emitted to the air or water from each nuclear site. These derived release limits are site-specific and approved by the CNSC. Since being commissioned, radiological air emissions from OPG's nuclear facilities have remained a small fraction of the regulatory limit.

OPG reports annually on the results of its radiological environmental monitoring programs at each nuclear generating station by estimating the radiation exposure resulting from the operations of each nuclear facility to the most impacted critical group of persons who live and/or work in the vicinity of the plant. This estimated dose has consistently been a small fraction of the regulatory limit for public dose set by the CNSC. The results of these monitoring programs are reported on an annual basis to the CNSC, the Ministry of Environment, and the municipalities in which the nuclear stations are located.

Water

OPG is required to comply with federal, provincial, and municipal water quality and quantity regulations in connection with the use of water and the discharge of condenser cooling water and other water effluents from OPG's generating stations.

Nuclear and Thermal Operations

OPG has implemented programs to manage the water effluent from its nuclear and thermal generating stations and is in material compliance with *Ontario Regulation 215/95 Effluent Monitoring and Effluent Limits – Electric Power Generation Sector* and terms and conditions identified in Certificates of Approval issued by the Ministry of Environment. Any incidents of non-compliance are reported to regulatory authorities and are thoroughly investigated to determine the root cause. Corrective action plans are developed accordingly.

OPG's generating facilities can impact fish in a variety of ways. The intake of cooling water at nuclear and thermal stations and water flowing through hydroelectric stations may result in fish impingement and entrainment, and physical barriers such as dams may prevent migration. OPG uses operational controls such as fish ladders, nets, deterrent structures, and stocking programs to manage these impacts.

Land

Contaminated Land

In 1997, in response to a Director's Order from the Ministry of Environment, Ontario Hydro introduced a program to assess and remediate historical contamination on properties occupied by its generating facilities. The contaminants of concern were fuel oil, transformer oil, waste lubricants, and tritium. Sites were assessed and ranked as high, medium, and low, in reference to the need for remediation. The first Site Assessment Plan, filed with the Ministry in 1998 and each year thereafter, identified 50 high priority sites with known or potential contamination. OPG has completed all of the assessments required by the Director's Order and the Director's Order was closed out by the Ministry of Environment in March 2004. Assessment of medium and low priority sites continues under OPG's voluntary site assessment program.

At the end of 2013, remediation of 44 sites had been completed. Risk assessments for three sites had been completed at the end of 2013, with no additional remediation required. Remediation was ongoing at seven sites and is planned for one additional site. By the end of 2017, remediation of all medium and low priority sites is expected to be completed. Monitored natural attenuation of contamination at two sites is under way and is expected to continue until approximately 2020. Soil and groundwater remediation at the site of the former Lakeview generating station in Mississauga to treat elevated levels of liquid hydrocarbons is underway.

OPG estimates the present value of assessment and the remediation plan for contaminated sites at approximately $9 million over the next several years. This amount is fully reserved under the OPG environmental and decommissioning provisions.

Any contaminated land issues which might arise during decommissioning of facilities will be addressed as part of the overall decommissioning program as described under *Description of the Business – Generation Operations – Thermal – Facility Planning* and *Description of the Business – Nuclear Waste Management.*

Management of Polychlorinated Biphenyls (PCB)

PCB manufacture has been prohibited in North America since 1977. Prior to this prohibition, PCBs were widely used for a number of industrial applications, including as a coolant and insulating fluid in electrical equipment. Federal PCB regulations were introduced in September 2008. These regulations mandate phase-out dates and reporting for various classes of PCB equipment. OPG's existing PCB phase-out program provided the Company with a basis to address the new regulatory requirements.

Biodiversity

Endangered Species

Effective July 2013, the Ontario MNR amended its compliance process under the *Endangered Species Act, 2007*. Previously, a permit or a negotiated agreement was required from the Ontario MNR for any activity that would harm a species at risk or damage its habitat. Under the amended regulations, certain activities may proceed without a permit or agreement provided prescribed regulatory conditions are met, including with regards to mitigation of impacts. OPG expects to meet the new requirements, building on the work undertaken with the MNR to meet the previous requirements.

First Nations and Métis Relations

OPG's Board of Directors revised the First Nations and Métis Relations Policy in May 2012. OPG established a policy to help build and develop mutually beneficial working relationships with First Nations and Métis communities proximate to its present and future operations. The policy focuses on resolving past grievances and looking at potential partnership opportunities, as well as specific initiatives such as community relations and outreach, employment and contracting opportunities, and capacity building initiatives with surrounding First Nations and Métis communities.

The Aboriginal and treaty rights of First Nations and Métis communities are recognized and affirmed in the *Constitution Act, 1982*. OPG may be subject to claims by First Nations and Métis communities or other Aboriginal groups and individuals. These claims may stem from generation development, historic operations of Ontario Hydro that may have impacted First Nations and Métis title or rights, or the absence of legal permits, rights-of-way, or easements. Legal precedents created by recent court rulings may also impact negotiations and resolution of past grievances.

RISK FACTORS

OPG faces various risks that could significantly impact the achievement of its strategic, operational, financial, environmental, and health and safety goals. OPG is also exposed to potential or actual incidents or developments resulting from natural, technological, or human-caused hazards that could threaten the continuity of OPG's business operations.

The risks disclosed below could have a material adverse effect on OPG's business, generating stations, reputation, financial condition, operating results, and projects, as the context requires. However, there may be further risks and uncertainties that are not presently known, or that are not currently believed to be material, that may in the future adversely affect its performance or financial condition. OPG may be exposed to a significant event that it is not fully insured or indemnified against or to a party that fails to meet its indemnification obligations.

For additional information, see *Risk Management* in the Company's 2013 MD&A.

Ontario Electricity Market and Rate Regulation

OPG's generation and market share continues to be impacted by many external factors including: new participants in the Ontario market; the competitive actions of market participants; Ontario electricity demand; regulated electricity prices; changes in the regulatory environment; wholesale electricity prices in the interconnected markets; and Ontario's aggregate transmission system export capability.

SBG is a condition experienced when electricity generated from baseload stations is greater than demand in the Ontario electricity market. SBG has, and will continue to be, an issue as new generation comes into service, while demand has either decreased or not grown at the same rate as capacity additions. For OPG, SBG can cause hydroelectric spill, reductions in generation from nuclear facilities, and add to wear and tear of station equipment due to increased dispatch.

The structure of the Ontario electricity market is subject to regulation and market rules, changes to which may affect OPG's revenue. The sole Shareholder, the IESO, OEB, or other regulatory body may change or institute regulations or rules which can impact OPG's capability to generate revenue or ability to recover appropriate costs.

The prices for electricity generated from OPG's prescribed facilities are determined by the OEB, currently on a forecast cost of service methodology. As with any regulated price established using this methodology, there is an inherent risk that the prices established by the regulator may not provide for recovery of all actual costs incurred by the regulated operations, or may not allow the regulated operations to earn the allowed rate of return.

The measurement of regulatory assets and liabilities is subject to certain estimates and assumptions, including assumptions made in the interpretation of the OEB's decisions and *Ontario Regulation 53/05*. These estimates and assumptions made in the interpretation of the OEB's decisions and the *Ontario Regulation* 53/05 are reviewed as part of the OEB's regulatory process.

Nuclear Operations

Operating nuclear stations exposes OPG to unique risks, such as greater-than-anticipated deterioration of station components and systems, risks associated with the nuclear industry, supply chain (vendor quality), the handling, storage, and disposal of nuclear waste, and the risk of a nuclear accident. The primary impacts of these risks are additional safety requirements, and the potential derating of a generating unit. These risks could result in lower than expected generation and revenues, and higher operating costs.

The uncertainty associated with the electricity volume generated by OPG's CANDU nuclear generating units is primarily driven by the condition of the station components and systems, which are all subject to the effects of aging. The Darlington generating units, based on original design assumptions, are currently forecast to reach their end of life between 2019 and 2020. OPG plans to continue the safe and reliable operation of the Pickering Nuclear GS until 2020, and then place these generating units in a safe storage state for eventual decommissioning. The 2013 Long-Term Energy Plan indicates an earlier shutdown of the Pickering Nuclear GS units may be possible depending on the projected electricity demand going forward, the progress of the fleet refurbishment program, and the timely completion of the Clarington Transformer Station. Inability to achieve continued operations could result in a reduction of OPG's revenue and lead to the advancement of shutdown and station decommissioning expenditures. Risk factors include the discovery of unexpected conditions, equipment failures, and requirement for significant plant modifications.

Fuel channels are expected to be the most life-limiting component affecting station end of life. Other significant factors identified to date include degradation of primary heat transport pump motors and fuel channels at Darlington Nuclear GS. Additionally, there are fuel handling performance issues at both the Pickering Nuclear GS and Darlington Nuclear GS. As no nuclear generating station utilizing CANDU technology has yet completed a full life cycle, there is a risk that additional unforeseen technological or equipment issues could materialize.

Although reserves of natural uranium are relatively abundant, the market price and available supply of uranium concentrates may be volatile from time to time. OPG currently uses one contractor to convert its uranium concentrates into uranium dioxide and one independent manufacturer to process uranium dioxide into finished nuclear fuel bundles. These advanced stages of the nuclear fuel supply chain are more susceptible to supply security, price, and quality risks.

Management of nuclear waste also poses unique risks. For example, changes in federal regulation could result in additional costs to those currently anticipated for nuclear waste management.

The uncertainty associated with nuclear regulatory requirements is primarily driven by plant aging, technology risks and changes to technical codes. Addressing these requirements could add to the cost of operations, and in some instances, may result in a reduction or elimination of the productive capacity of a station, or in the earlier than planned replacement of a station component. In August 2013, the CNSC extended the operating licence of Pickering Nuclear GS to August 31, 2018 subject to a regulatory hold point which requires OPG to meet several conditions. The operations of nuclear stations are often directly impacted by circumstances or events that occur at other nuclear stations across the globe. These circumstances or events may lead to CNSC regulatory changes with a significant impact on the cost and future operation of OPG's nuclear fleet.

OPG currently maintains $75 million per incident of nuclear energy liability insurance as required by the NLA. The current NLA is under review by the federal government, which has recently introduced Bill C-22 to increase the nuclear liability limit of nuclear operators. For more details see *Description of the Business – Insurance*.

Major Projects

OPG is undertaking numerous capital intensive projects with significant investments. There may be an adverse effect on the Company if OPG is unable to effectively manage these projects, obtain necessary approvals, raise the necessary funds, or fully recover its capital costs in a timely manner. Each individual project also has its own set of risks. These include, but are not limited to: planning, regulatory and execution risks associated with the Darlington Refurbishment project, the conversion of the Thunder Bay generating station, and the L&ILW DGR project; inherent risks associated with construction operations as they pertain to the Lower Mattagami project, and the biomass conversion of the Atikokan generating station; cost escalation; availability of raw materials and equipment; availability of resources; and the receipt of permits. These projects may also have a significant impact on OPG's borrowing capacity and credit rating. Some projects may be ultimately reassessed as being uneconomic.

Nuclear Waste and Decommissioning Obligations and Nuclear Funds

OPG is accountable for the management of used fuel and L&ILW and decommissioning of all of its nuclear facilities, as required by the CNSC, including the stations on lease to Bruce Power. Currently, there are no licensed facilities in Canada for the permanent disposal of nuclear used fuel or L&ILW.

The opposition to deep geologic disposal of used fuel and L&ILW may impede the ability of OPG, its contractors, and subcontractors to develop and to implement disposal plans acceptable to major stakeholders. Similarly, prolonged on-site used fuel and L&ILW storage may be opposed.

OPG is required by rules and regulations such as the ONFA to provide cost estimates associated with its nuclear waste management and decommissioning obligations. These cost estimates are based on numerous underlying assumptions many of which are inherently uncertain, including station end-of-life dates and waste volume. Increased cost estimates for the nuclear waste and decommissioning obligations, or a change in OPG's decommissioning strategy could increase OPG's contributions to the Nuclear Funds under the ONFA reference plan updates. In addition, lease revenue received by OPG from Bruce Power includes fees applied towards OPG's management of L&ILW and used fuel generated within the stations on lease to Bruce Power. For lease renewal periods of up to 25 years beyond 2018, the process to review and reset the nuclear waste and used fuel management fees in lease renewal terms is currently underway. However, the inherent uncertainty in estimating nuclear liabilities could impact sufficiency of fees that OPG receives for management of the L&ILW and the used fuel associated with the stations on lease to Bruce Power.

OPG's contributions to the Nuclear Funds are determined by the ONFA reference plan updates, which are required to be prepared at least every five years. The changes in contribution levels are determined based upon changes in the values of the Nuclear Funds, as well as associated nuclear waste and decommissioning obligations. For the purposes of ONFA reference plan updates, the value of Nuclear

Funds is periodically measured at a point in time. At such times, decreased value of Nuclear Funds could increase OPG's required contributions under the ONFA.

During 2012 and 2011, OPG recorded an update to the cost estimates for its nuclear decommissioning and waste management obligations.

Nuclear Funds Market Risk

The Decommissioning Fund and the Used Fuel Fund contain investment allocations to certain asset classes including fixed income securities, as well as domestic and international equity securities, pooled funds, infrastructure, and Canadian real estate. These funds are managed with the objective of generating sufficient returns over time to meet the associated nuclear waste and decommissioning obligations. The rates of return earned on these segregated funds are subject to various factors, including the current and future financial markets conditions, which are inherently uncertain.

For the Used Fuel Fund, the Province guarantees the annual rate of return at 3.25 percent plus the change in the Ontario Consumer Price Index for the first 2.23 million fuel bundles. A change in the value of the fund, as a result of changes in capital markets related to the first 2.23 million bundles, does not impact OPG's earnings. Unlike contributions subject to the Province's rate of return, OPG assumes the market risk for investment of funds set aside for incremental bundles.

The performance of Nuclear Funds related to stations leased to Bruce Power is subject to the Bruce Lease Net Revenues Variance Account established by the OEB.

Post-Employment Benefit Obligations

OPG's post-employment benefit obligations include pension, group life insurance, health care, and long-term disability benefits. OPG's post-employment benefit obligations and costs, and OPG's pension contributions could be materially affected in the future by numerous factors, including: changes in actuarial assumptions; changes to discount rates; future investment returns; experience gains and losses; the current funded status of the pension and other benefit plans; changes in benefits; changes in the regulatory environment, including potential changes to the *Pension Benefits Act* (Ontario); divestitures; and the measurement uncertainty incorporated into the actuarial valuation process.

The OPG registered pension plan, which covers most employees and retirees, is a contributory defined benefit plan that is indexed to inflation. Contributions to the OPG registered pension plan are determined by actuarial valuations, which are filed with the appropriate regulatory authorities at least every three years. The most recent actuarial valuation of the OPG registered pension plan was completed as of January 1, 2011. The next actuarial valuation of the OPG registered pension plan is being prepared with an effective date no later than January 1, 2014 and must be filed by September 30, 2014. There is a risk that OPG's contribution to the registered pension plan could increase significantly as a result of the 2014 actuarial valuation. OPG's other post-employment benefit obligations are not funded and the associated employee benefits are paid from cash flow provided by operating activities.

People and Culture

The development of new leaders and retention of staff in critical roles across OPG is a key factor to OPG's success. Another success factor is related to the effective transfer of knowledge from those in critical positions throughout OPG to future leaders. The risk associated with the alignment and/or availability of skilled and experienced resources continues to exist for OPG in specific areas including leadership and project management positions. In addition, OPG's business transformation process is expected to result in the reduction of approximately 2,330 employees for the period January 1, 2011 to December 31, 2016 from ongoing operations. There is also a risk of a mismatch between attrition levels and the resource requirements to meet OPG's future demands.

As at December 31, 2013, approximately 89 percent of OPG's regular labour force was represented by a union. OPG's collective agreement with the PWU expires on March 31, 2015. The collective agreement between OPG and The Society expires on December 31, 2015. The new Society collective agreement is a result of an arbitrator's ruling issued April 9, 2013.

In addition to the regular workforce, construction work is performed through 20 craft unions with established bargaining rights on OPG facilities. In the event of a labour dispute by the PWU or any of the craft unions, OPG could face financial and reputational impacts and/or operational risk related to continued compliance with OPG's licence requirements.

During the second quarter of 2012, legislation associated with the Ontario Provincial budget included measures that affect OPG, such as public sector pension reform, and compensation restraints for executives until Ontario ceases to have a budget deficit. These changes may adversely affect OPG's ability to retain or attract qualified employees, including those at the executive level, and may ultimately affect OPG's operations.

Ownership by the Province

The Province owns all of OPG's issued and outstanding common shares. Accordingly, the Province determines the composition of OPG's Board of Directors and can directly influence major decisions, including those related to project development, timing and strategy of the applications for regulated prices, asset divestitures, financing, and capital structure. OPG could be subject to Shareholder directions that require OPG to undertake activities that result in increased expenditures, or that reduce revenues or earnings, relative to the business activities or strategies that would have otherwise been undertaken. In addition, OPG's corporate interests and the wider interests of the Province may compete as a result of the obligation of the Province to respond to a broad range of matters affecting OPG's business environment.

Government Legislation and Regulation Changes

OPG's operations are subject to government regulation that may change from time to time. Matters that are subject to regulation include: the structure of the electricity market, nuclear operations, nuclear waste management and decommissioning, water rentals, permits to take water, dam safety, GRC, environmental matters including air emissions, and taxation. The regulatory bodies may change or enact regulations or rules that could decrease OPG's revenue or its ability to recover appropriate costs. Operations that are not currently regulated may become subject to regulation in the future. Since legal requirements are subject to change and to interpretation, OPG is unable to predict the impact of such changes on OPG and its operations.

Regulatory Compliance

OPG is subject to extensive federal, provincial, and municipal environmental regulation. Failure to comply with such laws can result in significant liabilities, including fines and other penalties. Changes to environmental laws could create compliance risks and result in potential liabilities that may be addressed by the installation of control technologies, the purchase of emission reduction credits, allowances or offsets, or by constraining electricity production. Further, some of OPG's activities have the potential to impair natural habitat, damage aquatic or terrestrial plants and wildlife, or cause contamination to land or water that may require remediation.

As an electricity generating station owner and operator, OPG is also subject to reliability standards as set out by the North American Electric Reliability Corporation (NERC), Northeast Power Coordination Council (NPCC), Reliability First Corporation, and the IESO. NERC, NPCC and IESO are standards authorities with the capability to create or modify reliability standards that are binding on OPG pursuant to the electricity market rules. Failure to comply with these reliability standards may result in financial penalties. Non-compliance with the IESO Market Rules could also result in fines.

OPG is required to comply with the Standards and Guidelines for Conservation of Provincial Heritage Properties which came into effect in July 2010. OPG is required to implement a heritage conservation program and certain generating stations and assets could be identified as heritage properties. As such, the Company may be required to incur costs to meet the requirements of the *Ontario Heritage Act*.

Information Technology

OPG's ability to operate effectively is in part dependent upon developing or subcontracting and managing a complex information technology systems infrastructure. Failure to meet information technology requirements, effectively deal with cyber security threats, and manage system changes and conversions could result in future system failures, or an inability to align information technology systems to support the business. In addition, OPG could be exposed to operational risks, reputational damage and/or financial losses in the event of information technology security breaches.

Financial Risk

OPG is exposed to a number of financial risks, many of which arise due to OPG's exposure to volatility in commodity, equity and foreign exchange markets, and interest rate movements.

Electricity price risk for the Company is the potential for adverse movements in the Ontario electricity spot market price. A portion of OPG's generation is unregulated and continues to be sold at the Ontario electricity spot market price. Lower Ontario electricity spot market price could decrease revenue for OPG's unregulated business segments. The majority of this exposure will cease to exist with the implementation of a regulated price for most of OPG's currently unregulated hydroelectric facilities, which will become regulated by the OEB effective July 1, 2014.

OPG's financial results are exposed to volatility in the Canadian/US foreign exchange rates as fuels and certain supplies and services purchased for generating stations are primarily denominated in US dollars (USD). In addition, the market price of electricity in Ontario is influenced by the exchange rate because of the interaction between the Ontario and neighbouring US interconnected electricity markets. The Ontario electricity spot market is also influenced by USD denominated commodity prices for natural gas which is used in electricity generation.

The majority of OPG's existing debt is at fixed interest rates. Interest rate risk arises with the need to refinance existing debt and/or undertake new financing.

OPG operates in a capital intensive business. Significant financial resources are required to fund capital improvement projects. In addition, the Company has other significant disbursement requirements including investment in new generating capacity, annual funding obligations under the ONFA, pension contributions, payments towards other post-employment benefits and other benefit plans, and debt maturities with the OEFC. OPG's primary sources of liquidity and capital are funds generated from operations, bank financing, credit facilities provided by the OEFC, capital market financing and securitization of accounts receivable. The funds from operations are generally insufficient to fund capital expenditures for expansion or redevelopment and repay existing debt obligations. OPG's ability to access and arrange debt financing is dependent on several factors including: the maintenance of acceptable credit ratings; general economic and capital market conditions; capital structure debt capacity; and credit availability from banks, the OEFC, and the debt capital markets.

OPG transacts with counterparties in Ontario and neighbouring markets for hedging of its expected generation, and fuel requirements, and for energy trading activities. These activities could result in losses, cash outflows, and counterparty claims.

Deterioration in counterparty credit and non-performance by suppliers and contractors can adversely impact OPG's earnings and cash flows from operations, and its ability to manage projects effectively. The Company's credit risk exposure is a function of its electricity sales, trading and hedging activities, treasury activities including investing, and commercial transactions with various suppliers of goods and services.

OPG's credit risk exposure relating to electricity sales is considered low, as the majority of sales are through the IESO-administered spot market. The IESO oversees the credit worthiness of all market participants. Other major components of credit risk exposure include those associated with vendors contracted to provide services or products.

The audit of OPG's taxation years 2006 to 2008 concluded in 2013 and did not result in any material adjustments. The auditors have now commenced their review of the 2009 and 2010 taxation years.

Hydroelectric Operations

The extent to which OPG can operate its hydroelectric generation facilities depends upon the availability of water. Approximately 47 percent of OPG's in-service hydroelectric capacity depends on water rights derived from treaties between Canada and the U.S., which are terminable with 12 months notice. Although OPG does not expect that Canada or the U.S. will exercise their termination rights under those treaties in the foreseeable future, there can be no assurance that such termination will not occur, which could result in the loss of the ability to generate electricity at some or all of its hydroelectric generating facilities. Significant variances in weather or water levels, including impacts of climate change, could also affect water flows.

OPG's hydroelectric generating stations vary in age and the majority of the hydroelectric generating equipment is over 50 years old. The age of the equipment and civil components creates risks to the reliability of some hydroelectric generating stations. The hydroelectric business segments operate 228 dams across the Province. Dam safety legislation does not currently exist in Ontario, but could be enacted in the future. The regulation may ultimately result in expenditures for enhancements to several of OPG's hydroelectric facilities. In August 2011, the MNR published a set of Technical Guidelines following a period of public consultation. These Technical Guidelines, which are not a regulation, represent the government standards for dam safety. In general, OPG practices in the area of dam safety and public safety around dams exceed the minimum requirements outlined in the MNR Technical Guidelines. However, OPG could eventually incur additional costs for certain dams that it operates in order to comply with any new regulation.

The occurrence of dam failures at any of OPG's hydroelectric generating stations could result in significant liability for damages and a loss of generating capacity. Repairing such failures could require OPG to incur significant expenditures of capital and other resources. Although OPG's dam safety program is judged to be an industry leader, there can be no fail safe guarantee that it will be able to detect all potential dam failures prior to their occurrence or eliminate all adverse consequences in the event of a failure.

Thermal Operations

As mandated in March 2013 by the Minister of Energy, OPG ceased the use of coal at the Nanticoke and Lambton GS by the end of 2013. In December 2013, the amended Contingency Support Agreement was terminated by the OEFC. The early termination of the Contingency Support Agreement contract allows OPG to continue to recover certain actual costs incurred from the advanced date up to the end of 2014, consistent with the duration of the original contract. OPG is placing the units in such a state to preserve the option to convert the units to natural gas and/or biomass in the future, should they be required. OPG expects to incur costs to maintain these units in this state. There is no mechanism currently in place to recover these costs.

OPG's capability to convert Lambton and Nanticoke coal-fired units to alternate fuels such as natural gas, biomass, and dual gas-biomass depends on obtaining appropriate cost recovery agreements with the OPA.

OPG's Lennox and Thunder Bay thermal stations operate as peaking facilities, depending on the characteristics of the particular stations and subject to demand of the market.

The Lennox ESA executed with the OPA in December, 2012 provides OPG with a return and covers maintenance, overhead costs, fixed fuel costs and capital expenditures of the station for the ten-year term of the agreement. However, some financial risk remains regarding recovery of actual costs over the term of the agreement, if these costs were to exceed the assumptions of the Lennox ESA.

The Reliability Must-Run Agreement for the Thunder Bay station with the IESO expired on December 31, 2013. Beyond 2013, there is no mechanism in place to recover direct costs of the Thunder Bay station while firing coal. In 2013, the Minister of Energy announced that one unit at the Thunder Bay station will be converted to advanced biomass. The Minister directed the OPA to negotiate a five-year cost recovery agreement with the OPG for generation using this technology. Modifications to the plant will begin in 2014. The plant is expected to begin firing advanced biomass in 2015. As mandated by the Minister of Energy, OPG will cease use of coal at this station by the end of 2014.

Transmission and Interconnection Systems

OPG depends on the capacity and reliability of the Ontario transmission system that connect its generators to the Ontario grid and ultimately with customers in Ontario. In Ontario, the capacity of such transmission systems is limited under certain conditions and the OEB's approval is required for system expansion.

Ontario may also face transmission constraints into or due to interconnected markets and its ability to import and/or export power. The capacity and operating reliability of such interconnection, transmission, and distribution systems are factors which may impact the IESO dispatch in Ontario thereby potentially affecting OPG's capability to supply the Ontario grid. This could result in a significant loss in generation revenues and increased costs.

Suppliers

OPG's ability to operate effectively is also in part dependent upon access to equipment, materials, and service suppliers. Loss of key equipment, materials, and service suppliers, particularly for the nuclear business, could affect OPG's ability to operate effectively.

Interconnected Electricity Markets

OPG competes in interconnected electricity markets while taking into account many external factors, including: the cost to transmit electricity to these markets; the price of electricity in these markets; the competitive actions of other generators and power marketers; the state of deregulation in Ontario and the interconnected markets; currency exchange rates; new trade limitations; and costs to comply with environmental standards imposed in these markets. OPG's trading subsidiary OPG Energy Trading retains a Federal Energy Regulatory Commission licence.

Leases, Partnerships, and Subsidiaries

OPG has leased its Bruce nuclear generating stations to Bruce Power and is a party to a number of partnerships related to the ownership and operations of generating stations. Under the Bruce lease agreement, lease revenue is reduced in each calendar year where the Average HOEP falls below $30/MWh and certain other conditions are met.

A subsidiary to OPG, Canadian Nuclear Partners (CNP), was created in 2012 to provide management and technical service expertise in the areas of nuclear, hydroelectric, and thermal electricity generation business. CNP relies on the expertise from OPG to offer its services.

Each of the above entities is subject to numerous operational, financial, regulatory, and environmental risk factors. Although OPG may not be involved in the day-to-day operations of these entities, it could be subject to counterparty claims, defaults, or other risk factors related to these service offerings.

First Nations and Métis Communities

OPG may be subject to claims by First Nations and Métis communities stemming from projects, and generation development related to the historic operations of Ontario Hydro that may have impacted First Nations and Métis title or rights. Precedents created by court rulings also impact negotiations and resolution of past grievances.

DIVIDENDS

OPG's Board of Directors has established a dividend policy to pay a dividend of 35 percent of net income after taxes. Under OPG's bylaws, the declaration and payment of dividends remains at the sole discretion of OPG's Board of Directors and is dependent on OPG's results of operations, financial condition, cash requirements, securities legislation, and other factors considered relevant by the Board in exercising its discretion and judgment on an ongoing basis. With the exception of the distribution to a third party on behalf of the Shareholder, as disclosed in OPG's 2011 annual audited consolidated financial statements, OPG has not paid any dividends to the Shareholder in the last seven years.

There are no restrictions in the articles of the Company that could prevent the Company from paying dividends. Current covenants in banking agreements restrict the ability of the Company to pay dividends in certain circumstances. In addition, the declaration and payment of dividends are subject to financial tests set forth in the OBCA.

DESCRIPTION OF CAPITAL STRUCTURE

The authorized share capital of OPG consists of an unlimited number of common shares (the voting shares of the Company). As at December 31, 2013, OPG had 256,300,010 common shares issued and outstanding, all of which are owned directly by the Province at a stated value of $5,126 million. OPG is authorized to issue an unlimited number of common shares without nominal or par value. Holders of common shares are entitled to one vote per share at meetings of the shareholders of the Company and to receive dividends if, as, and when declared by the Board of Directors of the Company. Holders of common shares would participate, pro rata to their holding of common shares, in any distribution of the assets of the Company upon its liquidation, dissolution, or winding up. Any issue of new shares is subject to the consent of all of OPG's shareholders.

All of the Company's voting securities are held by the Province. Accordingly, the Company is controlled by the Province.

CREDIT RATINGS

In March 2013, Dominion Bond Rating Service (DBRS) reaffirmed the long-term credit rating on OPG at A (low) and the commercial paper rating at R-1 (low) with a stable outlook. In February 2013 and subsequently in February 2014, Standard & Poor's re-affirmed OPG's long-term credit rating at A- with a negative outlook. In February 2013, Standard & Poor's affirmed its A-1(low) Canada scale commercial paper rating.

Credit ratings are intended to provide investors with an independent measure of the credit quality of an issue of securities. The rating agencies rate long-term debt instruments by rating categories ranging from a high of AAA to a low of D. Long-term debt instruments which are rated in the A category by Standard & Poor's mean the obligor has a strong capacity to meet its financial commitments, but are considered somewhat more susceptible to the adverse effects of changes in circumstances and economic conditions than obligations in higher rated categories. However, the obligor's capacity to meet its financial commitments and obligations is still strong. Standard & Poor's utilizes a "+" or a "-" modifier to indicate the relative standing within the rating category. Long-term debt instruments which are rated in the A

category by DBRS are considered to be of a satisfactory credit quality, with substantial protection of interest and principal. Entities in the A category, however, are considered to be more susceptible to adverse economic conditions and have greater cyclical tendencies than higher-rated entities. The “low” modifier indicates relative standing within the rating category by DBRS.

Standard & Poor’s Canadian commercial paper rating scale ranges from A-1(High) to D, which represents the highest to lowest quality of such securities rated. The rating of A-1(low) is the third highest of eight categories and is considered to be satisfactory. DBRS’s commercial paper credit rating scale ranges from R-1(high) to D, which represents the highest to lowest quality of such securities rated. The rating of R-1(low) is the third highest and is considered to be of satisfactory credit quality.

The ratings disclosed above are not a recommendation to purchase, sell, or hold OPG’s debt securities and do not comment as to the market price or suitability for a particular investor. There can be no assurance that the ratings will remain in effect for any given period of time, or that the ratings will not be revised or withdrawn entirely by either Standard & Poor’s or DBRS at any time in the future if, in their judgment, circumstances so warrant.

During the past three years, OPG has made payments to DBRS and Standard & Poor’s credit rating agencies for their credit rating services and for other services. OPG reasonably expects such payments will continue in the future for the services acquired.

MARKET FOR SECURITIES

None of the Company’s securities are listed and posted for trading or quoted on any exchange or quotation system.

CORPORATE GOVERNANCE

National Instrument 58-101, *Disclosure of Corporate Governance Practices*, has been implemented by Canadian securities regulatory authorities to provide greater transparency for the marketplace regarding issuers' corporate governance practices. OPG’s Corporate Governance practices align with National Instrument 58-101 *Disclosure of Corporate Governance Practices* and National Policy 58-201 *Corporate Governance Guidelines.* In addition, OPG has reviewed its governance practices against the 2013 update to the 2010 Report on Building High Performance Boards by the Canadian Coalition for Good Governance and OPG compares favourably to those principles that apply to OPG. Information with respect to OPG’s Board of Directors is as follows:

Board of Directors

OPG’s Board of Directors is made up of 15 individuals with substantial capability in managing large businesses, managing and operating nuclear stations, managing capital intensive companies, overseeing regulatory, government and public relations, human resources management, financial, legal and corporate governance expertise, knowledge of First Nations, and stakeholder management. The Board exercises its independent supervision over management as follows: the majority of members of the Board of Directors are independent of the Company; meetings of the Board of Directors are held at least six times a year; a formal Charter for the Board of Directors, and for each Board Committee has been adopted and is reviewed annually; the Board and each Board Committee is chaired by an independent Director; and, a portion of each Board and Committee meeting is reserved for Directors to meet without management present.

OPG has a written position description for the Chief Executive Officer (CEO). This position is accountable to the Board of Directors and, in turn, the Shareholder for: ensuring a culture of integrity and ethical conduct; maintain Shareholder value; defining and executing a strategy, including a sustainable business model that will service the long-term power generation needs of the constituents of the Province; and,

providing a standard of leadership that will achieve operational excellence with respect to matters of stakeholder relationships, financial performance, reliability, health, safety, and environmental management and regulatory compliance. The Board delineates the President and CEO role and responsibilities through the By-laws, the Board Charter, the Board policies and the corporate and CEO annual goals and objectives. The Board sets and monitors performance against annual CEO and OPG targets and objectives.

Director Independence

On an annual basis, the Governance and Nominating Committee reviews the disclosures made by Directors in the annual Director Questionnaire and reviews each relationship that a Director has with OPG in order to determine whether the Director is or remains independent. The Governance and Nominating Committee reports on its review to the Board of Directors.

Based on the meaning of Independence in Section 1.4 of National Instrument 52-110 *Audit Committees* (NI 52-110) and a review of the applicable factual circumstances against this standard, the Board's Governance and Nominating Committee has determined that all Directors listed are independent, except for Tom Mitchell, who is considered to have a material relationship with OPG by virtue of his position as President and CEO of OPG.

The OPG Board has a Board of Directors Conflict of Interest Policy and Procedure that governs the disclosure and mitigation of Director conflicts or potential conflicts of interest and has adopted an annual process of written disclosure by Directors in order to:

(i) identify potential conflicts of interest for the purposes of complying with the Board of Directors Conflict of Interest Policy, the OBCA, and the requirements of this Form 51-102F2 – Annual Information Form;

(ii) validate their independence and financial literacy for the purposes of complying with securities regulations related to Boards and Audit Committees; and

(iii) satisfy other disclosures and filings.

To further minimize potential conflicts of interest, the Board of Directors has a policy on interlocking directorships. The Board's policy on interlocking directorships states that no more than two OPG Directors may sit on a Board of another reporting issuer at the same time. Directors must confirm that they are in compliance with OPG's policy on interlocking directorships when disclosing to the Board Chair potential appointments to other Boards.

Strategic Planning

OPG's mandate is to reliably and cost-effectively produce electricity from its diversified portfolio of generating assets, while operating in a safe, open, and environmentally responsible manner. OPG's mission is to be Ontario's low-cost electricity generator with a focus on three corporate strategies: operational excellence, project excellence, and financial sustainability.

OPG's Board holds an annual strategy session and devotes a significant portion of each regular Board meeting to strategic discussion. Management is responsible for developing the strategy and presenting it to the Board for approval.

In 2013, the Board received reports on key strategic issues, risks, competitive developments, and corporate opportunities facing the company. Management ensures that the key strategic elements are incorporated into OPG's business plan, which is reviewed and approved by the Board annually. The Board also receives briefings periodically from external advisors on broad energy industry developments and/or special strategic matters.

Overseeing the Management of Risk

OPG's Board oversees OPG's approach of identifying, reporting, and mitigating the risks that could significantly impact OPG's capacity to achieve its long-term strategic objectives, as well as specific business plan objectives. To fulfill its risk oversight responsibilities, the Board has established a Corporate Risk Management Policy and a Risk Oversight Committee, comprised of independent Directors. The Committee's mandate includes oversight of the Enterprise Risk Management Framework that Management uses to manage OPG's risk profile and assist the Board in understanding how the risks may affect the company and how they are being addressed by Management. The Risk Oversight Committee receives quarterly reports from OPG's Chief Risk Officer on enterprise-wide risks, as well as reports on strategic, transactional, and operational risks facing OPG's hydroelectric, thermal, information technology, finance, and corporate operations. In addition, the Chief Risk Officer provides these quarterly reports to the Nuclear Oversight Committee and the Audit and Finance Committee.

Through the Compensation and Human Resources Committee, the Board also monitors the risks associated with the executive compensation program to preclude decision-makers from taking excessive risk in order to achieve incentives under the compensation plans. The Chief Risk Officer and the Senior Vice President, People & Culture jointly review the executive compensation framework on an annual basis and assess to identify any potential for unintended risk-taking. The Chief Risk Officer and the Senior Vice President, People & Culture provide an annual joint report to the Compensation and Human Resources Committee of the Board.

Directors

The following tables set forth the name, municipality of residence, position with the Corporation and principal occupation of each of the Directors of the Corporation as of March 6, 2014:

Jake Epp
Age: 74
Calgary, Alberta, Canada

Jake Epp was appointed as Chairman of the Board of OPG in April 2004. He held the position of interim Chairman from December 2003 until his current appointment. Mr. Epp was a member of the provincial government's review committee that was created in December 2003 and headed by John Manley, to look at OPG's future role in the province's electricity market; examine its corporate and management structure; and decide whether OPG should go ahead with refurbishing three more nuclear reactors at the Pickering A nuclear power plant. The committee's report was presented to the government in March 2004. Prior to being appointed as interim Chairman, in May 2003, Mr. Epp was appointed by the Ontario government to lead a panel to review the delays and cost overruns in the first refurbished unit at the Pickering A Nuclear GS. The findings of the report were released in December 2003. He is also certified by the Institute of Corporate Directors. In 2010, Mr. Epp was appointed an Officer of the Order of Canada.

Board/Committee Membership:	**2013 Attendance:**	
Board (since December 2003)	10 of 11	91%
Executive Talent Committee* (since December 2013)		
The Board Chair attends all Committee meetings.	34 of 39	87%

* No meetings occurred

Principal Occupation: Chairman, Ontario Power Generation Inc.

Board Memberships for other Reporting Issuers: None

Independence from OPG: Independent

Interlocking Directorships on Boards of other Reporting Issuers: None

Tom Mitchell
Age: 58
Toronto, Ontario, Canada

Tom Mitchell is the President and CEO at OPG. He was appointed to his current position in May 2009. Prior to assuming his current position, he was Chief Nuclear Officer responsible for Darlington, Pickering A, and Pickering B Nuclear generating stations. He has also served as Site Vice President, and Senior Vice President, Pickering B. Upon joining OPG in April, 2002, he was Vice President, Nuclear Operations and was responsible for providing support to the Pickering and Darlington Nuclear generating stations.

Mr. Mitchell has over 35 years of nuclear experience. Before joining OPG, he held the position of Vice President of the Assistance Division of INPO in Atlanta, Georgia. During his career at INPO, he managed the radiological protection, plant analysis and engineering support departments. His considerable operations experience includes the Peach Bottom Atomic Power Station, where he served as Manager of Operations Support, Director of Site Engineering, and Site Vice President. During his time with Peach Bottom, the performance of the plant went from being in regulatory shutdown to a recognized leader in safe and reliable operation. Mr. Mitchell's involvement in the nuclear industry has extended outside the U.S. He served as the Deputy Director of the Atlanta Center for WANO, where he was involved in WANO activities in several parts of the world, including CANDU plants at Bruce, Darlington, Pickering, Point Lepreau, Cernavoda and KNPP.

As of January 1, 2012, Mr. Mitchell is the Chair of the WANO Atlanta Centre Governing Board, and by virtue of that appointment, is a member of the WANO Governing Board in London, U.K. He was also asked by WANO to chair and lead a special post-Fukushima commission. Its mandate was to make recommendations on how WANO could improve its programs and structure in the wake of the disaster. In April 2012, Tom was appointed to the Board of Directors of the Electric Power Research Institute.

Mr. Mitchell holds a master's degree in Mechanical Engineering from George Washington University and a bachelor's degree in Nuclear Engineering from Cornell University. He also holds an honorary doctorate from the University of Ontario Institute of Technology, conferred in June 2012.

Board/Committee Membership:	**2013 Attendance:**	
Board	11 of 11	100%
Nuclear Oversight Committee* (since August 2012)	4 of 4	100%
The President and CEO attends all Committee meetings excluding independent Director in-camera meetings/sessions.	31 of 31	100%

* No longer a member of the Nuclear Oversight Committee as of December 2013.

Principal Occupation: President & CEO, Ontario Power Generation Inc.

Board Memberships for other Reporting Issuers: None

Independence from OPG: Not Independent

Interlocking Directorships on Boards of other Reporting Issuers: None

William Coley
Age: 70
Charlotte, North Carolina, U.S.A.

Bill Coley served as Chief Executive of British Energy from 2005 to 2009 when he retired following the successful combination of British Energy and EDF Energy. He was President of Duke Power from 1997 until his retirement in February 2003, holding various officer level positions in engineering, operations, and senior management during his 37-year career with the company. Mr. Coley is a director of Peabody Energy and E.R. Jahna Industries and a member of the International Technical Advisory Committee of Nuclear Electric Insurance Limited. He also served on the WANO Post-Fukushima Commission chaired by Tom Mitchell.

Board/Committee Membership:	**2013 Attendance:**	
Board (since January 2013)	11 of 11	100%
Audit and Finance Committee (since February 2013)	6 of 6	100%
Nuclear Oversight Committee (since February 2013)	4 of 4	100%

Principal Occupation: Retired Chief Executive of British Energy

Board Memberships for other Reporting Issuers: Peabody Energy

Independence from OPG: Independent

Interlocking Directorships on Boards of other Reporting Issuers: None

John Herron
Age: 60
Punta Gorda, Florida, U.S.A.

John Herron recently retired from Entergy where he was the President, CEO and Chief Nuclear Officer of Entergy Nuclear, with responsibility for Entergy's nuclear plants located in New York, Massachusetts, Vermont, Michigan, Louisiana, Mississippi and Arkansas as well as the company's management service to the Cooper Nuclear Station for the state of Nebraska.

Mr. Herron previously served as Entergy's Senior Vice President for nuclear operations handling the operational side of fleet management. He joined Entergy in February 2001 as Vice President, Operations at the Waterford 3 Nuclear Station in Killona, Louisiana. He then moved to New York as the Senior Vice President of the Indian Point Energy Center in February 2002.

Mr. Herron began his career in nuclear operations in 1979 at Vermont Yankee Nuclear Power Corporation. Positions there included technical services superintendent, operations manager, technical programs manager, shift supervisor and supervisory control room operator. In 1994, he moved to Brownville, Nebraska to become plant manager at Nebraska Public Power District's Cooper Nuclear Station.

Mr. Herron then joined the Tennessee Valley Authority as plant manager at Sequoyah Nuclear Plant in Soddy-Daisy, Tennessee, from October 1996 through July 1999. From July 1999 to February 2001, Mr. Herron served as site Vice President at TVA's Browns Ferry Nuclear Plant.

Prior to his career in utilities, Mr. Herron served in the U.S. Navy from 1972 to 1978. He was attached to the USS Tullibee and the S1C NPTU Windsor, where he was an instructor at the Nuclear Submarine Prototype School.

Mr. Herron holds a bachelor's degree in Business Management from Franklin Pierce College in Rindge, New Hampshire. He also attended the Advanced Management Program at the Harvard Business School in May 2005.

Mr. Herron currently serves on the Board of Directors for Duke Energy. He also served on the Board of Directors for the Institute of Nuclear Power Operations and on the Nuclear Strategic Issues Advisory Committee of the Nuclear Energy Institute. In the aftermath of Japan's 2011 earthquake, he was named to the WANO Post-Fukushima Commission and the U.S. nuclear industry's Fukushima Response Steering Committee.

Board/Committee Membership:	**2013 Attendance:**	
Board (since November 2013)	4 of 4	100%
Nuclear Oversight Committee* (since December 2013)		
Compensation and Human Resources Committee* (since December 2013)		

* No meetings occurred since joining this committee

Principal Occupation: Retired President, CEO and Chief Nuclear Officer, Entergy Nuclear

Board Memberships for other Reporting Issuers: Duke Energy

Independence from OPG: Independent

Interlocking Directorships on Boards of other Reporting Issuers: None

Donald Hintz
Age: 71
Punta Gorda, Florida, U.S.A.

Donald Hintz is the retired President of Entergy Corporation, where he was responsible for Entergy's 30,000 MW of generating assets, including 10 nuclear plants. Prior to his appointment as President he spent seven years as President and CEO of Entergy Operations Inc. There he oversaw the improvement of Entergy's nuclear operations to top quartile performance. Mr. Hintz currently serves on the Board of Entergy Corporation and through May 2008 was the President of the American Nuclear Society, an international organization of more than 10,500 nuclear scientists and engineers.

Mr. Hintz has a Bachelor of Science in Chemical Engineering from the University of Wisconsin, and has completed the Utility Executive Program and the Advanced Management Program at the University of Michigan and the Harvard Business School, respectively.

Board/Committee Membership:	**2013 Attendance:**	
Board (since October 2004)	10 of 11	91%
Nuclear Oversight Committee* (since May 21, 2010)	4 of 4	100%
Risk Oversight Committee (since March 2012)	3 of 4	75%
Executive Talent Committee** (since December 2013)		

* Chair of Committee since March 2, 2012.
** No meetings occurred

Principal Occupation: Retired President of Entergy Corporation

Board Memberships for other Reporting Issuers: Entergy Corporation

Independence from OPG: Independent

Interlocking Directorships on Boards of other Reporting Issuers: None

Roberta Jamieson
Age: 61
Ohsweken, Ontario, Canada

Roberta L. Jamieson is President and CEO of Indspire (formerly the National Aboriginal Achievement Foundation), a national charitable organization dedicated to Indigenous education. A respected lawyer, Ms. Jamieson is a recognized authority on non-adversarial methods of conflict resolution. She was the first First Nations woman to earn a law degree; the first non-parliamentarian appointed an ex-officio member of a House of Commons Committee; the first woman Ombudsman of Ontario; and the first woman elected Chief of the Six Nations of the Grand River Territory. She was also Commissioner of the Indian Commission of Ontario. Ms. Jamieson's numerous awards include the National Aboriginal Achievement Award, the Indigenous Bar Association's Indigenous Peoples Council Award, and 22 honorary degrees. She is also a Member of the Order of Canada.

Board/Committee Membership:	**2013 Attendance:**	
Board (since May 2012)	10 of 11	91%
Governance and Nominating Committee (since May 2012)	6 of 7	87%
Risk Oversight Committee (since May 2012)	4 of 4	100%

Principal Occupation: President and CEO of Indspire

Board Memberships for other Reporting Issuers: None

Independence from OPG: Independent

Interlocking Directorships on Boards of other Reporting Issuers: None

Gary Kugler
Age: 73
Burlington, Ontario, Canada

Dr. Gary Kugler currently serves as Chairman of the Board of the NWMO and is a member of the Board of Perma-Fix Environmental Services. He is the retired Senior Vice President, Nuclear Products and Services of Atomic Energy of Canada, Limited (AECL), where he was responsible for all of AECL's commercial operations, including nuclear power plant sales and services world-wide. During his 34 years with AECL, he also held various technical, project management, and business development positions. Prior to joining AECL, he served as a pilot in the Canadian Air Force.

Dr. Kugler holds a Bachelor of Science degree in honours physics and a Ph.D. in nuclear physics from McMaster University. He is also a graduate of the Directors Education Program of the Institute of Corporate Directors.

Board/Committee Membership:	**2013 Attendance:**	
Board (since September 2004)	10 of 11	91%
Compensation and Human Resources Committee (since December 2008)	10 of 10	100%
Nuclear Oversight Committee (since May 21, 2010)	4 of 4	100%

Dr. Kugler resigned from the OPG Board on March 6, 2014.

Principal Occupation: Chair, Nuclear Waste Management Organization

Board Memberships for other Reporting Issuers: Perma-Fix Environmental Services Inc.

Independence from OPG: Independent

Interlocking Directorships on Boards of other Reporting Issuers: None

M. George Lewis
Age: 53
Toronto, Ontario, Canada

As a member of the RBC Group Executive since February 2007, George Lewis is one of eight executives responsible for setting the overall strategic direction of RBC, Canada's largest bank and largest publicly traded company. Mr. Lewis is Group Head, Wealth Management & Insurance and is also Chairman and a Portfolio Manager of RBC Global Asset Management Inc. Prior to his appointment to Group Executive, Mr. Lewis was Head of Wealth Management for the Canadian Personal and Business banking segment of RBC, as well as serving as Head of Banking Products for that segment. Formerly, he was Managing Director, Head of Institutional Equity Sales, Trading and Research with RBC Capital Markets and was Canada's top-rated equity research analyst for three consecutive years, focusing on electric utilities and natural gas pipelines and telecom companies.

Mr. Lewis has extensive experience in the investment industry and has a Master of Business Administration degree with distinction from Harvard University, a Bachelor of Commerce degree with high distinction from Trinity College at the University of Toronto, and is a chartered financial analyst and an FCPA, FCA, as well as being certified by the Institute of Corporate Directors. Mr. Lewis serves on the Board of Directors of the Holland Bloorview Kids Rehabilitation Hospital Foundation, the Canadian Film Centre, the Anglican Diocese of Toronto Foundation and the Toronto Symphony Orchestra (Past Chair). He is a current member and Past Chair of the Bishop's Company of the Anglican Diocese of Toronto, as well as a Patron and member of the Cabinet of the United Way of Greater Toronto. Mr. Lewis also serves as the Honorary Colonel Commandant of the Chaplain Branch of the Canadian Armed Forces.

Board/Committee Membership:	**2013 Attendance:**	
Board (since February 2005)	10 of 11	91%
Audit and Finance Committee* (since May 21, 2010)	7 of 7	100%
Governance and Nominating Committee (since May 21, 2010)	6 of 7	87%
Ad Hoc Committee (since September 2012)	4 of 5	80%
Executive Talent Committee** (since December 2013)	No meetings occurred	

* Chair of Committee
** No meetings occurred

Principal Occupation: Financial Services Executive

Board Memberships for other Reporting Issuers: None

Independence from OPG: Independent

Interlocking Directorships on Boards of other Reporting Issuers: None

Bernard Lord
Age: 48
Moncton, New Brunswick, Canada

Bernard Lord is President and CEO of the Canadian Wireless Telecommunication Association and the Chairman of the Mobile Giving Foundation Canada. He serves as a corporate director for Médavie Blue Cross and Clean Air Power. He also serves on the North American Advisory Board of Alexander Proudfoot.

Mr. Lord earned a bachelor's degree with a major in economics as well as a bachelor's degree in common law from l'Université de Moncton. He also received honorary doctorate degrees from University of New Brunswick, l'Université de Moncton and Saint Thomas University. He was admitted to the New Brunswick Bar in 1993 and was appointed as Queen's Counsel in 2011.

In 1999, Mr. Lord became one of Canada's youngest Premiers at the age of 33. His majority government was reelected in 2003 and he served as Premier of New Brunswick until October 2006. He was elected four times as a Member of the New Brunswick Legislative Assembly.

Mr. Lord's government also introduced several new initiatives to support the development of natural resources while also protecting the environment including a new energy policy that lead to the restructuring of New Brunswick Power and the refurbishment of the Point Lepreau Nuclear generating station.

During Mr. Lord's terms as Premier, New Brunswick saw the lowest unemployment rate in 30 years, tax cuts each and every year combined with balanced budgets and debt reduction. His government made record investments in health care and education while strengthening local democracy and modernising the *Official Languages Act*.

Board/Committee Membership:	**2013 Attendance:**	
Board (since November 2013)	3 of 4	75%
Audit and Finance Committee* (since December 2013)		
Risk Oversight Committee* (since December 2013)		

***** No meetings occurred since joining this committee

Principal Occupation: President and CEO of Canadian Wireless Telecommunications Association

Board Memberships for other Reporting Issuers: Clean Air Power

Independence from OPG: Independent

Interlocking Directorships on Boards of other Reporting Issuers: None

Peggy Mulligan
Age: 55
Mississauga, Ontario, Canada

Peggy Mulligan was the Executive Vice President and Chief Financial Officer, Valeant Pharmaceuticals International, Inc. until December 2010. Prior to this she was a Principal at Priiva Consulting, and before this she served as Executive Vice President and Chief Financial Officer of Linamar Corporation. Prior to Linamar, Mrs. Mulligan was with the Bank of Nova Scotia for eleven years as Executive Vice President, Systems and Operations and Senior Vice President, Audit and Chief Inspector. Before joining Scotiabank, she was an Audit Partner with PricewaterhouseCoopers in Toronto. She holds a B. Math (Honours) from the University of Waterloo and was named a Fellow of the Institute of Chartered Accountants of Ontario in 2003.

Board/Committee Membership:	**2013 Attendance:**	
Board (since December 2005)	10 of 11	91%
Compensation and Human Resources Committee* (since March 2012)	10 of 10	100%
Risk Oversight Committee (since May 21, 2010)	3 of 4	75%
Ad Hoc Committee (since September 2012)	4 of 5	80%
Executive Talent Committee** (since December 2013)		

* Chair of Committee
** No meetings occurred

Principal Occupation: Corporate Director

Board Memberships for other Reporting Issuers: Capital Power Corporation

Independence from OPG: Independent

Interlocking Directorships on Boards of other Reporting Issuers: None

Gerry Phillips
Age: 73
Ajax, Ontario, Canada

Gerry Phillips was the MPP for the east Toronto riding of Scarborough-Agincourt from 1987 to 2011. He served in six cabinet portfolios, including twice as Minister of Energy, where he was OPG's Shareholder from 2007 to 2008 and again on an interim basis from Nov. 2009 to Jan. 2010. Before entering public life, Mr. Phillips graduated from the University of Western Ontario's School of Business and worked in the marketing department of Procter and Gamble. In 1970 he joined the consulting firm of Canadian Marketing Associates and became President in 1977. He later founded two successful spin-off companies - the Sales Development Group in 1979 and the Retail Resource Group in 1982. By 1987, he was Chair of all three companies, with a combined workforce of approximately 300.

Mr. Phillips has an Honours B.A. from the Western School of Business. He was the Chair of the Management Board of Cabinet and Minister responsible for Securities Regulation in Ontario.

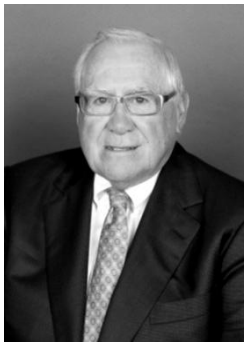
Board/Committee Membership:	**2013 Attendance:**	
Board (since January 2013)	11 of 11	100%
Audit and Finance Committee (since February 2013)	5 of 6	83%
Risk Oversight Committee (since February 2013)	4 of 4	100%
Ad Hoc Committee (since October 2013)	2 of 2	100%

Principal Occupation: Retired

Board Memberships for other Reporting Issuers: None

Independence from OPG: Independent

Interlocking Directorships on Boards of other Reporting Issuers: None



C. Ian Ross
Age: 71
Blue Mountains, Ontario, Canada

Ian Ross served at the Richard Ivey School of Business at the University of Western Ontario from 1997 to September 2003. Most recently he held the position of Senior Director, Administration in the Dean's Office and was also Executive in Residence for the School's Institute for Entrepreneurship, Innovation and Growth. He has served as Governor and President and CEO of Ortech Corporation; Chairman, President and CEO of Provincial Papers Inc.; and President and CEO of Paperboard Industries Corp. Mr. Ross currently serves as a Director for a number of corporations including GrowthWorks Canadian Fund Ltd., Clearford Industries Inc., and the NWMO. He is also a member of the Law Society of Upper Canada.

Board/Committee Membership:	**2013 Attendance:**	
Board (since December 2003)	11 of 11	100%
Risk Oversight Committee* (since May 21, 2010)	4 of 4	100%
Nuclear Oversight Committee (since May 21, 2010)	4 of 4	100%
Ad Hoc Committee* (since September 2012)	5 of 5	100%
Executive Talent Committee** (since December 2013)		

* Chair of Committee
** No meetings occurred

Principal Occupation: Interim CEO and Chairman, GrowthWorks Canadian Fund Ltd.

Board Memberships for other Reporting Issuers: GrowthWorks Canadian Fund Ltd.
Clearford Industries Inc.
Cathay Forest Products Corp.

Independence from OPG: Independent

Interlocking Directorships on Boards of other Reporting Issuers: None

Marie C. Rounding
Age: 66
Toronto, Ontario, Canada

Marie Rounding is Counsel at Gowling Lafleur Henderson LLP, where she is a member of the National Energy and Infrastructure Industry Group. Ms. Rounding served as Chair of the Ontario Energy Board from 1992 to 1998 and as President and CEO of the Canadian Gas Association from 1998 to 2003. Prior to those appointments she was Director of the Crown Law Office, Civil Law at the Ontario Ministry of the Attorney General. She was appointed by Prime Minister Stephen Harper to the Advisory Council on National Security and served on it from 2007 to 2010.

Ms. Rounding has extensive background in regulatory and administrative law, and as a leading regulator was involved in the deregulation of the natural gas markets and the early restructuring of the electricity sector in Ontario. Ms. Rounding currently serves as a Director for Nova Scotia Power Inc. and as Chair of the Independent Review Committee for Sentry Investments Inc. She also serves as a member of the Independent Review Committee for Vertex One Asset Management Inc. Ms. Rounding is a graduate of the University of Western Ontario and Osgoode Hall Law School. She is also certified by the Institute of Corporate Directors.

Board/Committee Membership:	**2013 Attendance:**	
Board (since September 2004)	9 of 11	82%
Governance and Nominating Committee* (since May 21, 2010)	7 of 7	100%
Audit and Finance Committee (since May 21, 2010)	7 of 7	100%
Executive Talent Committee** (since December 2013)		

* Chair of the Committee
** No meetings occurred

Principal Occupation: Counsel, Gowling Lafleur Henderson LLP

Board Memberships for other Reporting Issuers: Nova Scotia Power Inc.

Independence from OPG: Independent

Interlocking Directorships on Boards of other Reporting Issuers: None

William Sheffield
Age: 65
Toronto, Ontario & Vancouver, British Columbia, Canada

William Sheffield is the former CEO of Sappi Fine Paper plc., and a former Executive Vice President at Abitibi Consolidated. He has experience in operating large international industrial companies. He also spent 17 years with Stelco. In addition to OPG, Mr. Sheffield currently serves on the Boards of Velan Inc., Canada Post, and is the Board Chair at Houston Wire & Cable Company. Mr. Sheffield has a B.Sc. in Chemistry from Carleton University, an M.B.A. from McMaster University, and completed the Advanced Management Program at INSEAD School of Business, France. He has been certified by both the Institute of Corporate Directors in Canada (ICD.D) as well as the National Association of Corporate Directors in the U.S.

Board/Committee Membership:	**2013 Attendance:**	
Board (since September 2004)	11 of 11	100%
Compensation and Human Resources Committee (since November 2004)	9 of 10	90%
Risk Oversight Committee (since May 21, 2010)	4 of 4	100%

Principal Occupation: Corporate Director

Board Memberships for other Reporting Issuers: Houston Wire & Cable Company
Velan Inc.

Independence from OPG: Independent

Interlocking Directorships on Boards of other Reporting Issuers: None

David G. Unruh
Age: 69
Vancouver, British Columbia, Canada

David Unruh is a retired lawyer and general counsel. He currently serves on the Board of Directors of Union Gas Limited and The Wawanesa Mutual Insurance Corporation. Prior to this, Mr. Unruh served as Vice Chairman of Westcoast Energy Inc. and Union Gas Limited, and before that as Senior Vice President and General Counsel for Houston based Spectra Energy Corp. (formerly Duke Energy Gas Transmission) and, before that as Senior Vice President and General Counsel and Corporate Secretary for Westcoast Energy Inc. Previously, Mr. Unruh has served on numerous Board of Directors including MMM Group Ltd., Pacific Northern Gas Ltd., Corriente Resources Inc., Translink, Catalyst Paper Corp., and Export Development Corporation. Before moving to Vancouver, British Columbia in 1993, Mr. Unruh practised law in Winnipeg, Manitoba with the firm of Aikins, MacAulay and Thorvaldson.

Board/Committee Membership:	**2013 Attendance:**	
Board (since September 2004)	11 of 11	100%
Governance and Nominating Committee (since December 2008)	7 of 7	100%
Audit and Finance Committee (since May 21, 2010)	7 of 7	100%
Compensation and Human Resources Committee (since March 2012)	9 of 10	90%
Ad Hoc Committee (since October 2012)	5 of 5	100%
Executive Talent Committee* (since December 2013)		

* No meetings occurred

Principal Occupation: Corporate Director

Board Memberships for other Reporting Issuers: Union Gas Limited

Independence from OPG: Independent

Interlocking Directorships on Boards of other Reporting Issuers: None

All of the Directors of the Company have been engaged for more than five years in their current principal occupations, except as set out below:

Mr. Mitchell was Chief Nuclear Officer for OPG from December 2006 to June 2009.

Mr. Coley was CEO for British Energy Group plc from January 2005 to September 2009.

Mr. Herron was Senior Vice President, Nuclear Operations at Entergy Corporation from June 2007 to December 2009, and President, CEO and Chief Nuclear Officers at Entergy Corporation from December 2009 to April 2013.

Ms. Mulligan Chief Financial Officer of Valeant Pharmaceuticals International Inc. from September 2008 to December 2010.

Mr. Phillips was the Minister without portfolio from June 2008 to October 2011, Ontario Minister of Energy and Infrastructure from November 2009 to January 2010, Chair of Cabinet from June 2008 to October 2011, and Chair of the Select Committee on the TMX Transaction from February 2011 to April 2011.

Mr. Ross has served on the board of directors of various corporations, including PetValu Canada Inc. from 2003 to 2009, Menu Foods Limited from 2007 to 2010, and RuggedCom Inc. from 2007 to 2012. In October 2013, Mr. Ross was appointed Interim CEO of GrowthWorks Canadian Fund Ltd.

Orientation and Continuing Education

The Governance and Nominating Committee is responsible for reviewing and recommending appropriate orientation programs to the Board. New Directors are provided OPG's Corporate Strategic Plan and Business Plan and other relevant documentation relating to OPG's governance practices and policies and to its business. Directors attend plant tours of OPG generating facilities, where they also receive comprehensive introductory briefings from OPG senior executives on OPG's operations and business activities. New Directors receive updates and publications with respect to industry governance and best practices, meet on-on-one with the President and CEO, and are offered an opportunity to mentor with a current Board member.

The Board supports and sponsors the continuing education of OPG Directors, both in the business of OPG and in their duties as Directors. Annual plant tours of OPG's major facilities and special presentations by internal and external experts are made to the Board or a Committee on topical business-related issues or on specific aspects of OPG's operations. Topics include strategy, energy industry trends, risk, First Nations and Métis, nuclear benchmarking, corporate governance and government. Directors are provided with articles and publications on current topics of interest. Board members have full access to all Board and Committee materials and records. OPG has developed a Director Governance Handbook which provides Directors with access to information necessary to fulfill their roles as Directors, including a summary of Director duties under the OBCA and relevant corporate policies and procedures. OPG also sponsors Director attendance at the Institute of Corporate Director Education Program, or equivalent, and sponsors attendance at the Goizueta Director program for members of the Nuclear Oversight Committee.

Ethical Business Conduct

The Board has adopted a policy for ethical business behaviour and a Code of Business Conduct. The mandate of the Compensation and Human Resources Committee requires that it receive regular reports through the year on the Code of Business Conduct in order to satisfy itself that appropriate codes of conduct and compliance programs are in place, are being enforced, and remedial action is being taken. The Compensation and Human Resources Committee receives quarterly reports by Management on the Code of Business Conduct (including reports on substantiated cases of fraud) and the disposition of cases including disciplinary action, as well as an annual report on the Code of Business Conduct and a report on the annual review of the Board policy. A copy of OPG's Code of Business Conduct is available

on www.opg.com and has been filed on SEDAR (www.sedar.com). The Audit and Finance Committee has also established procedures for the receipt, retention and treatment of complaints received pertaining to internal accounting controls or auditing matters, and the confidential anonymous submission by employees concerning such matters. The Audit and Finance Committee receives reports from the Internal Audit Executive on Fraud and Code of Conduct Audits.

Nomination of Directors

The Governance and Nominating Committee, which is comprised entirely of independent Directors within the meaning of NI 52-110, is responsible for conducting an annual review of the OPG Board's principles and systems of governance, oversight of annual Board, Committee, and Director evaluations, as well as participating in the recommendation of candidates for appointment or election to the Board. When considering a potential candidate, the Governance and Nominating Committee considers the qualities and skills that the Board, as a whole, should have and assesses the competencies and skills of the current members of the Board. In December 2013, the Committee adopted a definition of diversity in its mandate for nominating potential Directors to include women, people with disabilities, aboriginal people, and visible minorities and will consider a diversity candidate for every vacancy on the Board that arises. In November 2013, the OPG Board agreed to sign on the Catalyst Accord, which is a call to action for companies to commit to increasing the proportion of board seats held by women to 25 percent by 2017.

The criteria that the Governance and Nominating Committee looks for in addition to diversity and technical skills include integrity, business judgment and experience, professional expertise, independence from management, international experience, financial literacy, communication and listening skills, as well as sufficient time available to fulfill his or her obligations as a Board member. From time to time the Governance and Nominating Committee may engage outside advisors to assist in identifying potential candidates. The Governance and Nominating Committee recommends nominees to the Board. The Board submits recommended candidates to the Shareholder. Nominations of Directors by the Shareholder are also considered by the Governance and Nominating Committee.

Compensation

Director Compensation

The OPG Director compensation structure was established in 2005 and has remained unchanged. The Governance and Nominating Committee is responsible for monitoring and reviewing the level and nature of compensation of OPG Directors. Pursuant to the recommendations of the 2007 Report of the Agency Review Panel, OPG benchmarks against the 50th percentile of compensation levels for a combined private and public sector comparator group. The last review occurred in May 2012. The Governance and Nominating Committee benchmarked OPG's Director Compensation against comparable public and private companies and the assessment concluded that OPG Director compensation was below the 50th percentile of comparator companies. However, the Committee recommended that no change be made to the compensation of Directors at this time in view of legislative constraints on compensation of OPG Management.

In March 2012, the government introduced Bill 55, the *Strong Action for Ontario Act (Budget Measures),* which included measures to extend controls over executive compensation. This act is in effect until the Province of Ontario ceases to have a budget deficit. Bill 55 applies to the 2012 Vice Presidents and full-time members of the Board of Directors. From March 25, 2010 to March 31, 2012, the *Public Sector Compensation Restraint to Protect Public Services Act, 2010,* froze the compensation structures for Members of Provincial Parliament, and non-represented political staff and employees across the Ontario Public Service and Broader Public Sector, including non-represented employees and directors of OPG.

OPG's Director compensation framework provides each Director who is not an employee of OPG with an annual retainer of $25,000. Directors also receive a $3,000 annual retainer to chair committees and for each committee that they are a member of. In recognition of the increased duties and responsibilities placed upon the chair of the Audit and Finance Committee as a result of recent regulatory initiatives in

North America, the annual retainer for the Audit and Finance Committee chair is $8,000. In recognition of the increased duties and responsibilities placed upon the chair of the Compensation and Human Resources Committee, the annual retainer is $5,000.

Directors are compensated for each meeting that they attend and receive a fee of $1,500 or $750, as determined by the Board Chair or respective Committee chair.

In order to retain national and international expertise, non-resident Directors are compensated in U.S. dollars and Directors who travel long distances receive a travel fee to cover travel time related to Board and Committee meetings they attend.

Since 2004, the Chair of the Board, in his role as non-executive Chair, receives an all-inclusive annual fee of $150,000 and is reimbursed for out-of-pocket expenses, including travel and other expenses.

CEO Compensation

The Compensation and Human Resources Committee of the Board consists of four members, all of which are independent of OPG within the meaning of NI 52-110. The Committee oversees, on behalf of the Board, the setting of the CEO's annual goals and objectives and the annual review of CEO performance, and makes recommendations to the Board with respect to CEO compensation. The Compensation and Human Resources Committee may seek input from an independent advisor with regard to monitoring and benchmarking compensation developments.

In July 2009, when the current CEO was appointed, the compensation terms were established based on the benchmarks recommended in the 2007 Report of the Agency Review Panel on Phase 1 of its Review of Ontario's Provincially Owned Electricity Agencies. In March 2012, the government introduced Bill 55, the *Strong Action for Ontario Act (Budget Measures),* which included measures to extend controls over executive compensation. This act is in effect until the Province of Ontario ceases to have a budget deficit. From March 25, 2010 to March 31, 2012, the *Public Sector Compensation Restraint to Protect Public Services Act, 2010,* froze the compensation structures for Members of Provincial Parliament and for non-represented political staff and employees across the Ontario Public Service and Broader Public Sector, including non-represented employees and Directors of OPG.

Committees of the Board of Directors

The following Committees are the current Board Committees as of March 6, 2014:

Audit and Finance Committee

This Committee is responsible for the integrity, quality, and transparency of OPG's financial information, the adequacy of the financial reporting process, the systems of internal controls, and OPG's related principles, policies, and procedures which Management has established. The Committee is responsible for the oversight of the Company's regulatory filings, including AIF, financial statements, MD&A, and press releases, prior to their disclosures to the public, including approval of quarterly financial statements and recommending approval of the annual financial statements and various other annual disclosures of

OPG Inc. to the Board. The Committee provides oversight of OPG's corporate financing strategies: including: policies related to financial exposure management; processes for identifying major strategic, operational and transactional financial risks; performance of the OPG Pension Fund, the Used Fuel Fund and the Decommissioning Fund; reviews and recommends approval to the Board of the audited financial statements of the Funds; and approves the statement of investment policies and procedures for the OPG Pension Fund and the Decommissioning Fund.

As of the date hereof, the Audit and Finance Committee consists of George Lewis (Chair), Bill Coley, Bernard Lord, Gerry Phillips, Marie Rounding, and David Unruh.

Risk Oversight Committee

This Committee is responsible for the oversight of enterprise-wide risk and associated risk management activities, including oversight of OPG's environment and dam safety managed systems and OPG's Aboriginal relations. The Committee is also responsible for reviewing Management's assessment of significant operational, transactional, and strategic risks to achieving Business Plan objectives in the Hydro-Thermal Operations, Commercial Operations & Environment, Business Services and Administrative Services and all other non-Nuclear and non-Finance corporate and central support services. The Committee also receives the Enterprise Risk Management report, which includes information on nuclear risks and financial risks that are reported to the Nuclear Oversight Committee and Audit and Finance Committee, respectively. Additionally, the Committee is responsible for oversight of the development, risk management, financing, and execution of complex major non-nuclear projects, and new business opportunities.

As of the date hereof, the Risk Oversight Committee consists of Ian Ross (Chair), Don Hintz, Roberta Jamieson, Bernard Lord, Peggy Mulligan, Gerry Phillips, and Bill Sheffield.

Nuclear Oversight Committee

This Committee is responsible for the oversight of safe and efficient operations of OPG's nuclear facilities. The Committee is also responsible for reviewing Management's assessment of significant operational, transactional, and strategic risks to achieving Nuclear Business Plan objectives. Additionally, the Committee is responsible for the development, risk management, financing, and execution of major nuclear projects. The Committee is also responsible for reviewing annually and confirming the appointment of external advisors/assessors of OPG's nuclear operations, and for Management's response to and implementation of the results and major findings from such internal and external assessments. The Committee ensures that OPG's nuclear facilities and materials are in compliance with existing laws and CNSC regulations and the Committee monitors OPG's nuclear waste and decommissioning liabilities and operations.

As of the date hereof, the Nuclear Oversight Committee consists of Don Hintz (Chair), Bill Coley, John Herron, Gary Kugler, and Ian Ross.

Compensation and Human Resources Committee

This Committee provides oversight of OPG's human resources and compensation policies and practices, including CEO objectives and compensation, disclosure on compensation and human resources matters, leadership talent review, succession planning, and labour negotiations. The Committee also provides oversight of OPG's pension plans and related policies. The Committee is responsible for ensuring that an effective Code of Business Conduct is in place at OPG and monitoring compliance with the Code.

As of the date hereof, the Compensation and Human Resources Committee consists of Peggy Mulligan (Chair), John Herron, Gary Kugler, Bill Sheffield, and David Unruh.

Governance and Nominating Committee

This Committee oversees the Board's governance program and practices that are consistent with high standards of corporate governance, including annually reviewing and assessing the Board's system of corporate governance with a view to maintaining these high standards. The Committee is responsible for overseeing OPG's subsidiary and joint venture governance and OPG's reputation management plan. The Committee identifies and recommends to the Board candidates for election to be put before the Shareholder. Finally, the Committee oversees OPG's processes for Board, Committee, and Director assessments, as well as Director compensation and new Director orientation.

As of the date hereof, the Governance and Nominating Committee consists of Marie Rounding (Chair), Roberta Jamieson, George Lewis, and David Unruh.

Ad Hoc Committee

In August, 2012, the OPG Board of Directors established an ad hoc committee to identify and assess alternate strategies for OPG. The Ad Hoc Committee may meet in person or by telephone as required.

As of the date hereof, the Ad Hoc Committee consists of Ian Ross (Chair), George Lewis, Peggy Mulligan, Gerry Phillips, and David Unruh.

Executive Talent Committee

In December 2013, the OPG Board of Directors established an Executive Talent Committee, with a mandate to conduct a search, select and appoint a Chief Financial Officer, Chief Audit Executive and others as necessary.

As of the date hereof, the Executive Talent Committee consists of Jake Epp (Chair), Peggy Mulligan, George Lewis, Marie Rounding, Ian Ross, Don Hintz, and David Unruh.

Directors have access to all Board and Committee meeting material, unless otherwise directed by the Board Chair.

Assessments

The Governance and Nominating Committee is responsible for the annual process for evaluating the performance of the Board, its Committees, and its individual Directors. The Board and Committee evaluations are based upon the completion of confidential questionnaires regarding assessment of its performance and compliance with the Board and Committee Charters. Director evaluations are based on self-assessment questionnaires, which are submitted in confidence to the Board Chair and the Chair of the Governance and Nominating Committee. In addition, the process includes a follow-up one-on-one meeting between each Director and the Board Chair. The Governance and Nominating Committee reports the results of the evaluations and makes recommendations to the Board for enhancing the Board's governance and effectiveness.

Further Information on OPG Governance

OPG provides additional information on OPG's governance on its website (www.opg.com) including:

- Memorandum of Agreement with the Shareholder
- Shareholder Directives
- List of Corporate Officers
- Board and Committee Charters
- Board and Committee Chair Position Descriptions
- Board of Directors Conflict of Interest Policy

- First Nation and Métis Relations Policy
- Code of Business Conduct
- Disclosure Policy
- Environmental Policy
- Employee Health and Safety Policy
- Nuclear Safety Policy
- Safe Operations Policy

AUDIT AND FINANCE COMMITTEE INFORMATION

NI 52-110, has been implemented by Canadian securities regulatory authorities to encourage reporting issuers to establish and maintain strong, effective, and independent audit committees, which enhance the quality of financial disclosure and ultimately foster increased investor confidence in Canada's capital markets. Information on OPG's Audit and Finance Committee, which includes the text of the Audit and Finance Committee Charter, is as follows:

Audit and Finance Committee Charter

Purpose

The basic function and purpose of the Audit and Finance Committee is to assist the Board of Directors in their responsibility for oversight of matters relating to:

- The integrity, quality and transparency of OPG's financial information;
- The adequacy of the financial reporting process;
- The systems of internal controls and OPG's related principles, policies and procedures which Management have established;
- The performance of OPG's internal audit function and the external auditors;
- The performance, qualifications and independence of OPG's external auditors;
- OPG's compliance with related legal and regulatory requirements and internal policies;
- Corporate financing strategies and vehicles including strategies and policies related to financial exposure management; and
- The OPG Pension Fund the Used Fuel Segregated Fund and Decommissioning Segregated Fund.

The function of the Audit and Finance Committee is oversight. Management is responsible for the preparation, presentation and integrity of OPG's financial statements. Management is responsible for maintaining appropriate accounting and financial reporting principles and policies, and internal controls and procedures that provide for compliance with accounting standards and applicable laws and regulations.

Organization

Members

The Audit and Finance Committee shall consist of three or more Directors as determined by the Board of Directors. All members of the Committee shall be independent as defined by the Ontario Securities Commission, and not "affiliated" with OPG.

The Board shall appoint the members of the Committee and the Chair of the Committee annually. The Board may appoint a member to fill a vacancy which occurs in the Committee between annual elections of Directors. Any member of the Committee may be removed or replaced at any time by the Board.

If a member of the Committee becomes "affiliated" with OPG, the member may continue as a member of the Committee with the approval of the Board Chair, in consultation with the Corporate Secretary.

As a "venture issuer", OPG is exempt from the statutory requirements of NI 52-110 requiring members of Audit Committees be independent and financially literate. However, OPG considers such independence and financial literacy to be "best practice" and therefore each of the members of the Audit and Finance Committee shall satisfy the applicable independence and financial literacy requirements of the laws and regulations governing Audit Committees.

The Board of Directors shall confirm that each member of the Audit and Finance Committee is financially literate; as such qualification is interpreted by the Board of Directors in its business judgment, and in compliance with NI 52-110 and its Companion Policy.

Meetings

The Committee shall meet as frequently as it determines but not less than quarterly. During quarterly meetings, the Committee will hold separate in camera sessions with the external auditors, the Chief Internal Audit Executive, and Management to discuss any matters that the Committee believes should be discussed and to provide a forum for any relevant issues to be raised. In addition, the Committee will hold a separate in camera session with the Chief Risk Officer on a semi-annual basis.

Notice of the time and place of each meeting of the Committee must be given to each member of the Committee not less than 48 hours before the time of the meeting.

A quorum of the Committee shall be a majority of its members, but not less than two. The powers of the Committee may be exercised at a meeting at which a quorum of the Committee is present in person or by telephone or other electronic means, or by a resolution signed by all members entitled to vote on that resolution at a meeting of the Committee. Each member is entitled to one vote in Committee proceedings.

The Chair shall preside at all meetings of the Committee at which he or she is present (or if not able to be present designate another member of the Committee to chair the meeting) and shall develop the agenda for each Committee meeting. The agenda for each meeting of the committee shall be delivered to each member of the Committee at least 48 hours prior to any meeting of the Committee, together with such other materials as the chair determines necessary.

The Chair shall designate from time to time a person who may, but not need to be, a member of the Committee, to be Secretary of the Committee. Minutes shall be kept of all meetings of the Committee and shall be maintained by the Secretary of the Committee. The procedure at meetings is to be determined by the Committee unless otherwise determined by the by-laws of OPG, by a resolution of the Board or by this Charter.

The Committee may meet in camera (without Management present) at any time during each meeting.

The Committee may invite any Director, officer or employee of OPG or OPG's counsel or any other person to attend meetings of the Committee to assist in the discussion and examination of the matters under consideration by the Committee.

Reports

The Committee will report its activities and actions to the Board of Directors with recommendations, as the Committee deems appropriate.

The Committee will provide for inclusion in OPG's financial information or regulatory filings any report from the Audit and Finance Committee required by applicable laws and regulations and stating among other things whether the Audit and Finance Committee has:

(i) Reviewed and discussed the audited financial statements with Management.
(ii) Discussed pertinent matters with the internal and external auditors.
(iii) Received disclosures from the external auditors regarding the auditors' independence and discussed with the auditors their independence.
(iv) Recommended to the Board of Directors that the audited financial statements be included in OPG's Annual Report.

Authority

While the Audit and Finance Committee has the responsibilities and powers set forth in this Charter, it is not the duty of the Audit and Finance Committee to plan or conduct audits or risk assessments, or to determine that OPG's financial statements and disclosures are complete and accurate and are in accordance with generally accepted accounting principles and applicable rules and regulations. These are the responsibility of Management and, as appropriate, the external auditor.

The Committee is responsible for the oversight of the funds invested in the OPG Pension Fund under the *Ontario Pension Benefits Act* and the funds invested in the Used Fuel Segregated Fund and the Decommissioning Segregated Fund under the ONFA with the Province.

In carrying out its oversight responsibilities, the Audit and Finance Committee and the Board will necessarily rely on the expertise, knowledge, and integrity of OPG Management, and internal and external auditors.

The Audit and Finance Committee shall have the authority to set and pay the compensation for any advisors employed by the Committee.

The Audit and Finance Committee shall have the authority to communicate directly with the internal and external auditors.

Delegation of Authority

The Committee may delegate to any employee of OPG or a sub-committee the authority to:

(i) execute or carry out any decision of the Committee; and/or
(ii) exercise any right, power or function of the Committee on such terms and conditions and within such limits as the Committee may establish, except that the Committee may not delegate its oversight responsibilities.

Access to Management and Outside Advisors

The Audit and Finance Committee shall have unrestricted access to members of Management and relevant information.

The Audit and Finance Committee has the authority to retain legal counsel, accountants or other advisors to assist it in the conduct of any investigation, as it determines necessary to carry out its duties.

Committee Responsibilities and Duties

The Committee shall perform the duties set out in this Charter and shall perform such other duties as may be necessary or appropriate under applicable law or securities rules, or as may be delegated to the Committee by the Board from time to time.

The Committee maintains oversight of OPG's audit and finance activities and assists the Board by reviewing and making recommendations to the Board with respect to:

1. *General*

    a) Conduct or authorize investigations into any matters within the Committee's scope of responsibilities.

    b) Review and recommend approval to the Board, the appointment or replacement of the Chief Financial Officer, Chief Internal Audit Executive and the Chief Investment Officer.

    c) Approve on behalf of the Board, quarterly financial statements and disclosures for OPG Inc.

    d) Review and recommend to the Board OPG's rate application to the Ontario Energy Board, including proposed payment amounts, hearing strategies, and key issues.

2. *Internal Controls*

    a) Review with Management, reports demonstrating compliance with finance risk management policies.

    b) Review with OPG's General Counsel and others any legal, tax, or regulatory matters that may have a material impact on OPG's operations and the financial statements, including, but not limited to, violations of securities law or breaches of fiduciary duty.

    c) Review with Management, the Chief Internal Audit Executive, and the external auditors, the scope of review of internal control over financial reporting, significant findings, recommendations and Management's responses for implementation of actions to correct weaknesses in internal controls.

    d) Review disclosures made by the CEO and Chief Financial Officer during the certification process regarding significant deficiencies in the design or operation of internal controls or any fraud that involves Management or other employees who have a significant role in OPG's internal controls.

    e) Review the expenses of the Chairman, Board, President, and the President's direct reports on an annual basis, and of any other senior officers and employees the Committee considers appropriate.

3. *Internal Audit*

    a) Evaluate the internal audit process and define expectations in establishing the annual internal audit plan, including the organizational structure and the adequacy of resources.

    b) Approve the Charter of the internal audit function annually.

    c) Evaluate the audit scope and role of Internal Audit.

    d) Approve the annual internal audit plan.

e) Consider and review with Management:

(i) Significant findings and Management's response including the significance of the finding, the adequacy of the control processes, and the timetable for implementation of Management actions to correct weaknesses.
(ii) Any difficulties encountered in the course of their work (such as restrictions on the scope of their work or access to information).
(iii) Any changes required in the planned scope of the audit plan.
(iv) The internal audit budget.

f) Review Internal Audit's confirmation of organizational independence and disclosure of any conflict of interest.

4. *External Auditor*

a) Recommend to the Board of Directors the external auditor to be nominated for the purpose of preparing or issuing an auditor's report or performing other audit, review, or attest services for OPG, and the compensation of the external auditor.

b) Oversee the work of the external auditor engaged for the purpose of preparing or issuing an auditor's report or performing other audit, review, or attest services for OPG, including the resolution of disagreements between Management and the external auditor regarding financial reporting.

c) Review the independence and qualifications of the external auditor.

d) At least annually, obtain and review a report by the external auditor describing the auditing firm's internal quality control procedures, any material issues raised by the most recent internal quality-control review or peer review of the auditing firm or by any inquiry or investigation by governmental or professional authorities within the preceding five years respecting one or more independent audits carried out by the external auditor and any steps taken to deal with any such issues and all relationships between the external auditors and OPG.

e) Review the scope and approach of the annual audit plan with the external auditors.

f) Discuss with the external auditor the quality and acceptability of OPG's accounting principles including all critical accounting policies and practices used, any alternative treatments that have been discussed with Management, as well as any other material communications with Management.

g) Assess the external auditor's process for identifying and responding to key audit and internal control risks.

h) Ensure the rotation of the lead audit partner and other audit partners every seven years and consider regular rotation of the audit firm.

i) Evaluate the performance of the external auditor annually and present its findings to the Board of Directors.

j) Conduct a comprehensive review of the external audit firm at least once every five years and present the findings to the Board of Directors.

k) Determine which non-audit services the external auditor is prohibited by law or regulation, or as determined by the Audit and Finance Committee, from providing and pre-approve all services provided by the external auditors. The Committee may delegate such pre-approval authority to a member of the Committee. The decision of any Committee member to whom pre-approval

authority is delegated must be presented to the full Audit and Finance Committee at its next scheduled meeting.

l) Review and approve all related-party transactions.

m) Review and approve OPG's hiring policies regarding partners, employees and former partners and employees of the present and former external auditor of OPG.

5. *Financial Reporting*

a) Review with Management and the external auditors OPG's interim financial information and disclosures under MD&A and earnings press release, prior to filing.

b) Review and make recommendations to the Board of the Annual Information Form prior to filing with securities regulators.

c) Satisfy itself that adequate procedures are in place for the review of OPG's public disclosure of financial information extracted or derived from OPG's financial statements, other than the public disclosure referred to in subsection 5a above, and periodically assess the adequacy of those procedures.

d) Review with Management and the external auditors, at the completion of the annual audit:

(i) The annual financial statements, MD&A, related footnotes and any documentation required by the *Securities Act* to be prepared and filed by OPG or that OPG otherwise files with the Ontario Securities Commission.
(ii) The external auditors' audit of the financial statements and their report.
(iii) Any significant changes required in the external auditors' audit plan.
(iv) Any difficulties or disputes with Management encountered during the audit.
(v) OPG's accounting principles.
(vi) Other matters related to conduct, which should be communicated to the Committee under generally accepted auditing standards.

e) Review significant accounting and reporting issues and understand their impact on the financial statements. These include complex or unusual transactions and highly judgmental areas; major issues regarding accounting principles and financial presentations, including significant changes in OPG's selection or application of accounting principles; the effect of regulatory and accounting initiatives, as well as off-balance sheet arrangements on OPG's financial statements.

f) Review analysis prepared by Management and/or the external auditor detailing financial reporting issues and judgments made in connection with the preparation of financial information, including analysis of the effects of alternative generally accepted accounting principles methods.

g) Advise Management, based upon the Audit and Finance Committee's review and discussion, whether anything has come to the Committee's attention that causes it to believe that the financial statements contain an untrue statement of material fact or omit to state a necessary material fact.

6. *Investment Funds*

The Committee shall review and make recommendations to the Board on:

a) The annual audited financial statements for the OPG Pension Fund, the Used Fuel Segregated Fund and the Decommissioning Segregated Fund.

b) The appointment of the auditor of the funds.

c) The broad objectives, governance frameworks and risk posture for the funds.

In addition, the Committee shall

d) Approve the appointment of the members of OPG's Pension Committee. In addition, the Committee may, at any time, remove or replace any member of the Pension Committee or fill a vacancy on the Pension Committee. The Pension Committee Chair may temporarily appoint a senior management employee to fill a vacancy on the Pension Committee until the next regularly scheduled Audit and Finance Committee meeting.

e) Approve the investment policies and procedures for the OPG Pension Fund, as required by the *Ontario Pension Benefits Act* and its regulations, and for the Decommissioning Segregated Funds, as required by the ONFA.

f) Approve the design of and modifications to the funds.

g) Monitor quarterly and annually or by exception, compliance with and appropriateness of the asset mix policy; total fund and asset class returns relative to benchmarks; material compliance with breaches of policies or procedures; and, work conducted by the plan actuary.

h) Report to the Board at least annually on the status of the Pension Fund, Used Fuel and Decommissioning Segregated Fund including funded status; total returns; compliance with fund objectives and risk posture; and, compliance with legislation and governance relating to fund management.

The Committee shall receive a copy of the report to the Nuclear Oversight Committee on the calculation of OPG's nuclear waste liability.

The Committee shall provide advice to the Compensation and Human Resources Committee on the affordability of changes to the OPG Pension Plan.

7. *Corporate Finance and Strategic, Operational, and Transactional Risks*

The Committee shall review and make recommendations and advising the Board with respect to:

a) Corporate financing objectives, strategies and vehicles, credit facilities, including accessing capital debt markets, and any other related financing activities.

b) Ensuring a process exists for identifying major strategic, operational, and transactional risks in the financial area.

c) Reviewing Management's assessment of the significant operational, transactional, and strategic risks to achieving Business Plan objectives in the Finance Business Unit and plans to manage, mitigate and monitor the risks.

8. *Treatment of Complaints*

a) Establish procedures for the receipt, recording and treatment of complaints received by OPG regarding accounting, internal accounting controls, or auditing matters.

b) Establish procedures for the confidential and anonymous submission by OPG employees of concerns regarding accounting or auditing matters.

9. *Board Policies*

The Audit and Finance Committee is accountable for oversight of the following Board policies:

a) Delegation and Exercise of Authority

b) Disclosure

The Committee is responsible for reviewing these Board policies on an annual basis to ensure continuing adequacy of the policies, in addition to receiving at a minimum an annual report from Management on compliance with each Board policy. The Committee is also responsible for recommending to the Board the development of any new Board policy it may feel is required in order to fulfill the role and responsibilities of the Committee.

Annual Review and Assessment

The Committee shall conduct an annual review and assessment of its performance, including a review of its compliance with this Charter, in accordance with the evaluation process approved by the Board.

The Committee shall also review and assess the adequacy of this Charter on an annual basis taking into account all legislative and regulatory requirements applicable to the Committee as well as any best practice guidelines recommended by regulators with whom OPG has a reporting relationship, and if appropriate, shall recommend changes to the Board.

Composition of the Audit and Finance Committee

As at March 6, 2014, the members of the Audit and Finance Committee were George Lewis (Chair), Bill Coley, Bernard Lord, Gerry Phillips, Marie Rounding, and David Unruh. All members are independent and financially literate as such terms are defined under applicable Canadian securities legislation.

Relevant Education and Experience

Financially literate means having the ability to read and understand the accounting principles used by OPG to prepare its consolidated financial statements, and the ability to address the breadth and level of complex accounting issues that are generally comparable to the breadth and complexity of issues that can reasonably be expected to be raised by OPG's consolidated financial statements. Each member has an understanding of internal controls and procedures for financial reporting. The education and experience of each Audit and Finance Committee member that is relevant to his or her performance as an Audit and Finance Committee member may be found in the biographical information included in the *Corporate Governance* section.

External Auditor Service Fees

The following fees were billed by Ernst & Young LLP:

(thousands of dollars)	**2013**	**2012**
Audit fees	**1,775**	2,367
Audit-Related fees	**203**	142

EXECUTIVE OFFICERS

The following table sets forth the name, municipality of residence, position with the Company, and the date of commencement for each of the executive officers of the Company as of March 6, 2014:

Name and Municipality of Residence	Principal Occupation	Executive Officer Since
Jake Epp Calgary, Alberta	Chairman of the Board of Directors	December 2003
Tom Mitchell Toronto, Ontario	President and Chief Executive Officer	December 2006
Bruce Boland Toronto, Ontario	Senior Vice President, Commercial Operations and Environment	June 2004
Carlo Crozzoli Toronto, Ontario	Senior Vice President, Corporate Business Development and Chief Risk Officer	December 2011
Chris Ginther Aurora, Ontario	Senior Vice President, Law, General Counsel and Chief Ethics Officer	July 2012
Robin Heard Toronto, Ontario	Interim Senior Vice President, Chief Financial Officer	December 2013
Glenn Jager Clarington, Ontario	Chief Nuclear Officer	November 2013
David Kaposi Toronto, Ontario	Vice President, Chief Investment Officer	November 2013
Barb Keenan Toronto, Ontario	Senior Vice President, People & Culture	March 2010
Catriona King Richmond Hill, Ontario	Vice President, Corporate Secretary & Executive Operations	February 2005
John Lee Toronto, Ontario	Vice President, Treasurer	July 2011
Mike Martelli Etobicoke, Ontario	Senior Vice President, Hydro-Thermal Operations	July 2013
Scott Martin Burlington, Ontario	Senior Vice President, Business and Administrative Services	January 2013
W.R. (Bill) Robinson Locust Hill, Ontario	Senior Vice President, Nuclear Projects	May 2013

All of the executive officers of the Company have been engaged for more than five years in their current principal occupations, except as set out below:

- Mr. Mitchell was Chief Nuclear Officer for OPG from December 2006 to June 2009
- Mr. Crozzoli was Director, Business Development at OPG from March 2002 to March 2008 and Vice President, Hydroelectric Development at OPG from March 2008 to December 2011
- Mr. Ginther was General Counsel at Bell Canada from March 1999 to February 2008 and Chief Legal Officer at Ontario Lottery and Gaming Corporation from February 2008 to October 2010
- Mr. Jager was Deputy Vice President, Darlington Nuclear Generating Station at OPG from December 2008 to January 2010 and Senior Vice President, Pickering Nuclear Generating Station at OPG from January 2010 to November 2013
- Mr. Kaposi was Global Head of Alternatives for Mercer (Canada) Inc. from November 2007 to June 2012 and Partner, Investor Relations at Bastion Infrastructure Group Inc. from July 2012 to September 2013
- Ms. Keenan was Vice President of Nuclear Human Resources & Employee Safety at OPG from October 2007 to March 2010
- Ms. King was Vice President, Corporate Secretary from June 2005 to May 2012
- Mr. Lee was Director Financing & Liquidity at OPG from December 2006 to April 2009 and Assistant Treasurer from April 2009 to July 2011
- Mr. Martelli was Plant Manager for the Northwest Plant Group at OPG from November 2007 to June 2010, and Plant Manager for the Niagara Plant Group at OPG from June 2010 to July 2013
- Mr. Martin was Vice President, Hydro Human Resources & Employee Safety at OPG from January 2006 to March 2008, Vice President, Labour Relations at OPG from March 2008 to April 2010, Vice President, Labour Relations, Safety, Wellness and Corporate Security at OPG from April 2010 to May 2012, and Vice President, Employee & Labour Relations from May 3, 2012 to January 2013
- Mr. Robinson was Executive Vice President, Nuclear Refurbishment and Business Transformation at OPG from November 2008 to December 2011
- Mr. Heard was VP Finance, Chief Controller & Chief Accounting Officer at OPG from May 2012 to December 2013, VP Finance and Chief Controller at OPG from April 2009 to May 2012 and VP Financial Services at OPG from 2005 to April 2009.

CEASE TRADE ORDERS, BANKRUPTCIES, PENALTIES OR SANCTIONS

To the knowledge of OPG, no director or executive officer is, at the date of the AIF, or was within 10 years before the date of the AIF, a director, chief executive officer, or chief financial officer of any company, that (a) was subject to an order that was issued while the director or executive officer was acting in the capacity as director, chief executive officer, or chief financial officer, or (b) was subject to an order that was issued after the director or executive officer ceased to be a director, chief executive officer or chief financial officer and which resulted from an event that occurred while that person was acting in the capacity as director, chief executive officer, or chief financial officer, except for:

- Mr. Sheffield was prohibited from trading in securities while serving as a director of Royal Group Technologies Ltd. pursuant to a management cease trade order issued by the Ontario Securities Commission in connection with the delay in filing of certain of Royal Group Technologies Ltd.'s financial statements from April 2006 to May 2006. The order is no longer in effect.

To the knowledge of OPG, no director or executive officer of OPG, or a shareholder holding a sufficient number of securities of OPG to affect materially the control of OPG (a) is, as at the date of the AIF, or has been within the 10 years before the date of the AIF, a director or executive officer of any company (including OPG) that, while that person was acting in that capacity, or within a year of that person ceasing to act in that capacity, became bankrupt, made a proposal under any legislation relating to bankruptcy or insolvency or was subject to or instituted any proceedings, arrangement or compromise with creditors or had a receiver, receiver manager or trustee appointed to hold its assets; or (b) has, within the 10 years before the date of the AIF, become bankrupt, made a proposal under any legislation relating to

bankruptcy or insolvency, or become subject to or instituted any proceedings, arrangement or compromise with creditors, or had a receiver, receiver manager, or trustee appointed to hold the assets of the director, executive officer, or shareholder, except for:

- On October 1, 2013, GrowthWorks Canadian Fund Ltd. obtained court protection under the *Companies' Creditors Arrangement Act*. Mr. Ross was Director and Chairman of the company at that time. GrowthWorks Canadian Fund Ltd. sought protection for management of the Fund, including disposition of the Fund's portfolio investments and other strategic alternatives. FTI Consulting Canada Inc. was appointed monitor for the proceedings
- Bernard Lord was a director of AEA Technology from the fall of 2010 until the fall of 2012 when it became insolvent.

INTEREST OF MANAGEMENT AND OTHERS IN MATERIAL TRANSACTIONS

Relationship with the Province and Others

Relationship with the Shareholder

As a corporation created under and governed by the OBCA, OPG's management is supervised by its Board of Directors which is obligated by law to act in the best interests of the Company. The Company's sole Shareholder, the Province, owns all of the Company's issued and outstanding common shares and thereby has the power to determine the composition of the Company's Board of Directors.

Memorandum of Agreement

On August 17, 2005, OPG entered into the MOA with the Shareholder, regarding OPG's role and responsibility as a power producer in Ontario. The MOA serves as the basis of agreement between OPG and the Shareholder regarding OPG's mandate, governance, performance, reporting, and communications. Under the MOA, OPG's core mandate is to generate electricity from its diversified portfolio of generating assets as efficiently and cost-effectively as possible within its legislative and regulatory framework, while operating in a manner that maintains the value of OPG's assets and mitigates the Shareholder's financial and operational risk. A copy of the MOA can be found on the Company's website at www.opg.com.

Transfer Orders

On April 1, 1999, pursuant to transfer orders made by Order-in-Council under the Electricity Act, OPG purchased and assumed all of the interest of Ontario Hydro in all officers, employees, assets, liabilities, rights, and obligations of Ontario Hydro directly or indirectly used in, or relating in any manner to, the activities carried on by Ontario Hydro as a generator as at April 1, 1999. The transfer orders included schedules specifically listing and describing assets, liabilities, rights, and obligations transferred to OPG. Under the transfer orders, all officers, employees, assets, rights, liabilities, and obligations of Ontario Hydro that were not transferred by a transfer order to another transferee, or that were not specifically retained by the OEFC, or that were not clearly related to another successor's business, were also transferred to OPG.

Under the Electricity Act and pursuant to the transfer orders, the OEFC was released from liability in respect of all assets and liabilities transferred by the transfer orders. However, the OEFC retained certain specific liabilities, as described in the transfer orders, including, as at April 1, 1999, approximately $30.5 billion aggregate principal amount of publicly held debt obligations of Ontario Hydro.

The transfer orders also provide that if they fail for any reason to fully and effectively in law transfer any asset, right, liability, or obligation or that if such transfer would constitute a breach of the terms of such asset, right, liability, or obligation or of any applicable law, such assets, rights, liabilities, or obligations are not transferred, but are held by the OEFC for the benefit of OPG.

Shareholder Directives

OPG's Shareholder may at times direct OPG to undertake special initiatives. Such directives are communicated as written declarations by way of a unanimous shareholder agreement or declaration in accordance with section 108 of the OBCA. Copies of each of the Shareholder Directives may be found on the Company's website at www.opg.com. The unanimous shareholder agreements or declarations issued by the Shareholder to date are listed below in reverse chronological order:

- Thunder Bay Generating Station Conversion (December 16, 2013)
- Early Closure of Ontario Power Generation's Lambton and Nanticoke Coal-Fired Generation Stations (March 7, 2013)
- First Nation Directive (April 1, 2011)
- Atikokan Generating Station Conversion (March 8, 2011)
- Addressing Carbon Dioxide Emissions from the Use of Coal at Coal-Fired Generating Stations (May 20, 2010)
- Request for Indicative Prices for the Supply of Wood Pellet Fuel Declaration (Atikokan) (March 18, 2010)
- Request for Expressions of Interest for Supply and Transportation of Solid Biomass Fuel Declaration (January 13, 2009)
- Addressing Carbon Dioxide Emissions from the Use of Coal at Coal-Fired Generating Stations (May 15, 2008)
- Thunder Bay Gas Conversion Cancellation (July 12, 2006)
- Nuclear Directive (June 16, 2006)
- Lower Mattagami River Agreement (May 23, 2006)
- Bruce Power Lease Agreement (October 14, 2005)
- Thunder Bay Gas Conversion Declaration (October 6, 2005).

Ontario Nuclear Funds Agreement

OPG and the Province have executed the ONFA, under which OPG has established a Used Fuel Fund and a Decommissioning Fund. The Province has agreed to limit OPG's financial exposure in relation to certain used fuel management costs. For additional details, see *Description of the Business – Nuclear Waste Management – Provision for Future Nuclear Related Costs*.

Provincial Authority over the Electricity Industry

The OEB, the principal regulator of Ontario's electricity industry, is an independent quasi-judicial tribunal continued by the *Ontario Energy Board Act, 1998*, reporting to the Ontario legislature through the Minister of Energy. The OEB is obligated to implement policy directives approved by the Province.

The IESO is a not-for-profit corporate entity established by the Electricity Act. It is governed by an independent Board of Directors appointed by the Province.

The OPA was established in 2004 by the *Electricity Restructuring Act, 2004* (Ontario) with a mandate to contribute to the development of a reliable and sustainable electricity system. The OPA plans for the long-term and procures and coordinates conservation and electricity supply from diverse sources. The OPA's board members are appointed by the Minister of Energy, in accordance with the Electricity Act.

The OEFC is a legal continuation of Ontario Hydro under a new name and remains responsible for managing the former Ontario Hydro's debt and certain other obligations not transferred to other successor companies to Ontario Hydro and for the administration of non-utility generator contracts in a manner

compatible with the market design. The OEFC's Board of Directors is appointed by the Province and is accountable to the Minister of Finance for supervising the management of the OEFC.

For additional details, see *Regulation – Ontario Electricity Regulation*.

OPG Debt Held by the OEFC

OPG's long-term debt has been financed predominantly by the OEFC. As at December 31, 2013, the OEFC held approximately $4.0 billion of OPG's long-term debt with maturities ranging from one year to 28 years. For additional details, see Note 8 to the Company's Annual Financial Statements for the year ended December 31, 2013.

Payments-In-Lieu

OPG and its wholly-owned subsidiaries are exempt from tax under the *Income Tax Act* (Canada) and *Taxation Act, 2007* (Ontario) because the Province is OPG's sole Shareholder; OPG owns not less than 90 percent of the shares or capital of its subsidiaries; and no non-government entity has an option or other right to acquire more than 10 percent of such shares. However, under the Electricity Act, OPG is required to make payments in lieu (proxy tax) of corporate income and capital taxes to the OEFC. These payments are calculated in accordance with the *Income Tax Act* (Canada) and the *Taxation Act, 2007* (Ontario), and are modified by regulations made under the Electricity Act. Under the regulations to the Electricity Act, contributions to the Decommissioning Fund or the Used Fuel Fund are deductible in computing income subject to proxy tax. In addition, any related investment income earned on these funds is exempt from proxy tax and tax under the *Income Tax Act* (Canada) and under the *Taxation Act, 2007* (Ontario). See *Interest of Management and Others in Material Transactions -Taxation of Provisions for Future Nuclear Related Costs*.

The Electricity Act also provides that OPG and certain of its subsidiaries are required to make payments in lieu of property tax to the OEFC on their non-hydroelectric generating station buildings and structures each year. These payments generally equal the difference between property taxes otherwise payable if these assets were privately owned, and the amount payable to municipalities as determined under the *Assessment Act* (Ontario). As with other hydroelectric generators in Ontario, OPG's hydroelectric generation operations do not make payments in lieu of property taxes because they are subject to the GRC regime.

One of the purposes of the proxy tax and the payments in lieu of property tax is to create a level playing field, from a tax perspective, between OPG and other generators seeking to sell electricity in the Ontario market.

Stranded Debt

One of the OEFC's purposes under the Electricity Act is to manage its outstanding liabilities, including "stranded debt". The Electricity Act defines stranded debt as the amount of the debt and other liabilities of the OEFC that, in the opinion of the Minister of Finance, cannot reasonably be serviced and retired in a competitive electricity market. Although OPG has no obligations in connection with the stranded debt, the Electricity Act does provide for participants in the electricity sector, including OPG, Hydro One, and the municipal electricity utilities, to make payments to the OEFC, which the OEFC uses in managing its debt and other obligations. These payments include proxy taxes, the Debt Retirement Charge levied on electricity consumers, and other amounts that may be payable by municipal electricity utilities on the transfer of their electricity business.

Taxation of Provisions for Future Nuclear Related Costs

Income earned by the Used Fuel Fund and the Decommissioning Fund is exempt from proxy tax. For more details, see *Interest of Management and Others in Material Transactions – Payments-In-Lieu*. Such income is also exempt from tax under the *Income Tax Act* (Canada) and *Taxation Act, 2007* (Ontario).

However, because the Company established a trust pursuant to the NFWA to fund part of its long-term management of used fuel, this trust is taxable as a separate entity under the *Income Tax Act* (Canada). As a taxable entity, the trust would normally be required to pay tax on any income earned because such funds remain in the trust. Under new paragraph 149(1)(z.2) to the *Income Tax Act* (Canada), effective for 1997 and later years, income earned by the NFWA trust is exempt from income tax as it was created and maintained solely to meet the obligations of the NFWA.

OPG is entitled to recover its goods and services tax (GST) and harmonized sales tax (HST) under the *Excise Tax Act,* (Canada) paid on its purchases and expenses related to its nuclear waste operations. Under the NFWA, the long-term management of used fuel will be performed by the NWMO. In addition, each member had to establish a trust fund for the purpose of funding the preferred approach to manage the nuclear fuel waste. The NWMO sought clarification on the proper GST/HST treatment between NWMO, the trust fund, and OPG. The rulings issued by the Canada Revenue Agency (CRA) confirmed that the NWMO would be entitled to recover the GST and HST paid for Phase I and Phase II activities.

LEGAL PROCEEDINGS AND REGULATORY ACTIONS

OPG is presently, and also from time to time, a party to various legal proceedings covering a wide range of matters that arise in the ordinary course of its business activities, including proceedings in which OPG is a party as a successor to Ontario Hydro.

British Energy Claim

On August 9, 2006, a Notice of Action and Statement of Claim filed with the Ontario Superior Court of Justice in the amount of $500 million was served on OPG and Bruce Power L.P. by British Energy Limited and British Energy International Holdings Limited (together British Energy). The British Energy claim against OPG pertains to corrosion in the Bruce Unit 8 Steam Generators, in particular, erosion of the support plates through which the boiler tubes pass. The claim amount includes $65 million due to an extended outage to repair some of the alleged damage. The balance of the amount claimed is based on an increased probability the steam generators will have to be replaced or the unit taken out of service prematurely. OPG leased the Bruce nuclear generating stations to Bruce Power in 2001.

British Energy is defending an arbitration commenced by some of the current owners of Bruce Power regarding an alleged breach of British Energy's representations and warranties to the claimants when they purchased British Energy's interest in Bruce Power (the Arbitration). In the second quarter of 2012, the arbitrator released an interim award. The arbitrator found that British Energy was liable to the claimants for some of the damages they claimed. The arbitrator determined what elements of the claim British Energy was liable for but did not award a specific amount in damages as it was found that further evidence from the parties is necessary to quantify the exact amount of the damages. If the parties to the Arbitration cannot agree on the quantum of damages, there will be further proceedings before the arbitrator to determine the amount. British Energy counsel has indicated that the damages payable to the claimants will likely be less than $70 million.

British Energy previously indicated that they did not require OPG or Bruce Power to actively defend the court action until the conclusion of the Arbitration. Although the Arbitration had not concluded, British Energy requested that OPG file a Statement of Defense. OPG and Bruce Power advised British Energy that if British Energy wishes the court action to proceed prior to the conclusion of the Arbitration, the defendants would bring a motion for a Stay of proceedings, a Dismissal of the current action or, in the alternative, a motion to extend the time for service of the Statement of Defense until the conclusion of the Arbitration. That motion was scheduled to be heard on March 5, 2010 but was adjourned at the request of British Energy. The return date of that motion is yet to be set.

First Nation Matters

In September 2008, a certain First Nation served a Notice of Action against the Government of Canada, the Province, OPG, and the OEFC claiming damages in the amount of $200 million arising from breach of contract, fiduciary duty, trespass to property, negligence, nuisance, misrepresentation, breach of riparian rights, and unlawful and unjustifiable infringement of the Aboriginal and treaty rights, and $0.5 million in special damages. This Notice of Action was followed by service of the formal Statement of Claim in June 2010 upon the same parties seeking the same relief. As well, in September 2008, the same First Nation served a Notice of Arbitration upon OPG and the OEFC. The OEFC was subsequently released from the arbitration proceedings. The First Nation alleges that OPG breached an agreement to use its "best efforts" to engage the Province in discussion with the First Nation concerning the sharing of benefits related to hydroelectric development. In June 2011, the arbitrator (i) ruled in favor of the First Nation regarding OPG's failure to use "best efforts", and (ii) deferred his determination on whether such failure gave rise to any damages to allow for settlement discussions.

During the third quarter of 2011, the claim and arbitration were settled in one settlement agreement. OPG was directed by its Shareholder to pay a part of the Shareholder's portion of the settlement liability on its behalf. As a result, OPG recorded a distribution of $14 million to the First Nation, which was recorded as a reduction to retained earnings in the third quarter of 2011. This settlement did not have a material impact on the Company's financial position.

INTERESTS OF EXPERTS

The auditors of the Company are Ernst & Young LLP, Chartered Accountants, 222 Bay Street, P.O. Box 251, Toronto, Ontario M5K 1J7. Ernst & Young LLP have been the Company's auditors since OPG was formed in 1999, and are independent in accordance with the Rules of Professional Conduct of the Institute of Chartered Accountants of Ontario.

GLOSSARY

ancillary service	a service necessary to maintain the reliability of the IESO-controlled grid
availability	when used in reference to a generating unit, is a measure of mechanical reliability represented by the percentage of time a generating unit is capable of providing service, whether or not it is actually in-service, relative to the total time for the period
bilateral contract	a contract for the purchase and sale of notional electricity usually entered into directly between a generator and an end-user, or between a generator or end-user and a market intermediary
biomass	plant material from agricultural and forest sources that can be used to produce energy including beneficiated biomass, which includes torrefied, carbonized, and steam exploded biomass
CANDU	an acronym for Canadian Deuterium Uranium, a family of nuclear fission reactors developed in Canada which use pressurized heavy water coolant or deuterium as a moderating agent and natural uranium (uranium dioxide) as fuel
capability factor	the amount of energy a generating unit is capable of producing as a percentage of its maximum output assuming no external constraints such as transmission limitations
capacity factor	the ratio (usually specified as a percentage) of the amount of energy that a generating asset actually generated over a period of time (usually one year) divided by the amount of energy that the generating asset would have produced over the same period of time if it had operated continuously at full capacity
CNSC	Canadian Nuclear Safety Commission, the federal authority responsible for the regulation of nuclear facilities in Canada
decommissioning	actions taken in the interest of health, safety, security and protection of the environment to retire a nuclear facility permanently from service and render it to a predetermined end-state (final or interim) condition
Decommissioning Fund	Decommissioning Segregated Fund, the segregated fund established by OPG, pursuant to the ONFA, for the purpose of funding the future costs of nuclear fixed asset removal and low and intermediate level waste management
design-basis	events which the stations are designed to withstand
deuterium oxide	see heavy water
GWh	a gigawatt hour, equal to 1,000,000 kWh
heavy water (deuterium oxide)	water containing significantly more than the natural proportion of heavy hydrogen (deuterium) atoms to ordinary hydrogen atoms, used as a moderator in CANDU reactors
in-service unit (capacity)	the portion of installed capacity that has not been removed from service

installed capacity	the highest level of output which a generating unit is designed to maintain indefinitely without damage to the unit
interconnection	a transmission line which carries power across the service area boundary of geographically adjacent jurisdictions
kWh	a kilowatt hour, the commercial unit of electric energy (the amount of electricity consumed by ten 100 watt light bulbs burning for one hour)
load	the quantity of electricity consumption measured as either the energy consumed over a given period of time or the rate of energy consumption at a given time by a particular customer or group of customers
marketer	a profit-motivated entity that acts as an intermediary in arranging transactions between or on behalf of generators and customers
megawatt (MW)	1,000,000 watts or 1,000 kilowatts
megawatt hour (MWh)	1,000 kWh
MOA	the Memorandum of Agreement entered into by OPG and the Shareholder on August 17, 2005
net electricity generation	the energy produced by a station less energy consumed by the station, as measured by the revenue meter
NI 52-110	National Instrument 52-110 *Audit Committees*
Ontario NFWA Trust	a trust established by OPG pursuant to the NFWA for the purpose of funding the implementation of its long-term nuclear fuel waste management plan
operating reserve	the capacity that can be called upon on short notice by the IESO to replace scheduled energy supply that is unavailable as a result of an unexpected outage or to augment scheduled energy as a result of unexpected demand or other contingencies
proxy tax	pursuant to the *Electricity Act*, an amount payable to the OEFC in each taxation year in lieu of taxes under the *Income Tax Act* (Canada) and *Taxation Act, 2007* (Ontario)
radionuclides	radioactive isotopes or unstable forms of elements
reactive support/voltage control	the control and maintenance of prescribed voltages on the IESO-controlled grid
refurbishment	the work needed to extend the life of each reactor unit by replacing the major life-limiting components (such as pressure tubes, steam generators, etc.).
Reliability Must Run contract	an agreement between the IESO and a generator which allows the IESO to call on a generator's facility, at times when the facility may not otherwise be available for generation, in order to maintain the reliability of the electrical system
Shareholder	the sole shareholder of OPG, the Province of Ontario

Shareholder Declaration	the declaration made by the Province, as sole shareholder of OPG, regarding carbon dioxide (CO_2) emissions arising from the use of coal at its coal-fired generation stations, dated May 15, 2008
Shareholder Resolution	the resolution by the Province, as sole shareholder of OPG, addressing carbon dioxide (CO_2) emissions arising from the use of coal at its coal-fired generation stations, dated May 16, 2008
stranded debt	the amount of debt and other liabilities of the OEFC that, in the opinion of the Minister of Finance, cannot reasonably be serviced and retired in a competitive electricity market
surplus baseload generation (SBG)	a condition that occurs when electricity generation from baseload facilities is greater than demand in the Ontario electricity market
sustainable development	the adoption of business strategies and activities that meet the needs of the enterprise and its stakeholders today, while protecting and enhancing the human and natural resources that will be needed in the future
tonne	1,000 kilograms or 2,204.6 pounds
tritium	a radioactive substance that is created within CANDU reactors as a result of heavy water in the reactor moderator and heat transport systems
TWh	a terawatt hour, equal to 1,000,000 MWh
unit	an electrical generator, together with its driving turbine and auxiliary equipment
Used Fuel Fund	Used Fuel Segregated Fund, the segregated fund established by OPG, pursuant to the ONFA, for the purpose of funding the future costs of nuclear used fuel waste management
watt	a scientific unit of electric power representing the rate of work of one joule per second