



ANNUAL INFORMATION FORM

FOR THE YEAR ENDED DECEMBER 31, 2010

ONTARIO POWER GENERATION INC.

MARCH 4, 2011

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PRESENTATION OF INFORMATION

References in this Annual Information Form ("AIF") to the "Company" or "OPG" are made to Ontario Power Generation Inc. Unless otherwise noted, the information contained in this AIF is given at or for the year ended December 31, 2010. Amounts are expressed in Canadian dollars unless otherwise indicated. Financial information is presented in accordance with Canadian generally accepted accounting principles.

ADDITIONAL INFORMATION

The Company's Management's Discussion and Analysis ("MD&A") for the year ended December 31, 2010, and the Company's Audited Consolidated Financial Statements for the year ended December 31, 2010, provide additional information. Copies of 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", and, therefore, 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, asset performance, nuclear decommissioning and waste management, closure or conversion of coal-fired generating stations, refurbishment of existing facilities, development and construction of new facilities, pension and other post employment benefit obligations, income taxes, spot electricity market prices, proposed new legislation, the on-going 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

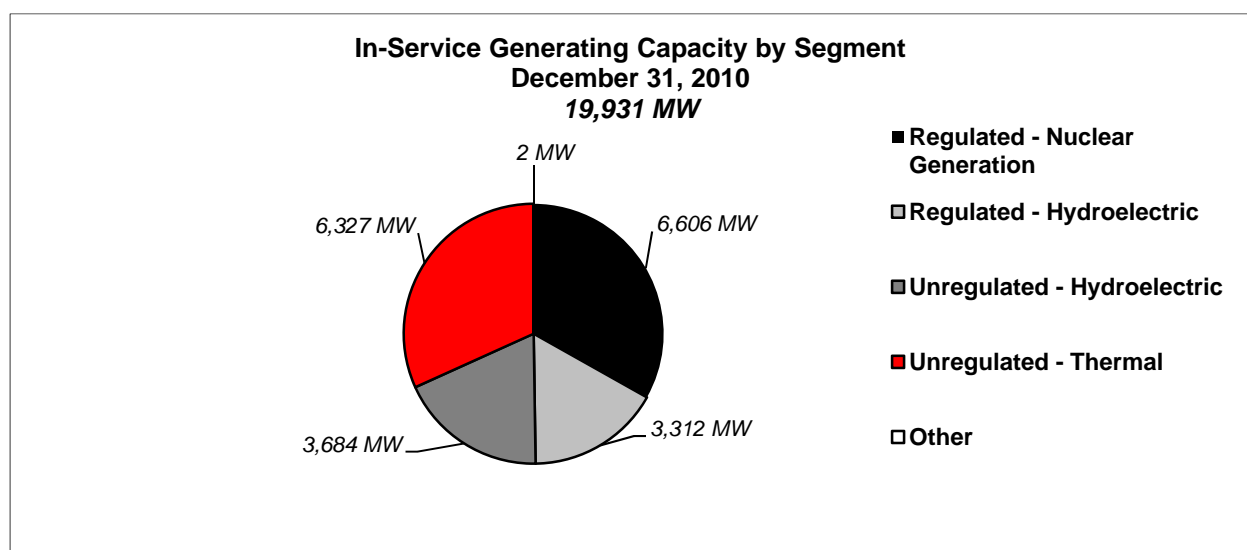
OPG is an Ontario-based electricity generation company focused on the efficient generation and sale of electricity from its generating assets, while operating in a safe, open and environmentally responsible manner. OPG was established under the *Business Corporations Act* (Ontario) ("OBCA") and is wholly owned by the Province of Ontario (the "Province"). OPG's head and registered 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"). As of December 31, 2010, OPG's electricity generating portfolio had a total in-service capacity of 19,931 megawatts ("MW"). This consists of three nuclear generating stations, five thermal generating stations, 65 hydroelectric generating stations, and two wind power turbines. In addition, OPG and TransCanada Energy Ltd. co-own the Portlands Energy

Centre (“PEC”) gas-fired combined cycle generating station. OPG and ATCO Power Canada Ltd. co-own the Brighton Beach gas-fired combined cycle generating station. OPG also owns two other nuclear generating stations, which are leased on a long-term basis to Bruce Power L.P. (“Bruce Power”). These co-owned facilities and leased stations are incorporated into OPG’s financial results but 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



On October 1, 2010, the in-service capacity of the Unregulated – Thermal segment decreased by 1,730 MW as a result of the closure of four coal-fired units: Units 1 and 2 at the Lambton generating station and Units 3 and 4 at the Nanticoke generating station. Prior to the closure at Units 1 and 2 of the Lambton coal-fired generating station, the in-service capacity of the Unregulated – Thermal segment decreased by 120 MW in 2010 as a result of a reduction in net Maximum Continuous Rating (“MCR”). The reduction in MCR enabled the units to operate within environmental regulations until their closure on October 1, 2010.

During 2010, the in-service capacity of the Regulated – Hydroelectric segment increased by 10 MW primarily due to a runner upgrade at the Sir Adam Beck 1 generating station. The in-service capacity of the Unregulated – Hydroelectric segment increased by 42 MW during 2010 compared to 2009 primarily due to the completion of the Upper Mattagami and Hound Chute generating stations, the addition of a fourth unit at the Healey Falls hydroelectric generating station, and increases in capacity at the Cameron and Alexander generating stations as a result of runner upgrades.

Operating Principles

Vision, 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 vision is to be a leader in clean energy generation and to have a major role in leading Ontario's transition to a more sustainable energy future. OPG is focused on three corporate strategies: performance excellence; generation development; and developing and acquiring talent.

Performance Excellence Strategy

OPG's business segments and corporate groups are guided by the Company's commitment to performance excellence in the areas of generation, safety, the environment, and fiscal performance. It is through this focus on performance excellence that OPG efficiently and reliably provides electricity to Ontario, and delivers value to its Shareholder.

Generation Development Strategy

OPG is pursuing a number of generation development opportunities. These include capacity expansion, life extension opportunities, and the construction of new generating stations. Pursuing opportunities to leverage existing sites and assets allows OPG to realize additional benefits from these assets, and reduces the environmental impact of meeting Ontario's electricity demands. OPG's major projects include nuclear station refurbishment, new nuclear generation, new hydroelectric generation and plant upgrades, and the conversion of some of the coal-fired generating units to alternate fuels.

Developing and Acquiring Talent Strategy

OPG's ability to sustain on-going operations and the successful delivery of the portfolio of planned projects is dependent on developing and maintaining a talented and engaged workforce, and a strong leadership capability. OPG's resource strategy is to develop and acquire talent focused on developing excellent leadership and the necessary resources to meet its business needs and address attrition in critical skill areas.

GENERAL DEVELOPMENT OF THE BUSINESS

The following is a summary of key developments in OPG's business since January 2008.

General Developments

Ontario's Long-Term Energy Plan and Supply Mix Directive to the OPA

In November 2010, the Minister of Energy released Ontario's Long-Term Energy Plan (the "Energy Plan") outlining the Provincial government's approach for maintaining a clean, modern, and reliable electricity system over the next 20 years. In February 2011, the Minister of Energy issued a Supply Mix Directive to the OPA which provides direction to the OPA for the preparation of an integrated power system plan. The integrated power system plan is targeted for submission to the OEB in 2011 for public review.

The Energy Plan and the Supply Mix Directive include the following with respect to OPG's generating units:

- Convert two units at the Thunder Bay generating station to natural gas over the period leading up to 2014 and examine opportunities for co-firing gas and biomass;
- Convert the Atikokan generating station to biomass by 2013;
- Shutdown two additional units at the Nanticoke generating station in 2011;

- Explore the feasibility of accelerating the closure of additional coal-fired units by working with the IESO and OPG;
- Undertake assessments of converting some of the units at the Lambton and Nanticoke generating stations to natural gas under a range of different supply scenarios and system peaking requirements. Recognizing the long lead time required given Nanticoke's location, commence planning and approval work for the natural gas infrastructure required to supply the Nanticoke generating station with natural gas;
- Monitor the continued operations program of the nuclear units at Pickering;
- Refurbish units at the Darlington and Bruce generating stations; and
- Meet the remainder of Ontario's nuclear capacity by procuring two new nuclear units at the Darlington site provided that it can be achieved in a cost-effective manner.

In addition, the Energy Plan and the Supply Mix Directive will address increasing Ontario's renewable energy capacity to 10,700 MW by 2018 from sources such as wind, solar, and bio-energy; moving forward immediately with five priority transmission projects; and saving 28 terawatt hours ("TWh") of electricity by 2030 through conservation programs. In addition, the Energy Plan and Supply Mix Directive indicate that Ontario will continue to grow its hydroelectric capacity with a target of 9,000 MW by 2018.

OPG will continue to work with all stakeholders to plan for and implement the initiatives outlined under the Energy Plan and the Supply Mix Directive. Further details related to these initiatives are discussed under the headings "*Description Of The Business – New Generation Development – New Nuclear Units*" and "*Description Of The Business – Generation Operations – Thermal – Conversion of Coal-Fired Units*".

Green Energy and Green Economy Act

In May 2009, the *Green Energy and Green Economy Act* ("Green Energy Act") received Royal Assent. The Green Energy Act is intended to bring more renewable energy sources to the Province and to create more energy efficiency measures to help conserve energy. The Act offers Feed-in Tariffs ("FIT") for wind, solar, bio-energy, and small hydroelectric developments.

By February 4, 2011, the OPA had executed FIT contracts for a total of 823 MW of solar and 1,530 MW of wind electricity generation. An additional 6,000 MW of FIT projects are awaiting the OPA's Economic Connection Test due to limits on Transmission or Distribution capacity, and more than 4,500 MW of additional applications are currently being processed by the OPA. The Energy Plan indicates that the Bruce to Milton line, along with several other priority Transmission projects, will enable approximately 4,000 MW of additional renewable energy. These developments are significant to the Ontario electricity market and could impact the demand for OPG's existing and future generation.

About half of the wind energy developed under the Act is likely to be produced in off-peak hours and may exacerbate Surplus Baseload Generation ("SBG") conditions where the supply of generation exceeds the market demand. Potential consequences of SBG conditions are: an increase in the amount of water "spilled" (unutilized water flow) by hydroelectric generators, the reduction of output or shutdown of nuclear units, and extremely low market prices. SBG conditions were a significant concern to OPG and the Ontario electricity marketplace in 2009, typically occurring in the off-peak periods. Low electricity demand, combined with the output from hydroelectric and nuclear baseload generating stations and an increase in the electricity generated from wind and gas, resulted in a number of SBG conditions in 2009, which reduced OPG's generation by approximately 0.6 TWh. There were fewer incidents of SBG conditions in 2010 and the resulting impact to OPG's generation was negligible. The impact of future SBG conditions is discussed under the *Risk Management* section of the MD&A.

For additional details regarding future SBG conditions, see "*Risk Factors – Ontario Electricity Market*".

OPG's Application for New Regulated Prices

In May 2010, OPG filed an application with the OEB for new regulated prices effective March 1, 2011. The regulated prices are applicable to production from OPG's regulated hydroelectric and nuclear facilities. As part of the application, OPG requested approval to recover the balances in the deferral and variance accounts as at December 31, 2010. The OEB's public hearing process on the application concluded on December 21, 2010. As of the date of this AIF, the OEB has not issued a decision on OPG's application. The OEB's decision on the application is expected in March 2011. The new regulated prices resulting from the application are expected to remain in effect until the end of 2012.

As part of its application, OPG requested the OEB to declare the current regulated prices interim, effective March 1, 2011. On February 17, 2011, the OEB issued an order granting this request. This order preserves the opportunity for OPG to recover the difference between the final regulated prices as approved by the OEB and the current regulated prices for the period between March 1, 2011 and the implementation date of the OEB's final rate order. The decision regarding retrospective recovery is expected to be made by the OEB as part of its decision on OPG's application.

Nuclear

In June 2006, the Province directed OPG to undertake feasibility studies on refurbishing and extending the life of the nuclear units at the Darlington and Pickering B sites. OPG initiated projects to review the option of refurbishing the Darlington and Pickering B nuclear generating stations.

Darlington Refurbishment

During 2008 and 2009, a number of technical studies and a full station component condition assessment were undertaken to support the refinement of the project scope and cost. In February 2010, OPG announced its decision to proceed with the project and to commence the definition phase for the refurbishment of the Darlington nuclear generating station. The objective of the refurbishment is to extend the operating life of the station by approximately 30 years. A detailed cost and schedule estimate is expected to be completed in 2014 and construction is expected to start by 2016. In addition, all regulatory approvals will be completed including the Environmental Assessment ("EA"), the Integrated Safety Review ("ISR"), and the Integrated Improvement Plan.

Pickering B Continued Operations

Pickering B nuclear generating units are currently estimated to reach their nominal end of life dates between 2014 and 2016. In February 2010, OPG announced its plans to continue the safe and reliable operation of its Pickering B nuclear generating station for approximately an additional four to six years. OPG is undertaking a coordinated set of initiatives to evaluate the opportunity to continue safe and reliable operations of Pickering B for this extended period of time. Work is progressing to resource the organization, finalize the detailed scope of the program, and implement plant improvements.

For additional details, see "*Description Of The Business – Generation Operations – Nuclear – Darlington Refurbishment*" and "*Description Of The Business – Generation Operations – Nuclear – Pickering B Continued Operations*".

Hydroelectric

Niagara Tunnel

OPG is building an additional tunnel to increase the generation output from its Sir Adam Beck stations in Niagara Falls. OPG's Board of Directors has approved a revised project cost estimate of \$1.6 billion and a revised anticipated completion date of December 2013. As of December 31, 2010, the tunnel boring machine had advanced 9,152 metres, which is approximately 90 percent of the tunnel length.

Installation of the lower one-third of the permanent concrete lining, restoration of the circular cross-section of the tunnel, and the installation of the upper two-thirds of the concrete lining continues.

For additional details, see *"Description Of The Business – New Generation Development – Hydroelectric Expansion and Development - Niagara Tunnel"*.

Upper Mattagami and Hound Chute

Construction activities to replace three existing hydroelectric generating stations on the Upper Mattagami River and the Hound Chute generating station on the Montreal River were completed. The stations were declared in-service during the fourth quarter of 2010, approximately five months ahead of schedule. The project has increased the total installed capacity of the four stations from 23 MW to 44 MW, and increased the expected annual energy from 134 gigawatt hour ("GWh") to 223 GWh. Total life-to-date project costs of \$279 million are within the project budget of \$300 million.

For additional details, see *"Description Of The Business – New Generation Development – Hydroelectric Expansion and Development - Upper Mattagami and Hound Chute"*.

Lower Mattagami

OPG has begun construction activities to add one additional generating unit at each of the existing Little Long, Harmon and Kipling stations. In addition, OPG will replace the existing Smoky Falls generating station with a new three-unit station. Upon completion in June 2015, the project is expected to increase the capacity of the four stations on the Lower Mattagami River by 438 MW.

For additional details, see *"Description Of The Business – New Generation Development – Hydroelectric Expansion and Development – Lower Mattagami"*.

Thermal

Carbon Dioxide ("CO₂") Strategy

In August 2007, the Province adopted Ontario Regulation 496/07 that requires OPG to end the use of coal to generate electricity by December 31, 2014. In May 2008, the Province announced annual targets for CO₂ emissions from OPG coal-fired generating stations. In accordance with the May 15, 2008 Shareholder Declaration and the May 16, 2008 Shareholder Resolution, OPG developed a strategy to meet, on a forecast basis, targets of CO₂ emissions arising from the use of coal of 19.6 million tonnes in 2009 and 15.6 million tonnes in 2010. OPG satisfied the Shareholder Resolution by maintaining CO₂ arising from coal at levels below the 2009 and 2010 targets. 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 CO₂ emissions arising from the use of coal of 11.5 million tonnes per year for the period 2011 to 2014. OPG continues to employ its CO₂ implementation strategy to meet the emission targets. The CO₂ targets constrain the potential generation from the coal-fired plants.

For additional details on greenhouse gases ("GHG") regulations, see *"Regulation – Environmental Matters – Air"*. Also, see *"Description Of The Business – Generation Operations – Thermal."*

OPG entered into the Contingency Support Agreement ("CSA") with the Ontario Electricity Financial Corporation ("OEFC") to ensure the Lambton and Nanticoke coal-fired generating stations receive sufficient revenue to recover their actual direct costs, and ensure OPG will continue to economically maintain these stations for supply adequacy and system reliability following the implementation of CO₂ emissions targets/caps consistent with good utility practice. The CSA with the OEFC, which expires December 31, 2014, provides reimbursement of capital expenditures through the recapture of depreciation.

For additional details, see *“Description Of The Business – Generation Operations – Thermal – Support Agreements”*.

Unit Conversion Opportunities

In August 2010, the Minister of Energy issued a directive to the OPA to negotiate an Atikokan Biomass Energy Supply Agreement (“ABESA”) with OPG for the supply of biomass-fuelled electricity generation from the Atikokan generating station. In addition, OPG continues to assess the feasibility of converting some of the other coal-fired units to fuels such as natural gas, biomass, and gas-biomass dual-fuel. Before significant financial commitments are made for these conversions, OPG will require cost recovery agreements with the OPA.

For details on coal-fired unit conversion initiatives, see *“Description Of The Business – Generation Operations – Thermal – Conversion of Coal-Fired Units”*

Thermal Generating Station Closure

In October 2010, OPG closed two coal-fired units at each of the Lambton and Nanticoke coal-fired generating stations. The early closure of these coal-fired units, in advance of the December 31, 2014 target deadline, will result in savings to electricity consumers over the next four years through reduced payments to OPG under the CSA. These savings reflect OPG's commitment to operations, maintenance and administration (“OM&A”) expense reductions.

In response to the Energy Plan and Supply Mix Directive to shutdown two additional units of the Nanticoke coal-fired generating station in 2011, OPG has commenced discussions with the OPA and the IESO with respect to the timing for removal of the two coal-fired units from service in 2011.

For additional details on Unit Conversion Opportunities and the Unit Closures at Lambton and Nanticoke, see *“Description Of The Business – Generation Operations – Thermal – Unit Closure at Lambton and Nanticoke”*.

Lennox Generating Station

During the first quarter of 2011, the OPA and OPG executed the Lennox Generating Station Agreement (“LGSA”) for the period from January 1, 2011 to December 31, 2011. This agreement allows the station to recover its actual costs in order to provide general adequacy to Ontario's electricity system. The LGSA has similar terms to the previous contract which expired on December 31, 2010.

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 made up of four components: generation, transmission, distribution and marketing of energy and other services in wholesale and retail markets. Generation is the production of electricity at generating facilities. 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 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 generating 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”).

Electricity is an essential commodity that cannot be stored in large volumes. Generation of electricity in an electricity system must instantaneously match demand if the stability and reliability of the system is to be maintained. 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 increased competition, so as 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 market operator, 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; and
- the OEFC, which is the legal continuation of the former Ontario Hydro, 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. For recent developments related to the Ontario electricity industry refer to “*General Developments*”.

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 19,931 MW. In 2010, OPG generated 88.6 TWh, about 56 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.

Revenue Mechanisms

OPG receives a regulated price for most of its baseload hydroelectric facilities and all of the nuclear facilities (collectively the "prescribed facilities") that it operates. The electricity generation from OPG's other generating assets remains unregulated and continues to be sold at the Ontario electricity spot market price, except where an energy supply agreement is in place.

Generation from the Lac Seul and Ear Falls generating stations, Healey Falls generating station, and the Sandy Falls, Wawaitin, Lower Sturgeon and Hound Chute generating stations are all subject to a Hydroelectric Energy Supply Agreement ("HESA"). In 2010, OPG also finalized a HESA for the Lower Mattagami hydroelectric development project. The payments under the Lower Mattagami HESA commence when the first incremental unit comes into service. OPG finalized the LGSA with the OPA for the Lennox generating station in 2010 for the period from October 1, 2009 to December 31, 2010. The Lambton and Nanticoke generating stations are subject to a contingency support agreement with the OEFC. In 2010, OPG and the OPA began negotiations of the ABESA for the supply of biomass-fuelled electricity generation from the Atikokan generating station, which is expected to be executed in 2011.

For additional details on OPG's regulated prices and relevant OEB developments, see "*General Development Of The Business – General Developments – OPG's Application for New Regulated Prices*".

Ontario Electricity Market Activities

OPG offers its generation into the IESO administered real time energy market, or spot market, in order to be dispatched by the IESO. For additional details, see "*Regulation – Ontario Electricity Regulation*".

OPG receives the regulated rate 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 automatic generation control, 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 those 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 northeastern quadrant of North America, including the U.S. northeast and midwest, Manitoba, and Québec. Market intermediaries wishing to sell electricity into the interconnected markets are required to purchase the electricity out of the IESO administered spot market for resale into the interconnected markets. OPG participates in the interconnected markets.

Interconnection transmission capabilities between Ontario and these interconnected markets are subject to physical limitations that are also impacted by seasonal variations. Weather and physical aspects of the transfer of power 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: i) it is a relatively low marginal-cost generation technology, and ii) it produces virtually no sulphur dioxide ("SO₂"), nitrogen oxide ("NO_x"), CO₂, or mercury emissions. The latter advantage has become more significant as governments implement stricter air emission standards.

In contrast to other facilities, nuclear generating stations incur nuclear waste management and decommissioning costs, and greater operating and maintenance expenses. In addition, the development of nuclear generating stations entails greater initial capital development costs than other generation technologies. The higher initial development costs reflect the complexity of the technical processes that underlie nuclear electricity generation and the additional design and safety precautions that are taken to protect the public from potential risks associated with nuclear operations. Offsetting these cost factors is the relatively low cost of nuclear fuel compared with fossil fuels. 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 have been set under the four cornerstones areas of safety, reliability, human performance, and value for money.

For additional details, see "*Vision, Core Business and Strategy – Performance Excellence – Nuclear Generating Assets*" in the Company's MD&A for the year ended December 31, 2010.

Generating Facilities

OPG currently owns and operates nuclear generating stations at Pickering A (two in-service units and two units in safe storage), Pickering B (four in-service units) and Darlington (four in-service units).

The four Pickering A units 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 2008, 2009, and 2010 is as follows:

Nuclear Generating Facilities and Performance (2008 to 2010)

Station	No. of In-Service Units	Net In-Service Capacity (MW)	Net Electricity Generation ¹ (TWh)			Capability Factor ² (%)		
			2010	2009	2008	2010	2009	2008
Darlington	4/4	3,512	26.6	26.0	28.9	87.6	85.9	94.5
Pickering A	2/4 ³	1,030	5.5	5.7	6.4	62.4	64.2	71.8
Pickering B	4/4	2,064	13.7	15.1	12.9	76.3	84.0	71.4
Total	10/12 ³	6,606	45.8	46.8	48.2			

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 capable of being produced by a generating unit as a percentage of its maximum output assuming no external constraints such as transmission limitations.

³ Pickering A 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 the CANDU technology, and it is also the power-reactor product marketed by Canada abroad. CANDU reactors are currently operating in Ontario, Québec, 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 which may require a planned outage every 18 to 24 months.

Nuclear Generating Station Life Extension

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 grows and the frequency and duration of inspections required to make certain a unit's fitness for service increases. End-of-service life predictions are continually reviewed as new inspection information and knowledge of possible degradation mechanisms becomes available and future generation levels are revised.

Darlington Refurbishment

The Darlington generating units, based on original design assumptions, are currently forecast to reach their nominal end of life between 2018 and 2020. The objective of the refurbishment is to extend the operating life of the station by approximately 30 years. OPG began the initiation phase of this project in late 2007. During 2008 and 2009, a number of technical studies and a full station component condition assessment were undertaken to support the refinement of the project scope and cost. A preliminary

feasibility assessment was completed based on the anticipated Darlington station refurbishment project scope and the expected post-refurbishment operating life.

In February 2010, OPG announced its decision to commence the definition phase for the refurbishment of the Darlington nuclear generating station. Activities in the definition 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. A detailed cost and schedule estimate is expected to be completed in 2014 and construction is expected to start by 2016. In addition, all regulatory approvals will be completed including the EA, the ISR, and the Integrated Improvement Plan.

A Scope Review Board has been established to review and finalize all major technical scope for the refurbishment. The technical scope will be finalized by mid-2011. Work is underway to prepare the EA and ISR for submission to the Canadian Nuclear Safety Commission ("CNSC") in late 2011. This will form the basis of the regulatory scope. A Request for Expression of Interest process was conducted with respect to the retube and feeder replacement work. Three proponents have been selected to participate in a pre-qualification process, pursuant to which OPG is obtaining further information about each participant and their tooling capability. OPG will issue a Request for Proposal ("RFP") for this work with the selection of a contractor targeted for late 2011.

In April 2010, OPG announced that it was proceeding, in conjunction with the Municipality of Clarington and Durham Region, with site preparation and servicing for the construction of a proposed 280,000 square foot Darlington Energy Complex ("Complex") on OPG-owned land in the Clarington Energy Business Park adjacent to the Darlington nuclear generating station. The Complex will house a training and calandria mock-up facility, warehouse, and office space. In order to develop the lands and provide municipal services, OPG negotiated and executed a subdivision agreement with the Municipality of Clarington and subdivision and servicing agreements with Durham Region. The RFP for the Complex was issued in August 2010 and closed in November 2010. The Complex remains on track for occupancy in the fall of 2013. Planning continues for the development of additional infrastructure needs to support the refurbishment program, including security entrances, contractor offices and facilities, parking lots and roads, water and sewer, and other site improvements.

Pickering B Continued Operations

The Pickering B units were initially placed in service between 1983 and 1986. The nominal expected life for each unit was 30 years, though the life of a unit may be extended by the replacement of major components. Pickering B nuclear generating units are currently predicted to reach their nominal end of life between 2014 and 2016.

OPG began the initiation phase of this project in 2006. In January 2009, the CNSC issued their acceptance of the Environmental Assessment Screening Report. The report concluded that, taking into account the identified mitigation measures, the refurbishment and continued operation of the Pickering B nuclear station is not likely to cause significant adverse environmental effects.

In September 2009, OPG submitted its final ISR report for the Pickering B nuclear generating station to the CNSC. The report concluded that the station demonstrates a high level of compliance with modern codes and standards, and can be operated safely today and in the future.

In February 2010, OPG announced its plans to continue the safe and reliable operation of OPG's Pickering B nuclear generating station for approximately an additional four to six years. OPG is undertaking a coordinated set of initiatives to evaluate the opportunity to continue safe and reliable operations of Pickering B for this extended period of time. Work is progressing to resource the organization, finalize the detailed scope of the program and implement plant improvements.

As part of a regulatory commitment to the CNSC, OPG submitted the Pickering B Operations Plan to the CNSC in March 2010, summarizing strategies for the continued safe and reliable operation of Pickering B

until its end of life. In the third quarter of 2010, the Continued Operations Plan was submitted to the CNSC which provided a more detailed comprehensive operational plan to the station's end of life. In the fourth quarter of 2010, the CNSC requested additional information and commitments related to completing further ISR work be included in the Continued Operations Plan. OPG is reviewing this request. The CNSC staff will present their review of the Pickering B Continued Operations Plan to the CNSC at the March 2011 Public Meeting. OPG continues to undertake technical and regulatory work related to continued operations.

When continued operation ends, OPG will place the units into safe storage and then begin the long-term decommissioning process. The refurbishment of the Pickering B station 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 supply contracts for uranium concentrates with suppliers located in uranium producing regions across the world.

Ancillary Operations

Heavy Water Management

OPG's nuclear generating units contain approximately 6,200 tonnes of radioactive 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 also owns an inventory of approximately 1,944 tonnes of heavy water of which 863 tonnes is non-radioactive. OPG's heavy water was produced by Ontario Hydro at two heavy water plants at the Bruce site between 1973 and 1997. In 1997, Ontario Hydro ceased the operation of the heavy water plants, and by 2006 the plants had been demolished by OPG. 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 life extension of the Darlington station. 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 released into the heavy water systems of CANDU reactors as a byproduct of the nuclear fission process. OPG operates a facility at its Darlington site that removes tritium from the heavy water used at its nuclear generating stations in order to control the occupational dose exposure to its staff and the release of tritium oxide to the environment. The extracted tritium is chemically immobilized and placed in special containers that are 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 by 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 cobalt 59 rod, which after having been exposed to the atomic reaction in the reactor core, turns into cobalt 60. After 2 years, the rods are removed, cut, and packaged for selling, and new rods are inserted in the reactor.

Pickering A Units 2 and 3 Safe Storage

In August 2005, OPG announced that it would not return Units 2 and 3 at Pickering A to service. The preliminary decommissioning plan for Pickering A specifies that the units are to be placed in a safe storage state after they are permanently shut down and prior to being dismantled. Accordingly, the goal of the safe storage project was to remove the fuel and heavy water from Units 2 and 3 and to place them in a safe storage state for the remainder of the operating life of Pickering A plus a nominal period of 30 years prior to dismantling. This was done in such a manner as to minimize the future operating and maintenance costs associated with Units 2 and 3.

In September 2010, the Pickering A safe storage project permanently removed Units 2 and 3 from service while Units 1 and 4 continue to generate electricity. The safe storage project included de-fuelling, de-watering, and isolating Units 2 and 3 from the rest of the generating station, along with redesigning the control room for the remaining two operating units and placing the various systems in a safe state. De-fuelling of the units was completed in 2008. In 2010, de-watering was completed and all Unit 2 and 3 systems were disconnected and isolated from the plant common systems and placed in a safe state. In addition, the Unit 2 and 3 reactor buildings were isolated from the containment system. All safe storage end states, and engineering and project closeout phases were also completed. The project was completed ahead of schedule at a life-to-date cost of \$332 million, which was below the projected completion cost of \$349 million.

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 in order to improve system performance. System performance is assessed by collecting data from station sources that is then trended, analyzed, and reported as part of the system health report. System health reports 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 that is 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.

Hydroelectric generating stations are classified as either regulated or unregulated. For further information related to Hydroelectric regulated and unregulated facilities, refer to the section "*Regulation – Ontario Electricity Regulation.*"

Consistent with the MOA and OPG's corporate objectives, hydroelectric operations have the following objectives:

- Sustain and improve the existing hydroelectric assets for long-term operations;
- Seek to expand and develop existing hydroelectric stations where feasible;
- Operate and maintain hydroelectric facilities in an efficient and cost-effective manner;
- Maintain and improve reliability performance where practical and economical;
- Maintain an excellent employee safety record by ensuring that all worker safety laws are met;
- Strive for continuous improvement in the areas of dam and waterways public safety and environmental performance; and
- Build and improve relationships with First Nations and Métis communities.

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. OPG's 65 hydroelectric generating stations and 231 associated dams are located on 24 river systems in Ontario comprising 6,996 MW of capacity.

Regulated – Hydroelectric and Unregulated – Hydroelectric Performance (2008 to 2010)

	Regulated - Hydroelectric			Unregulated - Hydroelectric			Total Hydroelectric		
	2010	2009	2008	2010	2009	2008	2010	2009	2008
Capacity (MW)	3,312	3,302	3,332	3,684	3,642	3,631	6,996	6,944	6,963
Net Electricity Generation (TWh)	18.9	19.4	18.3	11.7	16.8	17.6	30.6	36.2	36.4
Availability (%)	92.8	93.6	93.8	91.6	92.4	94.6	91.9	92.8	94.3
EFOR (%)	0.3	1.0	1.5	2.1	1.6	0.9	1.5	1.4	1.1

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

OPG continues to refurbish and upgrade its hydroelectric facilities, which has helped to increase its hydroelectric capacity. OPG expects to spend approximately \$875 million on this reinvestment program over the next five years.

OPG's hydroelectric generating stations range in age from less than one to over 110 years and are the oldest assets in its power 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, reducing control system failures and increasing 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. Annual engineering reviews and station condition assessments, conducted on a cycle of approximately five to ten years, 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 direct corporate funds at the facilities that can best maintain or enhance the value of the hydroelectric facility. The cornerstone of this approach is that safety, environmental, and other regulatory programs are of the highest priority.

OPG utilizes a process known as streamlined reliability-centred maintenance to optimize the preventive maintenance program at its hydroelectric facilities. This process 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).

First Nations and Métis Programs

OPG is proceeding in accordance with the Aboriginal Relations Policy approved by the OPG Board of Directors with a focus on past grievance settlements and discussing hydroelectric development opportunities with First Nations and Métis communities. The hydroelectric business segments are currently implementing plans for community relations and outreach, employment and contracting opportunities, and capacity building initiatives with the surrounding First Nations and Métis communities.

OPG's first partnership with a First Nations community was established in early 2009 as part of the Lac Seul Generating Station project. In this partnership, the Lac Seul First Nation ("LSFN") owns 25 percent of the Lac Seul Generating Station and shares the benefits and risks associated with the operation of the station.

Signing of the "*Amisk-oo-Skow*" Agreement with Moose Cree First Nation in early 2010 marks the second partnership between a First Nations community and OPG. The Moose Cree First Nation will benefit significantly from the employment and construction opportunities stemming from this partnership. OPG has an agreement with the Moose Cree First Nation that provides the First Nation with a right to purchase up to a 25 percent equity interest in the Lower Mattagami Project.

For additional details, see "*Description Of The Business – New Generation Development – Hydroelectric Expansion and Development – Lac Seul*" and "*Description Of The Business – New Generation Development – Hydroelectric Expansion and Development – Lower Mattagami*", and "*Regulation – Aboriginal Matters*".

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"), were implemented commencing 2001 and are determined based on annual station energy generation. A revenue rate of \$40/MWh is prescribed to be used for determining the station gross revenue when calculating the GRC. The GRC consists of a Property Tax component and a Water Rental component. All OPG hydroelectric generating stations are subject to the GRC Property Tax component. Tax rates applicable to the GRC Property Tax component increase from 2.5 percent for annual generation up to 50 GWh, to 4.5 percent for generation between 50 GWh and 400 GWh, and 6.0 percent for generation between 400 GWh and 700 GWh. Generation in excess of 700 GWh is assessed at a tax rate of 26.5 percent for the GRC Property Tax component. GRC Property Tax component payments are made to either the OEFC or the Ontario Ministry of Finance. The GRC Water Rental component applies only to hydroelectric generating stations that are subject to water power lease agreements with the Ontario Ministry of Natural Resources ("MNR"). The GRC Water Rental rate is 9.5 percent. GRC Water Rental payments are directed to the Ministry of Finance.

Annual land rental fees are paid to the Ontario 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 federal jurisdiction (Trent River and Rideau Canal) and are subject to water rental charges prescribed by licences with Parks Canada (Trent-Severn Waterway), which 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 Province of Québec, as prescribed by an agreement dated January 2, 1943, and 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.

The aggregate of GRC and water agreement payments made by OPG for 2010 was \$319 million.

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 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 practice. OPG is one of the first dam owners in Canada to have developed and implemented a dam safety program and is seen to be 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 in order 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 and guidelines or industry standards in this emerging area to ensure continued due diligence in public safety. Both the MNR and CDA continue their development of guidelines for public safety around dams which are founded on the work developed by OPG. OPG is actively participating 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, St. John Ambulance, 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 can operate as baseload, intermediate, and peaking facilities, depending on the characteristics of the particular stations and demand of the market. The ability of thermal units to start-up and shutdown on a daily basis and load-follow through a wide range of their installed capacity provides the system with the flexibility to meet both changing daily system energy and capacity requirements or to enable the system to accommodate the expansion of Ontario's renewable generation portfolio. This role requires the continued operation and staffing of coal and other thermal generating units in a manner appropriate to their role and mode of operation as peaking generating stations. Coal-fired generating stations will be positioned to produce the required volume of electricity and ancillary services operating within the constraints of CO₂ emission limits, in a safe, environmentally responsible, reliable and cost-effective manner.

In September 2009, together with the Ministry of Energy and Infrastructure, OPG announced its decision to close two coal-fired units at each of the Lambton and Nanticoke coal-fired generating stations in advance of the December 31, 2014 deadline. These units were closed on October 1, 2010. For further details, see "*General Development Of The Business – Thermal – Unit Closure at Lambton and Nanticoke*".

In the longer term, the thermal business segment will cease generation of electricity from coal by the end of 2014 and is exploring options and the feasibility to convert existing units to burn alternate fuels such as natural gas and/or biomass. Thermal generating stations have the potential to provide the Province with similar flexibility of daily start up and shutdown and load-following capability to meet changing system needs and complement non-dispatchable renewable energy sources. In the meantime, all of OPG's thermal generating stations will be maintained and staffed appropriately for their role and mode of operation.

Conversion of Coal-Fired Units

OPG is currently reviewing options to convert its existing coal units to use alternative fuels such as natural gas and/or biomass. The conversion of coal units to gas, biomass, or dual-fuel has the potential to meet system needs for generation in specific locations, such as Northwestern Ontario, and to supply dispatchable capacity to enable renewable generation, such as wind power. Before OPG can proceed with unit conversions, a mechanism is required for recovery of capital and on-going costs. In addition, OPG is pursuing a cost recovery contract for the coal-fired units at the Atikokan and Thunder Bay generating stations for the period leading up to their potential future conversions to alternative fuels as proposed in the Energy Plan and the Supply Mix Directive.

For further details on the Energy Plan and Supply Mix Directive, refer to the section *“General Developments of the Business – General Developments – Ontario’s Long-Term Energy Plan and Supply Mix Directive to the OPA”*.

Atikokan Generating Station

The conversion of the Atikokan generating station to biomass is currently in the definition phase. In August 2010, the Ministry of the Energy issued a directive to the OPA to negotiate an ABESA with OPG for the supply of biomass-fuelled electricity generation from the Atikokan generating station. OPG is proceeding with detailed engineering and the negotiation of fuel supply contracts, and the engineering, procurement, and construction contract for the conversion of the Atikokan generating station to biomass fuel. OPG and the OPA began negotiations of the ABESA which is expected to be executed in 2011.

The biomass fuel at the Atikokan generating station is expected to be supplied in pellet form and procured through a competitive RFP process. OPG will require the biomass fuel to be sustainably harvested and meet the definition of renewable biomass established by the United Nations Framework Convention on Climate Change. The fuel type being examined for other unit conversions is natural gas in the near term. OPG is also studying options for dual gas-beneficiated biomass in the future. Beneficiated biomass includes torrefied, carbonized, and steam exploded biomass.

Other Coal-Fired Units

As part of the Energy Plan and Supply Mix Directive released by the Ministry of Energy, it is proposed that two units at the Thunder Bay coal-fired generating station be converted to natural gas. The Energy Plan and Supply Mix Directive also propose to explore the possible conversion of some of the units at Lambton and Nanticoke to natural gas, if required for system reliability. OPG continues with the development of engineering concepts for the conversion of these units. Should these additional conversions proceed, some investment in existing equipment will be required based on system condition and engineering risk assessments to facilitate operations to the expected future profile.

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. Coal-fired generating units located at Nanticoke, Lambton, Thunder Bay and Atikokan account for 4,227 MW following the unit closure. 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.

Unregulated – Thermal Performance (2008 to 2010)

	2010	2009	2008
Capacity (MW)	6,327	8,177	8,525
Net Electricity Generation (TWh)	12.2	9.5	23.2
EFOR (%)	7.3	8.5	12.8

Thermal Fuel Procurement

Until the cessation of coal use on December 31, 2014, Ontario Regulation 496/07 requires OPG's coal-fired generation to be limited to meet CO₂ emissions reduction requirements. OPG's fuel program is designed to conform with these CO₂ emissions requirements respecting the relevant policies and procedures to manage the process. Coal is procured for coal-fired plants primarily through short or medium term supply contracts, with the remainder supplied through spot-market purchases as required to meet the requirements of the fuel program.

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 in order to optimize returns from station reinvestment within constraints imposed by technical, financial 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 cause more mechanical wear than continuous operation. In light of the requirement to cease output from coal-fired generating stations by December 31, 2014, 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 CO₂ 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 four units in 2010. OPG continues to review and assess the adequacy of the provision using assumptions that are consistent with OPG's unit conversion, operating strategies, and recent experience.

Unit Closure at Lambton and Nanticoke

Pursuant to a decision by OPG and an announcement by the Province in September 2009, OPG permanently shut down Units 1 and 2 at the Lambton coal-fired generating station and Units 3 and 4 at the Nanticoke coal-fired generating station on October 1, 2010. This decision was based on the impact of a shareholder resolution on CO₂ emission reductions, forecast capacity, and demand profiles. The early closure of these coal-fired units will result in savings to electricity consumers over the next four years as a result of lower staffing, operations, and maintenance costs and therefore reduced payments to OPG from

the OEFC under the contingency support agreement. These savings reflect OPG's commitment to OM&A expense reductions.

In response to the Energy Plan and Supply Mix Directive to shutdown two additional units of the Nanticoke coal-fired generating station in 2011, OPG has commenced discussions with the OPA and the IESO with respect to the timing for removal of the two coal-fired units from service in 2011.

Support Agreements

As a result of the Shareholder's Resolution and regulations pertaining to CO₂ emissions reductions, plant equipment investments are required to assure the reliability and availability of the Lambton and Nanticoke generating stations until their closure to meet expected operating requirements. OPG and the OEFC have entered into the CSA to ensure these stations receive sufficient revenue to recover their actual direct costs, and ensure OPG will continue to economically maintain these stations for supply adequacy and system reliability following the implementation of CO₂ emissions targets/caps. The CSA with the OEFC, which expires December 31, 2014, provides reimbursement of capital expenditures through the recapture of depreciation. The cost of the conversion of units to alternate fuels is specifically excluded from the agreement.

The Lennox generating station operated under annual reliability must run ("RMR") contracts approved by the OEB for the period October 1, 2005 to September 30, 2009, and provided OPG reimbursement of the expenses of running Lennox, net of related revenue. The IESO had concluded that all four units at the Lennox generating station were required for the purpose of local system reliability during these periods. Most recently, the Lennox generating station operated under a LGSA with the OPA having a 15-month term which ended December 31, 2010. The LGSA provided the station with sufficient revenue to recover its actual costs in order to provide general adequacy to the Ontario electricity system. In the first quarter of 2011, the OPA and OPG executed the LGSA for the period from January 1, 2011 to December 31, 2011. This LGSA has similar terms to the previous contract.

For additional details, see "*General Development Of The Business – Thermal – Lennox Generating Station*".

Nuclear Waste Management

As they operate, OPG's nuclear reactors produce a variety of radioactive waste materials: used nuclear fuel bundles ("high-level radioactive waste"); other material that has come in close contact with the reactors, but is less radioactive than used fuel, such as ion exchange resins and other structural material and reactor equipment, including pressure tubes (collectively, "intermediate-level radioactive waste"); and, other material used in connection with station operation that is not highly radioactive, such as tools and protective clothing (collectively, "low-level radioactive waste"). OPG is responsible for the on-going long-term management of these wastes. In addition, OPG will have to manage radioactive waste associated with the decommissioning of its nuclear generating stations after the end of their useful lives. The handling and disposal of radioactive material 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 MD&A for the year ended December 31, 2010.

Federal Government Policy

The *Nuclear Fuel Waste Act* (Canada) ("NFWA") came into force 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 program as the long-term solution for Canada's nuclear fuel waste. At the core of this program is the eventual long-term permanent disposal of radioactive nuclear fuel waste in a deep repository 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

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 and water-filled pools near their capacity, the used fuel bundles are transferred from the wet bays to above-ground concrete canisters ("dry storage") at the corresponding nuclear station site. Currently, used nuclear fuel is in storage at the Pickering, Darlington, and Bruce sites.

OPG's low and intermediate-level radioactive waste is stored at its radioactive waste management facility at the Bruce site, known as the Western Waste Management Facility. 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 assumptions for nuclear waste management and decommissioning liabilities are that a deep geological disposal facility for used nuclear fuel is expected to be available in 2035 and a low and intermediate level radioactive waste disposal facility is expected to be available by 2018. In August 2000, OPG submitted a management plan to the CNSC which revised the reference date for an in-service used fuel disposal facility 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 under the *Nuclear Safety and Control Act* (Canada) ("*NSCA*") for a financial guarantee, which was established in July 2003.

OPG has adopted a deferred dismantling strategy for the decommissioning of its nuclear generating stations. Under this strategy, OPG intends to defuel 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, among other things, its 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 December 2005, OPG submitted a project description to the CNSC for a low and intermediate level waste Deep Geologic Repository ("L&ILW DGR") at the planned Bruce site in the Municipality of Kincardine, Ontario. This initiated an EA process, which is the first step in the regulatory approval process for the site preparation, construction and operation of a L&ILW DGR facility for the management of low and intermediate level waste. The L&ILW DGR would be designed to manage low and intermediate waste produced from the continued operation of OPG-owned nuclear generating stations. 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*. The purpose of an EA is to identify the possible environmental effects of a proposed project to determine whether the project should be allowed to proceed or whether there is a need to incorporate mitigation measures into the project before it is allowed to proceed.

In June 2007, the federal Minister of the Environment announced that the proposed L&ILW DGR project has been referred to a review panel. The next steps include the preparation of a final scope and guidelines for the EA, and agreement on the panel review process.

In 2010, OPG approved the commencement of the detailed design phase of the Deep Geologic Repository project for the long-term management of low and intermediate level waste from OPG-owned nuclear generating stations. The Environmental Impact Statement ("EIS") is scheduled to be submitted to the CNSC in the spring of 2011 and the next step is for the Joint Review Panel to be announced and selected. In parallel with the EIS, OPG, through contractors and subcontractors, has commenced work in 2011 on the detailed design and engineering in support of the construction of the Deep Geologic Repository in 2013. OPG is currently engaged in drafting a planned Engineering, Procurement, and Construction Management Agreement for the design and construction phase of the work.

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 low and intermediate level waste 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; 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 \$5.94 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, 2010, 2.05 million bundles of used fuel waste had been produced.

Under the ONFA, the Province guarantees the cumulative annualized rate of return earned in the Used Fuel Fund at 3.25 percent per annum plus the rate of change in the Ontario consumer price index, compounded annually 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, which are prepared by OPG with the assistance of external consultants and are 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.

OPG is currently working on an update to the current five year ONFA reference plan and the proposed update is expected to be submitted to the Province in 2011, with approval targeted by the end of 2011. This work requires long lead time activities such as the re-estimation of all of the waste management programs that form part of the liability (decommissioning, low and intermediate level waste long-term management, used fuel disposal, used fuel storage, low and intermediate level waste 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, which 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 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 by the CNSC 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.

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 low and intermediate level waste 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 low and intermediate level waste.

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. In December 2009, the CNSC approved OPG's fulfillment of its financial guarantee obligation through the value of the segregated funds and a provincial guarantee of \$1.545 billion effective March 1, 2010. The value of this Provincial Guarantee will be in effect through to the end of 2012, when the next reference plan for the CNSC is required to be submitted.

For further details, see "*Balance Sheet Highlights – Nuclear Fixed Asset Removal and Nuclear Waste Management Funds*" in the Company's MD&A for the year ended December 31, 2010.

Other

Brighton Beach Venture

OPG has a 49.95 percent partnership interest in Brighton Beach Power L.P. ("Brighton Beach"), 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 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 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, earlier than its contractual in-service date of June 1, 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 in Ontario and the interconnection points between Ontario and neighbouring markets. A wholly-owned Canadian subsidiary of OPG is engaged in US-based wholesale energy trading activities from

Canada. These activities are limited to physical and financial trading of power, predominately in the northeastern United States.

New Generation Development

New Nuclear Units

As directed by the Minister of Energy in June 2006, OPG initiated a federal approvals process in September 2006 by filing an Application for a Site Preparation Licence with the CNSC for new nuclear generating units at the Darlington nuclear generating site. In March 2008, the Minister of Energy announced a two-phase competitive RFP process to select a nuclear reactor vendor to provide 2,000 to 3,500 MW of additional baseload generation capacity to the Ontario electricity grid. In June 2008, Infrastructure Ontario announced the selection of Darlington as the site for this new nuclear station, which would be operated by OPG. A commercial team directed by Infrastructure Ontario and supported by OPG, Bruce Power L.P., and the Ministries of Energy and Infrastructure, and Finance, managed the procurement process to select a nuclear reactor vendor. In June 2009, the Government of Ontario suspended the competitive RFP process to procure two new nuclear reactors planned for the Darlington site. In the announcement, the Government of Ontario indicated that the competitive RFP process did not provide Ontario with a suitable option at the time. The bids that were received during this process have subsequently expired. The Government of Ontario, in its February 2011 Supply Mix Directive to the OPA, confirmed its commitment to new nuclear at Darlington. In addition, in the Supply Mix Directive, the Government of Ontario indicated two new nuclear units at the Darlington site would be procured provided that it can be achieved in a cost-effective manner.

OPG continues with two initiatives that were underway – the environmental assessment process and obtaining a site preparation licence. In November 2009, a Joint Review Panel (“JRP”) announced the start of a six-month public review period for the EIS and the “Licence to Prepare Site”. During 2010, the JRP requested additional information in support of the EIS and application for the “Licence to Prepare Site”. On December 14, 2010, the JRP announced that it had scheduled the public hearings for the Darlington New Nuclear Project. The JRP determined that the EIS and the information in support of the application for the “Licence to Prepare Site”, along with additional information supplied by OPG, was enough for the JRP to proceed to a public hearing. The hearing will take place beginning March 21, 2011.

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 United States exceeds 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 is being constructed to divert additional water from the Niagara River to the Sir Adam Beck generating stations. The additional water provided by the Niagara Tunnel project is expected to increase utilization of the existing capacity of the Sir Adam Beck generating stations, thereby increasing electricity generation by an average of 1.6 TWh per year.

In May 2009, OPG's Board of Directors approved a revised cost estimate of \$1.6 billion with a revised in-service date of December 2013. The revised cost estimate and schedule take into account the difficult rock conditions encountered and the concurrent tunnel excavation and liner installation work required for completion of the tunnel. The amended contract includes incentives and disincentives related to achieving the target cost and schedule.

As of December 31, 2010, the tunnel boring machine had advanced to 9,152 metres, which is 90 percent of the tunnel length. Installation of the lower one-third of the permanent concrete lining had reached 6,563 metres. Restoration of the circular cross-section of the tunnel, before installation of the upper two-thirds of the concrete lining, had progressed 2,989 metres. Installation of the upper two-thirds of the concrete lining was completed to 1,238 metres.

The capital project expenditures for the year ended December 31, 2010 were \$231 million. The life-to-date capital expenditures are \$880 million.

The project is debt financed through the OEFC. OPG has executed an amendment to the Niagara Tunnel project credit facility with the OEFC to finance the project for up to \$1.6 billion. The Niagara Tunnel is expected to be completed within the revised approved budget of \$1.6 billion and in-service by the approved date of December 2013.

Lac Seul

The Lac Seul generating station, the first new OPG hydroelectric facility to be built in the province in over 30 years, was declared in-service in February 2009. The station has a capacity of 12.5 MW. The total project expenditures were \$55 million.

OPG has entered into a partnership agreement with the LSFN, and in July 2009, OPG transferred ownership of the station to the partnership. OPG has a 75 percent ownership interest in the partnership, while the LSFN have a 25 percent interest. The station continues to perform reliably and efficiently without interruption with the exception of scheduled outages for inspections.

Upper Mattagami and Hound Chute

Construction activities to replace three existing hydroelectric generating stations on the Upper Mattagami River and the Hound Chute generating station on the Montreal River were completed. The stations were declared in-service during the fourth quarter of 2010, approximately five months ahead of schedule. The project has increased the total installed capacity of the four stations from 23 MW to 44 MW, and increased the expected annual energy from 134 GWh to 223 GWh.

Project financing by UMH Energy Partnership was completed in May 2009 by issuing \$200 million in senior secured notes. UMH Energy Partnership is a general partnership between OPG and UMH Energy Inc., a wholly-owned subsidiary of OPG. These notes are recourse to OPG during the construction period, and non-recourse thereafter. Total life-to-date project costs of \$279 million are within the project budget of \$300 million.

Lower Mattagami

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

During 2010, access roads were upgraded, and installation of the temporary construction infrastructure, including site offices and a construction camp, was in progress. In addition, work commenced on the construction of cofferdams at the Little Long and Smoky Falls generating stations.

In August 2010, a \$700 million bank credit facility was established to support the initial construction phase for the Lower Mattagami project. Additional financing arrangements are being established to support the total requirements of the project. As at December 31, 2010, \$155 million of commercial paper was outstanding under this credit facility. Life-to-date expenditures as of December 31, 2010 were

\$292 million. 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. The project is expected to be in service in June 2015.

Human Resources

OPG's ability to sustain on-going operations and to successfully deliver the portfolio of planned projects is dependent on its ability to acquire, develop, and retain the necessary talent. Guided by integrated workforce planning, OPG plans for the necessary resources to meet the demand that will be generated by forecasted attrition. OPG enjoys a strong brand in the labour market and continues with targeted recruitment and outreach strategies designed to attract top qualified talent. OPG is committed to a strong leadership culture and strengthens its leadership capability through a focus on leadership accountability, assessment, development, and succession planning. OPG continues to invest in its employees through engaging work, professional growth and personal fulfillment.

As of December 31, 2010, OPG had approximately 11,800 full-time employees and approximately 1,000 contract, casual construction and non-regular staff. The majority of OPG's full-time employees are represented by two unions: approximately 6,800 by the Power Workers' Union ("PWU") and approximately 3,700 by the Society of Energy Professionals ("The Society").

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 (April 1, 2009 – March 31, 2012).

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 current collective agreement between OPG and The Society has a five-year term (January 1, 2006 – December 31, 2010). OPG and The Society commenced negotiations, however, the parties reached an impasse in mid-November 2010. The mediation/arbitration process concluded in January 2011 and in early February, 2011 the Arbitrator issued a binding arbitration award detailing the changes for the renewal agreement. The new collective agreement with The Society will expire on December 31, 2012.

Construction Unions

In addition to the regular workforce, construction and contract maintenance is conducted through 22 craft unions with established bargaining rights on OPG facilities. These bargaining rights are either through Electrical Power Systems Construction Association ("EPSCA") or directly with OPG.

There are currently three direct trade agreements covering construction work and contract maintenance at OPG. These single trade agreements are with the Canadian Union of Skilled Workers, the Brick and Allied Craft Union and the Machinists.

There are currently 19 agreements under EPSCA covering work performed by OPG, Bruce Power and Hydro One, as well as numerous contractors in the electrical power systems sector of the construction industry. 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 collective agreements on behalf of contractors and owners performing work on Ontario Hydro generation and transmission sites. EPSCA is currently comprised of 82 employers and is governed by a Board of Directors. The Board is comprised of 12 representatives, including one representative from each of OPG,

Bruce Power and Hydro One. Collective agreements between the Company and its construction unions negotiated either directly or through EPSCA, expired April 30, 2010.

Currently, 17 agreements have been ratified. Negotiations are being planned with the remaining construction unions. Negotiations are in the planning phase for Canadian Union of Skilled Workers, International Brotherhood of Electrical Workers Transmission, and Bricklayers International. Cement Mason and Tile and Terrazzo negotiations are on-going.

Health and Safety

Occupational Health and Safety

OPG is committed to achieving excellent safety performance, striving for continuous improvement and the ultimate goal of zero injuries. Safety performance is measured using two primary indicators: the Accident Severity Rate ("ASR") and the All Injury Rate ("AIR"). Overall, OPG's safety performance is consistently one of the best among Canadian electrical utilities. OPG was awarded the Canadian Electricity Association's President's Safety Award (Groups I and II) in six out of the last ten years, recognizing OPG's top quartile safety performance in ASR and AIR.

In June 2010, OPG received the ZeroQuest Platinum (Sustainability) Award from the Infrastructure Health and Safety Association. OPG is the first employer in Ontario to receive this safety award, which recognizes OPG's efforts to sustain and continuously improve safety performance, health and safety management systems, and safety culture over a five-year period.

Inherent in OPG's contractor management program is the expectation that its contractors 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 Construction Safety Association of Ontario.

OPG is committed to achieve its goal of zero injuries and continuous improvement through maintenance of formal safety management systems at the corporate and site levels based on the British Standard Institution's Occupational Health and Safety Assessment Series 18001 Standard (OHSAS 18001). These systems serve to focus OPG on proactively managing safety risks. Current risk improvement priorities are reducing musculoskeletal disorders, falling object prevention and improving the application of work protection (lockout/tagout) processes. In June 2010, OPG implemented new requirements set out in the *Occupational Health and Safety Act* to protect workers from workplace violence and harassment

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 and external safety management system audits and audits 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 to ensure that reoccurrences are prevented.

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 and 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.

In 2009, OPG commenced implementing improvements to the Alpha radiation protection elements of the radiation protection program. OPG has implemented all improvements required to meet regulatory expectations.

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 staffs are 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*".

Sustainable Development

OPG defines sustainable development as 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. OPG is committed to the principles of sustainable development, including minimizing our impact on the environment, operating our facilities safely, reliably and responsibly, and being an engaged and productive member of our host communities.

Additional information on OPG's sustainable development 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, and 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 insurance, including terrorism coverage, and boiler and machinery breakdown insurance, for damage to the nuclear portions of its generating stations which 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. 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.

As required by the *Nuclear Liability Act* (Canada) ("NLA"), OPG maintains \$75 million per incident of nuclear liability insurance for each of its nuclear generating stations (Pickering A and B are considered to be one station), for which there is no deductible amount. The NLA is currently under review by the Parliament of Canada, which will likely result in a requirement for increased insurance coverage with final passage of the Bill. For additional details, see "*Regulation – Nuclear Regulation*".

REGULATION

Ontario Electricity Regulation

From the opening of the competitive electricity market in May 2002 until March 2005, all of OPG's generation was sold at the Ontario electricity market spot price established by the IESO.

Beginning April 1, 2005, the prices for most of OPG's baseload hydroelectric generation and all of its nuclear generation became regulated pursuant to changes to the *Ontario Energy Board Act, 1998* and specifically *Ontario Regulation 53/05*. This comprises electricity generated from the Sir Adam Beck 1, 2 and Pump generating station, the DeCew Falls 1 and 2, and the R.H. Saunders hydroelectric facilities, and the Pickering A and B and Darlington nuclear facilities. *Ontario Regulation 53/05* set the regulated prices that OPG received up to April 1, 2008 for these prescribed facilities.

For the period April 1, 2005 to March 31, 2008, the regulated price received for the first 1,900 MWh of production from the regulated hydroelectric facilities in any hour was 3.30¢/kWh. As an incentive mechanism to optimize hydroelectric production, for generation above 1,900 MWh, OPG received the Ontario spot electricity market price. The regulated price for production from OPG's nuclear facilities was 4.95¢/kWh.

Beginning April 1, 2008, OPG's regulated prices are determined by the OEB. Effective April 1, 2008, the OEB approved regulated prices were 3.67¢/kWh and 5.50¢/kWh for generation from OPG's regulated hydroelectric and nuclear facilities, respectively and are based on a forecast cost of service methodology. These regulated prices reflected the OEB's 2008 decision with respect to the recovery of variance and deferral account balances recorded prior to April 1, 2008. In order to reflect the recovery of these balances, the nuclear regulated price of 5.50¢/kWh included a rate rider of 0.20¢/kWh. Hydroelectric generation above 1,900 MWh continued to receive the Ontario spot electricity market price from April 1, 2008 to November 30, 2008.

The OEB also approved a revised hydroelectric incentive mechanism effective December 1, 2008. Under the mechanism, OPG receives the approved hydroelectric regulated price for the actual average hourly net energy generation from the prescribed hydroelectric facilities in that month. In the hours when the net actual energy generation in Ontario is greater or less than the average hourly net volume in the month, OPG's hydroelectric revenues are adjusted by the difference between the average hourly net volume in the month and the actual net energy generation multiplied by the electricity spot market price.

In May 2010, OPG filed an application with the OEB for new regulated prices to be effective March 1, 2011 for the Prescribed Facilities using a forecast cost of service methodology. The public hearing process on OPG's application was completed on December 21, 2010. As of the date of this AIF, the OEB has not issued its decision on OPG's application. Further information about OPG's application filed with

the OEB is included under the heading, “*General Developments – OPG’s Application for New Regulated Prices*”.

OPG also maintains certain variance and deferral accounts authorized by the OEB to capture deviations from the approved forecast information upon which the regulated prices are based.

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 or energy supply agreement is in place. For the period April 1, 2005 to April 30, 2009, the generation output from 85 percent of OPG’s unregulated generating assets, excluding the Lennox generating station, stations whose generation output was subject to a HESA with the OPA pursuant to a ministerial directive, and forward sales as of January 1, 2005, was subject to a revenue limit. The output from a generating unit where there was a fuel conversion and the incremental output from a generating station where there was a refurbishment or expansion of these assets were also excluded from the output covered by the revenue limit.

Nuclear Regulation

The NSCA created the CNSC and authorized it to make regulations governing all aspects of the development and application of nuclear energy. The most significant powers given to the CNSC are for making regulations, conducting proceedings as a court of record, and for issuing licences and orders. A person or organization may only possess or dispose of nuclear substances, or construct, operate, and decommission its nuclear facilities in accordance with the terms of a licence issued by the CNSC. The licence specifies conditions that licencees must satisfy in order to demonstrate that the licensee is qualified to carry out the activities authorized by the licence. International and national standards in relation to matters such as safeguards and radioactive emissions are examples of conditions incorporated into station 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 licencees 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 NSCA is the product of an update of regulatory requirements by the federal government in relation to the effective regulation of nuclear energy in Canada. 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. The NSCA also provides for increased emphasis on 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.

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 the Nuclear Insurance Association of Canada in specified amounts. Currently, the NLA requires a nuclear operator to maintain, for each of its nuclear stations, 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. The *NLA* is currently under review, which could result in a requirement for increased insurance coverage.

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 entered into a five-year, 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 were reissued as of April 1, 1999 when OPG acquired the generation business of Ontario Hydro. All nuclear power reactor operating licences have since been renewed pursuant to the NSCA by the CNSC. During 2008, the CNSC granted five year renewals of operating licences for the Darlington and Pickering B Generating Stations. In 2010, a three year renewal licence was granted for Pickering A, reflecting the CNSC opinion that the Pickering B and Pickering A licences be synchronized at the next renewal in light of OPG's decision on continued operation of Pickering B.

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 and 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 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 ("WMPs") for all watersheds and rivers in Ontario except international rivers, inter-provincial rivers, or rivers under federal jurisdiction. While WMP's 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 water management plan 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 United States relating to water use. These stations represent approximately 55 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 twelve months prior written notice. Given the significant importance of

these treaties, OPG does not expect Canada or the United States to exercise their 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 of Ontario 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

55 of OPG's 65 hydroelectric stations, representing approximately 32 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 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 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 and those owned by the Government of Canada. The majority of OPG's dams fall within the jurisdiction of the Province of Ontario, with approximately 20 dams associated with OPG's unregulated facilities fall within the jurisdiction of the Province of Québec. 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 October 2010, the MNR published a set of Technical Guidelines on the Environmental Bill of Rights for public consultation. OPG was an active participant in developing the Technical Guidelines through the MNR's *Lakes and Rivers Improvement Act – Advisory Panel*. It is expected that following the 90-day public comment period that the MNR will move to have the Technical Guidelines formally recognized by the government as the standards for dam safety through a Notice of Policy Directive issued by Cabinet. 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 will be required as a direct result of these Technical Guidelines above those which would be required through the implementation of OPG's Dam Safety Program.

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

OPG's Board of Directors approved Environmental Policy states that OPG will strive to continually improve its environmental performance by committing to a number of requirements, including:

- meeting or exceeding all legal requirements;
- advancing environmental stewardship;
- maintaining ISO 14001 certified Environmental Management Systems ("EMS");
- integrating environmental considerations into decision-making; and
- communicating OPG's results openly.

OPG's President and Chief Executive Officer is accountable for the requirements set out in the Environmental Policy. In addition, the President and Chief Executive Officer approved additional supporting policies related to Biodiversity, Spills Management, and Land Assessment and Remediation to guide the implementation of the Environmental Policy across OPG.

The Environmental Policy and supporting policies are implemented through the corporate ISO 14001 certified EMS and those EMS within the Business Units. The policies are reviewed regularly as part of the Management Review of the EMS to ensure they remain relevant and appropriate to the nature, scale, and environmental impacts of OPG's activities.

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. Further, OPG makes regular reports to the Ministry of Environment with respect to its contaminated land remediation program at existing and former generating station sites.

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 through, for example, loss and fragmentation of terrestrial habitat or the modification of water flow regimes, or the interference with migratory species. In recognition of such potential impacts, OPG has implemented a Biodiversity Policy 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.

OPG is committed to sustainable development and engages in a number of "beyond compliance" initiatives that demonstrate this commitment, including an extensive award winning biodiversity program, an internal energy efficiency program, and numerous other station community oriented environmental programs.

Air

OPG is an emitter of GHG, primarily as a result of OPG's thermal operations. OPG is subject to regulation and Shareholder Declarations and Resolutions that limit OPG's GHG emissions by curtailing the use of coal. 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. For additional details, see "*General Development Of The Business – Thermal – Carbon Dioxide Strategy*". 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 and related regulatory risk after 2014.

Greenhouse Gas Regulation – Federal

In June 2010, the Federal government announced its intention to regulate greenhouse gas emissions from coal-fired electricity generating units by restricting the operating life of these units. Environment Canada has since advised OPG that the regulation will not, however, apply to coal units converted to burn fuels other than coal. The regulation is therefore not expected to impact OPG's consideration of converting some coal units to burn natural gas or biomass. The Federal Government did not release the proposed greenhouse gas emission regulation in 2010. OPG continues to monitor developments related to the Federal Government proposed regulation of GHG emissions.

Provincial Climate Change Plan

In July 2008, the Province joined the Western Climate Initiative, committing to implement a cap-and-trade regime by 2012. The *Greenhouse Gas Emissions Reporting Regulation*, made under the *Environmental Protection Act* (Ontario), came into force on December 1, 2009. The regulation requires facilities that emit 10,000 tonnes of CO₂ or more per year to monitor, measure, and annually report emissions. On December 15, 2009, amendments to the *Environmental Protection Act* came into force which authorizes the making of regulations relating to emissions trading and other economic and financial instruments and market-based approaches, enabling the development of a cap-and-trade regime. In the event that the Province establishes a cap-and-trade system, OPG may need to purchase GHG allowances via auction to offset GHG emissions from coal, oil, and natural gas combustion. OPG will comply with the requirements and will continue to monitor developments of the cap-and-trade regime.

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 Province's regulation to cease burning coal by the end of 2014 and the Shareholder Declarations to reduce CO₂ 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 NO_x, SO₂, and CO₂, 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 placed in ash disposal sites located on the generating site property. The ash disposal sites are operated in accordance with terms and conditions of approvals issued by the Ministry of Environment.

The operating strategy going forward will focus on the safe and reliable operation of the coal fired units such that they are available when needed. As air emissions from thermal operations are expected to continue to decline with lower levels of generation, 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. 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, studies assessing the conversion of some coal-fired units to burning 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;
- development of a reliable biomass supply chain;
- development of an adequate cost recovery mechanism for capital and on-going costs; and
- review of proposals through a public consultation process.

On August 26, 2010, the Minister of Energy directed the OPA to negotiate an ABESA with OPG. If the ABESA is successfully negotiated and OPG Board of Directors approval obtained, it will allow OPG to proceed with the conversion of the Atikokan generating station to burn biomass.

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 limits on the rates at which radionuclides may be emitted to the air 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 to persons who live or work in locations or occupations potentially impacted by emissions from each facility. This theoretical 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. They are also reported quarterly in the nuclear report cards that are made available to the public.

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, are thoroughly investigated to determine root cause and corrective action plans are developed accordingly.

To reduce the impingement of fish associated with the operation of the Pickering nuclear facilities, OPG installed a barrier net in 2009. In addition to providing protection for fish, the net also provides a barrier against algae which periodically reduces the electrical output of the facilities.

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 2010, remediation of 39 sites had been completed. Remediation was on-going at nine sites and planned for two additional sites starting in 2011. By the end of 2011, remediation of all medium and low priority sites is expected to be completed. Monitored natural attenuation of contamination at one site is expected to continue to approximately 2019. Soil and groundwater remediation at the former Lakeview generating station property in Mississauga to treat elevated levels of liquid hydrocarbons is underway.

OPG estimates the present value of assessment and our remediation plan for contaminated sites at approximately \$29 million over the next several years and 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 ("PCBs")

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. New 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

The *Endangered Species Act, 2007* (Ontario), came into force in June 2008, replacing an earlier statute with a more robust regime administered by the MNR. In the event an endangered species is affected by the operation of a facility, compliance with the regime may potentially involve curtailed generation or long-term commitments, including agreements as prescribed by regulation.

Aboriginal Matters

The Aboriginal and treaty rights of Aboriginal communities are recognized and affirmed in the Constitution Act, 1982. OPG may be subject to claims by First Nations and Métis communities, and other Aboriginal groups and individuals stemming from generation development, the historic operations of Ontario Hydro that related to First Nations and Métis title or rights, or the absence of permits, rights-of-way, easements or similar rights in respect of lands held for First Nation bands or bodies under the *Indian Act* (Canada) and similar past grievances. Precedents created by court rulings may also impact negotiations and resolution of past grievances.

OPG has established an Aboriginal Relations Policy which sets out OPG's commitment to building and developing long-term mutually beneficial working relationships with Aboriginal communities proximate to its present and future operations. OPG is also committed to continuing efforts to reach mutually satisfactory resolution of grievances with respect to past hydroelectric development and, where appropriate, pursue prospective hydroelectric development with Aboriginal communities that can provide the basis for long term mutually beneficial commercial arrangements.

RISK FACTORS

OPG's portfolio of generation assets, electricity trading operations, nuclear fixed asset removal and nuclear waste management funds, and OPG's pension plan are subject to inherent risks, including operational, financial, regulatory, and environmental risks. The risks disclosed below could have a material adverse effect on OPG's business, generation portfolio, reputation, financial condition, operating results and prospects, 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.

For additional information, see "*Risk Management*" in the Company's MD&A for the year ended December 31, 2010.

Ontario Electricity Market

OPG's ability to compete and retain electricity market share depends upon its generation capacity and many external factors including: the entrance of new participants in the Ontario market; the competitive actions of market participants; the extent of self-generation; compliance with market power mitigation obligations; changes in the regulatory environment such as the Green Energy Act; supply, demand, and the cost of power in the interconnected markets; weather-related electricity demand levels; regulated, wholesale, and spot market electricity prices; and the Ontario economy.

The Green Energy Act is expected to provide a significant amount of additional electricity from renewable energy sources. The potential for other producers to add significant amounts of non-dispatchable renewable resources may impact OPG's future operations.

Lower than forecast primary demand combined with increased baseload generating sources could result in SBG conditions, which may cause OPG to spill water from hydroelectric generating units and reduce generation output of nuclear units. SBG conditions could cause a decline in OPG's revenue.

SBG conditions are expected in the Ontario market in 2011. The extent of these conditions would depend upon various factors such as electricity demand, the amount of renewable energy generation, and weather and water conditions. Current projections from the IESO for 2012 indicate more new renewable energy resources are expected to come into service, which suggests SBG conditions could continue into the future.

Nuclear Operations

Operating nuclear stations exposes OPG to unique risks, such as the potential for greater-than-anticipated deterioration of nuclear generating assets, the risk of a nuclear accident, the handling, storage and disposal of nuclear waste and restructuring of the nuclear industry. The primary unfavourable impacts of these factors are higher operating costs, safety, and the potential derating of a generating unit, resulting in lower than expected generation and reduced revenues.

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 subject to the effects of aging. Fuel channels are expected to be the most life limiting component affecting station end of life. Significant factors identified to-date include steam generator tube corrosion, feeder pipe wall thinning and pressure tube-calandria tube contact. Because 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.

In February 2010, OPG announced its plans to continue the safe and reliable operation of OPG's Pickering B nuclear generating station. Pickering B nuclear generating units are currently estimated to reach their nominal end of lives between 2014 and 2016. OPG is undertaking a coordinated set of initiatives to evaluate the opportunity to continue safe and reliable operations of Pickering B units for an additional four to six years. Risk factors include discovery of unexpected conditions, equipment failures, requirement for significant plant modifications, and obtaining CNSC approval. Inability to achieve Pickering B Continued Operations could reduce OPG's revenue and could lead to discontinuation of Pickering A operations.

Also in February 2010, OPG announced its decision to commence the definition phase of refurbishment of the Darlington nuclear generating station. There is a risk that the first Darlington refurbishment outage may be advanced due to an earlier than planned end of service life at Darlington. This could result in an increase in idle time and overlap period of the subsequent multi-unit refurbishments.

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 costs in addition to the substantial costs currently incurred by OPG for nuclear waste management.

A major accident at a nuclear installation anywhere in the world could impact the regulation of OPG's activities or the future prospects for nuclear generation.

Nuclear Waste Obligations

OPG is responsible for the management of used nuclear fuel, low and intermediate level waste, and eventual decommissioning of all of its nuclear facilities including the stations on lease to Bruce Power, as required by the CNSC. Currently there is not a licensed facility in Canada for the permanent disposal of nuclear used fuel. However in 2002, the NWMO started a consultation process with Canadians to create a recommended approach for the permanent storage of used fuel. The recommendation for an “adaptive phased management” approach received federal approval in June 2007. After developing a process for moving forward, in late 2010, the NWMO launched implementation of the site selection phase of the program. In the interim, OPG is storing and managing used fuel at its nuclear generating station sites.

To address the need for storage of low and intermediate level waste, OPG is developing a Deep Geologic Repository for the long-term management of low and intermediate level waste from OPG-owned nuclear generating stations, which will be located on the Bruce nuclear site. The EIS is scheduled to be submitted to the CNSC in March 2011 and the next step is for the Joint Review Panel to be announced and selected. In parallel with the EIS, OPG, through contractors and subcontractors, has commenced work in 2010 on the detailed design and engineering in support of the construction of the Deep Geologic Repository in 2013.

Community opposition to deep geologic disposal of used fuel and low and intermediate level waste and potential community opposition to prolonged on-site used fuel storage may impede the ability of OPG, its contractors and subcontractors to develop disposal plans acceptable to major stakeholders.

Similarly, OPG’s obligations pertaining to nuclear waste management and eventual decommissioning of all its nuclear facilities as required by the CNSC are subject to numerous factors, including: assumptions regarding implementation schedules, assumptions surrounding nuclear facility end of life, waste volume, cost estimates, discount rates and the rate of return earned on segregated funds established to satisfy these obligations; financial markets volatility; the tax-deductibility of OPG’s contributions paid to the segregated funds should OPG’s tax-exempt status change; the tax-exempt status of income earned on the segregated funds; the sales tax treatment of expenditures incurred by the contractors and subcontractors; tax exempt status of the NFWA Trust; changes in federal policy or regulation regarding nuclear waste management and decommissioning (including, but not limited to, financial assurance requirements, program standards, the method of and future availability of long-term waste management and other assumptions under OPG’s nuclear waste management and decommissioning programs); and the degree of control OPG will have over the scope and implementation of its programs. Many of these factors relate to matters which are untested or for which there is no significant degree of certainty.

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 are subject to numerous factors, including: changes in actuarial assumptions; 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.

Major Projects

OPG is undertaking numerous projects designed to enhance and expand its fleet of generating stations. These projects are capital intensive and require significant investments in terms of resources. There may be an adverse effect on the Company if OPG is unable to effectively manage these projects, if it is unable to borrow the necessary funds, or if it does not receive full recovery of its capital costs. Each individual project also has its own set of risks. These include, but are not limited to, inherent risks associated with the potential construction of nuclear reactors (as it pertains to the Darlington New Nuclear project), inherent risks associated with tunneling (as it pertains to the Niagara Tunnel project), cost escalation,

availability of raw materials and equipment, and the receipt of permits and approvals. 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.

Demographics

OPG's success is dependent on attracting and retaining qualified personnel, the ability of staff to work together as a cohesive team, and the effective transfer of knowledge from soon-to-be retirees to new recruits and future leaders. The demographics of OPG's workforce poses a challenge with a significant percentage of OPG's personnel eligible for retirement. Although the short-term impacts of the recent recession would indicate an improved ability to attract and retain personnel, there can be no assurance that OPG will be able to attract and retain qualified personnel in the future.

Regulatory Compliance

OPG is subject to 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 require OPG to constrain electricity generation, install emission control technologies, purchase emission reduction credits, allowances or offsets, switch fuels, or remove and dispose of equipment or waste. Further, some of 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.

OPG is also subject to regulation by entities including the OEB, the IESO, and the CNSC. The risks that arise from being a regulated entity include the potential inability to recover costs, reductions in revenue, increases in the cost of operations, and unexpected outages.

The prices for all of OPG's baseload nuclear generation and most of its hydroelectric generation are determined by the OEB based on a forecast cost of service methodology. The regulated prices remain in effect until the effective date of the OEB's next payment amounts order. As with any regulated price established using a forecast cost of service 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 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 are reviewed as part of the OEB's regulatory process.

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 that have 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.

The uncertainty associated with nuclear regulatory requirements is primarily driven by plant component aging, technology risks, and changes to technical codes. Proactively addressing these requirements adds to the cost of operations, and in some instances, may result in a reduction in the productive capacity of a plant, or in the earlier than planned replacement of a plant component.

Financial Risk

OPG is exposed to a number of capital market-related risks that could adversely impact its financial and operating performance. Many of these risks arise due to OPG's exposure to volatility in commodity, equity, foreign exchange, and interest rate markets.

OPG's foreign exchange risk exposure is attributable to two primary factors: US dollar denominated transactions such as the purchase of thermal fuels, and the influence of US dollar denominated commodity prices on the Ontario electricity spot market. The magnitude and exposure to the US dollar is affected by OPG's generation and the price volatility of US dollar denominated commodities.

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, and with the potential addition of variable rate debt.

OPG operates in a capital-intensive business. Substantial financial resources are required to fund capital improvement projects and related maintenance programs at generating stations. In addition, OPG has significant disbursement commitments including investment in new generating capacity, annual funding obligations under the ONFA, pension contributions, other post employment benefits and other benefit payments, and continuing 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 and capital market financing. The funds from operations are generally not sufficient 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 a number of factors including: general economic and capital market conditions, capital structure debt capacity, credit availability from banks, OEFC, and debt capital markets, and the maintenance of acceptable credit ratings.

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

The audit of OPG's taxation years subsequent to 2001 commenced in 2010. Should the outcome of the audit for subsequent years differ from OPG's recorded income tax liabilities, the Company's effective tax rate and its net income could be materially affected either negatively or positively in the period in which the matters are resolved.

Hydroelectric Operations

OPG's ability to operate its hydroelectric generation facilities depends upon the availability of water. Approximately 55 percent of OPG's in-service hydroelectric capacity depends on water rights derived from treaties between Canada and the United States, which are terminable upon 12 months notice. Although OPG does not expect that Canada or the United States 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 climate change, could also affect water supplies and OPG's ability to utilize its low-cost hydroelectric generating assets.

OPG's hydroelectric generating stations vary in age, with a majority of the hydroelectric generating capacity built over 50 years ago. Due to the variability and age of some of the equipment and civil components, there is a risk that some facilities will require significant investment to sustain their reliability. Dam safety legislation does not currently exist in Ontario, but is expected to be enacted in 2011. The regulation may ultimately result in expenditures for enhancements to several of OPG's hydroelectric facilities.

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. There can be no assurance that OPG's dam safety program will be able to detect potential dam failures prior to their occurrence or eliminate all adverse consequences in the event of a failure.

Thermal Operations

OPG's ability to operate its coal and gas/oil-fired generation facilities is dependent on the condition of the equipment. Integral to the thermal operations managed systems are equipment condition and engineering risk assessments, which are used as the basis for a maintenance work program appropriate to the operating profile of a particular unit. If these work programs are not properly executed, equipment failures, and extended forced unit outages may result.

OPG's ability to operate its gas/oil-fired generation facilities is also dependent on a secure, reasonably priced supply of natural gas and oil. Gas and oil prices and availability can be affected by numerous factors. Supply issues could cause a reduction in OPG's gas/oil fired generation. Conversely, given the cessation of use of coal as a fuel for electricity generation, OPG could have excess coal inventory if market conditions result in less than expected coal-fired generation.

OPG has an agreement with the OEFC to secure financial recovery of on-going maintenance and operations costs of the Nanticoke and Lambton coal-fired stations. These assets would otherwise be financially impaired resulting in a financial write down of their remaining book value. The agreement extends until 2014. If the agreement were to be cancelled, it could lead to a write-down of the book value of these stations and/or an earlier shutdown.

Reduced generation levels from the coal-fired stations due to market conditions have resulted in an increased numbers of station start-ups and shut-downs. This causes increased wear and stress on the equipment and may lead to the risk of failure to start when called upon or an increase in forced outages occurring during operations.

Thermal's capability to move to alternate fuels like natural gas, biomass, and dual gas-biomass will depend on obtaining Shareholder approval of coal unit conversion and achieving cost recovery agreements with the OPA.

Transmission and Interconnection Systems

OPG depends on the capacity and reliability of the transmission and interconnection systems that connect its generators with customers in Ontario and in interconnected markets. In Ontario, the capacity of such transmission systems is limited under certain conditions, and OEB approval is required for its expansion. OPG may also face transmission constraints in interconnected markets. The capacity and operating reliability of such interconnection, transmission, and distribution systems are factors beyond OPG's control, and any capacity limitations, restrictions on access or reductions in operating reliability could affect the supply of electricity by OPG to customers in Ontario and interconnected markets.

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. 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, including the regulation of Ontario's electricity industry, the regulation of environmental matters, the allocation between OPG and the Province of the costs involved in nuclear waste management, the reduction of the stranded debt from the revenues of the electricity industry, any future sale by the Province of all or any of the Company's assets or common shares, and the determination of the amount of payments to be made by the Company to the Province by way of dividends or taxes.

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: structure of the electricity market, nuclear operations, nuclear waste management and decommissioning, water rentals, permits to take water, dam safety, gross revenue

charges, environmental matters including air emissions, and taxation. Operations that are not currently regulated may become subject to regulation in the future. Since legal requirements can be subject to change and are subject to interpretation, OPG is unable to predict the impact of such changes on OPG and its operations.

Labour Relations

The majority of OPG's employees are represented by either the PWU or The Society. The Company's collective agreement with the PWU runs through March 31, 2012, while the labour agreement with The Society expired on December 31, 2010. OPG and The Society commenced negotiations on a new labour agreement, however, the parties reached an impasse in mid-November 2010. The mediation/arbitration process concluded in January 2011, and in early February, 2011, the Arbitrator issued a binding arbitration award detailing the changes for the renewal agreement. The new collective agreement with The Society will expire on December 31, 2012.

Collective Agreements between the Company and its construction unions, negotiated either directly or through EPSCA, expired April 30, 2010. Currently, 17 agreements have been reached and ratified. Negotiations are currently underway or being planned with five other construction unions.

Significant changes in these collective agreements or corporate restructuring could strain the labour relations of the Company. In the event of a labour dispute, OPG could face operational risk related to continued compliance with OPG's licence requirements.

Credit Risk

OPG's credit risk exposure is comprised of two major components: the first is derived from its sales of electricity and the second from its purchases of services and products. The majority of OPG's sales to counterparties are through the IESO-administered spot market. OPG's second element of credit risk relates to exposures created by counterparties that are contracted to provide services or products.

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 could result in future system failures, or an inability to align information technology systems with changing market conditions and strategic business objectives. OPG could be exposed to operational risks in the event of information technology security breaches.

Suppliers

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

Interconnected Electricity Markets

OPG's ability to compete in interconnected electricity markets depends upon 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 state of deregulation in the interconnected markets; currency exchange rates; any new trade limitations; OPG retaining a Federal Energy Regulatory Commission licence; and costs to comply with environmental standards imposed in these markets. There can be no assurance that OPG will continue to compete successfully in interconnected markets.

Leases and Partnerships

OPG has leased its Bruce nuclear generating stations to Bruce Power and is a party to a number of partnerships which operate generating stations such as Brighton Beach and Portlands. Each of these generating stations 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 stations, it could be subject to counterparty claims, defaults, reduction in lease revenue, or other risk factors.

First Nations and Métis Communities

OPG may be subject to claims by First Nations and Métis communities, and other Aboriginal groups and individuals stemming from generation development, the historic operations of Ontario Hydro that related to First Nations and Métis title or rights, or the absence of permits, rights-of-way, easements, or similar rights in respect of lands held for First Nation bands or bodies under the *Indian Act* (Canada) and similar past grievances. Precedents created by court rulings may also impact negotiations and resolution of past grievances.

Natural or Unexpected Events

OPG is exposed to incidents or developments, such as natural disasters, influenza pandemic, accidents, or an incident at a facility that could threaten the safety of various stakeholders as well as the continuity of OPG's business operations. 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.

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 are 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 on-going basis. OPG has not paid any dividends to the Shareholder in the last four 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, 2010, 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

The following information relating to credit ratings is based on information made available to the public by the credit rating agencies.

Credit Rating Agency	Commercial Paper	Long-Term Debt
Standard and Poor's Rating Agency Inc. ("S&P")	A-1 (low)	A-
DBRS Limited ("DBRS")	R-1 (low)	A (low)

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 S&P 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. S&P 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 securities. The "low" modifier indicates relative standing within the rating category by DBRS.

S&P'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 S&P or DBRS at any time in the future, if in their judgment, circumstances so warrant.

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. Information with respect to OPG's Board of Directors is as follows:

Board of Directors and Directorships

OPG's Board of Directors is made up of 12 individuals with substantial capability in managing large businesses, managing and operating nuclear stations, managing capital intensive companies, and overseeing regulatory, government and public relations. 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; 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; increasing 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 of Ontario; and for 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, Board Charter, 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.

On an annual basis, the Governance and Nominating Committee reviews the disclosure 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 and reports to the Board of Directors on the review.

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 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.

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 4, 2011:



Jake Epp

Age: 71

Calgary, Alberta, Canada

Jake Epp was appointed as Chairman of the Board of Ontario Power Generation Inc. in April 2004. He held the position of interim Chairman from December 2003 until his current appointment. Jake 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 Interim Chairman, in May 2003, he 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 generating station. The findings of the report were released in December 2003. He is also certified by the Institute of Corporate Directors.

Board/Committee Membership:

		2010 Attendance:
Board (since December 2003)	7 of 7	100%
Compensation and Human Resources Committee (from November 2004 to May 21, 2010)	3 of 3	100%
Governance and Nominating Committee (from August 2005 to May 21, 2010)	2 of 2	100%
Nuclear Generation Projects Committee (from November 2006 to May 21, 2010)	2 of 2	100%
Ad Hoc Sub-Committee of Directors	9 of 9	100%
The Board Chair is no longer a member of any Committee, except the Ad Hoc Sub-Committee of Directors. The Board Chair will attend all other Committee meetings.		25 of 25 100%

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: 55

Toronto, Ontario, Canada

Tom Mitchell is the President & Chief Executive Officer at Ontario Power Generation Inc. (OPG). He was appointed to his current position effective July, 2009. Previously he held the position of Chief Nuclear Officer where he was directly responsible for the safe and reliable operation of Darlington, Pickering A, and Pickering B nuclear stations. He has also served as Site Vice President, Pickering B 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 Pickering and Darlington stations. Tom Mitchell has over 30 years of nuclear experience. Before joining OPG, he held the position of Vice President of the Assistance Division of the Institute of Nuclear Power Operations (INPO) in Atlanta, Georgia. During his career at INPO, he managed the radiological protection, plant analysis and engineering support departments. Tom Mitchell also has considerable operations experience. At Peach Bottom Atomic Power Station, he served as Manager of Operations Support, Director of Site Engineering, and Site Vice President. During the period of his involvement at Peach Bottom, the performance of the plant changed from being a regulatory shutdown to a recognized leader in safe and reliable operation. Tom Mitchell's involvement in the nuclear industry has extended outside the United States. He served as the Deputy Director of the Atlanta Center for the World Association of Nuclear Operators (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. Tom is a member of the Governing Board of the Atlanta Centre of WANO, and is the Chair-elect for 2012-2014. Tom Mitchell holds a master's degree in Mechanical Engineering from George Washington University and a bachelor's degree in Nuclear Engineering from Cornell University. Tom has a strong interest in historical preservation, and is currently on the Board of Parkwood Foundation which manages the historical estate of J.S. McLaughlin in Oshawa, Ontario.

Board/Committee Membership:

Board

The President & CEO is not a member of any Committee but attends all Committee meetings excluding independent Director in camera meetings/sessions (Since July 1, 2009)

2010 Attendance:

7 of 7 100%

41 of 41 100%

Principal Occupation: President & Chief Executive Officer, 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

**Donald Hintz**

Age: 68

Punta Gorda, Florida, U.S.A.

Donald Hintz is the retired President of Entergy Corporation, where he was responsible for Entergy's 30,000 megawatts 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. Here 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. He 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:

Board (since October 2004)

Compensation and Human Resources Committee (since November 2004). Mr. Hintz has been the Chair of this Committee since May 21, 2010*.

Nuclear Operations Committee (from November 2004 to May 21, 2010*)

Nuclear Generation Projects Committee (from November 2006 to May 21, 2010)

Nuclear Oversight Committee (Since May 21, 2010)

* Chair of Committee

2010 Attendance:

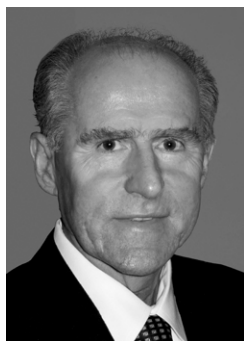
6 of 7 86%

9 of 9 100%

2 of 2 100%

2 of 2 100%

2 of 3 67%

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**Gary Kugler**

Age: 70

Burlington, Ontario, Canada

Dr. Gary Kugler currently serves as Chairman of the Board of the NWMO. 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. He 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:

Board (since September 2004)

Compensation and Human Resources Committee (since December 2008)

Governance and Nominating Committee (from August 2005 to May 21, 2010)

Nuclear Operations Committee (from November 2004 to May 21, 2010)

Nuclear Generation Projects Committee (from November 2006 to May 21, 2010)

Nuclear Oversight Committee (since May 21, 2010)

2010 Attendance:

7 of 7 100%

9 of 9 100%

2 of 2 100%

2 of 2 100%

2 of 2 100%

3 of 3 100%

Principal Occupation: Chairman, Nuclear Waste Management Organization**Board Memberships for other Reporting Issuers:** None**Independence from OPG:** Independent**Interlocking Directorships on Boards of other Reporting Issuers:** None

**M. George Lewis**

Age: 50

Toronto, Ontario, Canada

As a member of the RBC Group Executive since February 2007, George Lewis is one of nine executives responsible for setting the overall strategic direction of RBC, Canada's largest bank. Mr. Lewis is Group Head, RBC Wealth Management. Mr. Lewis is also Chairman of RBC Asset Management Inc. Prior to his current appointment, Mr. Lewis was Head of Wealth Management for the Canadian Personal and Business banking segment of RBC, as well as serving as Head of 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. He 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 chartered accountant, 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 Anglican Diocese of Toronto Foundation and the Toronto Symphony Orchestra. He is a current member and Past Chair of the Bishop's Company of the Anglican Diocese of Toronto, as well as a member of the Cabinet and Patron of the United Way of Greater Toronto and Patron of Operation Springboard.

Board/Committee Membership:

Board (since February 2005)
Audit/Risk Committee* (from February 2005 to May 21, 2010)
Investment Funds Oversight Committee (from March 2005 to May 21, 2010)
Audit and Finance Committee* (since May 21, 2010)
Governance and Nominating Committee (since May 21, 2010)
Ad Hoc Sub-Committee of Directors*

* Chair of Committee

2010 Attendance:

6 of 7	86%
2 of 2	100%
3 of 3	100%
5 of 5	100%
1 of 1	100%
9 of 9	100%

Principal Occupation: Group Head, Wealth Management, RBC Financial Group**Board Memberships for other Reporting Issuers:** None**Independence from OPG:** Independent**Interlocking Directorships on Boards of other Reporting Issuers:** None

**David J. MacMillan**

Age: 58

London, United Kingdom

Until September 2010, David MacMillan was a Senior Advisor at Good Energies, a European based multibillion dollar private equity fund that invests in renewable energy technology companies and renewable energy companies and projects worldwide. Until early 2008, he was also a Non-Executive Director of InterGen N.V., an international owner and operator of utility scale power generation plants. He has extensive international experience in the power generation sector with a focus on investment strategy and financing. Mr. MacMillan was also a former Director of Killingholme Power Limited. Mr. MacMillan holds a B.A. and a M.A. of Economics from McGill University.

Mr. MacMillan has also successfully completed the Canadian Securities Course and the NASDAQ Series 7 Course. For the last 30 years he has worked in the financial sector as a banker, financial advisor and as a Principal in investment and private equity companies.

Board/Committee Membership:

Board (since September 2004)
Compensation and Human Resources Committee (since May 2009)
Nuclear Operations Committee (from November 2004 to May 21, 2010)
Major Projects Committee* (to May 21, 2010)
Audit and Finance Committee (since May 21, 2010)

* Chair of Committee

2010 Attendance:

7 of 7	100%
9 of 9	100%
2 of 2	100%
3 of 3	100%
5 of 5	100%

Principal Occupation: Consultant

Board Memberships for other Reporting Issuers: None

Independence from OPG: Independent

Interlocking Directorships on Boards of other Reporting Issuers: None



Corbin A. McNeill Jr.

Age: 71

Jackson, Wyoming, U.S.A

Corbin McNeill is the retired Chairman and Co-Chief Executive Officer of Exelon Corporation, which was formed by the merger of PECO Energy and Unicom Corp. At PECO, he had been Chairman, President and CEO, having joined PECO in 1988 as Executive Vice President, Nuclear. Prior to PECO, he oversaw nuclear operations at the Public Service Electric and Gas Company and the New York Power Authority. Mr. McNeill currently serves as a Director of Owens-Illinois Inc. and Portland General Electric. Mr. McNeill has a Bachelor of Science degree from the U.S. Naval Academy and has completed the Executive Management Program at Stanford University.

Board/Committee Membership:

Board (since October 2004)

Audit/Risk Committee (from December 2008 to May 21, 2010)

Governance and Nominating Committee* (from August 2005 to May 21, 2010)

Nuclear Operations Committee (from November 2004 to May 21, 2010)

Nuclear Generation Projects Committee* (from November 2006 to May 21, 2010)

Risk Oversight Committee (since May 21, 2010)

Nuclear Oversight Committee* (since May 21, 2010)

* Chair of Committee

2010 Attendance:

5 of 7 71%

2 of 2 100%

2 of 2 100%

2 of 2 100%

2 of 2 100%

2 of 3 67%

3 of 3 100%

Principal Occupation: Retired

Board Memberships for other Reporting Issuers:

Owens-Illinois Inc.

Portland General Electric Company

Independence from OPG: Independent

Interlocking Directorships on Boards of other Reporting Issuers: None

**Peggy Mulligan**

Age: 52

Mississauga, Ontario, Canada

Peggy Mulligan was 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 (FCA) of Ontario in 2003.

Board/Committee Membership:

Board (since December 2005)

Audit/Risk Committee (from February 2006 to May 21, 2010)

Investment Funds Oversight Committee* (from February 2007 to May 21, 2010)

Nuclear Generation Projects Committee (from May 2008 to May 21, 2010)

Risk Oversight Committee* (since May 21, 2010)

Governance and Nominating Committee (since May 21, 2010)

* Chair of Committee

2010 Attendance:

6 of 7 86%

2 of 2 100%

3 of 3 100%

2 of 2 100%

3 of 3 100%

1 of 1 100%

Principal Occupation: Corporate Director**Board Memberships for other Reporting Issuers:** None**Independence from OPG:** Independent**Interlocking Directorships on Boards of other Reporting Issuers:** None**C. Ian Ross**

Age: 68

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., RuggedCom Ltd. Clearford Industries Inc., and the NWMO. He is also a member of the Law Society of Upper Canada.

Board/Committee Membership:

Board (since December 2003)

Audit/Risk Committee (from November 2004 to May 21, 2010)

Governance and Nominating Committee (from August 2005 to May 21, 2010)

Major Projects Committee (from November 2004 to May 21, 2010)

Nuclear Generation Projects Committee (from November 2006 to May 21, 2010)

Risk Oversight Committee (since May 21, 2010)

Nuclear Oversight Committee (since May 21, 2010)

Ad Hoc Sub-Committee of Directors

2010 Attendance:

7 of 7 100%

2 of 2 100%

2 of 2 100%

3 of 3 100%

2 of 2 100%

3 of 3 100%

3 of 3 100%

9 of 9 100%

Principal Occupation: Chairman, GrowthWorks Canadian Fund Ltd.

Board Memberships for other Reporting Issuers: GrowthWorks Canadian Fund Ltd.
Clearford Industries Inc.
RuggedCom Ltd.

Independence from OPG: Independent**Interlocking Directorships on Boards of other Reporting Issuers:** None

**Marie C. Rounding**

Age: 63

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. 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 served as Chair of the Ontario Energy Board from 1992 to 1998 and as President and Chief Executive Officer 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 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 a member of the Independent Review Committee for Sentry Select Capital Corp. and several related entities and also for Vertex One Asset Management Inc. She is a graduate of the University of Western Ontario and Osgoode Hall Law School.

Ms. Rounding is a graduate of the Directors Education Program and is certified by the Institute of Corporate Directors. She is also a graduate of the Financial Literacy Program sponsored by Rotman School of Management and the Institute of Corporate Directors. Ms. Rounding has previous experience as a Chair of the Finance Committee for Doctors Hospital and is currently the Chair of the Audit Committee of Nova Scotia Power Inc. and The Kensington (Health) Foundation.

Board/Committee Membership:

Board (since September 2004)
Audit/Risk Committee (from May 2009 to May 21, 2010)
Investment Funds Oversight Committee (from May 2005 to May 21, 2010)
Major Projects Committee (from November 2004 to May 21, 2010)
Nuclear Operation Committee (from February 2007 to May 21, 2010)
Audit and Finance Committee (since May 21, 2010)
Governance and Nominating Committee (since May 21, 2010)

2010 Attendance:

7 of 7	100%
2 of 2	100%
3 of 3	100%
3 of 3	100%
2 of 2	100%
5 of 5	100%
1 of 1	100%

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: 62

Toronto, Ontario & Vancouver, British Columbia, Canada

William Sheffield is the former Chief Executive Officer 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 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 and 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 United States.

Board/Committee Membership:

Board (since September 2004)

Compensation and Human Resources Committee* (Chair to May 21, 2010)

Investment Funds Oversight Committee (from February 2005 to May 21, 2010)

Major Projects Committee (from November 2004 to May 21, 2010)

Risk Oversight Committee (since May 21, 2010)

* Chair of Committee

2010 Attendance:

7 of 7 100%

9 of 9 100%

3 of 3 100%

3 of 3 100%

3 of 3 100%

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: 66

Vancouver, British Columbia, Canada

David Unruh is a retired lawyer and general counsel, as of January 1, 2011, serving as a Director of Union Gas Limited, Pacific Northern Gas Ltd., and The Wawanesa Mutual Insurance Company. Prior to this, Mr. Unruh served as Vice Chairman of Westcoast Energy Inc. and Union Gas Limited, before that as Senior Vice President and General Counsel for Houston based Duke Energy Gas Transmission and, before that as Senior Vice President, Law and Corporate Secretary of Westcoast Energy Inc. Mr. Unruh practiced corporate and commercial law in Winnipeg, Manitoba before joining Westcoast Energy Inc. in Vancouver, British Columbia in 1993.

Mr. Unruh has a B.A., LLB with over 30 years of experience as a lawyer practising in the area of commercial, business, mergers and acquisitions and the regulatory legal area. He has also served as a member of numerous Audit Committees for various reporting and non-reporting issuers. He has 10 years experience as a General Counsel and member of the senior executive team of a major Canadian public corporation.

Board/Committee Membership:

Board (since September 2004)

Governance and Nominating Committee (since December 2008) since May 21, 2010*

Compensation and Human Resources Committee (from November 2004 to May 21, 2010)

Audit/Risk Committee (from November 2004 to May 21, 2010)

Major Projects Committee (from December 2004 to May 21, 2010)

Audit and Finance Committee (since May 21, 2010)

Ad Hoc Sub-Committee of Directors

* Chair of Committee

2010 Attendance:

7 of 7 100%

3 of 3 100%

3 of 3 100%

2 of 2 100%

3 of 3 100%

5 of 5 100%

9 of 9 100%

Principal Occupation: Corporate Director

Board Memberships for other Reporting Issuers:

Pacific Northern Gas Ltd.

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 Senior Vice President of Pickering B nuclear generating station for OPG from January 2004 to November 2006 and Chief Nuclear Officer for OPG from December 2006 to June 2009.

Mr. Kugler has been Chairman of the NWMO since June 2006.

As well as being Group Head, Wealth Management at RBC Financial Group since 2007, Mr. Lewis has been Chairman of RBC Asset Management since July 2000.

Mr. MacMillan was a Non-Executive Director of Eclipse Energy Co. Ltd from 2006 to 2007, Non-Executive Director of InterGen NV (Holland) from 2006 to 2008, Managing Director of Good Energies (UK) LLP from April 2007 to April 2009, Non-Executive Director – Good Energies' appointee of Carbon-Free Power Corp. from October 2007 to October 2009, Non-Executive Director – Good Energies' appointee of Sequoia Energy Limited from November 2007 to March 2010 and a Senior Adviser of Good Energies (UK) LLP from April 2009 to September 2010.

Ms. Mulligan was Executive Vice President and Chief Financial Officer of Linamar Corporation from November 2005 to March 2007, Principal of Priiva Consulting Corporation from 2007 to September 2008 and was Executive Vice President, Chief Financial Officer of Valeant Pharmaceuticals International Inc. from September 2008 to December 2010.

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 relevant documentation relating to OPG's governance practices and policies and to its business. Directors attend comprehensive introductory briefing sessions from senior executives on OPG's operations and business and attend plant tours of OPG generating facilities.

The Board supports and sponsors the continuing education of OPG Directors, in both the business of OPG and 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. OPG also sponsors the professional certification of its Directors.

Ethical Business Conduct

OPG has a policy for ethical business behaviour and a Code of Business Conduct, which is approved by the Board. The Compensation and Human Resources Committee Charter expressly includes regular reporting by Management on the Code of Business Conduct, including reports on substantiated cases of fraud and the disposition of such cases including disciplinary action. The Compensation and Human Resources Committee also receives an annual report on the Code of Business Conduct in order to satisfy itself that appropriate codes of conduct and compliance programs are in place and are being enforced and remedial action is being taken. 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 OPG Board has a Board of Directors Conflict of Interest Policy to deal with conflicts or potential conflicts of interest and has adopted an annual process of written disclosure by Directors of information in order to: (i) identify potential conflicts of interest for the purposes of complying with the Board of Directors Conflict of Interest Policy, the Ontario Business Corporations Act, 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.

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 participating in the recommendation of new 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. Based on the talent already represented on the Board, the Governance and Nominating Committee would identify specific skills, personal qualities or experiences that a candidate should possess in light of the business opportunities and risks facing OPG. The criteria that the Governance and Nominating Committee would look for in addition to technical skills include integrity, business judgment and experience, professional expertise, independence from management, international experience, financial literacy, communication and listening skills and 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 makes recommendations to the Board for Director nominees. The Board submits recommended candidates to the Shareholder. Nominations of Directors by the Shareholder would also be reviewed by the Governance and Nominating Committee.

Compensation

Director Compensation

The Governance and Nominating Committee is responsible for annually monitoring and reviewing the level and nature of compensation of OPG Directors. In 2009, the Governance and Nominating Committee benchmarked OPG's Director Compensation against comparable public and private companies and recommended that no change be made to the compensation of Directors, given the nature, complexity and risk profile of OPG's business.

Effective March 25, 2010, 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, until March 31, 2012. In light of this legislation there was no change to Director compensation in 2010.

Each Director who is not an employee of OPG receives 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.

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 seeks input from an independent advisor with regard to monitoring and benchmarking compensation developments.

In July 2009, the compensation package for the newly appointed President and CEO was established based on the benchmark data of the 2007 Report of the Agency Review Panel on Phase 1 of its Review of Ontario's Provincially Owned Electricity Agencies. Effective March 25, 2010, 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, until March 12, 2012.

Committees of the Board of Directors

Effective May 21, 2010, the OPG Board restructured and streamlined its standing Committees from seven to five, and appointed four Directors to each Committee. The following Committees were the Board Committees previous to the restructuring:

- *Audit/Risk Committee*
- *Governance and Nominating Committee*
- *Nuclear Operations Committee*
- *Nuclear Generation Projects Committee*
- *Investment Funds Oversight Committee*
- *Compensation and Human Resources Committee*
- *Major Projects Committee*

See “Committees of the Board of Directors” in the Company’s MD&A for the year ended December 31, 2009 for a description and membership of the Committees prior to May 21, 2010.

The following Committees are the current Board Committees after the Committee restructuring and streamlining on May 21, 2010:



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 have 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, recommending approval of the annual financial statements and various other annual disclosures of OPG Inc. to the Board. The Committee provides oversight of the performance of the OPG Pension Fund, the Used Fuel Fund and the Decommissioning Fund, reviews and recommends approval to the Board 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), David MacMillan, 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 Hydroelectric, Thermal, Energy Markets, Information Technology and all other non-Nuclear and non-Finance corporate and central support services. The Committee also receives 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.

As of the date hereof the Risk Oversight Committee consists of Peggy Mulligan (Chair), Corbin McNeill, Ian Ross and Bill Sheffield.

Nuclear Oversight Committee

The Committee is responsible for the oversight of safe and efficient operations of OPG's nuclear facilities. The Committee is 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 Management's response 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 Canadian Nuclear Safety Commission 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 Corbin McNeill (Chair), Gary Kugler, Don Hintz and Ian Ross.

Compensation and Human Resources Committee

The 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, labour negotiations and human resources policies related to employee complaints, diversity, pay equity, organizational design and labour relations. 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 Don Hintz (Chair), Gary Kugler, David MacMillan and Bill Sheffield.

Governance and Nominating Committee

The 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 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 David Unruh (Chair), George Lewis, Peggy Mulligan and Marie Rounding.

Ad Hoc Sub-Committee of Directors

On March 5, 2010, the OPG Board of Directors established an ad hoc sub-committee of Directors to provide oversight and advice to Management on key strategic matters. The ad hoc sub-committee of Directors may meet in person or by telephone as required.

As of the date hereof the Ad Hoc Sub-Committee of Directors consists of George Lewis (Chair), Jake Epp, Ian Ross, and David Unruh.

Directors may attend other Committee meetings from time to time as required.

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 oversight.

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
- Board and Committee Charters
- Board and Committee Chair Position Descriptions
- Board of Directors Conflict of Interest Policy
- Aboriginal Relations Policy
- Code of Business Conduct
- Dam Safety Policy
- Disclosure Policy
- Environment Policy
- Health and Safety Policy
- Nuclear Safety Policy

AUDIT AND FINANCE COMMITTEE INFORMATION

NI 52-110, Audit Committees, 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 external auditors' qualifications and independence;
- 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 and 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 independent Directors appointed by the Board of Directors, none of whom shall be OPG employees or any of OPG's affiliates.

A majority of the members of the Committee, but not less than two, will constitute a quorum.

As a "venture issuer", OPG is exempt from the statutory requirements of National Instrument 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 designate one member of the Audit and Finance Committee as the Committee Chair. Members of the Audit and Finance Committee shall serve at the pleasure of the Board of Directors for such term or terms as the Board of Directors may determine.

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 National Instrument 52-110 and its Companion Policy.

Meetings

The Committee will meet at least quarterly or more frequently as circumstances require and at any time at the request of a member. 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.

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 Ontario Nuclear Funds Agreement with the Province of Ontario.

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 may retain independent 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 (CFO), and the Chief Internal Audit Executive.
- 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 Chief Executive Officer 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) 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.
- k) Review and approve all related-party transactions.
- l) 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 Management Discussion and Analysis (MD&A) and earnings press release, prior to filing.

- b) 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.
- c) 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.
- d) 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.
- e) 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.
- f) 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 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 Ontario Nuclear Funds Agreement.
- e) Approve the design of and modifications to the funds.
- f) 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 or policies or procedures; and, work conducted by the plan actuary.

- g) Report to the Board at least annually on the status of the Pension Fund and 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 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, filing of the annual information form, and any other related financing activities.
- b) Ensuring a process exists for identifying major business unit strategic and transactional risks.
- c) Reviewing Management's assessment of the significant strategic and transactional risks for Finance 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-level policies:

- i. Delegation and Exercise of Authority
- ii. Management System
- iii. Disclosure Policy

The Committee is responsible for reviewing these Board policies on an annual basis to ensure continuing adequacy of the Policy, 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-level 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 December 31, 2010, the members of the Audit and Finance Committee were George Lewis (Chair), David MacMillan, 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 committee member may be found in the *Corporate Governance* section.

External Auditor Service Fees

The following fees were billed by Ernst & Young LLP:

<i>(thousands of dollars)</i>	2010	2009
Audit fees	1,777	1,590
Audit-Related fees	248	291
Tax fees and other	62	125

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 4, 2011:

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, Corporate Affairs	June 2004
Rob Boguski Toronto, Ontario	Senior Vice President, Business Services and Information Technology	May 2008
David Brennan Oakville, Ontario	Senior Vice President, Law & General Counsel	September 2006
Frank Chiarotto Toronto, Ontario	Senior Vice President, Thermal	December 2008

Name and Municipality of Residence	Principal Occupation	Executive Officer Since
Donn Hanbidge London, Ontario	Senior Vice President and Chief Financial Officer	July 2004
Barb Keenan Toronto, Ontario	Senior Vice President, Human Resources & Chief Ethics Officer	March 2010
Catriona King Richmond Hill, Ontario	Vice President and Corporate Secretary	February 2005
Patrick McNeil Ashburn, Ontario	Senior Vice President, Corporate Business Development and Chief Risk Officer	May 2010
John Murphy Pickering, Ontario	Executive Vice President, Hydroelectric	January 2001
Wayne Robbins Oshawa, Ontario	Chief Nuclear Officer	June 2009
W. R. (Bill) Robinson Pickering, Ontario	Executive Vice President, Nuclear Refurbishment, Projects and Support	March 2010
Colleen Sidford Toronto, Ontario	Vice President, Treasurer	June 2005
Albert Sweetnam Toronto, Ontario	Executive Vice President, Darlington New Nuclear Project	March 2010

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 Senior Vice President of Pickering B Nuclear Plant for OPG from January 2004 to November 2006 and Chief Nuclear Officer for OPG from December 2006 to June 2009.
- Mr. Boguski was Vice President of Nuclear Supply Chain at OPG from May 2005 to April 2008.
- Mr. Brennan was Vice President and General Counsel of General Electric Canada Inc. from March 2001 to August 2006.
- Mr. Chiarotto was the Lambton Plant Manager for OPG from July 1997 to February 2007 and was the Nanticoke Plant Manager for OPG from February 2007 to November 2008.
- Ms. Keenan was Vice President of Human Resources at Capgemini Canada from January 2004 to May 2006. She was Vice President of Corporate Human Resources & Employee Safety at OPG from May 2006 to October 2007 and Vice President of Nuclear Human Resources & Employee Safety at OPG from October 2007 to March 2010.
- Mr. McNeil was Senior Vice President of Nuclear Strategy & Support from February 2002 to February 2006, Senior Vice President of Plant Life Extension Projects from February 2006 to June 2006, Senior Vice President of Nuclear Generation Development from June 2006 to November 2008 and Senior Vice President of Generation Development from November 2008 to September 2009.
- Mr. Robbins was the Deputy Vice President of Darlington Nuclear Generating Station at OPG from September 2005 to November 2006 and Senior Vice President of Darlington Nuclear Generating Station at OPG from November 2006 to June 2009.

- Mr. Robinson worked in Nuclear Programs & Training at OPG from December 2005 to October 2008, and has been working in Nuclear Refurbishment since November 2008.
- Mr. Sweetnam was a Senior Executive at SNC Lavalin from August 1977 to December 2008.

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.

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 of Ontario, 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, 1998* (Ontario), 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:

- 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 ("RFEI") 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); and
- 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 Ministry 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 Ministry 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, 2010, the OEFC held \$3.9 billion of OPG's long-term debt with maturities ranging from three months to ten years. For additional details, see Note 8 to the Company's Annual Financial Statements for the year ended December 31, 2010.

Payments-In-Lieu

OPG and its wholly-owned Canadian 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, 1998*, 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, 1998*. Under the regulations to the *Electricity Act, 1998*, 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* and under the *Taxation Act, 2007*. See "*Taxation of Provisions for Future Nuclear Related Costs*".

The Electricity Act also provides that OPG and certain of its Canadian 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 gross revenue charge 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 (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. However, the federal government has indicated to the Provinces of Ontario, Québec and New Brunswick, that it will take appropriate measures to ensure that such income is exempt from taxation under the *Income Tax Act* if the beneficiaries of the trust are a province, the federal government, or a Crown-owned nuclear energy corporation that is exempt from taxation under the *Income Tax Act* (Canada). Since the Ontario NFWA Trust meets these conditions, its income should be tax-exempt under the *Income Tax Act* (Canada).

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. There was some concern at the time that NWMO would not be able to recover the GST that it paid. In 2004, the NWMO submitted a ruling request seeking clarification on the proper GST treatment between NWMO, the trust fund, and OPG. Canada Revenue Agency (“CRA”) responded favourably by confirming that NWMO would be entitled to recover the GST paid for Phase I activities, that is, doing a study on the long-term management of the nuclear fuel waste. However, CRA was unable to provide a ruling in relation to Phase II activities, that is, implementing the selected approach. Instead, CRA recommended that the NWMO provide a submission once an approach has been selected. CRA will then review the submission and provide a ruling at that time. As the NWMO is now in Phase II, it has retained outside counsel to prepare the ruling request for its 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 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 involved in arbitration with the current owners of Bruce Power regarding an alleged breach of British Energy’s representations and warranties to the current owners when they purchased British Energy’s interest in Bruce Power. If British Energy is successful in defending against the arbitration claim, they will not have suffered any damages to attempt to recoup from OPG. This arbitration commenced on April 5, 2010. The arbitration closing arguments have been rescheduled and are anticipated to occur in the second quarter of 2011. It may take some time for the arbitrator to come to a decision after the closing arguments have been completed.

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 Defence. OPG and Bruce Power L.P. 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 Defence until the conclusion of the arbitration. That motion was scheduled to be heard 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 filed with the Ontario Superior Court of Justice 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.

A Notice of Arbitration was served upon OPG and the OEFC by a First Nation. The OEFC was subsequently released from the arbitration proceedings. The arbitration concerns whether 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. The arbitration to determine whether there is any liability for damages continues.

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

ABESA	Atikokan Biomass Energy Supply Agreement
AIF	Annual Information Form
AIR	All Injury Rate
ancillary service	a service necessary to maintain the reliability of the IESO-controlled grid
ASR	Accident Severity Rate
automatic generation control	the process that automatically adjusts the output from a generation facility based on automated, electronic signals in order to provide frequency control and to maintain the balance between the load and the output from generation facilities
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
Brighton Beach	Brighton Beach Power L.P.
British Energy	British Energy Limited and British Energy International Holdings Limited
Bruce Power	Bruce Power L.P. and its subsidiaries
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 capable of being produced by a generating unit 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.
CO ₂	carbon dioxide

Company	Ontario Power Generation Inc.
Contingency Support Agreement	the agreement between OPG and the OEFC for contingent support for on-going costs and the recovery of net book value of the Nanticoke and Lambton Generating Stations during the period from 2009 to 2014
CRA	Canada Revenue Agency
CSA	see Contingency Support Agreement
DBRS	DBRS Limited
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 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
decontrol	the mandated transfer of effective control in respect of output, being control over the timing, quantity and bidding into the Ontario market of such output
deuterium oxide	see heavy water
EA	environmental assessment
EFOR	Equivalent Forced Outage Rate
EIS	Environmental Impact Statement
Electricity Act	<i>Electricity Act, 1998</i> (Ontario)
EPRI	Electric Power Research Institute
EPSCA	Electrical Power Systems Construction Association
FIT	Feed-in Tariffs for wind, solar, biomass and small hydroelectric developments
FERC	Federal Energy Regulatory Commission, the independent regulatory agency with the U.S. Department of Energy that regulates the transmission and wholesale sale of electricity in interstate commerce
forced outage	the removal from service availability of a generating unit, transmission line, or other facility for emergency reasons or unanticipated failure
GHG	greenhouse gas
GRC	gross revenue charges
Green Energy Act	<i>Green Energy and Green Economy Act, 2009</i> (Ontario)
GST	goods and services tax

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
HOEP	Hourly Ontario Energy Price
HST	Harmonized sales tax
Hydro One	Hydro One Inc. and its subsidiaries
ICRP	International Commission on Radiological Protection
IESO	Independent Electricity System Operator
INPO	Institute for Nuclear Power Operations
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
ISR	Integrated Safety Review
kilowatt (kW)	1,000 watts
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)
L&ILW DGR	low and intermediate level nuclear waste deep geologic repository
Lennox Generating Station Agreement	the agreement between OPA and OPG which allows the station to recover its actual costs in order to provide general adequacy to Ontario's electricity system.
LGSA	See Lennox Generating Station Agreement
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
LSFN	Lac Seul First Nations
market power mitigation	a framework composed of a combination of a price cap and rebate mechanism and decontrol of capacity obligations that was approved by the Province in order to protect the interests of consumers while ensuring an orderly and gradual transition to a long-run industry structure in which OPG's generating capacity available to the Ontario market is substantially reduced

marketer	a profit-motivated entity that acts as an intermediary in arranging transactions between or on behalf of generators and customers
MD&A	Management's Discussion and Analysis
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
MW	see megawatt
MWh	see megawatt hour
NERC	North American Electric Reliability Corporation
net electricity generation	the energy produced by a station less energy consumed by the station, as measured by the revenue meter
<i>NFWA</i>	<i>Nuclear Fuel Waste Act (Canada)</i>
<i>NLA</i>	<i>Nuclear Liability Act (Canada)</i>
NOx	Oxides of nitrogen
NPCC	Northeast Power Coordination Council
<i>NSCA</i>	<i>Nuclear Safety and Control Act (Canada)</i>
NWMO	Nuclear Waste Management Organization
<i>OBCA</i>	<i>Business Corporations Act (Ontario)</i>
OEB	Ontario Energy Board
OEFC	Ontario Electricity Financial Corporation
Ontario NFWA Trust	a trust established by OPG pursuant to the <i>NFWA</i> for the purpose of funding the implementation of its long-term nuclear fuel waste management plan
ONFA	Ontario Nuclear Funds Agreement
OPA	Ontario Power Authority
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
OPG	Ontario Power Generation Inc.

PCB	polychlorinated biphenyls
planned outage	the removal of equipment from service availability for inspection and/or general overhaul of one or more major equipment groups, usually scheduled well in advance
Portlands	Portlands Energy Centre L.P.
Province	the Province of Ontario
proxy tax	pursuant to the <i>Electricity Act</i> , an amount payable to the OEFC in each taxation year in lieu of taxes under the <i>Income Tax Act</i> (Canada) and <i>Taxation Act, 2007</i> (Ontario)
PWU	Power Workers' Union
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 (RMR) 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
RFP	request for proposal
RMR	reliability must run; see reliability must run (RMR) contract
S&P	Standard and Poor's Rating Agency Inc.
SBG	see surplus base load generation
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
Shell Energy	Shell Energy North America (Canada) Inc.
Shell L.P.	Shell Energy North America (U.S.), L.P.
SO ₂	sulphur dioxide

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 Ontario demand
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
The Society	The Society of Energy Professionals
tonne	1,000 kilograms or 2,204.6 pounds
tritium	a radioactive substance that is released into the heavy water systems of CANDU reactors as a by-product of the nuclear fission process
TWh	a terawatt hour, equal to 1,000,000 MWh
unit	an electrical generator, together with its driving turbine and auxiliary equipment
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
WANO	World Association of Nuclear Operators
watt	a scientific unit of electric power representing the rate of work of one joule per second
WMP	Water Management Plan