

# 2010

# Annual Report



AJAX, ATIKOKAN, CAMPBELLFORD, CLARINGTON, CORNWALL, GREATER NAPANEE, HALDIMAND COUNTY, KAPUSKASING, MATTAGAMI FIRST NATION, MOOSE CREE FIRST NATION, NIAGARA FALLS, NORTH BAY, OSHAWA, PICKERING, RENFREW, ST. CLAIR TOWNSHIP, TAYKWA TAGAMOU NATION, THUNDER BAY, TIMMINS, WHITBY, AJAX, ATIKOKAN, CAMPBELLFORD, CLARINGTON, CORNWALL, GREATER NAPANEE, HALDIMAND COUNTY, KAPUSKASING, MATTAGAMI FIRST NATION, MOOSE CREE FIRST NATION, NIAGARA FALLS, NORTH BAY, OSHAWA, PICKERING, RENFREW, ST. CLAIR TOWNSHIP, TAYKWA TAGAMOU NATION, THUNDER BAY, TIMMINS, WHITBY,

# Overview

## FINANCIAL HIGHLIGHTS

(millions of dollars – except where noted)	2010	2009
<b>Revenue</b>		
Revenue before revenue limit rebate	5,375	5,640
Revenue limit rebate	–	(27)
	<b>5,375</b>	5,613
Fuel expense	908	991
Gross margin	<b>4,467</b>	4,622
<b>Expenses</b>		
Operations, maintenance and administration	2,903	2,882
Depreciation and amortization	698	760
Accretion on fixed asset removal and nuclear waste management liabilities	660	634
Earnings on nuclear fixed asset removal and nuclear waste management funds	(668)	(683)
Restructuring	27	–
Property and capital taxes	77	86
Other losses (gains)	5	(10)
	<b>3,702</b>	3,669
Income before interest and income taxes	765	953
Net interest expense	176	185
Income tax (recovery) expense	(60)	145
Net income	<b>649</b>	623
<b>Electricity production (TWh)</b>	<b>88.6</b>	92.5
<b>Cash flow</b>		
Cash flow provided by operating activities	<b>817</b>	299

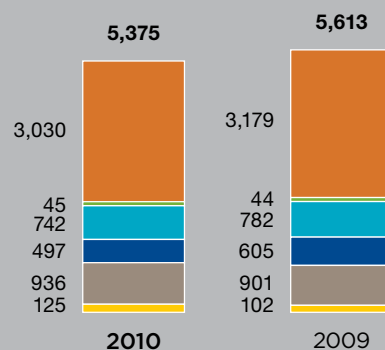
## CHART INDEX

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

## REVENUE & OPERATING HIGHLIGHTS

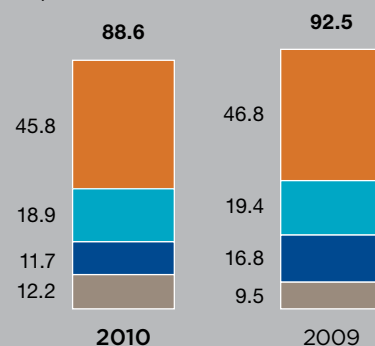
### REVENUE, NET OF REVENUE LIMIT REBATE BY SEGMENT

(millions of dollars)



### ELECTRICITY GENERATION BY SEGMENT

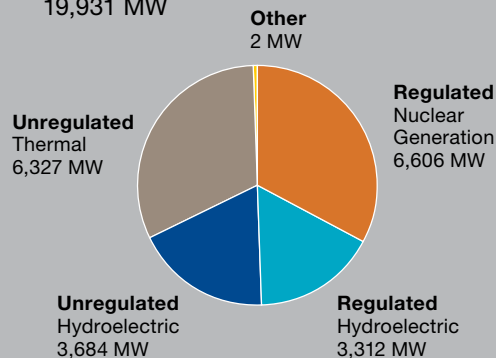
(TWh)



### IN-SERVICE GENERATING CAPACITY (MW) BY SEGMENT

December 31, 2010

19,931 MW



OPG is an Ontario-based electricity generation company whose principal business is the 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) and is wholly owned by the Province of Ontario.



# We are OPG

## AT DECEMBER 31, 2010

OPG's electricity generating portfolio had an in-service capacity of 19,931 megawatts ("MW"). OPG operates:

- **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 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. These co-owned and leased stations are incorporated into OPG's financial results but are not included in the generation portfolio statistics set out in this report.

## ELECTRICITY TERMS

**One megawatt (MW)** is one million watts. Megawatts are a measure of electricity supply capacity at a point in time.

**One kilowatt (kW)** is 1,000 watts; one gigawatt (GW) is one billion watts; and one terawatt (TW) is one trillion watts.

**One kilowatt hour (kWh)** is a measure of electricity demand or supply per hour. One kilowatt hour is the energy expended by fifty 20-watt compact fluorescent lights burning for one hour.

The typical residential customer uses approximately 800 kWh per month.

**One megawatt hour (MWh)** is 1,000 kWh; one gigawatt hour (GWh) is one million kWh; and one terawatt hour (TWh) is one billion kWh.

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## CHAIRMAN'S MESSAGE



“OPG is operating in an increasingly dynamic and changing electricity sector in Ontario.”

The OPG Board of Directors embraces a “continuous improvement” approach to corporate governance and to fulfilling its responsibilities for oversight and stewardship of the company and its assets, ensuring financial sustainability and enhancing shareholder value.

In 2010, the expertise and experience of the Board was heavily engaged in:

- enhancing Board oversight,
- developing new generation projects and partnerships, and
- continuing to demonstrate value to Ontario ratepayers.

**Enhancing Board Oversight:** OPG is operating in an increasingly dynamic and changing electricity sector in Ontario. To improve its oversight in this shifting environment, the Board streamlined and restructured its committees to permit more strategic oversight of OPG's risk profile and mitigation. This has resulted in a more nimble and strategic approach to understanding the implications of the key risks facing OPG and equipping directors with a sharpened perspective on where OPG should be 10 to 20 years from now.

The Board also hosted quarterly receptions throughout the year to meet and build rapport with those employees who will be OPG's future leaders.

**New Generation Development and Partnerships:**

The OPG Board is pleased that a number of OPG generation and refurbishment projects were recognized in *Ontario's Long-Term Energy Plan*. These projects will create jobs and will protect and add value to existing assets already paid for by Ontarians. They will also add reliable and virtually emission free generation to the Province's supply of hydroelectric and nuclear generation – the backbone of Ontario's electricity system.

“Going forward, the Board will continue to effectively enhance its oversight and fiduciary responsibilities by evolving, responding and adapting strategically to change in Ontario’s electricity sector.”



The Board holds OPG’s management accountable for effective project performance and, as part of its oversight, visits various project sites. In 2010, some OPG directors visited with staff, contractors and stakeholders at the Niagara Tunnel project and the Upper Mattagami River project sites.

In celebration of OPG’s partnership in the largest hydroelectric development project in northern Ontario in the last 40 years, a group of OPG Directors travelled to northern Ontario to tour the Lower Mattagami River project and then travelled on to Moosonee and Moose Factory to meet with the Chief and Council of Moose Cree First Nation (MCFN). There they participated in a signing ceremony to honour the anniversary of the partnership agreement. The whole Board later hosted the MCFN in a celebration of the partnership in Toronto.

**Demonstrating Value to Ontarians:** Ontario ratepayers expect the Province’s publicly-owned companies to continuously demonstrate their value to Ontarians. OPG is no exception. While OPG is the only electricity generating company to have its rates publicly reviewed and regulated by the Ontario Energy Board, it also receives lower rates for electricity generation than its competitors, meaning that OPG continues to mitigate electricity prices for Ontarians. This is an important role for OPG. But that is only one side of the coin.

In 2010, OPG furthered the work started in 2008 to reduce costs without compromising safety, reliability or the environment. The 2011-2015 Business Plan approved by the Board and submitted to our Shareholder, included actions that will help increase electricity production while also reducing costs.

Going forward, the Board will continue to effectively enhance its oversight and fiduciary responsibilities by evolving, responding and adapting strategically to change in Ontario’s electricity sector.

The Board is proud of OPG’s performance in 2010. The company’s achievements in safety, the environment, project management, cost-efficiency, in openness and transparency, and in its financial and operational performance represent a valuable contribution to the Province’s social and economic well-being.

We thank OPG’s management and all employees for their role in making this possible and look forward to further successes in the years ahead.

A handwritten signature in black ink that reads "Jake Epp". The signature is stylized and includes a small flourish at the end.

**Jake Epp**  
Chairman

## PRESIDENT'S MESSAGE



“Our progress in 2010 was a direct result of the effort, initiative and commitment of our skilled and dedicated employees. As always, their contribution made the difference. I am proud to lead a company that attracts and employs such people.”

**OPG performed well in 2010. Net income for the year was \$649 million compared to \$623 million in 2009. OPG is a publicly-owned company, and our net-income remains within the Province. The company held the line on costs, successfully completed several major capital projects and had reliable performance from its major asset groups. OPG also continued to expand its supply of renewable hydroelectric generation and progressed in its plans to modernize its nuclear fleet and convert its thermal stations into cleaner burning facilities fuelled by natural gas or biomass.**

Our progress in 2010 was a direct result of the effort, initiative and commitment of our skilled and dedicated employees. As always, their contribution made the difference. I am proud to lead a company that attracts and employs such people.

**Low-Cost Provider:** OPG maintained its position as Ontario's low-cost electricity provider. Effective cost control contributed to this and remains an ongoing imperative for OPG. We are committed to providing electricity to Ontarians at the lowest rates in the Province. As a publicly owned company, this is a key role for us and one that we are proud to play.

OPG is also the only generator in Ontario with rates set through an open and transparent hearings process, conducted by the Ontario Energy Board (OEB). During the past year, the company applied to the OEB for a rate increase on its regulated hydro and nuclear generation. The OEB's decision was issued on March 10, 2011 followed by the issuance of the OEB's order establishing the new regulated prices. The OEB established regulated prices of \$34.13/MWh and \$55.85/MWh for production from OPG's regulated hydroelectric and nuclear facilities, respectively, effective March 1, 2011. This compares to previously established regulated prices of \$36.66/MWh and \$54.98/MWh, respectively. OPG will continue to produce reliable, low-cost electricity and help expand and enhance Ontario's electricity infrastructure.

**Reliable Production:** Production for the year was 88.6 TWh – nearly 4 TWh less than in 2009. Low water levels and the Pickering Vacuum Building Outage (VBO) contributed to this decline by reducing production at our hydroelectric and nuclear plants. Offsetting this was the solid performance displayed by OPG's thermal generating stations.

Despite lower production, asset performance as measured by reliability was strong – the result of a focused inspection, maintenance and operations strategy. Hydro and thermal reliability was high and reliability for the Darlington nuclear station improved. In fact, two of Darlington's reactors finished the year among the top five performing CANDU reactors in the world. Reliability at Pickering declined relative to 2009 because of the VBO which required taking all of the station's reactors offline for almost six weeks. This was OPG's largest nuclear project in 2010.

**Increasing Ontario's Hydroelectric Supply:** In keeping with our mandate to help expand Ontario's electricity supply, OPG continued to add clean, renewable hydropower to its portfolio in 2010. A significant contribution came from the successful completion of the Upper Mattagami-Hound Chute redevelopment project in northeast Ontario. The project replaced four end-of-life stations in Northeastern Ontario. With a total capacity of 44 MW, these new stations will produce hydroelectricity for generations to come. Capacity additions were also achieved through OPG's ongoing hydroelectric runner upgrade program. This program has contributed 278 MW since the company was formed in 1999. Over the next five years, OPG plans to increase capacity at its hydro stations by more than 50 MW through installation of new runners and other equipment. In addition, a fourth unit was added at Healey Falls generating station in Campbellford, increasing the station's capacity by just over 6 MW.

Further additions to energy and capacity will come from generation projects such as the Niagara Tunnel located beneath the City of Niagara Falls and the Lower Mattagami project located north of Kapuskasing. Excellent progress was made on the Tunnel in 2010, and tunnel excavation was completed in May 2011. By the end of 2013, we expect it to be providing the Sir Adam Beck complex with enough additional water to generate an additional 1.6 TWh of electricity annually. The \$2.6 billion Lower Mattagami project, announced in June 2010, will add approximately 438 MW of peaking electricity to Ontario's supply. This is the largest hydroelectric generating construction project undertaken in northern Ontario in 40 years.

“OPG’s safety commitment is constant, uncompromising and unconditional.”



**Modernizing Our Nuclear Assets:** OPG also continued efforts to revitalize its long-serving nuclear fleet. Our nuclear units are the workhorses of Ontario’s electricity system, supplying the Province with a significant amount of its baseload generation. To maintain this role, OPG plans to sequentially refurbish the four reactors at its Darlington station, starting in the middle of this decade. Steps taken in 2010 included: announcing construction of a full scale reactor mock-up to train refurbishment workers, and the commencement of the Environmental Assessment (EA) process. In addition, OPG plans to build two new nuclear units at Darlington. Preparations include obtaining a site preparation licence and continuing with the EA process. EA hearings for the new reactors were held March/April 2011. The past year also saw OPG announce plans to continue the safe and reliable performance of Pickering B nuclear station until about 2020. OPG is undertaking a coordinated set of initiatives to evaluate this opportunity, including the September 2010 submission of a Continued Operations Plan to Canada’s nuclear regulator, the Canadian Nuclear Safety Commission.

Modernizing our nuclear fleet will require precise coordination, meticulous planning and the ability to execute complex work on time and on budget. The preparations made in 2010 have put us on a firm footing toward accomplishing these goals.

**Converting our Coal Units to Cleaner Fuels:** Plans for the modernization of some of OPG’s coal-burning units likewise made progress. In 2010, the Ontario Minister of Energy directed the Ontario Power Authority to negotiate an energy supply agreement with OPG for the supply of biomass-fuelled electricity from our Atikokan station. In addition, *Ontario’s Long-Term Energy Plan* includes the conversion to natural gas of OPG’s Thunder Bay station. The *Plan* also recognizes the potential to convert to natural gas some units at the Lambton and Nanticoke stations. These are important steps in transitioning portions of our coal-burning operations to cleaner fuels. OPG must stop burning coal by the end of 2014. To accelerate this process, the company in response to government direction closed four coal-units in 2010 and will close another two units in 2011.

**Excellence in Project Management:** OPG completed several significant projects in 2010 aimed at strengthening our assets. These included:

- the Pickering VBO, a massive project involving the inspection and maintenance of one of the station’s key safety systems;
- the Pickering A Safe Storage project – a five-year project requiring the defueling, dewatering and isolating of Units 2 and 3 while the station’s remaining two units continued to operate;
- the Upper Mattagami-Hound Chute hydro project, and
- completion of outages at the Abitibi Canyon generating station and on Unit 7 at the Pickering B nuclear station.

All these projects were finished ahead of schedule and within their approved budgets. OPG undertakes a number of large projects every year, and we are committed to continuous performance improvement in every project we undertake.

**OPG’s Commitment to Safety:** Safety is OPG’s most fundamental and encompassing value. Earlier this year, a tragic earthquake and tsunami damaged several of Japan’s nuclear reactors, proving once again that safety can never be taken for granted. OPG’s safety commitment is constant, uncompromising and unconditional. Because we generate large amounts of energy from many sources – hydroelectric, nuclear and thermal – we have a special responsibility to achieve safety excellence.

While we had safety successes in 2010, we know we can always do better. Our ultimate goal with respect to employee safety is zero workplace injuries. In addition, our focus on public and environmental safety will continue to help ensure that all our generating facilities operate at the highest standards of safety and security. This includes an emphasis on continually improving our safety performance. As a responsible power producer, we owe it to ourselves to achieve our safety goals. We also owe it to all Ontarians, whose trust and respect we must earn every single day.

**Tom Mitchell**  
President and CEO



# 2010

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## MANAGEMENT'S DISCUSSION AND ANALYSIS

This Management's Discussion and Analysis ("MD&A") should be read in conjunction with the audited consolidated financial statements and accompanying notes of Ontario Power Generation Inc. ("OPG" or the "Company") as at and for the year ended December 31, 2010. OPG's consolidated financial statements are prepared in accordance with Canadian generally accepted accounting principles ("GAAP") and are presented in Canadian dollars. Certain of the 2009 comparative amounts have been reclassified to conform to the 2010 presentation. This MD&A is dated March 4, 2011.

### Forward-Looking Statements

The MD&A 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 Management*, 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 ("OPEB") obligations, income taxes, spot electricity market prices, the on-going evolution of the Ontario electricity industry, proposed new legislation, conversion to International Financial Reporting Standards ("IFRS"), 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 MD&A are made only as of the date of this MD&A. 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.

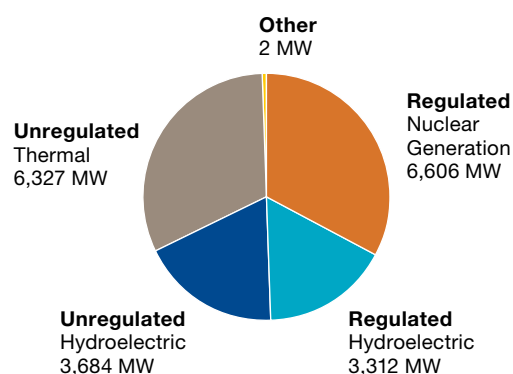
### The Company

OPG is an Ontario-based electricity generation company whose principal business is the generation and sale of electricity in Ontario. OPG's focus is 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) and is wholly owned by the Province of Ontario (the "Province").

At December 31, 2010, OPG's electricity generating portfolio had an in-service capacity of 19,931 megawatts ("MW"). OPG operates 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.

### IN-SERVICE GENERATING CAPACITY (MW) BY SEGMENT

December 31, 2010  
19,931 MW



## MANAGEMENT'S DISCUSSION AND ANALYSIS

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 of Units 1 and 2 at the Lambton coal-fired generating station, the in-service capacity of the Unregulated – Thermal segment decreased in 2010 by 120 MW as a result of a reduction in the 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.

### OPG'S REPORTING STRUCTURE

OPG receives a regulated price for electricity generated from most of its baseload hydroelectric facilities and all of the nuclear facilities that it operates. This comprises electricity generated from the Sir Adam Beck 1, 2 and Pump generating station, DeCew Falls 1 and 2, and R.H. Saunders hydroelectric facilities, and Pickering A and B and Darlington nuclear facilities (collectively the “Prescribed Facilities”). The operating results related to these regulated facilities are described under the Regulated – Nuclear Generation, Regulated – Nuclear Waste Management, and Regulated – Hydroelectric segments. For the remainder of OPG's hydroelectric facilities, the operating results are described under the Unregulated – Hydroelectric segment. The results from the thermal facilities are discussed in the Unregulated – Thermal segment.

A description of all OPG's segments is provided under the heading, *Business Segments*.

## Revenue Mechanisms for Regulated and Unregulated Generation

### REGULATED GENERATION

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 *Ontario Regulation 53/05*. The regulation established the regulated prices that OPG received up to April 1, 2008 for the Prescribed Facilities. Beginning April 1, 2008, OPG's regulated prices for the Prescribed Facilities are determined by the OEB. In 2008, the OEB determined the regulated prices effective April 1, 2008, based on a forecast cost of service methodology. The forecast cost of service methodology establishes regulated prices based on a revenue requirement taking into account a forecast of production volumes and total operating costs, and a return on rate base. Rate base is a regulatory construct that represents the average net level of investment in regulated fixed assets and an allowance for working capital.

The regulated price for production from OPG's nuclear facilities is 5.50¢/kWh, as established by the OEB effective April 1, 2008. This price included a rate rider of 0.20¢/kWh for the recovery of approved nuclear deferral and variance account balances. The regulated price for production from OPG's regulated hydroelectric facilities is 3.67¢/kWh, as established by the OEB effective April 1, 2008, and includes the recovery of approved hydroelectric variance account balances. The OEB's 2008 decision also established a number of variance and deferral accounts for the period after April 1, 2008, including those authorized pursuant to *Ontario Regulation 53/05*. Variance accounts capture the difference between actual costs and revenues, and the corresponding forecast amounts approved by the OEB in the setting of the regulated prices.

Effective December 1, 2008, the OEB also approved a revised incentive mechanism for production from the regulated hydroelectric facilities. Under this mechanism, OPG receives the approved regulated price of 3.67¢/kWh for the actual average hourly net energy production from these hydroelectric facilities in that month. In the hours when the actual net energy production in Ontario is greater or less than the average hourly net volume in the month, hydroelectric revenues are adjusted by the difference between the average hourly net volume and the actual net energy production multiplied by the spot market price.

In January 2009, OPG filed a motion with the OEB to review, and vary a portion of the OEB's decision establishing current regulated prices, as it pertains to the treatment of tax losses for the period April 1, 2005 to March 31, 2008 and their use for mitigation of the regulated prices. The OEB granted OPG's motion in a decision and order in May 2009. This order also directed OPG to establish a variance account to record the difference between the amount of mitigation included in the approved regulated prices and the revenue requirement reduction available from tax loss carry forwards recalculated as per the OEB's decision ("Tax Loss Variance Account"). The establishment of this variance account, which was effective retrospectively to April 1, 2008, resulted in an increase in regulatory assets and a corresponding recognition of revenue in 2009 and 2010.

In October 2009, the OEB's decision and order on OPG's accounting order application authorized the continuation of the nuclear rate rider of 0.20¢/kWh after December 31, 2009. The decision and order also approved the basis for recording entries to the existing deferral and variance accounts after December 31, 2009.

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 MD&A, 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, *Recent Developments*.

### **UNREGULATED GENERATION**

Electricity generated from OPG's other generating assets remains unregulated and continues to receive 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 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.

The Lambton and Nanticoke generating stations are subject to a contingency support agreement with the Ontario Electricity Financial Corporation ("OEFEC"). The agreement was put in place to enable OPG to recover the costs of those coal-fired generating stations following implementation of OPG's CO<sub>2</sub> emissions reduction strategy. Production from the Lennox generating station was subject to a reliability must run contract up to September 30, 2009. OPG finalized a Lennox Generating Station Agreement ("LGSA") with the Ontario Power Authority ("OPA") for the station for the period October 1, 2009 to December 31, 2010. The LGSA for 2011 was executed in the first quarter of 2011. In 2010, OPG and the OPA began negotiation of the Atikokan Biomass Energy Supply Agreement ("ABESA") for the supply of biomass-fuelled electricity generation from the Atikokan generating station. The ABESA is expected to be executed in 2011.

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.

The revenue limit was 4.8¢/kWh for the period May 1, 2008 to April 30, 2009. During this period, volumes sold under a Pilot Auction administered by the OPA were subject to a revenue limit that was 0.5¢/kWh higher than the revenue limit applicable to OPG's other generating assets. Revenues above these limits were returned to the Independent Electricity System Operator ("IESO") for the benefit of consumers. The term of the revenue limit rebate ended on April 30, 2009.

## MANAGEMENT'S DISCUSSION AND ANALYSIS

### Highlights

#### OVERVIEW OF RESULTS

This section provides an overview of OPG's audited consolidated operating results. A detailed discussion of OPG's performance by reportable segment is included under the heading, *Discussion of Operating Results by Business Segment*.

(millions of dollars – except where noted)	2010	2009
<b>Revenue</b>		
Revenue before revenue limit rebate	5,375	5,640
Revenue limit rebate	–	(27)
	<b>5,375</b>	5,613
Fuel expense	908	991
Gross margin	<b>4,467</b>	4,622
<b>Expenses</b>		
Operations, maintenance and administration	2,903	2,882
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Income tax (recovery) expense	(60)	145
Net income	<b>649</b>	623
<b>Electricity production (TWh)</b>	<b>88.6</b>	92.5
<b>Cash flow</b>		
Cash flow provided by operating activities	<b>817</b>	299

Net income for 2010 was \$649 million compared to \$623 million for 2009, an increase of \$26 million. Income before income taxes for 2010 was \$589 million compared to \$768 million for 2009, a decrease of \$179 million.

The following is a summary of the factors impacting OPG's results for 2010 compared to results for 2009, on a before-tax basis:

(millions of dollars)	Electricity Generation Segments <sup>1</sup>	Regulated Nuclear Waste Management Segment	Other <sup>2</sup>	Total
<b>Income (loss) before income taxes for the year ended December 31, 2009</b>	<b>827</b>	<b>52</b>	<b>(111)</b>	<b>768</b>
Changes in gross margin:				
Change in electricity sales price after revenue limit rebate				
Regulated generation segments	(5)	–	–	(5)
Unregulated – Hydroelectric	38	–	–	38
Change in electricity generation by segment:				
Regulated – Nuclear Generation	(52)	–	–	(52)
Regulated – Hydroelectric	(11)	–	–	(11)
Unregulated – Hydroelectric	(109)	–	–	(109)
Increase in thermal generation revenue and decrease in thermal fuel related costs, largely offset by decrease in revenue related to contingency support agreement for the Nanticoke and Lambton generating stations	44	–	–	44
Decrease in revenue related to regulatory tax loss variance account	(98)	–	–	(98)
Decrease in non-electricity generation revenue	(22)	1	14	(7)
Other changes in gross margin	36	–	9	45
	(179)	1	23	(155)
Changes in operations, maintenance and administration (“OM&A”) expenses:				
Higher expenditures related to increase in outage costs, partially offset by a decrease in maintenance and project activities at OPG's nuclear generating stations	(28)	–	–	(28)
Lower expenditures related to decrease in outage and maintenance activities at OPG's thermal generating stations	45	–	–	45
Expenditures related to new nuclear generation development and capacity refurbishment, partially offset by the impact of related regulatory variance accounts	23	–	–	23
Increase in pension and OPEB costs	(75)	(1)	(2)	(78)
Other changes in OM&A	24	(3)	(4)	17
	(11)	(4)	(6)	(21)
Increase in accretion expense	–	(26)	–	(26)
Increase in earnings from the Nuclear Funds	–	34	–	34
Impact of the regulatory variance account associated with stations on lease to Bruce Power on earnings from the Nuclear Funds	–	(49)	–	(49)
Decrease (increase) in depreciation and amortization expenses	69	–	(7)	62
Severance costs related to closure of coal-fired units	(27)	–	–	(27)
Other changes	–	–	3	3
<b>Income (loss) before income taxes for the year ended December 31, 2010</b>	<b>679</b>	<b>8</b>	<b>(98)</b>	<b>589</b>

<sup>1</sup> Electricity generation segments include results of the Regulated – Nuclear Generation, Regulated – Hydroelectric, Unregulated – Hydroelectric, and Unregulated – Thermal segments.

<sup>2</sup> Other includes results of the Other category in OPG's segmented statement of income, inter-segment eliminations, and net interest expense.

## MANAGEMENT'S DISCUSSION AND ANALYSIS

Income before interest and income taxes from OPG's electricity generation business segments was \$679 million in 2010 compared to \$827 million in 2009. Income before interest and income taxes from the Regulated – Nuclear Waste Management business segment was \$8 million in 2010 compared to \$52 million in 2009.

Earnings from the electricity generation business segments in 2010 were unfavourably impacted by a decrease in gross margin of \$179 million compared to 2009. The decrease in gross margin in the electricity generation segments was primarily due to a decrease in electricity generation from OPG's hydroelectric and regulated nuclear generating stations. The decrease in gross margin for 2010 compared to 2009 was also due to a reduction in revenue associated with the Tax Loss Variance Account. During 2010, OPG recognized revenue of \$194 million related to the Tax Loss Variance Account compared to revenue of \$292 million in 2009. The revenue related to the Tax Loss Variance Account recognized in 2009 included retrospective revenue of \$125 million related to the period April 1, 2008 to December 31, 2008. The decrease in gross margin was partially offset by an increase in the average sales price for generation from the Unregulated – Hydroelectric segment, and an increase in the gross margin from the Unregulated – Thermal segment, due to a higher average sales price, higher electricity generation, and lower fuel related costs due to adjustments to coal supply contracts during 2009. The increase in the margin from the Unregulated – Thermal segment was largely offset by lower revenue related to the contingency support agreement established with the OEFC to provide for the continued reliability and availability of OPG's Lambton and Nanticoke generating stations.

Under the Bruce Power lease agreement ("Bruce Lease"), lease revenue is reduced in each calendar year where the annual arithmetic average of the Hourly Ontario Electricity Price ("Average HOEP") falls below \$30/MWh, and certain other conditions are met. Since the Average HOEP for 2010 was more than \$30/MWh, there was no adjustment to the Bruce Lease revenue. For 2009, the Average HOEP was below \$30/MWh, and the Bruce Lease revenue for 2009 was therefore reduced by \$69 million. Any change in lease revenue was offset by the impact of a variance account approved by the OEB's 2008 decision to capture the differences between actual and forecast revenues and costs related to the nuclear generating stations under the Bruce Lease ("Bruce Lease Net Revenues Variance Account").

The conditional reduction to revenue in the future, embedded in the terms of the Bruce Lease, is treated as a derivative according to Canadian Institute of Chartered Accountants ("CICA") Handbook Section 3855, *Financial Instruments – Recognition and Measurement*. Derivatives are measured at fair value and changes in fair value are recognized in the consolidated statements of income. As a result of a decrease in expected future Average HOEP during 2010, the fair value of the derivative liability increased to \$163 million at December 31, 2010, compared to \$118 million at December 31, 2009, an increase of \$45 million. The increase in the fair value of this derivative liability is recognized as a reduction to non-electricity generation revenue, offset by the impact of the Bruce Lease Net Revenues Variance Account.

As a result of the offset to the Bruce Lease Net Revenues Variance Account of any changes in non-electricity generation revenue caused by current or future changes in Average HOEP, the 2009 and 2010 impacts of such changes are excluded from the table above. The decrease in non-electricity generation revenue in 2010 compared to 2009, excluding the impact of the derivative embedded in the Bruce lease and the related regulatory variance account impact, was primarily due to the receipt of insurance recoveries in 2009 which did not recur in 2010, lower revenue from nuclear technical and engineering services provided to third parties, partially offset by an increase in revenue from the PEC.

In 2010, OM&A expenses were \$2,903 million compared to \$2,882 million in 2009. The increase of \$21 million was primarily due to higher pension and OPEB costs, largely as a result of lower discount rates in 2010. The increase in OM&A expenses was also due to higher expenditures related to outage costs at OPG's nuclear generating stations. The increase in OM&A expenses was partially offset by a reduction in expenditures related to outage and maintenance activities at OPG's thermal generating stations, and a decrease in maintenance activities at the nuclear generating stations. OM&A costs were also impacted by a reduction in OM&A costs related to new nuclear generation development and capacity refurbishment activities.

Accretion expense in 2010 was \$660 million compared to \$634 million in 2009. The increase of \$26 million was primarily due to the increase in the present value of the liabilities for Nuclear Fixed Asset Removal and Nuclear Waste Management ("Nuclear Liabilities") due to the passage of time, and the increase in the Nuclear Liabilities as a result of OPG's commencement of the definition phase for refurbishment of the Darlington nuclear generating station. This increase in accretion expense was partially offset by the impact of the Bruce Lease Net Revenues Variance Account.

Earnings from the Used Fuel Segregated Fund (“Used Fuel Fund”) and the Decommissioning Segregated Fund (“Decommissioning Fund”) (together “Nuclear Funds”) in 2010 were \$668 million compared to \$683 million in 2009. The earnings from the Nuclear Funds, before the impact of the Bruce Lease Net Revenues Variance Account, were \$836 million in 2010 compared to \$802 million in 2009, an increase of \$34 million. The increase in earnings from the Nuclear Funds was primarily due to higher earnings from the Used Fuel Fund resulting from a higher Ontario Consumer Price Index (“CPI”) in 2010, which impacted the guaranteed return on the Used Fuel Fund. The increase in earnings from the Used Fuel Fund was partially offset by a decrease in earnings from the Decommissioning Fund primarily due to lower returns from the global financial markets in 2010 compared to 2009. In 2010, OPG recorded a reduction to the Bruce Lease Net Revenues Variance Account regulatory asset of \$168 million compared to \$119 million in 2009, which resulted in a decrease to the total reported earnings from the Nuclear Funds.

In 2010, depreciation and amortization expenses were \$698 million compared to \$760 million during the same period in 2009, a decrease of \$62 million. The decrease in depreciation was primarily due to the impact of the Darlington nuclear generating station life extension from 2019 to 2051 related to OPG’s announcement in early 2010 to commence the definition phase for refurbishment of the station. The decrease in depreciation expense was partially offset by the change in the third quarter of 2009 to the end of life, for accounting purposes, of two coal-fired units at each of the Lambton and Nanticoke coal-fired generating stations, which were closed in October 2010.

Restructuring charges of \$27 million were recorded during the year due to the recognition of severance costs related to the closure of the two coal-fired units at each of the Lambton and Nanticoke generating stations in October 2010.

For the year ended December 31, 2010, income tax recovery was \$60 million compared to an income tax expense of \$145 million for the same period in 2009. The decrease in income tax expense was primarily due to a reduction in income tax liabilities as a result of the resolution of a number

of tax uncertainties related to the completion of a tax audit for certain prior years, a lower income tax component of the Bruce Lease Net Revenues Variance Account, and also due to lower income before earnings from the Nuclear Funds in 2010. Earnings in the Nuclear Funds are not taxable until withdrawn.

### Average Sales Prices

The weighted average Ontario spot electricity market price and OPG’s average sales prices from generation paid through the regulated prices and the hourly Ontario spot market prices, by reportable electricity segment, for the years ended December 31, 2010 and 2009, were as follows:

(¢/kWh)	2010	2009
Weighted average hourly Ontario spot electricity market price	<b>3.8</b>	3.2
Regulated – Nuclear Generation	<b>5.5</b>	5.5
Regulated – Hydroelectric	<b>3.7</b>	3.7
Unregulated – Hydroelectric	<b>3.7</b>	3.2
Unregulated – Thermal	<b>4.3</b>	3.9
OPG’s average sales price paid through regulated and spot market prices <sup>1</sup>	<b>4.7</b>	4.5

<sup>1</sup> Excludes other energy revenues primarily from cost recovery agreements for the Nanticoke, Lambton, and Lennox generating stations. Had the cost recovery agreements for Nanticoke, Lambton, and Lennox generating stations been included, OPG’s average sales price would have been 5.1¢/kWh and 5.0¢/kWh in 2010 and 2009, respectively.

The weighted average hourly Ontario spot electricity market price was 3.8¢/kWh for 2010 compared to 3.2¢/kWh for 2009. The increase in the average Ontario spot market price for 2010 compared to 2009 was primarily due to lower hydroelectric generation, higher primary demand, and higher natural gas and coal prices in Ontario, partially offset by a stronger Canadian dollar.

The increase in average sales prices for OPG’s unregulated segments for 2010 compared to 2009 was primarily due to the impact of higher Ontario spot electricity market prices.

## MANAGEMENT'S DISCUSSION AND ANALYSIS

### Electricity Generation

OPG's electricity generation for the years ended December 31, 2010 and 2009, was as follows:

(TWh)	2010	2009
Regulated – Nuclear Generation	45.8	46.8
Regulated – Hydroelectric	18.9	19.4
Unregulated – Hydroelectric	11.7	16.8
Unregulated – Thermal	12.2	9.5
<b>Total electricity generation</b>	<b>88.6</b>	<b>92.5</b>

Total electricity generated during 2010 from OPG's generating stations was 88.6 terawatt hours ("TWh") compared to 92.5 TWh during 2009. The decrease was primarily due to lower electricity generation from OPG's hydroelectric and nuclear generating stations, partially offset by higher electricity generation from the thermal generating stations.

The decrease in generation from the nuclear generating stations for 2010 compared to 2009 was primarily due to an increase in planned outages at the Pickering nuclear generating stations as a result of the planned vacuum building outage ("VBO"), which required the shutdown of all six units during the second quarter of 2010. This decrease in electricity generation, compared to the same period in 2009, was partially offset by a decrease in planned outage days at the Darlington nuclear generating station primarily as a result of the planned Darlington VBO, which required the shutdown of all four units during the second quarter of 2009.

The lower generation at OPG's hydroelectric generating stations in 2010 compared to 2009 was primarily due to the impact of lower water flows caused by below normal precipitation across Ontario.

The increase in generation from the thermal generating stations in 2010 compared to 2009 was primarily due to the impact of unfavourable water flows at the hydroelectric generating stations, higher primary demand in Ontario during the second and third quarters of 2010 compared to the same periods in 2009, and lower generation from OPG's nuclear generating stations.

OPG's operating results are impacted by changes in demand resulting from variations in seasonal weather conditions. The following table provides a comparison of Heating and Cooling Degree Days for the years ended December 31:

	2010	2009
<b>Heating Degree Days<sup>1</sup></b>		
Total for year	3,469	3,806
Ten-year average	3,660	3,691
<b>Cooling Degree Days<sup>2</sup></b>		
Total for year	445	203
Ten-year average	378	360

<sup>1</sup> Heating Degree Days are recorded on days with an average temperature below 18°C, and represent the aggregate of the differences between the average temperature and 18°C for each day during the period, as measured at Pearson International Airport in Toronto, Ontario.

<sup>2</sup> Cooling Degree Days are recorded on days with an average temperature above 18°C, and represent the aggregate of the differences between the average temperature and 18°C for each day during the period, as measured at Pearson International Airport in Toronto, Ontario.

Warmer than average temperatures during 2010 resulted in lower Heating Degree Days and higher Cooling Degree Days compared to 2009.

Ontario primary electricity demand was 142.2 TWh and 139.2 TWh for 2010 and 2009, respectively. The increase in demand for 2010 was primarily due to warmer weather conditions during 2010 compared to 2009.

### CASH FLOW FROM OPERATIONS

Cash flow provided by operating activities for 2010 was \$817 million compared to cash flow provided by operating activities of \$299 million for 2009. The increase in cash flow of \$518 was primarily due to lower fuel purchases, lower tax installments, a decrease in revenue limit rebate payments with the discontinuance of the revenue limit in the second quarter of 2009, and lower contributions to the Nuclear Funds. The increase was partially offset by lower cash receipts as a result of lower generation revenue.

### RECENT DEVELOPMENTS

#### OPG's Application for New Regulated Prices for Prescribed Facilities

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 MD&A, 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.

#### **Pickering A Units 2 and 3 Safe Storage**

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 and de-watering was completed in January 2010. In the second quarter of 2010, 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. In September 2010, all safe storage end states, and engineering and project closeout phases were 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.

#### **Deep Geologic Repository for Low and Intermediate Level Waste**

In the third quarter of 2010, OPG approved the commencement of the detailed design phase of the Deep Geologic Repository ("DGR") 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 Canadian Nuclear Safety Commission ("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 DGR 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. The DGR is planned to be located at the Bruce nuclear site in the Municipality of Kincardine, Ontario.

#### **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 station 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.

## MANAGEMENT'S DISCUSSION AND ANALYSIS

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 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.

### Thermal Generating Unit 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 of approximately \$200 million over the next four years through 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.

### 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 were 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 this MD&A.

### Lennox Generating Station

During the first quarter of 2011, the OPA and OPG executed the 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 the Ontario electricity system. This LGSA has similar terms to the previous contract which expired on December 31, 2010.

## 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

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.

### Nuclear Generating Assets

Performance excellence at OPG's nuclear generating facilities is defined as generating safe, efficient, reliable and cost-effective electricity through dependable performance. This is achieved through the effective execution of work programs and initiatives in the four cornerstones of safety, reliability, human performance and value for money. On-going monitoring and independent oversight of these key focus areas ensures alignment and focus in the implementation of this strategy.

OPG continually benchmarks the practices, processes and results of its nuclear generating facilities against other top performing nuclear facilities around the world. In 2010, initiatives were implemented to further improve the performance of OPG's nuclear generating facilities over the next five years.

Nuclear safety, employee safety and environmental safety are overriding priorities. Overall safety performance is strong at OPG's nuclear sites where most of the safety metrics are considered industry top quartile, including the All Injury Rate ("AIR") and the Accident Severity Rate ("ASR"). Nuclear inspection and testing programs are largely driven by maintenance governance requirements designed to ensure that equipment is fit for service and performs as expected. This enables OPG to satisfy regulatory requirements that the stations are safe to operate, and that nuclear safety is not compromised.

Reliability involves operating and maintaining OPG's nuclear facilities such that equipment, performance, availability, and output are optimized. Improved equipment reliability helps reduce generation interruptions, and facilitates efficient planning and execution of outages. Programs and initiatives such as Work Order Readiness and the Standard Equipment Reliability Program have been implemented to mitigate technological risks through effective inspection and testing activities. Reducing maintenance backlogs to improve equipment reliability is another major aspect of achieving performance excellence. The nuclear generating stations have all shown consistent improvement in maintenance backlog metrics. OPG's maintenance strategy is evolving from programs designed to improve equipment condition into initiatives that increase the reliability and predictability of performance through comprehensive life cycle maintenance of systems.

Reliability improvements were demonstrated through the successful execution of an ambitious planned maintenance program in 2010, which included the six unit VBO at the Pickering stations that was safely completed on plan. Plans are in place to perform major scheduled maintenance over the next three years, including steam generator inspections and maintenance, feeder inspections and replacements, turbine maintenance and fuel channel inspections. An initiative to improve fleet-wide outage performance is aimed at improving the planning, execution, monitoring and reporting of outage work, as well as reducing outage costs and increasing generation. The outage programs at the Pickering B station over the next five years reflect OPG's desire to achieve extended lives for the Pickering B units to allow them to operate safely until the end of this decade. OPG is undertaking a coordinated set of initiatives to evaluate the opportunity to continue safe and reliable operations of the Pickering B units for approximately an additional four to six years. Details regarding OPG's plans are discussed under the *Generation Development* section of this MD&A.

Human performance involves measuring the ability of individuals to follow processes and procedures, and to operate in a nuclear environment with a strong safety and performance culture. OPG's nuclear generating stations performed well in the area of managing human performance in 2010, as indicated by a low number of human performance events, a common industry defined measure reported by all nuclear facilities. OPG's nuclear business segment continues to implement its hiring and training programs to improve employee performance and promote leadership development, while addressing demographic issues.

The value for money cornerstone involves delivering solutions that represent the best combination of cost, quality, and human performance. In 2010, OPG continued its comprehensive benchmarking in order to identify initiatives for improving performance and establishing challenging financial targets. A combination of fleet-wide improvements through delivery of initiatives as well as local station programs are expected to reduce production unit energy costs, while sustaining or improving operational performance.

In September 2010, OPG completed the Pickering A Units 2 and 3 safe storage project safely, ahead of schedule and under budget. This achievement involved the commitment and teamwork of employees and industry partners. Although other types of nuclear reactors have been put in a safe state before, OPG's safe storage project was the first to permanently remove two commercial CANDU reactors from service, while a multi-unit station continues to produce electricity.

## MANAGEMENT'S DISCUSSION AND ANALYSIS

### Hydroelectric Generating Assets

The hydroelectric business segment is focused on producing electricity in a safe, reliable and cost-effective and efficient manner. OPG plans to continue to increase the capacity of many of the existing stations over the upcoming years by replacing aging equipment such as turbines, generators, transformers, and other control components with more efficient equipment.

The hydroelectric business segment has the following objectives:

- Sustain and improve the existing hydroelectric assets for long-term operations;
- Operate and maintain hydroelectric facilities in an efficient and cost-effective manner;
- Seek to expand and develop existing hydroelectric stations where feasible;
- 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.

OPG plans to increase the capacity of existing stations by 50 MW over the next five years through the replacement of existing turbine runners and installation of more efficient equipment. The replacement of control equipment will also improve efficiency and accommodate market dispatch requirements. OPG is also planning to repair, rehabilitate, or replace aging civil structures. The development of additional pumped storage facilities is being studied to offset operating challenges related to low demand and the increasing wind generation in Ontario.

OPG completed major equipment overhauls and rehabilitation work at several stations during 2010, including a major rehabilitation of Unit 9 at Sir Adam Beck hydroelectric generating station, and runner upgrades and major overhauls at Unit 3 of Cameron Falls, Unit 4 of Des Joachims and Unit 5 of Alexander Falls hydroelectric generating stations. In addition, main transformers were replaced at Abitibi Canyon, Otto Holden, Chats Falls, and Kakabeka generating stations, a tailrace pier refurbishment was completed at Abitibi Canyon generating station, new penstocks were installed at South Falls generating station, the generator was refurbished at Unit 1 of Mountain Chute generating station, and headgates were replaced at Unit 2 of Whitedog Falls, Unit 1 of Pine Portage and Unit 2 of Alexander Falls generating stations.

In 2010, OPG continued work on a number of initiatives related to its Aboriginal Relations Policy. The initiatives include negotiating past grievance settlements, working with First Nations to explore hydroelectric business development opportunities, and developing employment and contracting opportunities, capacity building, and community relations programs.

### Thermal Generating Assets

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 electricity system with the flexibility to meet both changing daily system energy and capacity requirements, and to enable the system to accommodate the expansion of Ontario's renewable generation portfolio. This role requires the continued operation and staffing of coal-fired 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 CO<sub>2</sub> emission limits, in a safe, environmentally responsible, reliable and cost-effective manner.

In the longer term, the thermal business segment will cease generation of electricity using 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.

The staff reduction challenges associated with the planned closure of four coal-fired units in 2010 were managed through the provisions of the collective agreements, augmented with on-going discussions and cooperation with union representatives. The expected additional unit closures at the Nanticoke generating station in 2011 will be managed in a similar manner. Similarly, staffing requirements are under review to meet the needs associated with the changing operational profiles of the stations over the next four years given their limited operation under CO<sub>2</sub> emission caps and after unit conversion.

Employee and public safety continues to be the thermal business segment's highest priority. Safety programs are based on the ISO 18000 Health and Safety managed system process and engineering risk assessments of plant systems. Through these managed systems and on-going risk assessments, OPG places a priority on investments in work planning, staff training and at-risk equipment to mitigate and eliminate health and safety and production issues at its stations.

### **Environmental Performance**

OPG's Environmental Policy states that "OPG will strive to continually improve its environmental performance." This policy further commits OPG to meet all legal requirements and voluntary commitments, with the objective of exceeding those standards where appropriate and feasible. Other goals include integrating environmental factors into business planning and decision-making, and maintaining environmental management systems. Environmental performance targets also form part of the Corporate and Fleet Scorecards.

OPG manages air emissions of Nitrogen Oxides ("NO<sub>x</sub>") and Sulphur Dioxide ("SO<sub>2</sub>") through the use of specialized equipment such as scrubbers, low NO<sub>x</sub> burners, and Selective Catalytic Reduction ("SCR") equipment and the purchase of low sulphur fuel.

OPG monitors emissions into the air and water and regularly reports the results to regulators including the Ministry of the Environment, Environment Canada, and the CNSC. The public also receives on-going communications regarding OPG's environmental performance. OPG has developed and implemented internal monitoring, assessment, and reporting programs to manage environmental risks such as air and water emissions, discharges, spills, the treatment of radioactive emissions, and radioactive wastes. OPG also continues to address historical land contamination through a voluntary land assessment and remediation program.

OPG's environmental performance for 2010 met or outperformed targets, regarding all spills, infractions, energy efficiency, production of radiological waste, and dioxins/furans emissions. OPG also maintained its ISO 14001 certification for its corporate level Environmental Management System and all of its generating stations. Acid gas (SO<sub>2</sub> and NO<sub>x</sub>) emissions were 53.5 gigagrams ("Gg") in 2010 compared to 42.8 Gg in 2009. The increase in acid gas emissions was primarily a result of increased generation from OPG's thermal facilities.

In June 2010, the Federal government announced its intention to regulate greenhouse gas ("GHG") 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 apply to coal units converted to burn other fuels. 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 proposed GHG emission regulation in 2010. OPG continues to monitor developments related to the Federal government's proposed regulation of GHG emissions.

The Ontario government is taking steps to implement a GHG cap-and-trade regime. In July 2008, the Province of Ontario joined the Western Climate Initiative, committing to implement a cap-and-trade regime by 2012. In 2009, the Province passed regulations enabling the development of a cap-and-trade regime and requiring facilities that emit 10,000 Megagram or more to monitor, measure, and report 2010 emissions in 2011. OPG will comply with the requirements and will continue to monitor developments of the cap-and-trade regime.

To achieve further improvements in OPG's GHG emissions, OPG launched its Greenhouse Gas Management Plan in 2007. The plan focuses on: improving the energy efficiency of OPG's facilities, using biofuels as a partial replacement for coal, researching the impact of climate change on OPG's operations, expanding the tree planting effort through OPG's extensive biodiversity program, and providing an education program for employees.

In May 2008, the Province announced annual targets for CO<sub>2</sub> emissions from OPG's 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 CO<sub>2</sub> 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 CO<sub>2</sub> arising from coal at levels below the 2009 and 2010 targets. For 2010, CO<sub>2</sub> emissions were 12.4 million tonnes compared to 10.0 million tonnes for 2009. Emissions increased as a result of higher generation from OPG's coal-fired stations during 2010 compared to the same period in 2009.

In May 2010, the Province issued an additional Shareholder Declaration and Shareholder Resolution directing OPG to develop a strategy to meet, on a forecast basis, targets of CO<sub>2</sub> 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 CO<sub>2</sub> implementation strategy to meet the emission targets. Ontario regulation prevents OPG from using coal to produce electricity after 2014.

## MANAGEMENT'S DISCUSSION AND ANALYSIS

### Safety

OPG is committed to achieving its goal of zero injuries through further development of a strong safety culture and continuous improvement in its safety management systems and risk control programs.

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.

Safety performance is measured using two primary indicators, the ASR and the AIR. Overall, the Company'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, in recognition of its top quartile safety performance in ASR and AIR.

OPG's 2010 ASR performance of 2.04 days lost per 200,000 hours was not as strong as the 2009 ASR performance of 1.40 days lost per 200,000 hours. This was primarily due to one lost time injury involving a motor vehicle accident. OPG's 2010 AIR of 0.92 injuries per 200,000 hours worked is an improvement over the Company's 2009 AIR of 1.19 injuries per 200,000 hours worked and was the best in OPG's history. This reduction in injuries coupled with the number of sites reaching major safety milestones with no lost time injuries, demonstrates OPG's progress towards reaching the goal of zero workplace injuries.

Maintenance of formal safety management systems based on the British Standard Institution's Occupational Health and Safety Assessment Series 18001 Standard (OHSAS 18001) at both the corporate and site levels continued into 2010. Progress was made in developing musculoskeletal disorder ("MSD") prevention programming to reduce MSD risks. Risk improvement priorities that will continue into 2011 include reducing incidents of falling objects and improving the application of work protection (lockout/tagout) processes. Improvements in OPG's rigorous incident management system and investigation processes continue to improve lessons learned from safety incidents and prevent reoccurrences.

In June 2010, OPG implemented new requirements set out in the *Occupational Health and Safety Act* to protect workers from workplace violence and harassment. This included making enhancements to existing policies and procedures, completing workplace violence risk assessments and addressing follow-up recommendations, and communicating requirements to workers, supervisors and Joint Health and Safety Committees.

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.

### Financial Sustainability

OPG's mandate states that: as an *Ontario Business Corporations Act* corporation with a commercial mandate, OPG will operate on a financially sustainable basis and maintain the value of its assets for its Shareholder, the Province.

OPG's financial priority as a commercial enterprise is to achieve a sustainable level of financial performance. Inherent in this priority are the objectives of earning an appropriate return on OPG's regulated and unregulated assets; identifying and exploring efficiency improvement opportunities; and ensuring that sufficient funds are available to achieve its strategic objectives of performance excellence and generation development. OPG has employed a number of strategies to achieve a sustainable level of financial performance.

OPG receives regulated prices for electricity produced from its nuclear generating stations and most of its baseload hydroelectric generating stations. To ensure that the Company earns an appropriate return on its regulated assets, OPG's strategy is to clearly demonstrate to the OEB that its applications for regulated prices accurately reflect the costs required to safely and reliably operate the Prescribed Facilities, and to deliver value to ratepayers.

During 2010, OPG filed an application with the OEB for new regulated prices effective March 1, 2011. The OEB's decision on the application is expected in March 2011, as discussed under the heading, *Recent Developments*.

A significant portion of OPG's generation remains unregulated and continues to be sold at the Ontario spot electricity market price. To optimize prices for production from these assets, OPG has negotiated a number of long-term energy supply agreements. OPG entered into energy supply agreements with the OPA for the Lower Mattagami hydroelectric generation development project in 2010, and is currently negotiating an agreement for the supply of biomass-fuelled electricity generation from the Atikokan generating station.

OPG is pursuing opportunities to improve its efficiency, primarily through cost reductions and elimination of low value activities.

To ensure that sufficient funds are available to achieve its strategic objectives of performance excellence and generation development, OPG seeks to maximize funds generated from operations, and diversify its funding sources. By ensuring access to cost-effective funding and maintaining its investment grade credit ratings, OPG ensures its status as a long-term, commercially viable investment.

A key measure of financial sustainability is return on shareholder's equity. To improve its return on equity, OPG is pursuing opportunities to achieve appropriate levels of profitability while optimizing its capital structure. Total debt is maintained at a level that provides OPG with sufficient financial flexibility to issue debt as required. OPG also manages its capital structure by taking into consideration the metrics consistent with its current credit rating, and the deemed capital structure established by the OEB in setting regulated prices for the regulated operations.

### **GENERATION DEVELOPMENT**

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 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.

#### **New Nuclear Units**

In June 2009, the Government of Ontario suspended the competitive Request for Proposal ("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 that 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, the Joint Review Panel announced the start of a six-month public review period for the EIS and the "Licence to Prepare Site". During 2010, the Joint Review Panel requested additional information in support of the EIS and application for the "Licence to Prepare Site". On December 14, 2010, the Joint Review Panel announced that it had scheduled the public hearings for the Darlington New Nuclear Project. The Joint Review Panel 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 Joint Review Panel to proceed to a public hearing. The hearing will take place beginning March 21, 2011.

#### **Darlington Refurbishment Project**

In February 2010, OPG announced its decision to commence the definition phase for the refurbishment of the Darlington nuclear generating station. 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.

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 Environmental Assessment ("EA"), the Integrated Safety Review ("ISR"), and the Integrated Improvement Plan ("IIP").

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 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 RFP for this work with the selection of a contractor targeted for late 2011.

## MANAGEMENT'S DISCUSSION AND ANALYSIS

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

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.

Pickering B nuclear generating units are currently estimated to reach their nominal end of life between 2014 and 2016. 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 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.

### Niagara Tunnel

As of December 31, 2010, tunnel boring machine ("TBM") mining activity was on schedule, and the TBM had progressed 9,152 metres, which is 90 percent of the tunnel length. Installation of the lower one-third of the tunnel permanent concrete lining reached 6,563 metres, and was ahead of schedule. Restoration of the circular cross-section of the tunnel before installation of the upper two-thirds of the concrete lining was behind schedule at 2,989 metres, but is not expected to delay tunnel completion. Installation of the upper two-thirds of the concrete lining began in May 2010 and had progressed 1,238 metres, which is ahead of schedule. Some uncertainty with respect to the cost and schedule for both the tunnel excavation and liner installation will continue. Notwithstanding the uncertainty, the Niagara Tunnel is expected to be completed within the revised approved budget of \$1.6 billion and the revised approved project completion date of December 2013.

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

### 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, close to 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 hours ("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**

Construction activities on the Lower Mattagami River commenced in June 2010 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.

OPG and the OPA finalized and executed a HESA during the year. In addition, a comprehensive agreement was executed with a local First Nation that resolves grievances attributed to the construction and subsequent operation and maintenance of OPG facilities in the area. The agreement provides the First Nation with a right to purchase up to a 25 percent equity interest in the project.

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. 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. 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.

### **Conversion of Coal-Fired Units**

The strategy to convert coal-fired units to alternate fuels continues to advance and is reflective of the changing operating environment in Ontario, including the regulated phase-out of coal-fired generation and conversion to alternative fuels such as biomass, natural gas and gas-biomass dual-fuelled. 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.

### **Atikokan Generating Station**

The conversion of the Atikokan generating station to biomass is currently in the definition phase. In August 2010, the Ministry of 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.

### **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.

### **DEVELOPING AND ACQUIRING TALENT**

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 necessary talent focused on developing excellent leadership and the necessary resources to meet its business needs and address attrition in critical skill areas. OPG maintains a workforce planning system that compares forecast supply and demand for staff and skills and addresses any gaps. OPG also has an active succession planning program and continues to implement leadership development programs across the organization.

## MANAGEMENT'S DISCUSSION AND ANALYSIS

### Skilled Workforce

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 (the "PWU") and approximately 3,700 by the Society of Energy Professionals ("The Society"). The current collective agreement between OPG and the PWU has a three-year term (April 1, 2009 – March 31, 2012). The collective agreement between OPG and The Society expired on December 31, 2010. OPG and The Society commenced negotiations on a collective agreement renewal, 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.

In addition to the regular workforce, construction and contract maintenance is performed through 22 craft unions with established bargaining rights on OPG facilities. These bargaining rights are either through the Electrical Power Systems Construction Association ("EPSCA") or directly with OPG. All the construction agreements expired April 30, 2010. OPG, in conjunction with EPSCA, is actively involved in all aspects of negotiations.

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

Electricity generation involves complex technologies, which demand highly skilled and trained workers. Many positions at OPG have significant educational prerequisites as well as rigorous requirements for continuing training and periodic requalification. In addition to maintaining its extensive internal training infrastructure, OPG relies on partnerships with government agencies, other electrical industry partners, and educational institutions to meet the required level of qualification.

### Capability to Deliver Results

OPG's capabilities to execute its corporate strategies and deliver results are impacted by a number of areas.

#### GENERATING ASSETS RELIABILITY

OPG continues to implement specific initiatives to improve the reliability and predictability of each nuclear generating station. These initiatives are designed to address the specific technology requirements, operational experience, and mitigate risks. The Darlington nuclear generating station has converted to a three-year outage cycle to take advantage of the physical condition of the plant, the availability of backup systems, and on-power refuelling. The Pickering A and B nuclear generating stations will continue to focus on implementing targeted reliability improvements.

OPG has increased the productive capacity of its hydroelectric stations, and invested significant capital to replace aging equipment, upgrade runners, increase station automation, and enhance maintenance practices. Programs are in place to further improve the efficiency and availability of existing hydroelectric stations.

OPG will continue to maintain the reliability of its coal-fired generating stations to produce the electricity required until their scheduled closure dates, or upon conversion to alternative fuels.

#### PROJECT EXCELLENCE

OPG is pursuing and executing a number of generation development opportunities as described under the *Vision, Core Business and Strategy* section of the MD&A. In addition, OPG continues to plan and execute maintenance and capital improvement projects for its existing assets. Project excellence is essential to deliver these projects on time and on budget.

Project excellence includes ensuring OPG acquires the necessary talent and experience to properly plan and execute projects. OPG's strategy for developing and acquiring talent is discussed under the *Vision, Core Business and Strategy* section of the MD&A. Planning and preparation for projects are also essential to delivering projects on time and on budget. The planning and preparation process includes establishing contingency plans to manage potential challenges, creating and maintaining comprehensive risk registries, and setting up clear milestones at key stages of projects. In addition, project accountability is established at the appropriate level and with proper oversight by senior management and Board Committee.

During 2010, OPG completed the Pickering A Units 2 and 3 safe storage project ahead of schedule and below the projected completion cost. In addition, the Upper Mattagami and Hound Chute project was declared in-service five months ahead of schedule and within the project budget. During 2010, OPG also completed the Pickering VBO as planned.

### RESOURCE MANAGEMENT

Resource management includes prioritizing capital projects to maximize return on equity to the Province, while managing its liquidity and financing requirements to fund these capital projects. OPG continues to pursue the appropriate capital structure while maintaining an investment grade credit rating. OPG's financial strategy and results are discussed under the *Vision, Core Business and Strategy* and the *Liquidity and Capital Resources* sections of the MD&A.

### Ontario Electricity Market Trends

In its 18-Month Outlook published on February 25, 2011, the IESO indicated that as of February 20, 2011, Ontario's installed electricity generating capacity was 34,731 MW. As of December 31, 2010, OPG's in-service electricity generating capacity was 19,931 MW, or 57 percent of Ontario's capacity. The IESO reported that there were no new reliability or adequacy concerns for the period March 2011 to August 2012. The anticipated completion of two Bruce nuclear unit refurbishments, and the expected addition of 800 MW of renewable generation, contribute to the positive supply outlook. Increased embedded generation and conservation are expected to reduce summer peak demands by 55 MW and 85 MW, respectively. The IESO does not foresee any reliability or adequacy issues with the planned removal of two more Nanticoke units later in 2011, following the summer peak load period.

The IESO reported energy demand of 142.1 TWh during 2010, 143.2 TWh forecasted for 2011, and 145.2 TWh forecasted for 2012. The limited increase in demand is primarily attributable to expected modest economic recovery. The expected peak electricity demand during the summer, under normal weather conditions, is forecasted to be 23,561 MW in 2011 and 23,574 MW in 2012. SBG conditions have the highest potential to occur during the summer of 2011 and the spring and summer of 2012. The IESO is currently working to address potential future operability issues associated with the growing amount of renewable resources expected to come into service over the next few years.

Fuel prices can have a significant impact on OPG's revenue and gross margin. Natural gas prices at Henry Hub averaged U.S. \$3.80/MMBtu in the fourth quarter of 2010, a decrease of 11 percent from the third quarter of 2010, and a decrease of 13 percent from the fourth quarter of 2009. The decrease in natural gas prices is attributed primarily to strong storage levels. Eastern coal prices averaged around \$68/tonne during the fourth quarter of 2010, a decrease of 1 percent from the third quarter of 2010, but an increase of 29 percent from the fourth quarter of 2009. Powder River Basin coal prices have averaged over \$14/tonne during the fourth quarter of 2010, which represents no change from the third quarter of 2010 but a robust 64 percent increase compared to the same quarter of 2009. Improved power sector fundamentals and a recovery in international coal markets have led to a rise in coal prices.

While uranium short-term market prices display some volatility, the purchasing strategy of using longer term contracts, a mix of fixed and market related arrangements, and the long cycle time between acquiring uranium, processing it, fabricating fuel bundles and then expensing as fuel costs tend to dampen the impact of short-term market fluctuations in uranium pricing on OPG. The industry average uranium spot market price ended the year at U.S. \$62.25 per pound which was a significant increase from U.S. \$46.63 per pound at the end of the third quarter and U.S. \$44.50 per pound at the beginning of 2010. The industry average long-term uranium price ended the year at U.S. \$66.00 per pound, an increase from U.S. \$61.00 at the end of the third quarter and the beginning of 2010.

### Business Segments

OPG has five reportable business segments. The business segments are: Regulated – Nuclear Generation, Regulated – Nuclear Waste Management, Regulated – Hydroelectric, Unregulated – Hydroelectric, and Unregulated – Thermal.

OPG has entered into various energy and related sales contracts to hedge commodity price exposure to changes in electricity prices associated with the spot market for electricity in Ontario. Contracts that are designated as hedges of OPG's generation revenues are included in the Unregulated – Hydroelectric and Unregulated – Thermal generation segments. Gains or losses from these hedging transactions are recognized in revenue over the terms of the contract when the underlying transaction occurs.

## MANAGEMENT'S DISCUSSION AND ANALYSIS

### REGULATED – NUCLEAR GENERATION SEGMENT

OPG's Regulated – Nuclear Generation business segment operates in Ontario, generating and selling electricity from the nuclear generating stations that it owns and operates. The business segment includes electricity generated by the Pickering A and B, and Darlington nuclear generating stations. This business segment also includes revenue under the terms of a lease arrangement and related agreements with Bruce Power related to the Bruce nuclear generating stations. This revenue includes lease revenue and revenue from engineering analysis and design, technical and other services. Revenue is also earned from isotope sales and ancillary services. Ancillary revenues are earned through voltage control and reactive support. Revenues from isotope sales and ancillary services are included in the computation of the regulated prices for OPG's nuclear facilities by the OEB.

### REGULATED – NUCLEAR WASTE MANAGEMENT SEGMENT

OPG's Regulated – Nuclear Waste Management segment engages in the management of used nuclear fuel and low and intermediate level waste, the decommissioning of OPG's nuclear generating stations (including the stations on lease to Bruce Power), the management of the Nuclear Funds, and related activities including the inspection and maintenance of the waste storage facilities. Accordingly, accretion expense on the Nuclear Liabilities and earnings from the Nuclear Funds are reported under this segment.

As the nuclear generating stations operate over time, OPG incurs variable costs related to nuclear used fuel and low and intermediate level waste generated. These costs increase the Nuclear Liabilities through the generation of additional used nuclear fuel bundles and other waste. These variable costs are charged to current operations in the Regulated – Nuclear Generation segment to reflect the cost of producing energy and earning revenue under the Bruce Power lease arrangement and related agreements. Since variable costs increase the Nuclear Liabilities in the Regulated – Nuclear Waste Management segment, OPG records an inter-segment charge between the Regulated – Nuclear Generation and the Regulated – Nuclear Waste Management segments. The impact of the inter-segment charge between these segments is eliminated on OPG's consolidated statements of income and balance sheets.

The Regulated – Nuclear Waste Management segment is considered regulated because the costs associated with the Nuclear Liabilities are included in the determination of regulated prices for production from OPG's regulated nuclear facilities by the OEB.

### REGULATED – HYDROELECTRIC SEGMENT

OPG's Regulated – Hydroelectric business segment operates in Ontario, generating and selling electricity from most of the Company's baseload hydroelectric generating stations. The business segment is comprised of electricity generated by the Sir Adam Beck 1, 2 and Pump generating station, DeCew Falls 1 and 2, and the R.H. Saunders hydroelectric facilities. Ancillary revenues are earned through offering available generating capacity as operating reserve and through the supply of other ancillary services including voltage control and reactive support, certified black start facilities and automatic generation control. These ancillary revenues are included in the computation of the regulated prices for these facilities by the OEB.

### UNREGULATED – HYDROELECTRIC SEGMENT

The Unregulated – Hydroelectric business segment operates in Ontario, generating and selling electricity from its hydroelectric generating stations that are not subject to rate regulation. Ancillary revenues are earned through offering available generating capacity as operating reserve, and the supply of other ancillary services including voltage control and reactive support, certified black start facilities, automatic generation control, and other services.

### UNREGULATED – THERMAL SEGMENT

The Unregulated – Thermal business segment operates in Ontario, generating and selling electricity from its thermal generating stations, which are not subject to rate regulation. Ancillary revenues are earned through offering available generating capacity as operating reserve, and the supply of other ancillary services including voltage control and reactive support, automatic generation control, and other services.

### OTHER

The Other category includes revenue that OPG earns from its 50 percent joint venture share of the Brighton Beach Power Limited Partnership ("Brighton Beach") related to an energy conversion agreement between Brighton Beach and Shell Energy North America (Canada) Inc. This category also includes revenue that OPG earns from its 50 percent share of the results of the PEC gas-fired generating station, which is co-owned with TransCanada Energy Ltd. and is operated under the terms of an Accelerated Clean Energy Supply contract with the OPA. The revenue and expenses related to OPG's trading and other non-hedging activities are also included in the Other category. As part of these activities, OPG transacts with counterparties in Ontario and neighbouring energy markets in predominantly short-term trading activities of typically one year or less in duration. These activities relate primarily to physical energy that is purchased and sold at the Ontario border, sales of financial

risk management products and sales of energy-related products. All contracts that are not designated as hedges are recorded as assets or liabilities at fair value, with changes in fair value recorded in other revenue as gains or losses. In addition, the Other category includes revenue from real estate rentals.

## Key Generation and Financial Performance Indicators

Key performance indicators that directly pertain to OPG's mandate and corporate strategies are measures of production efficiency, cost-effectiveness, and environmental performance. OPG evaluates the performance of its generating stations using a number of key performance indicators, which vary depending on the generating technology. These indicators are defined in this section and are discussed in the *Discussion of Operating Results by Business Segment* section.

### NUCLEAR UNIT CAPABILITY FACTOR

OPG's nuclear stations are baseload facilities as they have low marginal costs and are not designed for fluctuating production levels to meet peaking demand. The nuclear unit capability factor is a key measure of nuclear station performance. It is the amount of energy that the unit(s) generated over a period of time, adjusted for externally imposed constraints such as transmission or demand limitations, as a percentage of the amount of energy that would have been produced over the same period had the unit(s) produced maximum generation. Capability factors are primarily affected by planned and unplanned outages. Capability factors by industry definition exclude grid-related unavailability and high lake water temperature losses.

### THERMAL AND HYDROELECTRIC EQUIVALENT FORCED OUTAGE RATE ("EFOR")

OPG's thermal stations provide a flexible source of energy and may operate as baseload, intermediate and peaking facilities, depending on the characteristics of the particular stations and demand of the market. OPG's hydroelectric stations, which operate as baseload, intermediate, and peaking stations, provide a safe, reliable and low-cost source of renewable energy. A key measure of the reliability of the thermal and hydroelectric generating stations is the proportion of time they are available to produce electricity when required. EFOR is an index of the reliability of the generating unit measured by the ratio of time a generating unit is forced out of service by unplanned events, including any forced deratings, compared to the amount of time the generating unit was available to operate.

OPG continues its strategy for its thermal stations to ensure units are available when they are required, and to optimize how coal-fired units are offered into the electricity system, to reduce equipment damage from frequent starts and stops. In addition, OPG has optimized outage duration and scope, where warranted, commensurate with capped unit production due to CO<sub>2</sub> emission limits, reduced system demands and planned future plant operation, to reduce maintenance related expenditures, including capital asset investments, labour and overtime. Thermal EFOR for 2010 reflected this strategy.

### HYDROELECTRIC AVAILABILITY

Hydroelectric availability is a measure of the reliability of a hydroelectric generating unit. It is represented by the percentage of time the generating unit is capable of providing service, whether or not it is actually in-service, compared to the total time for a respective period.

### NUCLEAR PRODUCTION UNIT ENERGY COST ("PUEC")

Nuclear PUEC is used to measure the cost-effectiveness of the operations-related costs of production of OPG's nuclear generating assets. Nuclear PUEC is defined as the total cost of nuclear fuel, OM&A expenses including allocated corporate costs, and variable costs related to used fuel disposal and storage and the disposal of low and intermediate level radioactive waste materials, divided by nuclear electricity generation.

### HYDROELECTRIC OM&A EXPENSE per MWh

Hydroelectric OM&A expense per MWh is used to measure the cost-effectiveness of the hydroelectric generating stations. It is defined as total hydroelectric OM&A expenses excluding expenses related to past grievances by First Nations, including allocated corporate costs, divided by hydroelectric electricity generation.

### THERMAL OM&A EXPENSE per MW

Since thermal generating stations are primarily employed during periods of intermediate and peak demand, the cost-effectiveness of these stations is measured by their annualized OM&A expenses for the period, including allocated corporate costs, divided by the weighted average station nameplate capacity.

### OTHER KEY INDICATORS

In addition to performance and cost-effectiveness indicators, OPG has identified certain environmental indicators. These indicators are discussed under the heading, *Risk Management*.

## MANAGEMENT'S DISCUSSION AND ANALYSIS

### Discussion of Operating Results by Business Segment

This section summarizes OPG's key results by segment for the years ended December 31, 2010 and 2009. The following table provides a summary of revenue, earnings, and key generation and financial performance indicators by business segment:

(millions of dollars – except where noted)	2010	2009
<b>Revenue, net of revenue limit rebate</b>		
Regulated – Nuclear Generation	3,030	3,179
Regulated – Nuclear Waste Management	45	44
Regulated – Hydroelectric	742	782
Unregulated – Hydroelectric	497	605
Unregulated – Thermal	936	901
Other	168	143
Elimination	(43)	(41)
	<b>5,375</b>	<b>5,613</b>
<b>Income (loss) before interest and income taxes</b>		
Regulated – Nuclear Generation	302	390
Regulated – Nuclear Waste Management	8	52
Regulated – Hydroelectric	316	327
Unregulated – Hydroelectric	129	209
Unregulated – Thermal	(68)	(99)
Other	78	74
	<b>765</b>	<b>953</b>
<b>Electricity generation (TWh)</b>		
Regulated – Nuclear Generation	45.8	46.8
Regulated – Hydroelectric	18.9	19.4
Unregulated – Hydroelectric	11.7	16.8
Unregulated – Thermal	12.2	9.5
Total electricity generation	<b>88.6</b>	<b>92.5</b>
<b>Nuclear unit capability factor (percent)</b>		
Darlington	87.6	85.9
Pickering A	62.4	64.2
Pickering B	76.3	84.0
<b>Equivalent forced outage rate (percent)</b>		
Regulated – Hydroelectric	0.3	1.0
Unregulated – Hydroelectric	2.1	1.6
Unregulated – Thermal	7.3	8.5
<b>Availability (percent)</b>		
Regulated – Hydroelectric	92.8	93.6
Unregulated – Hydroelectric	91.6	92.4
<b>Nuclear PUEC (\$/MWh)</b>	47.04	44.09
<b>Regulated – Hydroelectric OM&amp;A expense per MWh (\$/MWh)</b>	5.24	5.46
<b>Unregulated – Hydroelectric OM&amp;A expense per MWh (\$/MWh)</b>	17.69	11.67
<b>Unregulated – Thermal OM&amp;A expense per MW (\$000/MW)</b>	58.40	60.20

## REGULATED – NUCLEAR GENERATION SEGMENT

(millions of dollars)	2010	2009
Regulated generation sales	2,499	2,557
Variance accounts	260	480
Other	271	142
Total revenue	3,030	3,179
Fuel expense	215	191
Variance accounts	(30)	19
Total fuel expense	185	210
Gross margin	2,845	2,969
Operations, maintenance and administration	2,101	2,057
Depreciation and amortization	401	481
Property and capital taxes	39	41
Other losses	2	–
Income before interest and income taxes	302	390

### Revenue

Regulated – Nuclear Generation revenue was \$3,030 million for the year ended December 31, 2010 compared to \$3,179 million in 2009. The decrease in revenue of \$149 million was primarily due to the decrease in revenue related to the Tax Loss Variance Account and the impact of lower generation volume. During 2010, OPG recognized revenue of \$163 million in the Regulated – Nuclear Generation segment related to the Tax Loss Variance Account compared to revenue of \$245 million in 2009. The revenue related to the Tax Loss Variance Account recognized in 2009 included \$105 million of retrospective revenue related to the period April 1, 2008 to December 31, 2008. The Tax Loss Variance Account was authorized by the OEB in May 2009, and is effective retrospectively to April 1, 2008.

Under the Bruce Lease, lease revenue is reduced in each calendar year when the Average HOEP falls below \$30/MWh, and certain other conditions are met. Since the Average HOEP for 2010 was more than \$30/MWh, there was no adjustment to the Bruce Lease revenue. For 2009, the

Average HOEP for 2009 was below \$30/MWh, and the Bruce Lease revenue for 2009 was therefore reduced by \$69 million. Any change in lease revenue was offset by the impact of the Bruce Lease Net Revenues Variance Account.

The conditional reduction to revenue in the future, embedded in the terms of the Bruce Lease, is treated as a derivative according to CICA Handbook Section 3855, *Financial Instruments – Recognition and Measurement*. Derivatives are measured at fair value and changes in fair value are recognized in the consolidated statements of income. As a result of a decrease in expected future Average HOEP during 2010, the fair value of the derivative liability increased to \$163 million at December 31, 2010, compared to \$118 million at December 31, 2009, an increase of \$45 million. The increase in the fair value of this derivative liability is recognized as a reduction to non-electricity generation revenue, offset by the impact of the Bruce Lease Net Revenues Variance Account.

### Electricity Prices

Electricity generation from stations in the Regulated – Nuclear Generation segment received a fixed price of 5.50¢/kWh throughout 2010 and 2009, as established by the OEB in 2008.

### Volume

Electricity generation from OPG's nuclear generating stations was 45.8 TWh for the year ended December 31, 2010 compared to 46.8 TWh in 2009. The decrease in generation was primarily due to an increase in planned outage days at the Pickering nuclear generating stations as a result of the VBO. The decrease in electricity generation from the Pickering nuclear generating stations was partially offset by a decrease in planned outage days at the Darlington nuclear generating station, primarily as a result of the Darlington VBO which was conducted in 2009.

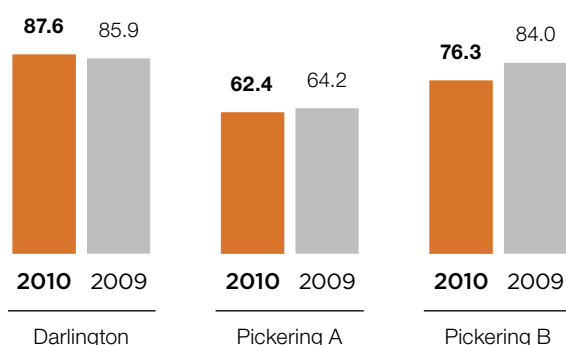
The Darlington nuclear generating station's unit capability factor for 2010 was 87.6 percent compared to 85.9 percent for the same period in 2009. The higher capability factor reflects the lower planned outage days in 2010 compared to 2009 primarily a result of the Darlington VBO during 2009.

## MANAGEMENT'S DISCUSSION AND ANALYSIS

The unit capability factor for the Pickering A nuclear generating station for 2010 was 62.4 percent compared to 64.2 percent in 2009. The unit capability factor for the Pickering B nuclear generating station was 76.3 percent in 2010 compared to 84.0 percent in 2009. The lower capability factors for the Pickering nuclear generating stations reflect the higher planned outage days primarily due to the Pickering VBO in 2010.

### NUCLEAR UNIT CAPABILITY FACTOR

Years Ended December 31  
(%)



### Fuel Expense

Fuel expense for the year ended December 31, 2010 was \$185 million compared to \$210 million during 2009. The decrease in fuel expense in 2010 compared to 2009 was primarily due to the impact of the Nuclear Fuel Cost Variance Account authorized by the OEB in the 2008 decision and the impact of lower generation. The Nuclear Fuel Cost Variance Account records the difference between actual nuclear fuel costs per unit of production, and the corresponding forecast amounts approved by the OEB in the setting of regulated prices.

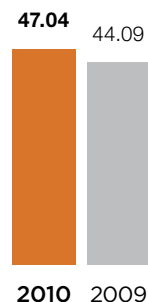
### Operations, Maintenance and Administration

OM&A expenses for 2010 were \$2,101 million compared to \$2,057 million during 2009. The increase in OM&A expenses was primarily due to higher pension and OPEB costs largely as a result of lower discount rates in 2010 and an increase in planned outage activities. This increase was partially offset by lower planned maintenance activities and a decrease in costs for new nuclear generation development and capacity refurbishment activities.

Nuclear PUEC for the year ended December 31, 2010 was \$47.04/MWh compared to \$44.09/MWh during the same period in 2009. The increase was primarily due to higher OM&A expenses, and lower generation.

### NUCLEAR PUEC

Years Ended December 31  
(\$/MWh)



### Depreciation and Amortization

Depreciation and amortization expense for the year ended December 31, 2010 was \$401 million compared to \$481 million in 2009. The decrease in depreciation and amortization expense was primarily due to the impact of the Darlington nuclear generating station life extension to 2051, related to OPG's commencement in early 2010 of the definition phase for refurbishment of the station.

### REGULATED – NUCLEAR WASTE MANAGEMENT SEGMENT

(millions of dollars)	2010	2009
Revenue	45	44
Operations, maintenance and administration	52	48
Accretion on fixed asset removal and nuclear waste management liabilities	653	627
Earnings on nuclear fixed asset removal and nuclear waste management funds	(668)	(683)
Income before interest and income taxes	8	52

### Revenue

Regulated – Nuclear Waste Management revenue was \$45 million for the year ended December 31, 2010 compared to \$44 million in 2009. The increase in revenue was due to a higher inter-segment charge between the Regulated – Nuclear Generation and the Regulated – Nuclear Waste Management segments for variable costs related to nuclear used fuel and waste.



### Accretion

Accretion expense for the year ended December 31, 2010 was \$653 million compared to \$627 million for the same period in 2009. The increase in accretion expense was primarily due to an increase in the present value of the Nuclear Liabilities due to the passage of time, and the increase in the Nuclear Liabilities as a result of OPG's commencement of the definition phase for refurbishment of the Darlington nuclear generating station. The increase in accretion expense was partially offset by the impact of the Bruce Lease Net Revenues Variance Account.

### Earnings on the Nuclear Fixed Asset Removal and Nuclear Waste Management Funds

Earnings from the Nuclear Funds for the year ended December 31, 2010 were \$668 million compared to \$683 million in 2009. During 2010, before the impact of the Bruce Lease Net Revenues Variance Account, earnings from the Nuclear Funds were \$836 million compared to \$802 million during 2009, an increase of \$34 million. The increase in earnings from the Nuclear Funds was primarily due to higher earnings from the Used Fuel Fund resulting from a higher Ontario CPI in 2010, which impacted the guaranteed return on the Used Fuel Fund. The increase in earnings from the Used Fuel Fund was partially offset by a decrease in earnings from the Decommissioning Fund primarily due to lower returns from the global financial markets in 2010 compared to 2009.

A portion of the Nuclear Funds relates to OPG's obligations with respect to decommissioning the nuclear generating stations on lease to Bruce Power, as well as managing nuclear used fuel and waste produced by these stations. As a result, the differences between actual and forecast earnings from the Nuclear Funds associated with the Bruce nuclear generating stations are captured by the Bruce Lease Net Revenues Variance Account established by the OEB in 2008. During 2010, OPG recorded a reduction to the Bruce Lease Net Revenues Variance Account regulatory asset of \$168 million compared to \$119 million in 2009. This decreased the total reported earnings from the Nuclear Funds in 2010 when compared to 2009.

### REGULATED – HYDROELECTRIC SEGMENT

(millions of dollars)	2010	2009
Regulated generation sales	697	718
Variance accounts	13	11
Other	32	53
Revenue	742	782
Fuel expense	254	264
Gross margin	488	518
Operations, maintenance and administration	99	106
Depreciation and amortization	62	75
Property and capital taxes	11	10
Income before interest and income taxes	316	327

### Revenue

Regulated – Hydroelectric revenue was \$742 million for the year ended December 31, 2010 compared to \$782 million in 2009. The decrease in revenue was primarily due to a decrease in hydroelectric generation and lower ancillary revenues. The decrease in revenue was also due to the decrease in revenue related to the Tax Loss Variance Account. During 2010, OPG recognized revenue of \$31 million in the Regulated – Hydroelectric segment related to the Tax Loss Variance Account compared to revenue of \$47 million in 2009. The revenue related to the Tax Loss Variance Account recognized in 2009 included \$20 million of retrospective revenue related to the period April 1, 2008 to December 31, 2008.

### Electricity Prices

The average electricity sales price for 2010 and 2009 was 3.7¢/kWh. The average electricity sales price reflected the regulated price of 3.67¢/kWh and the incentive mechanism applicable for the production from OPG's regulated hydroelectric facilities, as established by the OEB in 2008.

The incentive mechanism established by the OEB resulted in net revenue of \$14 million and \$21 million for 2010 and 2009, respectively. The incentive mechanism is discussed under the heading, *Revenue Mechanisms for Regulated and Unregulated Generation*.

## MANAGEMENT'S DISCUSSION AND ANALYSIS

### Volume

Electricity generation volume for 2010 and 2009 was 18.9 TWh and 19.4 TWh, respectively. The decrease in volume was primarily due to the impact of unfavourable water flows in the Province of Ontario.

For 2010 and 2009, the EFOR for the Regulated – Hydroelectric stations was 0.3 percent and 1.0 percent, respectively. EFOR decreased in 2010 as a result of improved equipment performance at the regulated hydroelectric stations. The availability for the Regulated – Hydroelectric stations was 92.8 percent in 2010 compared to 93.6 percent in 2009, primarily due to an increase in planned maintenance work in 2010. The high availability and low EFOR reflected the continuing strong performance of these hydroelectric stations.

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### REGULATED – HYDROELECTRIC EFOR

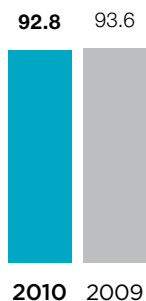
Years Ended December 31  
(%)



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### REGULATED – HYDROELECTRIC AVAILABILITY

Years Ended December 31  
(%)



### Fuel Expense

OPG pays charges to the Province and the OEFC on gross revenue derived from the annual generation of electricity from its hydroelectric generating assets. The gross revenue charge (“GRC”) includes a fixed percentage charge applied to the annual hydroelectric generation derived from stations located on provincial Crown lands, in addition to graduated rate charges applicable to all hydroelectric stations. GRC costs are included in fuel expense.

Fuel expense was \$254 million for the year ended December 31, 2010 compared to \$264 million in 2009. The decrease in fuel expense was primarily due to a decrease in electricity generation volumes.

### Variance Accounts

During 2010, the net impact to revenue resulting from the recognition of regulatory assets and liabilities was an increase of \$13 million. The impact primarily related to the recognition of an increase in the regulatory assets related to the Tax Loss Variance Account and a decrease in the regulatory liability for the OEB-authorized variance account reflecting the difference between forecast and actual ancillary service revenue (“Ancillary Services Net Revenue Variance Account”). The increase in revenue was partially offset by the increase in the regulatory liabilities related to the OEB-authorized variance account that reflects the impact of differences between forecast and actual water conditions on hydroelectric production (“Hydroelectric Water Conditions Variance Account”) and the over-collection of hydroelectric variance account balances through existing regulated prices since January 1, 2010. During 2009, OPG recorded an increase to revenue of \$11 million related to the variance accounts.

### Operations, Maintenance and Administration

OM&A expenses for the year ended December 31, 2010 were \$99 million compared to \$106 million in 2009. OM&A expense per MWh for the regulated hydroelectric generating stations was \$5.24/MWh for 2010 compared to \$5.46/MWh for the same period in 2009. The decrease in OM&A expense per MWh in 2010 compared to 2009 was primarily due to lower OM&A expenses.

## UNREGULATED – HYDROELECTRIC SEGMENT

(millions of dollars)	2010	2009
Spot market sales, net of hedging instruments	449	561
Revenue limit rebate	–	(10)
Other	48	54
Revenue, net of revenue limit rebate	497	605
Fuel expense	64	104
Gross margin	433	501
Operations, maintenance and administration	227	210
Depreciation and amortization	73	73
Property and capital taxes	4	9
Income before interest and income taxes	129	209

### Revenue

Unregulated – Hydroelectric revenue was \$497 million for 2010 compared to \$605 million in 2009. The decrease in revenue of \$108 million was primarily due to lower generation volume partially offset by higher electricity prices.

### Electricity Prices

OPG's average sales price for its unregulated hydroelectric generation for 2010 and 2009 was 3.7¢/kWh and 3.2¢/kWh, respectively. The increase in electricity price was primarily due to the impact of higher Ontario spot market prices.

### Volume

For 2010 and 2009, electricity generation volume was 11.7 TWh and 16.8 TWh, respectively. The decrease in volume during 2010 compared to 2009 was primarily due to the impact of lower water flows caused by below normal precipitation across Ontario.

The EFOR for the Unregulated – Hydroelectric generating stations was 2.1 percent during the year ended December 31, 2010 compared to 1.6 percent in 2009. The availability for the Unregulated – Hydroelectric stations was 91.6 percent for the year ended December 31, 2010 compared to 92.4 percent in 2009. The low EFOR and high availability reflected the continuing strong performance of the Unregulated – Hydroelectric stations.

### Fuel Expense

Fuel expense was \$64 million for the year ended December 31, 2010 compared to \$104 million in 2009. The decrease in fuel expense was primarily due to the impact of lower generation.

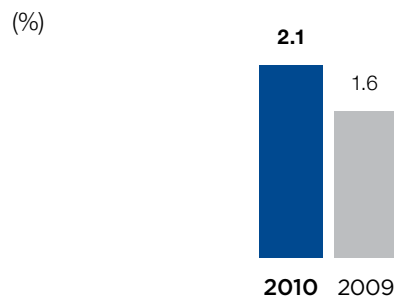
## Operations, Maintenance and Administration

During 2010, OM&A expenses were \$227 million compared to \$210 million for 2009. The increase in OM&A expenses was primarily due to higher maintenance activities and pension and OPEB costs.

OM&A expense per MWh for the unregulated hydroelectric stations for the year ended December 31, 2010 and 2009 was \$17.69/MWh and \$11.67/MWh, respectively. The higher OM&A expense per MWh was primarily due to lower generation.

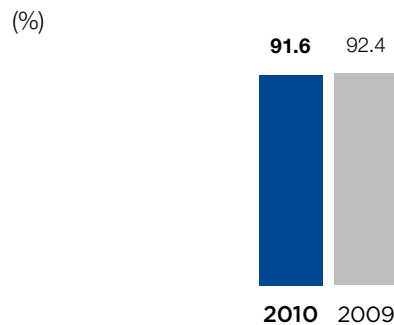
## UNREGULATED – HYDROELECTRIC EFOR

Years Ended December 31



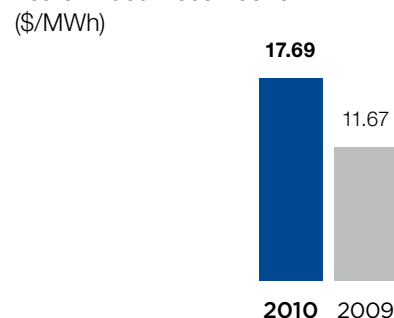
## UNREGULATED – HYDROELECTRIC AVAILABILITY

Years Ended December 31



## UNREGULATED – HYDROELECTRIC OM&A PER MWh

Years Ended December 31



## MANAGEMENT'S DISCUSSION AND ANALYSIS

### UNREGULATED – THERMAL SEGMENT

(millions of dollars)	2010	2009
Spot market sales, net of hedging instruments	530	393
Revenue limit rebate	–	(17)
Contingency support agreement	258	412
Other	148	113
Revenue, net of revenue limit rebate	936	901
Fuel expense	405	413
Gross margin	531	488
Operations, maintenance and administration	449	492
Depreciation and amortization	103	79
Accretion on fixed asset removal liabilities	7	7
Property and capital taxes	13	18
Restructuring	27	–
Loss before other gains and losses, interest and income taxes	(68)	(108)
Other gains	–	(9)
Loss before interest and income taxes	(68)	(99)

#### Revenue

Unregulated – Thermal revenue was \$936 million for the year ended December 31, 2010 compared to \$901 million in 2009, an increase of \$35 million. The increase in revenue during 2010 was due to a significant increase in electricity generation and higher average sales prices, partially offset by lower revenue of \$154 million related to the contingency support agreement established with the OEFC.

#### Electricity Prices

OPG's average sales price net of the revenue limit rebate for its unregulated thermal generation was 4.3¢/kWh for 2010 compared to 3.9¢/kWh for 2009. The higher sales price was primarily due to the impact of higher Ontario spot electricity market prices.

#### Volume

Electricity generation volume for the year ended December 31, 2010 was 12.2 TWh compared to 9.5 TWh during 2009.

The increase in generation in 2010 compared to 2009 was primarily due to the impact of unfavourable water flows at the hydroelectric generating stations, higher primary demand in Ontario during the second and third quarters of 2010 compared to the same periods in 2009, and lower generation from OPG's nuclear generating stations.

The EFOR for the Unregulated – Thermal stations during the year ended December 31, 2010 was 7.3 percent compared to 8.5 percent in 2009. The reduction in EFOR during 2010 compared to 2009 was primarily due to fewer unplanned outage days at the Nanticoke and Lambton coal-fired generating stations.

#### UNREGULATED – THERMAL EFOR

Years Ended December 31  
(%)



#### Fuel Expense

During the year ended December 31, 2010, fuel expense was \$405 million compared to \$413 million in 2009. The decrease of \$8 million in fuel expense was due to lower fuel and fuel related costs pertaining to adjustments in coal supply contracts during 2009, partially offset by an increase in generation volume.

The reduced demand for coal-fired generation during 2009 resulted in excess coal supplies. OPG negotiated reductions to coal supply contracts, which included cancellation and deferral of shipments. Costs associated with the cancellations and deferrals of \$63 million were recorded as incurred in 2009. The costs incurred for coal contract adjustments related primarily to the Lambton and Nanticoke coal-fired generating stations and were recovered through the contingency support agreement with the OEFC.

### Operations, Maintenance and Administration

OM&A expenses for the year ended December 31, 2010 were \$449 million compared to \$492 million in 2009. The decrease of \$43 million in OM&A expenses was primarily due to a reduction in expenditures related to outage and maintenance activities as a result of the pending closure of four coal-fired units, partially offset by higher pension and OPEB costs.

Annualized OM&A expense per MW (\$/MW) for the unregulated thermal stations was \$58,400/MW for the year ended December 31, 2010 compared to \$60,200/MW in 2009. The decrease in OM&A expense per MW during 2010 compared to 2009 was due to a decrease in OM&A expenses, partially offset by a reduction in OPG's thermal generating capacity.

#### UNREGULATED – THERMAL OM&A PER MW

Years Ended December 31  
(\$000/MW)



### Other Gains and Losses

In 2009, OPG recorded a recovery of \$9 million to reflect a decrease in the estimated costs to decommission and remediate the Lakeview site.

#### OTHER

(millions of dollars)	2010	2009
Revenue	168	143
Operations, maintenance and administration	18	10
Depreciation and amortization	59	52
Property and capital taxes	10	8
Income before other gains and losses, interest and income taxes	81	73
Other losses (gains)	3	(1)
Income before interest and income taxes	78	74

Other revenue was \$168 million in 2010 compared to \$143 million in 2009. The increase in Other revenue was primarily due to an increase in revenue from the PEC, and higher net trading revenue primarily resulting from favourable mark-to-market adjustments.

OM&A expenses of the generation business segments include an inter-segment service fee for the use of certain property, plant and equipment, and intangible assets held within the Other category. The total service fee is recorded as a reduction to the Other category's OM&A expenses. The service fee included in OM&A expenses by segment for the years ended December 31, 2010 and 2009 was as follows:

(millions of dollars)	2010	2009
Regulated – Nuclear Generation	25	27
Regulated – Hydroelectric	2	3
Unregulated – Hydroelectric	3	4
Unregulated – Thermal	8	9
Other	(38)	(43)

Interconnected purchases and sales, including those to be physically settled, and unrealized mark-to-market gains and losses on energy trading contracts, are disclosed on a net basis in the consolidated statements of income. For the year ended December 31, 2010, if disclosed on a gross basis, revenue and power purchases would have increased by \$69 million (December 31, 2009 – \$79 million).

With the exception of the derivative embedded in the Bruce Lease, the changes in the fair value of derivative instruments not qualifying for hedge accounting are recorded in Other revenue, and the fair value of derivative instruments are carried on the consolidated balance sheets as assets or liabilities at fair value. The carrying amounts and notional quantities of the derivative instruments are disclosed in Note 13 in the audited annual consolidated financial statements as at and for the year ended December 31, 2010.

#### NET INTEREST EXPENSE

Net interest expense for 2010 was \$176 million compared to \$185 million for 2009, a decrease of \$9 million. The decrease was primarily due to a reduction in the average interest rate of the debt.

## MANAGEMENT'S DISCUSSION AND ANALYSIS

### INCOME TAXES

Effective 2009, OPG follows the liability method of tax accounting for all its business segments and records an offsetting regulatory asset or liability for the future taxes that are expected to be recovered or refunded through future regulated prices charged to customers for generation by OPG's regulated facilities.

Accordingly, on January 1, 2009, OPG recorded a future income tax liability of \$340 million, which was the cumulative future income tax liability on January 1, 2009 related to differences between the accounting and tax bases of assets and liabilities, measured using the substantively enacted tax rates and laws that will be in effect when the differences are expected to reverse and recorded a corresponding regulatory asset. OPG also recorded an additional future income tax liability and a corresponding regulatory asset of \$126 million for future income taxes resulting from regulatory assets that were recorded due to amendments to CICA Handbook Section 3465, *Income Taxes* ("Section 3465").

Income tax recovery for the year ended December 31, 2010 was \$60 million compared to income tax expense of \$145 million for the year ended December 31, 2009. The decrease in income tax expense was primarily due to a reduction in income tax liabilities as a result of the resolution of a number of tax uncertainties related to the completion of a tax audit for certain prior years, a lower income tax component of the Bruce Lease Net Revenues Variance Accounts and also due to lower income before earnings from the Nuclear Funds in 2010. Earnings in the Nuclear Funds are not taxable until withdrawn.

The OEB's decision in 2008 on OPG's regulated prices established the Income and Other Taxes Variance Account effective April 1, 2008. The account captures variances in the income tax, capital tax, and certain other tax-related expenses for the regulated business from those approved by the OEB in setting regulated prices caused by changes in tax rates or rules under the *Income Tax Act* (Canada) and the *Taxation Act, 2007* (Ontario), as modified by the regulations made under the *Electricity Act, 1998*, as well as variances caused by reassessments. Variances in income tax expense from reassessments of prior taxation years that have an impact on taxes payable for the years after April 1, 2008 are included in the account. In addition, the variance account captures certain changes in property tax expense.

During the year ended December 31, 2010, OPG recorded a regulatory liability of \$19 million in the Income and Other Taxes Variance Account primarily related to the impact of investment tax credits on eligible scientific research and experimental development expenditures, reassessment of certain prior taxation years, and lower than forecast statutory corporate income and capital tax rates. During the year ended December 31, 2009, OPG recorded a regulatory liability of \$21 million in the Income and Other Taxes Variance Account related primarily to the impact of investment tax credits on eligible scientific research and experimental development expenditures.

### Liquidity and Capital Resources

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. These sources are utilized for multiple purposes including: investments in plants and technologies; funding obligations such as contributions to the pension funds and the Used Fuel and Decommissioning Funds; and to service and repay long-term debt.

Changes in cash and cash equivalents for the years ended December 31, 2010 and 2009 are as follows:

(millions of dollars)	2010	2009
Cash and cash equivalents, beginning of year	71	315
Cash flow provided by operating activities	817	299
Cash flow used in investing activities	(945)	(753)
Cash flow provided by financing activities	337	210
Net increase (decrease)	209	(244)
Cash and cash equivalents, end of year	280	71

### OPERATING ACTIVITIES

Cash flow provided by operating activities for 2010 was \$817 million compared to cash flow provided by operating activities of \$299 million in 2009. The increase in cash flow was primarily due to lower fuel purchases, lower tax installments, a decrease in revenue limit rebate payments with the discontinuance of the revenue limit in the second quarter of 2009, and lower contributions to the Nuclear Funds in 2010 when compared to 2009. The increase was partially offset by lower cash receipts as a result of lower generation revenue.

## INVESTING ACTIVITIES

Electricity generation is a capital-intensive business that requires continued investment in plant and technologies to improve operating performance, increase generating capacity of existing stations, invest in new generating stations and to maintain and improve service, reliability, safety and environmental performance.

Investing activities during the year ended December 31, 2010 were \$945 million compared to \$753 million for the year ended December 31, 2009 and primarily consisted of investments in fixed and intangible assets. The increase in capital expenditures for 2010 compared to 2009 was primarily due to higher expenditures for the Lower Mattagami project and the Darlington Refurbishment project, partially offset by lower capital expenditures for the Upper Mattagami and Hound Chute project, other nuclear capital initiatives, and the PEC, which was completed in 2009.

OPG's forecast capital expenditures for 2011 are approximately \$1.2 billion, which includes amounts for hydroelectric development, nuclear refurbishment and other nuclear projects.

### Investment in Asset-Backed Commercial Paper

Pursuant to the terms of a restructuring plan announced by the Pan-Canadian Investors Committee for third-party Asset-Backed Commercial Paper ("ABCP"), OPG's commercial paper was exchanged for longer term notes of approximately \$58 million in January 2009. OPG received five classes of notes, which were supported by margin funding facilities from third-party asset providers, Canadian banks, and governments. OPG replaced existing ABCP notes that had a net book value of \$35 million (\$58 million book value less a provision of \$23 million) with new ABCP notes of \$35 million, which represented the fair value of the new ABCP notes. As at December 31, 2009, the ABCP holdings were valued at \$36 million. During the fourth quarter of 2010, OPG sold its holdings of these notes for \$33 million and recognized a loss of \$3 million for the year.

## FINANCING ACTIVITIES

OPG maintains a \$1 billion revolving committed bank credit facility, which is divided into two tranches – a \$500 million 364-day term tranche, and a \$500 million multi-year term tranche. In April 2010, OPG renewed and extended the maturity date of the 364-day term tranche to May 18, 2011. The multi-year term tranche has a maturity date of May 20, 2013. The total credit facility will continue to be used primarily as credit support for notes issued under OPG's commercial paper program. As at December 31, 2010 and 2009, no commercial paper was outstanding, and OPG had no other outstanding borrowings under the bank credit facility.

In the second quarter of 2008, OPG entered into a \$100 million five-year revolving committed bank credit facility in support of the Upper Mattagami and Hound Chute project. As at December 31, 2010, there were no borrowings under this credit facility. In addition, project financing was completed for the Upper Mattagami and Hound Chute project in May 2009. Senior notes totalling \$200 million were issued by the UMH Energy Partnership. Transaction costs that are directly attributable to the issuance of the senior notes are included in the amortized cost of the notes. The senior notes have an effective interest rate of 7.86 percent and will mature in 2041. These notes are secured by the assets of the Upper Mattagami and Hound Chute project and are recourse to OPG until specified conditions have been satisfied following construction.

During the third quarter of 2010, the Lower Mattagami Energy Limited Partnership established a \$700 million bank credit facility to support the initial construction phase for the Lower Mattagami project and launched a commercial paper program. As at December 31, 2010, \$155 million of commercial paper was issued under this program. Long-term financing arrangements are also being established to support the total requirements of the project.

As at December 31, 2010, OPG maintained \$25 million (December 31, 2009 – \$25 million) of short-term, uncommitted overdraft facilities, and \$319 million (December 31, 2009 – \$275 million) of short-term, uncommitted credit facilities, which support the issuance of the Letters of Credit. OPG uses Letters of Credit to support its supplementary pension plans, and for other purposes. At December 31, 2010, there was a total of \$281 million of Letters of Credit issued (December 31, 2009 – \$231 million), which included \$254 million for the supplementary pension plans (December 31, 2009 – \$210 million), \$20 million for general corporate purposes (December 31, 2009 – \$14 million) and \$7 million related to the construction and operation of the PEC (December 31, 2009 – \$7 million).

Effective January 1, 2009, in accordance with Accounting Guideline 15, *Consolidation of Variable Interest Entities*, the applicable amounts in the accounts of the Nuclear Waste Management Organization ("NWMO") are included in OPG's consolidated financial statements as OPG became the primary beneficiary of the NWMO. As at December 31, 2010, the NWMO has issued a \$2 million Letter of Credit for its supplementary pension plan (December 31, 2009 – \$1 million).

## MANAGEMENT'S DISCUSSION AND ANALYSIS

In October 2003, the Company signed an agreement to sell an undivided co-ownership interest in its current and future accounts receivable to an independent trust. In accordance with the receivable purchase agreement, OPG reduced the securitized receivable balance by \$50 million, from \$300 million to \$250 million in May and June of 2009 primarily due to lower cash flows from the IESO. During the third quarter of 2009, OPG renewed the agreement with a maturity date of August 31, 2010 and an amended commitment of \$250 million. During the third quarter of 2010, OPG renewed the agreement with a maturity date of August 31, 2013 and a commitment of \$250 million.

During the third quarter of 2010, OPG executed an amendment to the Niagara Tunnel project credit facility to increase the credit facility from \$1.0 billion to an amount up to \$1.6 billion. The funding under the credit facility is advanced in the form of 10-year notes, on commercial terms and conditions. Advances under this facility commenced in October 2006 and amounted to \$690 million as at December 31, 2010, which included \$200 million of new borrowing during 2010.

In December 2006, debt financing was negotiated with the OEFC for OPG's interest in the PEC and the Lac Seul project for up to \$400 million and \$50 million, respectively. Advances under these facilities commenced in December 2006 and were completed in 2009. As at December 31, 2010 and 2009, advances under these facilities totalled \$390 million for the PEC and \$50 million for the Lac Seul project.

As at December 31, 2010, OPG's long-term debt outstanding with the OEFC was \$3.9 billion. Although the new borrowings added in 2008, 2009 and 2010 have extended the maturity profile, approximately \$800 million of long-term debt must be repaid or refinanced within the next three years. To ensure that adequate financing resources were available beyond its \$1 billion commercial paper program backed by the revolving committed bank credit facility, OPG reached an agreement with the OEFC in the first quarter of 2010 for a \$970 million credit facility to refinance notes as they mature over the period from January 2010 to December 2010. Refinancing under this agreement totalled \$960 million as at December 31, 2010. No further advances are available under this facility.

### CONTRACTUAL AND COMMERCIAL COMMITMENTS

OPG's contractual obligations and other significant commercial commitments as at December 31, 2010, are as follows:

(millions of dollars)	2011	2012	2013	2014	2015	Thereafter	Total
Contractual obligations:							
Fuel supply agreements	341	201	139	76	73	107	937
Contributions under the ONFA	250	240	157	94	96	662	1,499
Long-term debt repayment	384	412	12	13	515	2,895	4,231
Interest on long-term debt	216	188	173	173	166	721	1,637
Unconditional purchase obligations	22	22	22	22	25	15	128
Operating lease obligations	29	31	32	33	35	–	160
Operating licence	33	38	40	50	50	–	211
Pension contributions <sup>1</sup>	280	–	–	–	–	–	280
Other	48	44	39	93	16	55	295
	1,603	1,176	614	554	976	4,455	9,378
Significant commercial commitments:							
Niagara Tunnel	231	143	44	1	–	–	419
Lower Mattagami	361	434	508	194	182	–	1,679
Total	2,195	1,753	1,166	749	1,158	4,455	11,476

<sup>1</sup> The pension contributions include additional funding requirements towards the deficit and on-going funding requirements in accordance with the actuarial valuations of the OPG registered pension plan as at January 1, 2008, and the NWMO registered pension plan as at January 1, 2010. The contributions are subject to material change as a result of actuarial valuations as at January 1, 2011, which must be filed by September 30, 2011, in the case of the OPG plan and by June 30, 2011, in the case of the NWMO plan. The contributions are affected by various factors including market performance, changes in actuarial assumptions, plan experience, changes in the pension regulatory environment, and the timing of funding valuations. Funding requirements after 2011 are excluded due to significant variability in the assumptions required to project the timing of future cash flows.



## Credit Ratings

Maintaining an investment grade credit rating is essential for corporate liquidity and future capital market access. The cost and availability of financing are influenced by credit ratings, which are an indicator of the creditworthiness of a particular company, security or obligation. Lower ratings generally result in higher borrowing costs as well as reduced access to capital markets.

In November 2010, Standard & Poor's affirmed the long-term credit rating on OPG at A- with a stable outlook. In December 2010, Dominion Bond Rating Service affirmed the long-term credit rating on OPG at A (low) and the commercial paper rating at R-1 (low) with a stable outlook. These ratings reflect OPG's solid financial profile.

As at December 31, 2010, the following are OPG's credit ratings:

	Dominion Bond Rating Service	Standard & Poor's
Long-Term Credit Rating	A (low)	A-
Commercial Paper Rating	R-1 (low)	A-1 (low) <sup>1</sup>

<sup>1</sup> Canada scale

## Balance Sheet Highlights

The following section provides highlights of OPG's audited consolidated financial position using selected balance sheet data as at December 31:

Selected balance sheet data (millions of dollars)	2010	2009
<b>Assets</b>		
Accounts receivable	270	391
Fuel inventory	734	837
Property, plant and equipment – net	13,555	12,836
Nuclear fixed asset removal and nuclear waste management funds	11,246	10,246
Future income taxes	73	51
Regulatory assets	1,559	1,396
<b>Liabilities</b>		
Accounts payable and accrued charges	762	933
Long-term debt (including debt due within one year)	4,228	4,046
Fixed asset removal and nuclear waste management	12,704	11,859
Long-term accounts payable and accrued charges	525	522
Future income taxes	798	633
Regulatory liabilities	248	172

## MANAGEMENT'S DISCUSSION AND ANALYSIS

### ACCOUNTS RECEIVABLE

As at December 31, 2010, accounts receivable were \$270 million compared to \$391 million as at December 31, 2009. The decrease of \$121 million was primarily due to lower electricity generation volumes in December 2010 compared to December 2009 and lower revenue related to a contingency support agreement established with the OEFC.

### FUEL INVENTORY

Fuel inventory as at December 31, 2010 was \$734 million compared to \$837 million for 2009, a decrease of \$103 million. The decrease in fuel inventory was primarily due to higher generation at OPG's coal-fired stations.

### PROPERTY, PLANT AND EQUIPMENT – NET

Net property, plant and equipment as at December 31, 2010 was \$13,555 million compared to \$12,836 million as at December 31, 2009. The increase was primarily due to fixed asset additions, partially offset by depreciation for the year.

### NUCLEAR FIXED ASSET REMOVAL AND NUCLEAR WASTE MANAGEMENT FUNDS

#### Decommissioning Fund

The Decommissioning Fund was established to fund the future costs of nuclear fixed asset removal and long-term low and intermediate level nuclear waste management and a portion of used fuel storage costs after station life. Upon termination of the Ontario Nuclear Funds Agreement ("ONFA"), the Province has a right to any excess funding in the Decommissioning Fund, which is the excess of the fair market value of the Decommissioning Fund assets over the estimated completion costs as per the most recently approved ONFA Reference Plan. When the Decommissioning Fund is overfunded, OPG limits the earnings it recognizes in its consolidated financial statements, through a charge to the Decommissioning Fund with a corresponding payable to the Province, such that the balance of the Decommissioning Fund would equal the cost estimate of the liability based on the most recently approved ONFA Reference Plan. The payable to the Province could be reduced in subsequent periods in the event that the Decommissioning Fund earns less than its target rate of return or in the event that a new ONFA Reference Plan is approved with a higher estimated decommissioning liability. When the Decommissioning Fund is underfunded, the earnings on the Decommissioning Fund reflect actual fund returns based on the market value of the assets.

The Decommissioning Fund's asset value on a fair value basis was \$5,267 million at December 31, 2010 compared to \$4,876 million as at December 31, 2009. The increase in asset value of \$391 million was primarily due to an increase in valuation levels of the global financial markets during the year ended December 31, 2010, partially offset by the reimbursement of expenditures from the Decommissioning Fund during 2010.

#### Used Fuel Fund

Under the ONFA, the Province guarantees OPG's annual return in the Used Fuel Fund at 3.25 percent plus the change in the Ontario CPI for funding related to the first 2.23 million used fuel bundles ("committed return"). OPG recognizes the committed return on the Used Fuel Fund and includes it in the earnings on the nuclear fixed asset removal and nuclear waste management funds. The difference between the committed return on the Used Fuel Fund and the actual market return, based on the fair value of the Used Fuel Fund's assets, which includes realized and unrealized returns, is recorded as due to or due from the Province. The due to or due from the Province represents the amount OPG would pay to or receive from the Province if the committed return were to be settled as of the balance sheet date. As part of its regular contributions to the Used Fuel Fund, OPG was required to allocate \$147 million of its contributions made during the year ended December 31, 2010 towards its liability associated with future fuel bundles that exceed the 2.23 million threshold. As prescribed under the ONFA, earnings on OPG's contributions related to fuel bundles in excess of 2.23 million do not grow at the Province's guaranteed rate of return, but rather earn the return of the Used Fuel Fund based on changes in the market value of the assets.

The asset value as at December 31, 2010 was \$5,979 million, which included a payable to the Province of \$219 million related to the committed return adjustment. As at December 31, 2009, the Used Fuel Fund asset value on a fair value basis was \$5,370 million, including a payable to the Province of \$33 million related to the committed return adjustment. The increase in the value of the Used Fuel Fund assets was primarily due to the committed return and new contributions to the fund.

As required by the terms of the ONFA, the Province provides a Provincial Guarantee to the CNSC on behalf of OPG. The *Nuclear Safety and Control Act* (Canada) requires OPG to have sufficient funds available to discharge the current nuclear decommissioning and waste management liabilities. The Provincial Guarantee provides for any shortfall between the long-term liabilities and the current market value of the Used Fuel Fund and the Decommissioning Fund. In December 2009, the CNSC approved the increase of the Provincial Guarantee to \$1,545 million to be effective in 2010. The value of this guarantee will be in effect through the end of 2012, when the next reference plan for the CNSC is required to be submitted.

#### **REGULATORY ASSETS AND LIABILITIES**

As at December 31, 2010, regulatory assets were \$1,559 million compared to \$1,396 million as at December 31, 2009. The increase in regulatory assets was primarily due to the recording of a regulatory asset of \$197 million for the Tax Loss Variance Account established by the OEB in May 2009, discussed under the heading, *Revenue Mechanisms for Regulated and Unregulated Generation*, and the increase of \$119 million in the regulatory asset related to future income taxes expected to be recovered through future regulated prices charged to customers for generation by OPG's regulated facilities, discussed under the heading, *Income Taxes*.

The increase in regulatory assets was partly offset by amortization expense of \$97 million, resulting from the recovery of regulatory assets through the current regulated prices as approved by the OEB and the decrease in the regulatory asset for the Bruce Lease Net Revenues Variance Account. The Bruce Lease Net Revenues Variance Account balance decreased to \$250 million as at December 31, 2010 from \$328 million as at December 31, 2009. This decrease was primarily due to a variance of \$168 million from forecast earnings on the Nuclear Funds reflected in the current nuclear regulated price related to the Bruce generating stations. This decrease was partially offset by variances in Bruce Lease revenue and variances in accretion and income tax expenses related to Bruce generating stations.

As at December 31, 2010, regulatory liabilities were \$248 million compared to \$172 million as at December 31, 2009. The increase was primarily due to the recording of liabilities in the variance accounts authorized by the OEB in its 2008 decision related to new nuclear development, the Hydroelectric Water Conditions Variance Account and the Income and Other Taxes Variance Account. The increase in regulatory liabilities was partially offset by the decrease in the liability related to the Nuclear Fuel Cost Variance Account.

#### **ACCOUNTS PAYABLE AND ACCRUED CHARGES**

Accounts payable and accrued charges as at December 31, 2010 were \$762 million compared to \$933 million as at December 31, 2009. The decrease of \$171 million was primarily due to a decrease in the payable associated with the Bruce lease as a result of the decline in the Average HOEP below \$30/MWh in 2009, a decrease in project accruals and lower general trade payables.

#### **LONG-TERM DEBT (including debt due within one year)**

Long-term debt as at December 31, 2010 was \$4,228 million compared to \$4,046 million as at December 31, 2009. The increase was due to the issuance of general purpose debt totalling \$1,010 million and the issuance of long-term debt of \$150 million under the Niagara Tunnel Facility, partially offset by a repayment of long-term debt of \$978 million during 2010.

#### **FIXED ASSET REMOVAL AND NUCLEAR WASTE MANAGEMENT**

The liability for fixed asset removal for nuclear and thermal generating stations and nuclear waste management as at December 31, 2010 was \$12,704 million compared to \$11,859 million as at December 31, 2009. The increase was due in part to OPG's decision to commence the definition phase for the refurbishment of the Darlington nuclear generating station, which impacted the assumptions regarding OPG's liabilities for fixed asset removal and nuclear waste management. This resulted in a \$293 million increase in the Nuclear Liabilities on January 1, 2010. In addition, the liability increased during the year ended December 31, 2010 as a result of accretion expense of \$673 million due to the passage of time, partially offset by expenditures of \$181 million on nuclear fixed asset removal and waste management activities.

#### **LONG-TERM ACCOUNTS PAYABLE AND ACCRUED CHARGES**

Long-term accounts payable and accrued charges as at December 31, 2010 were \$525 million compared to \$522 million as at December 31, 2009. The change was primarily due to an increase in the fair value of the derivative liability embedded in the Bruce Lease, an increase in unrealized mark-to-market losses, and an increase in other long-term liabilities, largely offset by a decrease in income tax liabilities as a result of the resolution of a number of tax uncertainties related to the completion of a tax audit for prior years.

#### **FUTURE INCOME TAXES**

Future income taxes as at December 31, 2010 were \$725 million compared to \$582 million as at December 31, 2009. The increase is primarily due to the change in the Nuclear Funds balance.

## MANAGEMENT'S DISCUSSION AND ANALYSIS

### OFF-BALANCE SHEET ARRANGEMENTS

In the normal course of operations, OPG engages in a variety of transactions that, under Canadian GAAP, are either not recorded in the Company's consolidated financial statements or are recorded in the Company's consolidated financial statements using amounts that differ from the full contract amounts. Principal off-balance sheet activities that OPG undertakes include securitization of certain accounts receivable agreements, guarantees, which provide financial or performance assurance to third parties on behalf of certain subsidiaries, and long-term fixed price contracts.

#### Securitization

In October 2003, OPG completed a revolving securitization agreement with an independent trust. The independent trust is not controlled by OPG, nor is OPG the primary beneficiary. As such, the results of the trust are not consolidated. The securitization provides OPG with an opportunity to obtain an alternative source of cost-effective funding. For the years ended December 31, 2010 and 2009, the average all-in cost of funds was 1.5 percent and the pre-tax charges on sales to the trust were \$4 million. The current securitization agreement extends to August 31, 2013 with a commitment of \$250 million. Refer to Note 5 of OPG's 2010 annual audited consolidated financial statements for additional information.

#### Guarantees

As part of normal business, OPG and certain of its subsidiaries and joint ventures enter into various agreements providing financial or performance assurance to third parties on behalf of certain subsidiaries and joint ventures. Such agreements include guarantees, stand-by Letters of Credit and surety bonds.

### Critical Accounting Policies and Estimates

OPG's significant accounting policies, including the impact of future accounting pronouncements, are outlined in Note 3 of OPG's 2010 annual audited consolidated financial statements. Certain of these policies are recognized as critical accounting policies by virtue of the subjective and complex judgments and estimates required around matters that are inherently uncertain and could result in materially different amounts being reported under different conditions or assumptions. The critical accounting policies and estimates that affect OPG's consolidated financial statements, the likelihood that materially different amounts would be reported under varied conditions and estimates, and the impact of changes in certain conditions or assumptions, are highlighted as follows.

### RATE REGULATED ACCOUNTING

The *Ontario Energy Board Act, 1998*, and specifically *Ontario Regulation 53/05*, provides that effective April 1, 2005, OPG receives regulated prices for electricity generated from its baseload hydroelectric facilities and all of the nuclear facilities that it operates. The regulation established regulated prices up to April 1, 2008. Beginning April 1, 2008, OPG's regulated prices for the Prescribed Facilities are determined by the OEB. In 2008, the OEB determined the regulated prices effective April 1, 2008 using a forecast cost of service methodology.

The OEB's decision issued in 2008 on the regulated prices, the OEB's decision issued in May 2009 on OPG's motion to review and vary a portion of the 2008 decision, and the OEB's decision issued in October 2009 on OPG's accounting order application authorized certain variance and deferral accounts, including those authorized pursuant to *Ontario Regulation 53/05*. The OEB's 2008 decision also ruled on the disposition of the balances previously recorded by OPG in variance and deferral accounts as at December 31, 2007 pursuant to *Ontario Regulation 53/05*. As part of the May 2010 application, OPG requested the disposition of variance and deferral account balances as at December 31, 2010 as well as the establishment and continuation of variance and deferral accounts.

The balances in variance and deferral accounts are recognized as regulatory assets and liabilities as Canadian accounting standards recognize that rate regulation can create economic benefits and obligations that are required by the regulator to be obtained from, or settled, with the ratepayers. When a company assesses that there is sufficient assurance that incurred expenses will be recovered in the future, those expenses may be deferred and reported as a regulatory asset. When a regulator provides recovery through current rates for expenses that are not incurred then a regulatory liability is reported. The measurement of regulatory assets and liabilities is subject to certain estimates and assumptions, including assumptions made in the interpretation of the regulation and the OEB's decisions. These estimates and assumptions are reviewed as part of the OEB's regulatory process.

Regulatory asset and liability balances approved by the regulator for inclusion in regulated prices are amortized based on approved recovery periods. Disallowed balances, including associated interest, are charged to operations in the period that the regulator's decision is issued.

OPG applies interest to its regulatory balances as prescribed by the OEB, in order to recognize the cost of financing amounts that are to be recovered from, or to be repaid to ratepayers. The interest rate prescribed by the OEB fluctuated in the range of 0.55 percent to 1.20 percent per annum during the year ended December 31, 2010. The interest rate fluctuated in the range of 0.55 percent to 2.45 percent per annum during the year ended December 31, 2009. OPG deferred net interest expense of \$5 million in 2010 (2009 – \$8 million).

Certain assets and liabilities arising from rate regulation have specific guidance under a primary source of Canadian GAAP that applies only to the particular circumstances described therein, including those arising under Handbook Section 1600, *Consolidated Financial Statements*, Handbook Section 3061, *Property, Plant and Equipment*, Section 3465, and Handbook Section 3475, *Disposal of Long-Lived Assets and Discontinued Operations*. Other assets and liabilities arising from rate regulation do not have specific guidance under a primary source of GAAP. Therefore, Handbook Section 1100, *Generally Accepted Accounting Principles* (“Section 1100”), directs the Company to adopt accounting policies that are developed through the exercise of professional judgment and the application of concepts described in Handbook Section 1000, *Financial Statement Concepts*. In developing these accounting policies, the Company may consult other sources including pronouncements issued by bodies authorized to issue accounting standards in other jurisdictions. Therefore, in accordance with Section 1100, the Company has determined that these assets and liabilities qualify for recognition under Canadian GAAP and this recognition is consistent with the Financial Accounting Standards Board Accounting Standards Codification Topic 980, *Accounting for the Effects of Certain Types of Regulation* (formerly Financial Accounting Standards No. 71).

### INCOME TAXES

OPG is exempt from tax under the *Income Tax Act* (Canada). However, under the *Electricity Act, 1998*, OPG is required to make payments in lieu 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), as modified by regulations made under the *Electricity Act, 1998*.

OPG’s operations are complex and the computation of the provision for income taxes involves interpretation of the various tax statutes and regulations. The *Income Tax Act* (Canada) and the *Taxation Act, 2007* (Ontario) have

a large body of technical interpretations and case law to help determine the Company’s filing position. However, the *Electricity Act, 1998* and tax related regulations are relatively new and therefore it has been necessary for OPG, since its inception, to take certain filing positions in calculating the amount of its income tax provision. These filing positions may be challenged on audit and some of them possibly disallowed, resulting in a potential significant change in OPG’s tax provision upon reassessment.

Future income tax assets of \$3,976 million (2009 – \$3,636 million) have been recorded on the consolidated balance sheet at December 31, 2010. The Company believes there will be sufficient future taxable income and capital gains that will permit the use of these deductions and carry-forwards.

Future tax liabilities of \$4,701 million (2009 – \$4,218 million) have been recorded on the consolidated balance sheet as at December 31, 2010.

### FIXED ASSETS

Property, plant and equipment are tested for recoverability whenever events or changes in circumstances indicate that the carrying amounts may not be recoverable. Recoverability of property, plant and equipment is determined by comparing the carrying amount of an asset to the undiscounted future net cash flows expected to be generated from the asset over its estimated useful life. In cases where the undiscounted expected future cash flows are less than the carrying amounts, an impairment loss is recognized equal to the amount by which the carrying amount exceeds the fair value, or discounted cash flows.

Various assumptions and accounting estimates are required to determine whether an impairment loss should be recognized and, if so, the value of such loss. This includes factors such as short-term and long-term forecasts of the future market price of electricity, the demand for and supply of electricity, the in-service dates of new and laid-up generating stations, inflation, fuel prices, capital expenditures and station lives. The amount of the future net cash flow that OPG expects to receive from its fixed assets could differ materially from the net book values recorded in OPG’s consolidated financial statements.

The accounting estimates related to asset depreciation require significant management judgment to assess the appropriate useful lives of OPG’s long-lived assets, including consideration of various technological and other factors.

## MANAGEMENT'S DISCUSSION AND ANALYSIS

### PENSION AND OTHER POST EMPLOYMENT BENEFITS

OPG's accounting for pension and OPEB is dependent on management's accounting policies and assumptions used in calculating such amounts.

#### Accounting Policy

In accordance with Canadian GAAP, actual results that differ from the assumptions used, as well as adjustments resulting from changes in assumptions, are accumulated and amortized over future periods and therefore generally affect the recognized expense and the recorded obligation in future periods.

Under OPG's policy on accounting for pension and OPEB, certain actuarial gains and losses have not been charged to expense and are therefore not reflected in OPG's pension and OPEB accrued benefit asset and liability as a result of the following:

- Pension fund assets are valued using market-related values for purposes of determining actuarial gains or losses and the expected return on plan assets. The market-related value recognizes gains and losses on equity assets relative to a six percent assumed real return over a five-year period.
- For pension and OPEB, the excess of the net cumulative unamortized gain or loss, over ten percent of the greater of the benefit obligation and the market-related value of the plan assets (the "corridor"), is amortized over the expected average remaining service life.

In addition, past service costs arising from any pension and OPEB amendments are amortized over future periods and therefore affect recognized expense and the recorded obligation in future periods.

As at December 31, 2010, the unamortized net actuarial loss and unamortized past service costs for the pension plans and OPEB amounted to \$2,958 million (2009 – \$1,595 million).

Details of the unamortized net actuarial loss and total unamortized past service costs at December 31, 2010 and 2009 are as follows:

(millions of dollars)	Registered Pension Plans		Supplementary Pension Plans		Other Post Employment Benefits	
	2010	2009	2010	2009	2010	2009
Net actuarial loss not yet subject to amortization due to use of market-related values	566	932	–	–	–	–
Net actuarial loss not subject to amortization due to use of corridor	1,038	433	22	18	234	157
Net actuarial loss subject to amortization	789	–	29	7	253	–
Unamortized net actuarial loss	2,393	1,365	51	25	487	157
Unamortized past service costs	10	28	–	1	17	19

### Accounting Assumptions

Assumptions are significant inputs to actuarial models that measure pension and OPEB obligations and related effects on operations. Two critical assumptions, discount rate and inflation, are important elements of benefit costs and obligations. In addition, the expected return on assets is a critical assumption in the determination of pension costs. These assumptions, as well as other assumptions involving demographic factors such as retirement age, mortality and employee turnover, are all evaluated periodically by management in consultation with an independent actuary. During the evaluation process, the assumptions are updated to reflect actual experience and expectations for the future. Actual results in any given year will often differ from actuarial assumptions because of economic and other factors, and in accordance with Canadian GAAP, the impact of these differences is accumulated and amortized over future periods.

The discount rates used by OPG in determining projected benefit obligations and the costs for the Company's employee benefit plans are based on representative AA corporate bond yields. The respective discount rates enable OPG to calculate the present value of the expected future cash flows on the measurement date. A lower discount rate increases the present value of benefit obligations and increases benefit plan costs. The expected rate of return on plan assets is based on

current and expected asset allocation, as well as the long-term historical risks and returns associated with each asset class within the plan portfolio. A lower expected rate of return on plan assets increases pension cost.

The discount rate used to determine the projected pension benefit obligation as at December 31, 2010 of 5.8 percent represents a significant decrease compared to the 6.8 percent discount rate that was used to determine the obligation as at December 31, 2009. The deficit for the registered pension plans increased from \$394 million as at December 31, 2009 to \$1,257 million as at December 31, 2010 primarily as a result of the decrease in the discount rate. The impact of the gain of \$337 million on the pension fund assets during 2010 was more than offset by the impact of the lower discount rate.

The discount rate used to determine the OPEB obligation as at December 31, 2010 of 5.67 percent decreased significantly compared to the 6.69 percent discount rate that was used to determine the obligation as at December 31, 2009. The projected benefit obligation increased from \$1,910 million at December 31, 2009 to \$2,341 million as at December 31, 2010 primarily as a result of the decrease in the discount rate.

A change in assumptions, holding all other assumptions constant, would increase (decrease) 2010 costs, excluding amortization components, as follows:

(millions of dollars)	Registered Pension Plans	Supplementary Pension Plans	Other Post Employment Benefits
Expected long-term rate of return			
0.25% increase	(22)	na	na
0.25% decrease	22	na	na
Discount rate			
0.25% increase	(12)	–	(3)
0.25% decrease	12	–	3
Inflation			
0.25% increase	35	–	–
0.25% decrease	(33)	–	–
Salary increases			
0.25% increase	9	2	–
0.25% decrease	(9)	(1)	–
Health care cost trend rate			
1% increase	na	na	30
1% decrease	na	na	(23)

na – change in assumption not applicable

## MANAGEMENT'S DISCUSSION AND ANALYSIS

### ASSET RETIREMENT OBLIGATIONS

As at December 31, 2010, OPG's asset retirement obligation was \$12,704 million (2009 – \$11,859 million). OPG's asset retirement obligation consists of fixed asset removal and nuclear waste management liabilities and is comprised of expected costs to be incurred up to and beyond termination of operations and the closure of nuclear, thermal generating plant facilities and other facilities. The liabilities associated with decommissioning the nuclear generating stations and long-term used nuclear fuel management comprise the most significant amounts of the total obligation. Costs will be incurred for activities such as dismantling, demolition and disposal of facilities and equipment, remediation and restoration of sites and the on-going and long-term management of nuclear used fuel and low and intermediate level waste material.

Nuclear station decommissioning consists of original placement of stations into a safe store condition followed by a nominal 30-year store period prior to station dismantling. Under the terms of the lease agreement with Bruce Power, OPG continues to be responsible for the nuclear fixed asset removal and nuclear waste management liabilities associated with the Bruce nuclear generating stations.

The following costs are recognized as a liability:

- The present value of the costs of dismantling the nuclear and thermal production facilities and other facilities at the end of their useful lives;
- The present value of the fixed cost portion of nuclear waste management programs that are required based on the total volume of waste expected to be generated over the assumed life of the stations; and
- The present value of the variable cost portion of nuclear waste management programs taking into account actual waste volumes generated to date.

The significant assumptions underlying operational and technical factors used in the calculation of the accrued liabilities are subject to periodic review. Changes to these assumptions, including changes to assumptions on the timing of the programs, financial indicators or the technology employed may result in significant changes to the value of the accrued liabilities. With programs of this duration and the evolving technology to handle the nuclear waste, there is a significant degree of uncertainty surrounding the measurement accuracy of the costs for these programs,

which may increase or decrease over time. The estimates of the Nuclear Liabilities are reviewed on an annual basis as part of the on-going, overall nuclear waste management program. Changes in the Nuclear Liabilities resulting from changes in assumptions or estimates that impact the amount of the originally estimated undiscounted cash flows are recorded as an adjustment to the liabilities, with a corresponding change in the related asset retirement costs capitalized as part of the carrying amount of fixed assets.

The most recent update of the estimates for the nuclear used fuel management and nuclear decommissioning and low and intermediate level waste management liabilities was performed as at December 31, 2006. The next update to the nuclear fixed asset removal and nuclear waste management obligation is being conducted throughout 2011 and will form the basis of the nuclear asset retirement obligation for December 31, 2011.

For the purposes of calculating OPG's fixed asset removal and nuclear waste management liabilities, as at December 31, 2010, consistent with the current accounting end of life assumptions, nuclear and thermal closures are projected to occur over the next four to 43 years. Accounting end of life dates may change as decisions on life extensions are made. The 2006 Approved Reference Plan includes cash flow estimates for decommissioning nuclear stations for approximately 40 years after station shutdown and to 2065 for placement of used fuel into the long-term disposal repository followed by extended monitoring.

The liability for non-nuclear fixed asset removal is based on third-party cost estimates after a review of plant sites and an assessment of required clean-up and restoration activities. This liability represents the estimated costs of decommissioning thermal generating stations and other facilities at the end of their service lives. As at December 31, 2010, the end of life date of the operating thermal stations is between 2014 and 2033.

OPG has no legal obligation associated with the decommissioning of its hydroelectric generating facilities and the costs cannot be reasonably estimated because of the long service life of these assets. With either maintenance efforts or rebuilding, the water control structures are assumed to be used for the foreseeable future. Accordingly, OPG has not recognized a liability for the decommissioning of its hydroelectric generating facilities.



The liability for the nuclear fixed asset removal and nuclear waste management on a present value basis as at December 31, 2010, was \$12,547 million. The undiscounted cash flows related to expenditures for OPG's nuclear fixed asset removal and nuclear waste management liabilities in 2010 dollars as at December 31, 2010 over the next five years and thereafter are as follows:

(millions of dollars)	2011	2012	2013	2014	2015	Thereafter	Total
Expenditures for nuclear fixed asset removal and nuclear waste management <sup>1</sup>	202	191	427	305	325	25,734	27,184

<sup>1</sup> Most of the above expenditures are expected to be reimbursed by OPG's Nuclear Funds as established by the ONFA. The contributions required under the ONFA are not included in these undiscounted cash flows but are reflected in the table under the heading, *Contractual and Commercial Commitments*.

OPG sets aside and invests funds held in segregated custodian and trustee accounts specifically for discharging its nuclear fixed asset removal and nuclear waste management liabilities. In accordance with the ONFA between OPG and the Province, OPG established a Used Fuel Fund and a Decommissioning Fund. OPG jointly oversees the investment management of the Nuclear Funds with the Province. The assets of the Nuclear Funds are maintained in third-party custodian accounts that are segregated from the rest of OPG's assets. As at December 31, 2010, the Nuclear Funds were \$11,246 million.

The liability for the non-nuclear fixed asset removal was \$157 million which primarily related to OPG's thermal operations. The thermal expenditures related to this liability are expected to occur subsequent to the station end of life dates for accounting purposes of between 2014 and 2033.

#### **ENVIRONMENTAL LIABILITIES**

Current operations are subject to regulation with respect to emissions to air, water, and land as well as other environmental matters by federal, provincial, and local authorities. Environmental liabilities are recorded when it is considered likely that a liability has been incurred and the amount of the liability can be reasonably estimated at the date of the financial statements. The cost of obligations associated with current operations is provided for on an on-going basis. Management believes it has made adequate provision in its consolidated financial statements to meet certain other environmental obligations. As at December 31, 2010, OPG has recorded a provision for environmental obligations of \$39 million (2009 – \$40 million), the primary component of which is the land remediation program.

#### **FINANCIAL INSTRUMENTS MEASURED AT FAIR VALUE**

Financial assets and liabilities, including exchange traded derivatives, and other financial instruments measured at fair value and for which quoted prices in an active market are available, are determined directly from those quoted market prices.

For financial instruments which do not have quoted market prices directly available, fair values are estimated using forward price curves developed from observable market prices or rates which may include the use of valuation techniques or models, based wherever possible on assumptions supported by observable market prices or rates prevailing at the consolidated balance sheet dates. This is the case for over-the-counter derivatives, which includes energy commodity derivatives, foreign exchange derivatives, and interest rate swap derivatives. Valuation models use general assumptions and market data and therefore do not reflect the specific risks and other factors that would affect a particular instrument's fair value. The methodologies used for calculating the fair value adjustments are reviewed on an on-going basis to ensure that they remain appropriate. If the valuation technique or model is not based on observable market data, specific valuation techniques are used primarily based on recent comparable transactions, comparable benchmark information, bid/ask spread of similar transactions, and other relevant factors.

OPG's use of financial instruments exposes the Company to various risks, including credit risk, commodity price risk, and foreign currency and interest rate risk. A discussion of how OPG manages these and other risks is in the *Risk Management* section.

## MANAGEMENT'S DISCUSSION AND ANALYSIS

### CHANGES IN ACCOUNTING ESTIMATES

#### Depreciation of Long-Lived Assets

The accounting estimates related to the depreciation of long-lived assets require significant management judgment to assess the appropriate useful lives of OPG's long-lived assets, including consideration of various technological and other factors.

Effective January 1, 2009, the service life of thermal stations, for the purpose of calculating depreciation, was extended by two years to 2014 based on the Province of Ontario's announcement to phase out coal generation by 2014. The life extension reduced depreciation expense by \$31 million annually. Subsequently, 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. As a result of the unit closures, effective September 2009, OPG revised the end of life for these units to October 2010 from December 2014. This change in estimate was accounted for on a prospective basis and increased depreciation expense by \$29 million in 2010 and \$11 million in 2009.

#### Restructuring

As a result of the decision to close two coal-fired units at each of the Lambton and Nanticoke generating stations, OPG has notified key stakeholders, including The Society and the PWU, of the decision in accordance with their respective collective bargaining agreements. The restructuring expense was \$27 million as of December 31, 2010.

#### Liabilities for Fixed Assets Removal and Nuclear Waste Management, and Depreciation Expense

In February 2010, OPG announced its decision to commence the definition phase of the refurbishment of the Darlington nuclear generating station. Accordingly, the service life of the Darlington nuclear generating station, for the purposes of calculating depreciation, was extended to 2051. The approval and the extension of service life also impacted the assumptions for OPG's liabilities for fixed asset removal and nuclear waste management primarily due to cost increases related to additional used fuel bundles, partially offset by a decrease in the liability for decommissioning, resulting from the change in the service life assumptions. The net increase in the liabilities was \$293 million using a discount rate of 4.8 percent. The increase in liabilities was reflected with a corresponding increase in the fixed asset balance in the first quarter of 2010. As a result of these changes, OPG's depreciation expense decreased by \$135 million on an annual basis beginning in 2010.

### Conversion to International Financial Reporting Standards

#### INTRODUCTION TO CONVERSION PROJECT

In February 2008, the Canadian Accounting Standards Board confirmed that Publicly Accountable Enterprises will be required to transition from Canadian GAAP to IFRS for interim and annual financial reporting purposes for fiscal years beginning on or after January 1, 2011. As a result of recent changes to Part I of the CICA Handbook – *Accounting*, by the Canadian Accounting Standards Board ("AcSB"), certain rate-regulated entities can defer the adoption of IFRS by one year to January 1, 2012. OPG meets the AcSB criteria for the deferral, and has chosen to adopt IFRS effective January 1, 2012. The objective of IFRS is to improve financial reporting by having one set of international accounting standards.

In May 2008, the Canadian Securities Administrators issued Staff Notice 52-320, which provides guidance on the disclosure of changes in expected accounting policies related to the changeover to IFRS. In accordance with the notice, OPG is required to provide an update of the Company's IFRS conversion plan in each financial reporting period prior to conversion on January 1, 2012.

OPG commenced its IFRS conversion project in 2007 and has established a formal project governance structure. This structure includes a steering committee consisting of senior levels of management from finance, representatives from all business units, and information technology. The steering committee monitors the progress and critical decisions of conversion. There is regular reporting to executive management and to the Audit and Finance Committee of the Board of Directors. OPG has also engaged an external expert advisor.

OPG's IFRS conversion project progressed during 2010, including regular communications to executive management, finance employees and other stakeholders, and the Audit and Finance Committee of the Board of Directors.

The following table provides certain elements of the changeover plan and an assessment of the progress OPG has achieved as at December 31, 2010. OPG is currently addressing the impact that a one-year delay in adopting IFRS is having on OPG's conversion project.

	Selected Key Activities	Milestones/Deadlines	Progress to Date
<b>Financial statement preparations</b>	<p>Identify relevant differences between IFRS and current accounting policies and practices and design and implement solutions</p> <p>Evaluate and select one-time and on-going accounting policy alternatives</p> <p>Benchmark findings with peer companies</p> <p>Prepare illustrative financial statements and related note disclosures to comply with IFRS</p> <p>Quantify the effects of changeover to IFRS</p>	<p>Assessment and quantification of the significant effects of the changeover completed by approximately the third quarter of 2011</p> <p>OPG has elected to defer its adoption of IFRS by one year and expects to assess and quantify the significant effects of the changeover by approximately the third quarter of 2011</p> <p>Final selection of accounting policy alternatives by the changeover date</p>	<p>While OPG was prepared for a January 1, 2011 changeover to IFRS, it is now addressing the impact that a one-year delay is having on the project, including the impact on the following:</p> <ul style="list-style-type: none"> <li>• The 2011 transitional opening balance sheet;</li> <li>• Accounting policy decisions given on-going work by the IASB; and</li> <li>• IFRS 1, <i>First-time adoption of IFRS</i> elections.</li> </ul> <p>OPG continues to analyze the current IFRS guidance in order to determine the impact on its accounting for assets and liabilities resulting from rate regulation</p>
<b>Training and communications</b>	<p>Provide training to affected employees of operating units, management and the Board of Directors and relevant committees thereof, including the Audit and Finance Committee</p> <p>Engage subject matter experts to assist in the transition</p> <p>Communicate progress of changeover plan to internal and external stakeholders</p>	<p>Provide timely training in line with changeover milestones. Target to complete training by mid-2011</p> <p>Communicate effects of changeover by the fourth quarter of 2011</p>	<p>Completed detailed training for resources directly engaged in the changeover and general awareness training to broader group of finance employees</p> <p>Completed specific and relevant training to 150 finance employees</p> <p>Continued on-going, periodic internal and external communications about OPG's progress</p> <p>Continued use of third-party subject matter experts to assist in the transition</p>
<b>IT systems</b>	<p>Identify and address IFRS differences that require changes to financial systems</p> <p>Evaluate and select methods in 2011 to address need for dual record-keeping (i.e., IFRS and Canadian GAAP) for comparatives in 2011 and budget and planning purposes in 2012</p>	<p>Changes to significant systems and dual record-keeping process completed for the first quarter of 2010</p> <p>Remaining changes to systems post-dual record-keeping year by the fourth quarter of 2011</p>	<p>Systems changes complete to the extent possible. Further changes to information systems are largely dependent upon future changes to the IFRS standards such as the accounting for rate-regulated activities.</p> <p>Processes and systems are in place to accumulate IFRS data to enable reporting of 2011 comparative information in 2012</p>
<b>Contractual arrangements and compensation</b>	<p>Identify impact of changeover on contractual arrangements, including financial covenants and employee compensation plans</p> <p>Make any required changes to arrangements and plans</p>	<p>Changes completed by the third quarter of 2010</p>	<p>IFRS differences with potential impacts on financial covenants and compensation plans were identified and discussed with both internal and external parties as required</p> <p>The impact of a one-year delay will be reviewed and addressed accordingly</p>
<b>Internal controls: Internal controls over financial reporting ("ICOFR"), disclosure controls and procedures ("DC&amp;P") and related communications</b>	<p>Revise existing internal control processes and procedures to address significant changes to existing accounting policies and practices, including the need for dual record-keeping during 2011, and changes to financial systems</p> <p>Design and implement internal controls with respect to one-time changeover adjustments and related communications. For changes to accounting policies and practices identified, assess the DC&amp;P and ICOFR design and effectiveness implications</p>	<p>Conduct management evaluation of new or revised controls throughout 2010 and 2011</p> <p>Changes will be mapped and tested to ensure that no material deficiencies exist as a result of OPG's conversion to the IFRS accounting standards</p>	<p>During the fourth quarter, an evaluation of OPG's readiness to transition to and report under IFRS positively concluded the project controls are adequate to support the completion of tasks to adopt IFRS</p> <p>IFRS compliant accounting policies and procedures continue to be developed</p> <p>The impact on controls continues to be evaluated</p> <p>IFRS opening balance sheet adjustment controls are being evaluated and will be applied to the January 1, 2011 opening transition balance sheet</p>

## MANAGEMENT'S DISCUSSION AND ANALYSIS

### Accounting Policy Decisions and Anticipated Impacts

As a result of the one year deferral, OPG's transition year will now be 2011. During the fourth quarter of 2010, OPG continued work on an IFRS compliant opening transition balance sheet for January 1, 2011. This included determining if assets and liabilities resulting from rate regulation can be recognized under current IFRS accounting guidance. OPG's analysis is not yet complete and will continue into 2011.

During the fourth quarter of 2010, OPG continued to evaluate its accounting policy options under IFRS. OPG will collect data during 2011, which will be used to report 2011 comparative information in its 2012 IFRS interim and annual financial statements. OPG continues to expect the following areas to be most impacted by its conversion to IFRS: Property, Plant and Equipment; Fixed Asset Removal and Nuclear Waste Management Liabilities; Accounts Receivable; Short-term Notes Payable; Employee Benefits; Impairment of Assets; Joint Ventures; and Regulatory Assets and Liabilities.

The following discussion provides further information about the Company's choices upon transition to IFRS. At this time, OPG has not concluded on all of its accounting policy choices upon transition to IFRS, and is waiting for the IASB to finalize various accounting standards. Since the IASB continues to issue new accounting standards, the final accounting policy decisions of OPG will only be determined once all applicable standards are known upon the January 1, 2012, conversion date. Differences between IFRS and Canadian GAAP, in addition to those referred to below, may still be identified based on further analysis.

### IFRS 1, First-Time Adoption of International Financial Reporting Standards ("IFRS 1")

IFRS 1 provides the framework for the first-time adoption of IFRS and specifies that, in general, an entity shall apply the principles under IFRS retrospectively. IFRS 1 also specifies that the adjustments that arise on retrospective conversion to IFRS from other GAAP should be recognized directly in the opening retained earnings. Certain optional exemptions and mandatory exceptions to this retrospective application are provided for under IFRS 1.

While preliminary decisions have been made by OPG with respect to the elective exemptions available upon transition, final decisions cannot be made at this time pending further certainty as to final IFRS standards and recognition, under current IFRS guidance, of assets and liabilities arising from rate-regulated activities.

### Property, Plant and Equipment

Upon adoption of IFRS, an entity has the elective option to reset the cost of its property, plant and equipment based on fair value in accordance with the provisions of IFRS 1, and to use either the cost model or the revaluation model to measure its property, plant and equipment subsequent to transition. The IASB revised IFRS 1 such that an entity with operations subject to rate regulation could elect to use the carrying amount of items of property, plant and equipment held, or previously held, for use in such operations as their deemed cost at the date of transition to IFRS. OPG currently intends to apply this exemption.

### Business Combinations

Under IFRS 3, *Business Combinations* ("IFRS 3"), business combinations must be accounted for by applying the acquisition method. One of the parties to a business combination is to be identified as the acquirer, which is the entity that obtains control of the other business. In a business combination where OPG is the acquirer, OPG will recognize, separately from goodwill, the identifiable assets acquired, the liabilities assumed, and any non-controlling interest in the acquiree.

Under IFRS 1, an entity has the option to retroactively apply IFRS 3 to all business combinations or may elect to apply the standard prospectively only to those business combinations that occur after the date of transition. OPG currently intends to exercise the elective exemption under IFRS 1, for all business combinations, including the reorganization of Ontario Hydro which resulted in the incorporation of OPG in 1999, which removes the requirement to retrospectively restate all business combinations prior to the date of transition to IFRS.

### Accounts Receivable and Short-term Notes Payable

OPG has an agreement to sell an undivided co-ownership interest in its current and future accounts receivables to an independent trust. Under Canadian GAAP, OPG de-recognizes \$250 million of accounts receivable. OPG has determined that the agreement does not meet the de-recognition criteria under IFRS. The estimated amount of \$250 million is expected to be recognized in the accounts receivable balance, with a corresponding recognition of an associated payable upon adoption of IFRS.

### Property, Plant and Equipment and Fixed Asset Removal and Nuclear Waste Management Liabilities

The cost of an item of property, plant and equipment under both Canadian GAAP and IAS 16, *Property, Plant and Equipment* ("IAS 16"), includes the cost of dismantling and removing a piece of property, plant and equipment, and restoring the site on which it is located. However,

OPG has determined that certain costs recognized as part of its estimated fixed asset removal and nuclear waste management liability under Canadian GAAP cannot be recognized upon transition to IFRS. Accordingly, OPG expects a significant downward adjustment to its fixed asset removal and nuclear waste management liability, and a corresponding downward adjustment to the carrying value of its property, plant and equipment. Opening retained earnings will also be impacted. OPG is in the process of estimating the costs that will be de-recognized and is determining the expected adjustment. Refer to Notes 6 and 10 of OPG's 2010 annual audited consolidated financial statements for additional information on property, plant and equipment and fixed asset removal and nuclear waste management liabilities.

After adjusting property, plant and equipment for the adjustment to the nuclear waste management liability, OPG would apply the IFRS 1 exemption and carry its property, plant and equipment at an adjusted historical cost less an adjusted accumulated depreciation upon adoption of IFRS.

#### **Employee Benefits**

OPG values pension fund assets using market-related values for purposes of determining actuarial gains or losses and the expected return on plan assets. The market-related value recognizes gains and losses on equity assets relative to a six percent assumed real return over a five-year period. OPG currently amortizes past service costs over the expected average remaining service life to full eligibility of the employees covered by the plan. IAS 19, *Employee Benefits* ("IAS 19") does not permit the use of market-related values to value pension fund assets, and requires vested past service costs to be expensed immediately, and unvested past service costs to be expensed on a straight-line basis until the benefits become vested. Further, actuarial gains or losses for long-term disability benefits cannot be amortized under IAS 19.

As a result of these differences between Canadian GAAP and IFRS, OPG expects to reduce its deferred pension asset and increase its liability for OPEB upon adoption of IFRS. Opening retained earnings will also be impacted.

#### **Impairment of Assets**

IAS 36, *Impairment of Assets* ("IAS 36") uses a one-step approach for testing and measuring asset impairments, with asset carrying values being compared to the higher of (i) value in use and (ii) fair value less costs to sell. Value in use is defined as being equal to the present value of future cash flows expected to be derived from the asset in its current

state. In the absence of an active market, fair value less costs to sell may also be determined using discounted cash flows. The use of discounted cash flows under IFRS to test and measure asset impairment differs from Canadian GAAP where undiscounted future cash flows are used to compare against the asset's carrying value to determine if impairment exists. This may result in more frequent write-downs in the carrying value of assets under IFRS since asset carrying values that were previously supported under Canadian GAAP based on undiscounted cash flows may not be supported on a discounted cash flow basis under IFRS. In addition, under IAS 36, previous impairment losses may be reversed where circumstances change such that the impairment has reduced. This also differs from Canadian GAAP, which prohibits the reversal of previously recognized impairment losses.

Upon adoption of IFRS, entities are required to undertake impairment analyses of various assets and cash-generating units. During the fourth quarter, OPG initiated the required analyses. Given that there are no indications of any impairment of assets or cash-generating units, OPG expects the assessments will not result in any material amounts by which the carrying amount of an asset or a cash-generating unit exceeds its recoverable amount.

#### **On-going Monitoring of IASB Projects**

In September 2010, the IASB decided to defer its work on its rate-regulated activities accounting project and seek public input as to its future agenda regarding its work on this project. Accordingly, OPG continues to analyze the current IFRS guidance in order to determine the impact on its accounting for assets and liabilities resulting from rate regulation, as described in Notes 3 and 7 of its December 31, 2010 year-end consolidated financial statements.

In addition, the IASB has a number of on-going projects on its agenda which may result in changes to existing IFRS prior to OPG's conversion on January 1, 2012. OPG continues to monitor these projects and the impact that any resulting IFRS changes may have on its anticipated accounting policies, financial position or results of operations. OPG will be required to prepare its financial statements in compliance with each IFRS effective at the end of its first reporting period, which is March 31, 2012. Should there be IFRS changes between March 31, 2012 and December 31, 2012, OPG will be required to reflect such changes in its December 31, 2012 financial statements and all comparative information.

## MANAGEMENT'S DISCUSSION AND ANALYSIS

### Risk Management

#### OVERVIEW

OPG faces various risks that could significantly impact the achievement of its strategic, operational, financial, environmental, and health and safety goals. The aim of risk management is to identify and mitigate these risks and preserve the value of ratepayers' investment in OPG's assets.

#### RISK GOVERNANCE STRUCTURE

OPG's Board of Directors implemented a revised committee structure during the second quarter of 2010. The changes include the establishment of a Risk Oversight Committee ("ROC") of the Board of Directors with the specific accountability for providing oversight with respect to the identification and management of the Company's key business risks. An Executive Risk Committee, which is comprised of the business unit leaders, the Chief Financial Officer ("CFO") and the Chief Risk Officer ("CRO"), assists the ROC in fulfilling its governance and oversight responsibilities related to OPG's risk management activities.

#### RISK MANAGEMENT ACTIVITIES

OPG faces a wide array of risks as a result of its business operations. The enterprise risk management framework is designed to identify and evaluate risks or threats on the basis of their potential impact on the Company's capacity to achieve specific business plan objectives.

Risk management reporting activities are coordinated by a centralized Corporate Risk Management group led by the CRO. Business units identify risks that could prevent achievement of their business plan objectives. OPG's senior executives identify broader strategic risks, then prioritize the tactical and strategic risks to determine the top risks to the Company. Senior management sets risk limits for the financing, procurement and trading activities of the Company and ensures that effective risk management policies and processes are in place to ensure compliance with such limits in order to maintain an appropriate balance between risk and return. OPG's risk management process aims to continually evaluate the effectiveness of risk mitigation activities for identified key risks. The findings from this evaluation process are reported quarterly to the ROC.

For the purpose of disclosure, a number of key risks are presented in five main categories namely, operational, financial, regulatory, enterprise-wide, and environmental. For each category, risks are briefly described.

### OPERATIONAL RISKS

#### Risks Associated with Existing Generating Operations

*OPG is exposed to uncertain output from its existing generating stations that could adversely impact its operating performance.*

Operational risks are those risks normally inherent in the operation of electricity generating facilities. These risks can lead to interruptions in the operations of generating stations or uncertainty in future production. Risks to OPG's diverse fleet of nuclear, hydroelectric and thermal generating stations are a function of the age of the stations and the technology used.

#### Nuclear Generating Stations

*Operating an aging nuclear fleet exposes OPG to unique risks such as unplanned outages, an increase in cost of operations and risks associated with nuclear waste management operations.*

The uncertainty associated with generation at OPG's nuclear stations is primarily caused by the condition of the station components and systems, which are all subject to the effects of aging. In particular, certain critical station components are reaching the end of their useful service lives. To respond to this challenge, OPG has continued to implement extensive inspection and maintenance programs to monitor performance and identify corrective actions required to operate reliably, and within design parameters.

Deterioration of station components may progress in an unexpected manner, resulting in the need to increase monitoring, conduct extensive repairs, or undertake additional remedial measures. To maintain a safe operating margin, a nuclear unit could be derated. When an unexpected condition first appears, a specific monitoring program is established. The primary impact of these conditions on OPG is an increase in the long-term cost of operations. The associated mitigation may create additional outage work, thus increasing the number of outages or extending planned outages.

The process of generating electricity by nuclear generating stations also produces nuclear waste. OPG is accountable for the management of used fuel, low and intermediate level waste and decommissioning of all its nuclear facilities, as required by the CNSC, including the stations on lease to Bruce Power. 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 phase 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 DGR 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 DGR 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. Other factors impacting the residual risk around nuclear waste management operations include human performance and regulatory requirements.

### **Pickering B Continued Operations**

In February 2010, OPG announced its plans to continue the safe and reliable operation of OPG's Pickering B nuclear generating station until 2020 and then place the Pickering B units in a safe storage stage for eventual decommissioning. Pickering B nuclear generating units are currently predicted to reach their nominal end of life dates 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 approximately an additional four to six years. Risk factors include discovery of unexpected conditions, equipment failures, requirement for significant plant modifications, and obtaining CNSC approval. The inability to achieve Pickering B Continued Operations could reduce OPG's revenue and lead to discontinuation of Pickering A operations. To mitigate these risks, OPG continues to undertake a number of activities which include work on fuel channel life cycle management, a regulatory strategy and economic analysis to support optimal reactor end of life dates, and modification of the operating and maintenance strategy to support Continued Operations.

### **Hydroelectric Generating Stations**

*OPG's hydroelectric generation is exposed to risks associated with forecasting water levels and age of plant and equipment. The requirements of potential Dam Safety legislation could require OPG to incur expenditures for enhancements.*

Forecasting water levels for hydroelectric generation is inherently uncertain. This uncertainty in forecasting water levels introduces a significant degree of uncertainty in forecasting hydroelectric generation. OPG manages this risk by using production forecasting models that incorporate unit efficiency characteristics, water flow conditions and outage plans. Inputs to the models are assessed, monitored and adjusted on an on-going basis. For the regulated hydroelectric generation, the impact of the difference in electricity production due to the difference between the forecast and actual water conditions is captured by the Hydroelectric Water Conditions Variance Account. Forecast water conditions refer to those underlying the hydroelectric generation forecast approved by the OEB in setting regulated hydroelectric prices.

OPG's hydroelectric generating stations vary in age and the majority of the hydroelectric generating equipment is over 50 years old. The age of the equipment and civil components create risks to reliability of some hydroelectric generating stations. OPG manages these reliability risks by performing inspection and maintenance of critical components, and conducting detailed engineering reviews and station condition assessments in order to identify future work required to sustain and, if necessary, upgrade a station.

The hydroelectric business segment operates 231 dams across the Province. Dam safety legislation does not currently exist in the Province but is expected to be enacted in 2011. In October 2010, the Ministry of Natural Resources ("MNR") published a set of Technical Guidelines on the Environmental Bill of Rights for public consultation. It is expected that following a 90-day public comment period, 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 to be issued by Cabinet. OPG has well-established programs based on established industry guidelines. Residual risk remains that the regulation may ultimately result in expenditures for enhancements to several of OPG's hydroelectric facilities.

## MANAGEMENT'S DISCUSSION AND ANALYSIS

### Thermal Generating Stations

*Increased numbers of thermal stations start-ups and shutdowns, as required by the systems operator, cause increased wear and stress on the equipment, which may result in unplanned outages. Converting OPG's coal-fired units to run on alternate fuels such as biomass and/or natural gas will require a cost recovery mechanism, and resolution of technical, safety and fuel supply issues.*

In the Energy Plan and Supply Mix Directive, the Province reaffirmed its commitment to phase out coal generation by the end of 2014. Coal-fired generating stations will be positioned to produce the required volume of electricity and ancillary services if and when needed. The increased number of station start-ups and shutdowns to provide flexibility to the system causes an increase in wear and stress on the equipment, which may result in reliability issues. To address this risk, and integral to Thermal's managed system, engineering risk and equipment condition assessments are used as the basis for a maintenance work program appropriate to the operating profile of a particular unit. However, if the work program is not properly executed, it could lead to extended forced unit outages.

OPG's long-term thermal asset strategy is to pursue the feasibility of converting selected coal units with fuels such as natural gas and/or biomass. OPG requires a cost recovery mechanism with the OPA for conversion of any units and the electricity generated post conversion, before seeking Board of Directors approval to proceed with unit conversions. OPG is also continuing work to evaluate the technical and supply chain aspects of converting units to biomass.

### Risks Associated with Major Development Projects

*The risks associated with the cost, schedule and technical aspects of the major development projects could adversely impact OPG's financial performance and ultimately, its corporate reputation.*

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 manage these projects to achieve the cost, schedule and quality required, if it is unable to borrow the necessary capital, or if it does not receive full recovery of its capital and operating costs. Major projects include possible new nuclear units at OPG's Darlington site, potential refurbishment of existing nuclear generating stations, the Niagara Tunnel, the Lower Mattagami project, and other hydroelectric and thermal projects.

### New Nuclear Units

The Government of Ontario competitive RFP process to procure two new nuclear reactors planned for the Darlington site was suspended in June 2009. In the announcement, the Government of Ontario indicated that the competitive RFP process did not provide Ontario with a suitable option at that time. The Government of Ontario, in its February 2011 Supply Mix Directive to the OPA, confirmed its commitment to new nuclear at Darlington and Ontario's commitment to continue to use nuclear generation for about 50 percent of Ontario's energy supply. 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. Uncertainty with respect to the timing of a future choice of a nuclear reactor vendor continues. The choice of a nuclear reactor vendor would allow OPG to further identify risks associated with the project.

### Darlington Refurbishment

The refurbishment of the Darlington nuclear generating station is expected to extend the operating life of the station by approximately 30 years. Failure to achieve the objectives of the refurbishment project may create the need for additional outages and restrict the useful post-refurbishment life of the station. To mitigate this risk, and as part of the project front-end planning process, a component condition assessment has been performed on all significant systems within the station. This assessment has evaluated the current condition of the systems and identified required work to be performed in the refurbishment outages. Key life limiting components such as pressure tubes are also included in the base refurbishment scope. A detailed ISR and EA will also be conducted to identify additional scope required to meet regulatory and environmental requirements.

The Darlington generating units, based on original design assumptions, are currently forecast to reach their nominal end of life between 2018 and 2020. The first Darlington refurbishment outage may be advanced by up to one year to 2015 due to an earlier than planned end of life. Additionally, this may result in unit idle time pending the start of refurbishment on subsequent units. OPG will seek to optimize the refurbishment schedule to minimize idle time where possible.



### **Niagara Tunnel Project**

The TBM mining activity is on schedule and has progressed 9,152 metres (90 percent of the tunnel length). Installation of the lower one-third of the permanent tunnel concrete lining is progressing ahead of schedule. Restoration of the circular cross-section of the tunnel before installation of the upper two-thirds of the concrete lining is behind schedule but is not expected to delay project completion. Installation of the upper two-thirds of the concrete lining began in May 2010 and is progressing ahead of schedule.

Some uncertainty with respect to the cost and schedule for both the tunnel excavation and liner installation continues. The factors which contribute to this uncertainty include difficult rock conditions and the activities to restore the tunnel profile. Allowances for these factors have been included in the cost estimate and schedule and the contractor is deploying additional resources on the profile restoration operation to prevent impacting the schedule for project completion. Major equipment breakdown is also a risk factor. To mitigate this risk and minimize potential delays, the contractor is monitoring the equipment and ensuring maintenance programs are in place, with critical spare parts available.

There is also some additional uncertainty around the project activities which have yet to begin, such as the tunnel pre-stress grouting. Allowances have been included in the cost estimate and schedule with respect to these uncertainties. Finally, events such as tunnel failure or flood are also a potential risk. The contractor has implemented tunnel convergence and cofferdam monitoring programs, and has rigorous emergency response programs in place, including safety drills and redundant equipment and materials on site, in order to minimize the impact should such an event occur.

### **Lower Mattagami Project**

Construction of the Lower Mattagami project commenced in June 2010 and the project is scheduled to be in-service by June 2015. Key risks to the project cost and schedule include legal challenges or blockades by groups opposed to various aspects of completing the project, discovery work during construction, and unknown geotechnical conditions. Risks have been mitigated by hiring an experienced contractor

to construct the project; ensuring allowances have been included in the cost estimate and schedule; inviting the Moose Cree First Nation to participate as a partner in the project; ensuring regular communication with Aboriginal groups to address project concerns; and conducting an extensive geotechnical program.

### **Other Development Projects**

For projects that are in initial development stages, unforeseen delays in receiving permits or approvals, which may involve various external stakeholders, could result in schedule delays or ultimately, cancellation of a project. OPG attempts to mitigate risks associated with delays in receiving permits and approvals through early involvement and constant communication with applicable government agencies, close consultation with external stakeholders, and on-going monitoring of contractor performance relative to permits.

These projects could also be faced with increasing costs for equipment and construction that could impact their economic viability. OPG continuously monitors such trends in input costs in order to keep abreast of emerging issues. OPG seeks to manage and limit cost increases where possible, through contracting strategies.

### **FINANCIAL RISKS**

*OPG is exposed to a number of discrete market-related risks that could adversely impact its financial and operating performance.*

OPG is exposed to a number of capital market-related risks many of which arise due to OPG's exposure to volatility in commodity, equity and foreign exchange markets, and interest rate movements. Pension and OPEB costs are also potentially impacted by these various market and interest rate movements. OPG manages this complex array of risks to reduce the uncertainty or mitigate the potential unfavourable impact on the Company's financial results. Residual risk to OPG's financial results continues to exist due to volatility in the capital and commodity markets that affects the Nuclear Funds.

## MANAGEMENT'S DISCUSSION AND ANALYSIS

### Commodity Markets

*Changes in the market price of electricity or of the fuels used to produce electricity can adversely impact OPG's earnings and cash flow from operations.*

Unpredictable increases in the price of fuels used to produce electricity can adversely impact OPG's earnings. To manage this risk, the Company has fuel hedging programs, which include using fixed price and indexed contracts. OPG's risk associated with changes in fuel costs for nuclear operations is also partially mitigated by the Nuclear Fuel Cost Variance Account that has been authorized by the OEB in its decision on OPG's regulated prices. The disposition of the balance in the variance account is subject to approval by the OEB.

OPG's revenue from its unregulated assets is also affected by changes in the market or spot price of electricity. The Company takes steps, such as executing forward sales at fixed prices, to mitigate the impact that extreme variations in the spot price could have on the gross margin. A \$1/MWh change, in the 2011 forecast average annual spot market price of electricity, would impact OPG's gross margin by approximately \$16 million.

The percentages of OPG's expected generation, emission requirements, and fuel requirements hedged are shown below:

	2011	2012	2013
Estimated generation output hedged <sup>1</sup>	78%	79%	78%
Estimated fuel requirements hedged <sup>2</sup>	75%	65%	57%
Estimated nitric oxide ("NO") emission requirement hedged <sup>3</sup>	100%	100%	100%
Estimated SO <sub>2</sub> emission requirement hedged <sup>3</sup>	100%	100%	100%

<sup>1</sup> Represents the portion of megawatt hours of expected future generation production, including power purchases, for which the Company has sales commitments and contracts including the obligations under regulated pricing commitments, and agreements with the IESO, OEFC, and OPA.

<sup>2</sup> Represents the approximate portion of megawatt hours of expected generation production (and thermal year-end inventory targets) from each type of facility (thermal and nuclear) for which OPG has entered into contractual arrangements or obligations in order to secure the price of fuel. Excess fuel in inventories in a given year is attributed to the next year for the purpose of measuring hedge ratios.

<sup>3</sup> Represents the approximate portion of megawatt hours of expected thermal production for which OPG has purchased, been allocated or granted emission allowances and Emission Reduction Credits to meet OPG's obligations under Ontario Environmental Regulations 397/01.

### Equity Markets

*Unexpected volatility or loss due to the decline in the market value of individual equities and/or equity indices negatively impacts the value of OPG's Nuclear Funds and OPG pension plan assets.*

#### Nuclear Funds Market Risk

The Decommissioning Fund and the Used Fuel Fund contain allocations to fixed income securities as well as domestic and international equity securities. These funds are managed with the objective of generating sufficient returns over time to satisfy the associated nuclear waste and decommissioning obligations. OPG does not currently make contributions to the Decommissioning Fund since it was fully funded at the time of approval of the last ONFA Reference Plan. The approval of a new ONFA Reference Plan, which is expected in 2011, will determine the future level of OPG's contributions should the fund be in an underfunded position at the time the new plan is approved.

For the Used Fuel Fund, the Province guarantees the annual rate of return at 3.25 percent plus the change in the Ontario CPI for the first 2.23 million fuel bundles. As such, a change in the value of the fund, as a result of changes in capital markets, related to the first 2.23 million bundles does not impact OPG's earnings. As at December 31, 2010, OPG had made total contributions of approximately \$177 million towards incremental fuel bundles beyond the first 2.23 million. Unlike contributions designated for the first 2.23 million fuel bundles, funds set aside for incremental bundles are not subject to the Province's rate of return guarantee, and OPG therefore assumes the market risk for such investments.

The performance of Nuclear Funds related to stations leased to Bruce Power is subject to the Bruce Lease Net Revenues Variance Account established by the OEB. The variance account partially mitigates market risk to the Nuclear Funds as it captures the differences between actual and forecast earnings of the Nuclear Funds as they relate to the nuclear generating stations leased to Bruce Power. Forecast earnings refer to those approved by the OEB in setting regulated nuclear prices. The disposition of the balance in the variance account is subject to approval by the OEB.

### **Pension and Other Post Employment Benefit Costs**

OPG's post employment benefit programs include pension, group life insurance, health care and long-term disability benefits. The OPG registered pension plan is a contributory defined benefit plan that is indexed to inflation and covers most employees and retirees.

Contributions to the OPG registered pension plan are determined by actuarial valuations, which are filed with the appropriate regulatory authorities at least every three years. The most recently filed valuation of the OPG registered pension plan was prepared as at January 1, 2008. As a result of the valuation, OPG made annual pension contributions in 2010 of approximately \$270 million. The next valuation for the OPG registered pension plan will be prepared with an effective date no later than January 1, 2011, and must be filed by September 30, 2011. The required level of contributions for 2011 will be dependent on a number of factors including the value of the pension fund assets as at January 1, 2011 and changes in actuarial assumptions.

Pension and OPEB costs and obligations are calculated based on assumptions including the long-term rate of return on registered pension assets, discount rates for pension and OPEB obligations, expected service period of employees, wage or salary increases, inflation and health care cost trend rates. These assumptions are subject to significant changes as they require judgment and involve inherent uncertainties. The most significant assumptions used to calculate the net periodic cost of pension and OPEB are the discount rates for pension and OPEB, the expected return on pension fund assets, and the expected inflation rate for pension benefits.

OPG's pension and OPEB accrued benefit obligations and costs, and OPG's pension contributions, could be materially affected in the future by the current funded status of the pension and other benefit plans, significant changes in assumptions driven by changes in financial markets, experience gains and losses, changes in benefits, changes in the regulatory environment including potential changes to the *Pension Benefits Act* (Ontario) divestitures, and the measurement uncertainty inherent in the actuarial valuation process.

### **Foreign Exchange and Interest Rate Markets**

*OPG's earnings and cash flows can be impacted by movements in the United States dollar relative to the Canadian dollar and by prevailing interest rates on its short-term borrowings and investment programs.*

OPG's financial results are exposed to volatility in the Canadian/U.S. foreign exchange rate as fuels purchased for thermal and nuclear generation stations are paid in U.S. dollars. The magnitude of the impact of this volatility is largely a function of the quantity of the fuels purchased. In addition to this exposure, the market price of electricity in Ontario is influenced by the exchange rate because of the interaction between the Ontario and neighbouring U.S. interconnected electricity markets. In order to manage this risk, OPG employs various financial instruments such as forwards and other derivative contracts in accordance with approved risk management policies.

OPG has interest rate exposure on its short-term borrowings and investment programs. The majority of OPG's existing debt is at fixed interest rates. Interest rate risk arises with the need to undertake new financing and with the potential addition of variable rate debt. The management of these risks is undertaken by using derivatives to hedge the exposure in accordance with corporate risk management policies. OPG periodically uses interest rate swap agreements to mitigate elements of interest rate risk exposure associated with anticipated new financing. As at December 31, 2010, OPG had total interest rate swap contracts outstanding with a notional principal of \$375 million.

### **Trading**

*OPG's financial performance could be adversely affected by its trading activities.*

OPG's trading operations are closely monitored and total exposures are measured and reported to senior management on a daily basis. The metric used to measure the risk of this trading activity is known as "value at risk" or "VaR", which is defined as the potential future loss expressed in monetary terms for a portfolio based on normal market conditions over a set period of time. For 2010, the utilization of VaR fluctuated between \$0.1 million and \$0.4 million compared to \$0.5 million and \$2.6 million for 2009.

## MANAGEMENT'S DISCUSSION AND ANALYSIS

### Credit

*Deterioration in counterparty credit and non-performance by suppliers can adversely impact OPG's earnings and cash flows from operations.*

The Company's credit exposure is a function of electricity sales and trading as well as commercial transactions with various suppliers of goods and services. OPG's credit exposure relating to electricity sales is considered low as the majority of sales are through the IESO-administered spot market. The IESO oversees the credit worthiness of all market participants.

OPG manages its exposure to various suppliers or "counterparties" by evaluating the financial condition of all counterparties and ensuring that appropriate collateral or other forms of security are held by OPG. The following table summarizes OPG's credit exposure to all counterparties from electricity transactions and trading as at December 31, 2010:

Credit Rating <sup>1</sup>	Number of Counterparties <sup>2</sup>	Potential Exposure for Largest Counterparties		
		Potential Exposure <sup>3</sup>	Number of Counterparties	Counterparty Exposure
		(millions of dollars)		(millions of dollars)
Investment grade	24	26	4	18
Below investment grade	5	6	1	5
IESO <sup>4</sup>	1	420	1	420
Total	30	452	6	443

<sup>1</sup> Credit ratings are based on OPG's own analysis, taking into consideration external rating agency analysis where available, as well as recognizing explicit credit support provided through parental guarantees, Letters of Credit or other forms of security.

<sup>2</sup> OPG's counterparties are defined on the basis of individual master agreements.

<sup>3</sup> Potential exposure is OPG's statistical assessment of maximum exposure over the life of each transaction at a 95 percent confidence interval.

<sup>4</sup> Credit exposure to the IESO peaked at \$768 million during the year ended December 31, 2010 and at \$854 million during the year ended December 31, 2009.

### Liquidity

*Rising liquidity requirements can impact OPG's capital investment projects and maintenance programs.*

OPG operates in a capital intensive business. Significant financial resources are required to fund capital improvement projects and related maintenance programs at generating stations. In addition, the Company has other significant disbursement requirements including investment in new generating capacity, annual funding obligations under the ONFA, pension contributions, payments towards OPEB and other benefit plans and continuing debt maturities with the OEFC. OPG must ensure it has the financial capacity and sufficient access to cost-effective financing sources to fund its capital requirements. A discussion of corporate liquidity is included in the *Liquidity and Capital Resources* section.

### Nuclear Waste Obligations

*The baseline cost estimates of nuclear waste obligations are based on assumptions such as station end of life dates and nuclear waste volume that are inherently uncertain.*

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. OPG is required by various rules and regulations to provide cost estimates associated with its nuclear waste management and decommissioning obligations. These cost estimates are based on numerous underlying assumptions including station end of life dates and waste volume that are inherently uncertain. To address this uncertainty, OPG undertakes to review the underlying assumptions and baseline cost estimates at least once every five years. Certain underlying assumptions, such as station end of life dates and forecast nuclear waste volumes, are reviewed and updated annually, with resulting changes assessed for their impact to the liability. Changing business decisions, such as refurbishment decisions and premature unit closures, are reviewed as they occur and OPG uses the

existing baseline cost information to estimate the impacts to the nuclear liability balance. Should changing circumstances be assessed as material or significant, an early re-assessment of baseline costs could be performed before the five-year period is completed.

### **REGULATORY RISKS**

*OPG is subject to extensive Federal and Provincial legislation and regulations that have an impact on OPG's operations and financial position.*

OPG is subject to regulation by various entities including the OEB and the CNSC. The risks that arise from being a regulated entity include the potential inability to receive full recovery of capital and operating costs, reductions in earnings, and increases in the cost of operations. These unfavourable impacts are mitigated by maintaining close contact with regulators and issuers of standards and codes to ensure early identification and discussion of issues.

#### **Rate Regulation**

*OEB may not allow recovery in regulated prices of all costs incurred by the regulated operations, and regulated prices set by the OEB using a forecast cost of service methodology may not cover all costs actually incurred.*

The prices for electricity generated from most of OPG's baseload hydroelectric facilities and all of the nuclear facilities that it operates are determined by the OEB, currently on a forecast cost of service methodology. The regulated prices remain in effect until the effective date of the OEB's next rate 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*, pursuant to the *Ontario Energy Board Act, 1998*. These estimates and assumptions are reviewed as part of the OEB's regulatory process. In the second quarter of 2010, OPG filed an application with the OEB for new regulated prices to be effective March 1, 2011 and has also requested approval to recover the balances in the deferral and variance accounts as at December 31, 2010. As of the date of this MD&A, the OEB has not issued a decision on OPG's application and has declared the current regulated prices interim, effective March 1, 2011, as discussed under the heading, *Recent Developments*. The OEB is expected to issue its decision on OPG's application in March 2011.

### **Nuclear Regulatory Requirements**

*An aging nuclear fleet, a change in technical codes or laws may increase the risk of non-compliance with the nuclear regulatory requirements.*

The uncertainty associated with nuclear regulatory requirements is primarily driven by plant 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.

### **ENTERPRISE-WIDE RISKS**

*OPG's business prospects could be adversely affected by various enterprise-wide risks including human resources, health and safety, environmental factors and corporate reputation.*

Significant risks that could have a potential enterprise-wide impact on OPG's business, reputation, financial condition, operating results and prospects are discussed below.

#### **Human Resources**

*OPG's financial position could be affected if skilled human resources are not available or aligned with its operations.*

The risk associated with the alignment/availability of skilled and experienced resources continues to exist for OPG. In order to mitigate the impact of this risk, OPG has embarked upon an organization-wide workforce planning effort, and has established on-going monitoring processes to re-assess risks, issues and opportunities related to staffing on a regular basis. OPG also continues to focus on succession planning, leadership development and knowledge retention programs to improve the capability of its workforce.

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 have 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.

## MANAGEMENT'S DISCUSSION AND ANALYSIS

### Health and Safety

*OPG safety management and risk control program is designed to effectively manage safety risks in high risk areas.*

A robust safety culture, evidenced by continuous improvement in safety management and risk controls program, exists at OPG. The importance of safety is continually reinforced in OPG's Corporate Safety Rules, which emphasize higher standards for accountability and training in high risk areas.

### Corporate Reputation

*OPG undertakes various assurance and risk management activities to manage risks to its corporate reputation.*

As a provider of a large portion of the Province's electricity requirements, maintaining a positive corporate reputation is critical for OPG. OPG focuses on building and maintaining its reputation through many practices, including corporate citizenship initiatives across the Province, appropriate and transparent governance practices, and effective communication with stakeholders. In addition, OPG undertakes continuous improvement initiatives in various assurance and risk management activities.

### Ownership by the Province

*OPG's commitment to maximize the return on the ratepayer's investment in OPG's assets may compete with the obligation of the shareholder to respond to a broad range of matters.*

The Province owns all of the Company's issued and outstanding common shares. Accordingly, the Province determines the composition of the Company'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 of nuclear waste management costs between OPG and the Province, 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. OPG is committed to operational excellence, maintaining positive stakeholder relationships and maximizing the return on its assets.

### Interconnected Electricity Markets

*OPG may not be able to compete successfully in interconnected markets due to market factors and operational or regulatory constraints on the transmission and distribution systems.*

OPG depends on the capacity and reliability of the third-party transmission and interconnection systems in order to access the interconnected markets. A majority of OPG's sales are through the IESO. There is a residual risk that OPG might be unable to supply or sell power to the interconnected markets due to operational or regulatory constraints on the transmission and distribution systems.

OPG's ability to access 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 the interconnected markets; currency exchange rates; any new trade limitations; OPG retaining of a Federal Energy Regulatory Commission licence; and costs to comply with environmental standards imposed in these markets.

### Leases and Partnerships

*OPG's financial performance could be affected if the risks associated with its leases and partnerships materialize.*

OPG has leased its Bruce nuclear generating stations to Bruce Power and is a party to a number of partnership arrangements related to the ownership and operation of generating stations. Each of these generating stations is subject to numerous operational, financial, regulatory, and environmental risk factors.

In addition, under the Bruce Lease, lease revenue is reduced in each calendar year where the annual arithmetic Average HOEP falls below \$30/MWh and certain other conditions are met. The conditional reduction to revenue in the future, embedded in the terms of the Bruce Lease, is treated as a derivative according to CICA Handbook Section 3855, *Financial Instruments – Recognition and Measurement*. Derivatives are measured at fair value and changes in fair value are recognized in the consolidated statements of income. As a result of a decrease in expected future Average HOEP during 2010, the fair value of the derivative liability was \$163 million in 2010 compared to \$118 million in 2009. The exposure will continue until the Bruce units that are subject to this mechanism are no longer in operation, specific units are refurbished, or when the lease agreement is terminated. This exposure is mitigated as part of the OEB regulatory process, since the revenue from the lease of the Bruce generating stations is included in the determination of nuclear regulated prices and is subject to the Bruce Lease Net Revenues Variance Account.

### Information Technology

*OPG's ability to operate effectively is in part dependent on managing and maintaining reliable Information Technology ("IT") systems. IT system failures may have an adverse impact on OPG.*

OPG's ability to operate effectively is in part dependent upon OPG developing or subcontracting and managing a complex information technology systems infrastructure. Future system failures, or an inability to keep information technology systems aligned with changing market conditions and strategic business objectives, could have a negative impact on the operational and financial results of the Company. OPG closely monitors its information technology system and service requirements.

### **Suppliers**

*Non-performance by strategic suppliers or an inability to diversify the supplier base could adversely impact the financial results and reputation of OPG.*

OPG's ability to operate effectively is also in part dependent upon OPG's access to equipment, materials and service suppliers. Loss of key equipment, materials and service suppliers could have a negative impact on the operational and financial results of the Company. OPG mitigates this risk to the extent possible through effective contract negotiations, contract language, vendor monitoring, and diversification of its supplier base.

### **Natural or Unexpected Events**

*OPG's operational continuity and the safety of its various stakeholders are exposed to the potential effects of unpredictable incidents and developments such as natural disasters and accidents.*

OPG is exposed to incidents or developments, such as natural disasters or an influenza pandemic that could threaten the safety of various stakeholders, as well as the continuity of OPG's business operations. A significant event could occur that is not fully insured or indemnified against, or a party could fail to meet its indemnification obligations.

OPG's Emergency Management program is designed to ensure operational continuity and to respond to incidents or developments that could threaten the safety of stakeholders. The program goals are to protect the health and safety of employees, the public and responders, the environment and OPG's assets and reputation. The program elements are designed to meet legal and regulatory requirements.

### **Electricity Demand and Supply**

*OPG's generation may be displaced to the extent renewable energy resources come on line under the Green Energy Act.*

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 electricity 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. The IESO is working with stakeholders to determine how best to manage SBG conditions going forward and to address potential future operability issues associated with the growing amount of renewable resources expected to come into service over the next few years.

Market prices continue to be depressed and are expected to recover modestly for the foreseeable future.

### **First Nations and Métis Communities**

*The outcome of negotiations with the First Nations and Métis communities in Ontario depends on many factors such as legislation and precedents created by court rulings.*

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 an Aboriginal Relations Policy, which sets out its commitment to build and maintain positive relationships with the First Nations and Métis communities. OPG has been successful in resolving some past grievances. However, the outcome of the on-going and future negotiations with the First Nations and Métis communities depends on a number of factors, including legislation and regulations, which are subject to change over time. Precedents created by court rulings also impact negotiations and resolution of past grievances.

## MANAGEMENT'S DISCUSSION AND ANALYSIS

### ENVIRONMENTAL RISKS

*OPG may be subject to fines, penalties, and claims, if it is not in compliance with the applicable environmental laws. Changes in environmental regulations can result in existing operations being in a state of non-compliance, a potential inability to comply, potential liabilities, and costs for OPG.*

Changes to environmental laws could create compliance risks and result in potential liabilities that may be addressed by the installation of control technologies, the purchase of emission reduction credits, allowances or offsets, or by constraining electricity production. Further, some of OPG's activities have the potential to impair natural habitat, damage aquatic or terrestrial plant and wildlife, or cause contamination to land or water that may require remediation. In addition, a failure to comply with applicable environmental laws may result in enforcement actions, including the potential for orders or charges.

If the Ontario government implements a GHG cap-and-trade regime, there is a risk of incurring material costs to purchase allowances or offsets against GHG emissions from coal, oil and natural gas generation. For further details on OPG's environmental performance and policies refer to the *Vision, Core Business and Strategy* section.

### Related Party Transactions

Given that the Province owns all of the shares of OPG, related parties include the Province, Infrastructure Ontario, OPA and the other successor entities of Ontario Hydro, including Hydro One Inc. ("Hydro One"), the IESO, and the OEFC. The transactions between OPG and related parties are measured at the exchange amount, which is the amount of consideration established and agreed to by the related parties.

These transactions are summarized below:

(millions of dollars)	Revenue 2010	Expenses 2010	Revenue 2009	Expenses 2009
Hydro One				
Electricity sales	18	–	20	–
Services	–	16	–	13
Province of Ontario				
GRC water rentals and land tax	–	116	–	146
Guarantee fee	–	7	–	4
Used Fuel Fund rate of return guarantee	–	186	–	493
OEFC				
GRC and proxy property tax	–	208	–	224
Interest expense on long-term notes	–	203	–	210
Capital tax	–	11	–	31
Income taxes, net of investment tax credits	–	77	–	199
Contingency support agreement	258	–	412	–
Infrastructure Ontario				
Reimbursement of expenses incurred during the procurement of new nuclear units	–	3	–	21
IESO				
Electricity sales	4,215	27	4,434	31
Revenue limit rebate	–	–	(27)	–
Ancillary services	61	–	153	–
OPA	142	–	45	–
	<b>4,694</b>	<b>854</b>	5,037	1,372

As at December 31, 2010, accounts receivable included \$3 million (2009 – \$2 million) due from Hydro One, \$129 million (2009 – \$189 million) due from the IESO, and \$22 million (2009 – \$6 million) due from the OPA. Accounts payable and accrued charges as at December 31, 2010 included \$2 million (2009 – \$3 million) due to Hydro One and \$3 million (2009 – \$21 million) due to Infrastructure Ontario.



## Corporate Governance and Audit and Finance Committee Information

Disclosures related to Corporate Governance and Audit and Finance Committee Information are included in OPG's 2010 Annual Information Form.

## Internal Controls over Financial Reporting and Disclosure Controls

Management, including the President and Chief Executive Officer ("President and CEO") and CFO, are responsible for maintaining disclosure controls and procedures ("DC&P") and ICOFR. DC&P is designed to provide reasonable assurance that all relevant information is gathered and reported to senior management, including the President and CEO and the CFO, on a timely basis so that appropriate decisions can be made regarding public disclosure. ICOFR is designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of the financial statements in accordance with GAAP.

An evaluation of the effectiveness of design and operation of OPG's DC&P and ICOFR was conducted as of December 31, 2010. Management, including the President and CEO and the CFO, concluded that, as of December 31, 2010, OPG's DC&P and ICOFR (as defined in National Instrument 52-109 – Certification of Disclosure in Issuers' Annual and Interim Filings, of the Canadian Securities Administrators) were effective.

There were no material changes in OPG's ICOFR for the most recent interim period that have materially affected or are reasonably likely to materially affect OPG's ICOFR.

## Fourth Quarter

### DISCUSSION OF RESULTS

(millions of dollars) (unaudited)	Three Months Ended December 31	
	2010	2009
Regulated generation sales	848	851
Spot market sales, net of hedging instruments	156	208
Variance accounts	55	250
Other	265	81
Revenue	1,324	1,390
Fuel expense	185	261
Gross margin	1,139	1,129
Operations, maintenance and administration	723	725
Depreciation and amortization	178	210
Accretion on fixed asset removal and nuclear waste management liabilities	165	158
Earnings on nuclear fixed asset removal and nuclear waste management funds	(200)	(134)
Restructuring	2	–
Property and capital taxes	14	12
Income before other gains and losses, interest and income taxes	257	158
Other losses (gains)	6	(8)
Income before interest and income taxes	251	166
Net interest expense	46	55
Income before income taxes	205	111
Income tax expense	3	44
Net income	202	67

## MANAGEMENT'S DISCUSSION AND ANALYSIS

### Revenue

Revenue was \$1,324 million for the three months ended December 31, 2010 compared to \$1,390 million during the same period in 2009. The decrease of \$66 million was primarily due to a decrease in generation from the unregulated hydroelectric generating segment, and a decrease in revenue related to the OEFC contingency support agreement which provides for the continued reliability and availability of OPG's Nanticoke and Lambton generating stations compared to the same period in 2009. This decrease in revenue during the fourth quarter of 2010 compared to the same quarter of 2009 was partially offset by the increase in revenue related to the Lennox generating station as a result of the cost recovery contract which finalized in April 2010.

Under the Bruce Lease, lease revenue is reduced in each calendar year where the Average HOEP falls below \$30/MWh, and certain other conditions are met. As a result of the Average HOEP for 2010 being more than \$30/MWh, the Bruce Lease revenue for 2010 was not adjusted. For 2009, the Average HOEP was below \$30/MWh, and the Bruce Lease revenue for 2009 was therefore reduced by \$69 million during the fourth quarter of 2009. The conditional reduction to revenue in the future, embedded in the terms of the Bruce Lease, is treated as a derivative according to CICA Handbook Section 3855, *Financial Instruments – Recognition and Measurement*. Derivatives are measured at fair value and changes in fair value are recognized in the consolidated statements of income. As a result of an increase in expected future Average HOEP during the fourth quarter of 2010, the fair value of the derivative liability declined by \$2 million. In 2009, the full decrease in the expected future Average HOEP of \$118 million was recorded in the fourth quarter of 2009. All changes to lease revenue in 2010 and 2009 were offset by the impact of the Bruce Lease Net Revenues Variance Account.

### Fuel Expense

Fuel expense was \$185 million for the three months ended December 31, 2010 compared to \$261 million during the same period in 2009. The decrease of \$76 million was primarily due to lower electricity generation at OPG's thermal generating stations and the effect of lower coal contract adjustments. Changes in fuel and fuel related costs for the Nanticoke and Lambton generating stations were largely offset by changes in the OEFC contingency support agreement which impacts revenue.

### Operations, Maintenance and Administration

OM&A expenses for the three months ended December 31, 2010 were \$723 million compared to \$725 million for the same quarter in 2009. The decrease of \$2 million was primarily due to a decrease in maintenance work at the nuclear generating stations and the reduction of regulatory liabilities related to new nuclear generation development and capacity refurbishment activities. This reduction of OM&A expenses was partially offset by higher pension and OPEB costs when compared to the same quarter in 2009.

### Depreciation and Amortization

Depreciation and amortization expenses for the three months ended December 31, 2010 were \$178 million compared to \$210 million for the same quarter in 2009. The decrease in depreciation and amortization during the fourth quarter of 2010 compared to the same quarter in 2009 was primarily due to the impact of the Darlington nuclear generating station life extension to 2051 related to OPG's announcement in early 2010 to commence the definition phase for refurbishment of the station.

### Earnings on Nuclear Fixed Asset Removal and Nuclear Waste Management Funds

Earnings from the Nuclear Funds in the Regulated – Nuclear Waste Management segment for the fourth quarter of 2010, before the impact of the Bruce Lease Net Revenues Variance Account, were \$271 million compared to earnings of \$127 million for the fourth quarter of 2009, an increase of \$144 million. The increase in earnings from the Nuclear Funds was primarily due to higher earnings from the Decommissioning Fund as a result of more favourable market conditions during the fourth quarter of 2010 as compared to the same quarter in 2009, and higher earnings from the Used Fuel Fund resulting from a higher Ontario CPI in 2010, which impacted the guaranteed return on the Used Fuel Fund. During the fourth quarter of 2010, OPG recorded a reduction to the Bruce Lease Net Revenues Variance Account regulatory asset of \$71 million, compared to an addition of \$7 million in 2009, which resulted in a decrease to the total reported earnings from the Nuclear Funds.

## AVERAGE SALES PRICES

The weighted average Ontario spot electricity market price and OPG's average sales prices from generation paid through the regulated prices and the hourly Ontario spot market prices, by reportable electricity segment, for the years ended December 31, 2010 and 2009, were as follows:

(¢/kWh)	Three Months Ended December 31	
	2010	2009
Weighted average hourly Ontario spot electricity market price	3.3	3.1
Regulated – Nuclear Generation	5.5	5.5
Regulated – Hydroelectric	3.7	3.7
Unregulated – Hydroelectric	3.3	3.2
Unregulated – Thermal	3.2	3.4
OPG's average sales price paid through regulated and spot market prices <sup>1</sup>	4.6	4.5

<sup>1</sup> Excludes other energy revenues primarily from cost recovery agreements for the Nanticoke, Lambton, and Lennox generating stations. Had the cost recovery agreements for Nanticoke, Lambton, and Lennox generating stations been included, OPG's average sales price for the fourth quarter of 2010 and 2009 would have been 5.1¢/kWh and 5.0¢/kWh, respectively.

The decrease in average sales prices for the unregulated thermal segment for the three months ended December 31, 2010, compared to the same period in 2009 was primarily due to a lower proportion of 2010 generation during peak periods compared to 2009.

The increase in OPG's average sales price for the unregulated hydroelectric segments for the three months ended December 31, 2010, compared to the same quarter in 2009 is due to the impact of a higher Ontario spot electricity market price.

## ELECTRICITY GENERATION

(TWh)	Three Months Ended December 31	
	2010	2009
Regulated – Nuclear Generation	12.4	12.4
Regulated – Hydroelectric	4.7	4.8
Unregulated – Hydroelectric	3.6	4.0
Unregulated – Thermal	1.0	2.2
Total electricity generation	21.7	23.4

Total electricity sales volume for the three months ended December 31, 2010 was 21.7 TWh compared to 23.4 TWh during the same period in 2009. The decrease was due to lower electricity generation from OPG's hydroelectric and thermal generating stations.

During the fourth quarter of 2010 and 2009, the primary electricity demand in Ontario was 34.9 TWh.

## LIQUIDITY AND CAPITAL RESOURCES

Cash flow provided by operating activities during the three months ended December 31, 2010, was \$130 million compared to cash flow provided by operating activities of \$238 million for the three months ended December 31, 2009. The decrease in cash flow was primarily due to lower cash receipts as a result of lower generation revenue.

Cash flow used in investing activities during the three months ended December 31, 2010 was \$280 million compared to \$234 million during the same period in 2009. The increase in investing activities was primarily due to higher capital expenditures for the Lower Mattagami project, the Darlington Refurbishment project, partially offset by the sale of the ABCP in the fourth quarter of 2010, and lower capital expenditures for the Upper Mattagami and Hound Chute project and other hydroelectric initiatives.

Cash flow provided by financing activities during the three months ended December 31, 2010 was \$88 million compared to \$22 million for the three months ended December 31, 2009. The increase in cash flow was due to the issuance of long-term debt for the Niagara Tunnel and the issue of commercial paper for the Lower Mattagami project partially offset by the repayment of debt in the quarter.

## MANAGEMENT'S DISCUSSION AND ANALYSIS

### Quarterly Financial Highlights

The following tables set out selected financial information from OPG's unaudited interim consolidated financial statements for each of the 12 most recently completed quarters. This financial information has been prepared in accordance with Canadian GAAP.

(millions of dollars) (unaudited)	2010 Quarters Ended				Total
	December 31	September 30	June 30	March 31	
Revenue, after revenue limit rebate	1,324	1,396	1,211	1,444	5,375
Net income (loss)	202	333	(29)	143	649
Net income (loss) per share	\$0.79	\$1.29	\$(0.11)	\$0.56	\$2.53

(millions of dollars) (unaudited)	2009 Quarters Ended				Total
	December 31	September 30	June 30	March 31	
Revenue, after revenue limit rebate	1,390	1,345	1,397	1,481	5,613
Net income (loss)	67	259	306	(9)	623
Net income (loss) per share	\$0.26	\$1.01	\$1.20	\$(0.04)	\$2.43

(millions of dollars) (unaudited)	2008 Quarters Ended				Total
	December 31	September 30	June 30	March 31	
Revenue, after revenue limit rebate	1,621	1,513	1,385	1,563	6,082
Net (loss) income	(31)	(142)	99	162	88
Net (loss) income per share	\$(0.12)	\$(0.55)	\$0.39	\$0.63	\$0.34

### Balance Sheet as at December 31

(millions of dollars)	2010	2009	2008
Total assets	29,577	27,584	25,579
Total long-term liabilities	20,178	18,180	17,177
Common shares outstanding (millions)	256.3	256.3	256.3

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

Additional items that impacted net income (loss) in certain quarters above include the following:

- A decrease in income tax expense of \$85 million and \$21 million during the first and second quarters of 2008, respectively, due to the resolution of the tax uncertainties related to the audit of OPG's 1999 taxation year;
- A decrease in earnings due to lower returns on the Decommissioning Fund, as a result of significant volatility and unfavourable returns in the capital markets during 2008;
- A decrease in gross margin during 2009 primarily due to lower generation at OPG's thermal and nuclear generating stations, a decrease in electricity sales prices in the unregulated generating segments, and higher fuel prices and fuel related costs at OPG's thermal generating stations, partially offset by the recognition of revenue related to a contingency support agreement established with the OEFC;
- Lower generation at OPG's nuclear generating stations during the second quarter of 2009 primarily due to a planned VBO at the Darlington nuclear generating station;
- An increase in gross margin during the second quarter of 2009 due to the recognition of a regulatory asset of \$199 million, excluding interest, related to the Tax Loss Variance Account authorized by the OEB effective April 1, 2008;
- A decrease in income in the first quarter of 2009 related to higher OM&A expenses primarily due to an increase in planned outage and maintenance activities, new nuclear generation development, and capacity refurbishment activities at OPG's nuclear generating stations;
- A decrease in income resulting from losses in the Nuclear Funds during the first quarter of 2009 primarily due to reductions in the Ontario CPI. Losses from the Nuclear Funds were partially mitigated by the impact of the Bruce Lease Net Revenues Variance Account for the portion of the losses from the Nuclear Funds related to the nuclear generating stations on lease to Bruce Power;
- An increase in the earnings from the Nuclear Funds of \$343 million and \$550 million during the second and third quarter of 2009, respectively, compared to the same quarters in 2008 primarily due to improvements in valuation levels of global financial markets, partially offset by the reduction to the Bruce Lease Net Revenues Variance Account regulatory asset of \$150 million and \$106 million, respectively;
- A decrease in income of \$25 million during the first quarter of 2010 resulted from the recognition of severance costs related to the decision to close two coal-fired units at each of the Lambton and Nanticoke coal-fired generating stations; and
- An increase in income of \$102 million during the second quarter of 2010 resulted from the decrease in income tax expense primarily due to a reduction in income tax liabilities as a result of the resolution of a number of tax uncertainties related to the completion of a tax audit for prior years.

### Supplemental Earnings Measures

In addition to providing net income in accordance with Canadian GAAP, OPG's MD&A, audited consolidated financial statements as at and for the years ended December 31, 2010 and 2009 and the notes thereto, present certain non-GAAP financial measures. These financial measures do not have standard definitions prescribed by Canadian GAAP and therefore may not be comparable to similar measures disclosed by other companies. OPG utilizes these measures in making operating decisions and assessing its performance. Readers of the MD&A, consolidated financial statements and the notes thereto utilize these measures in assessing the Company's financial performance from on-going operations. These non-GAAP financial measures have not been presented as an alternative to net income in accordance with Canadian GAAP as an indicator of operating performance. The definitions of the non-GAAP financial measures are as follows:

(1) **Gross margin** is defined as revenue less revenue limit rebate and fuel expense.

(2) **Earnings** are defined as net income.

For further information, please contact:

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 www.sedar.com

## Statement of Management's Responsibility for Financial Information

Ontario Power Generation Inc.'s ("OPG") management is responsible for the presentation and preparation of the annual consolidated financial statements and Management's Discussion and Analysis ("MD&A").

The consolidated financial statements have been prepared in accordance with Canadian generally accepted accounting principles ("GAAP") and the requirements of the Ontario Securities Commission ("OSC"), as applicable. The MD&A has been prepared in accordance with the requirements of securities regulators, including National Instrument 51-102 of the Canadian Securities Administrators and its related published requirements.

The consolidated financial statements and information in the MD&A necessarily include amounts based on informed judgments and estimates of the expected effects of current events and transactions with appropriate consideration to materiality. Something is considered material if it is reasonably expected to have a significant impact on the Company's earnings, cash flow, value of an asset or liability, or reputation. In addition, in preparing the financial information we must interpret the requirements described above, make determinations as to the relevancy of information to be included, and make estimates and assumptions that affect reported information. The MD&A also includes information regarding the impact of current transactions and events, sources of liquidity and capital resources, operating trends, risks and uncertainties. Actual results in the future may differ materially from our present assessment of this information because future events and circumstances may not occur as expected.

In meeting our responsibility for the reliability of financial information, we maintain and rely on a comprehensive system of internal controls and internal audit, including organizational and procedural controls and internal controls over financial reporting. Our system of internal controls includes written communication of our policies and procedures governing corporate conduct and risk management; comprehensive business planning; effective segregation of duties; delegation of authority and personal accountability; careful selection and training of personnel; and sound and conservative accounting policies, which we regularly update. This structure ensures appropriate internal control over transactions, assets and records. We also regularly audit internal controls. These controls and audits are designed to provide us with reasonable assurance that the financial records are reliable for preparing financial statements and other financial information, assets are safeguarded against unauthorized use or disposition, liabilities are recognized, and we are in compliance with all regulatory requirements.

Management, including the President and Chief Executive Officer ("CEO") and Chief Financial Officer ("CFO"), is responsible for maintaining disclosure controls and procedures ("DC&P") and internal control over financial reporting ("ICOFR"). DC&P is designed to provide reasonable assurance that all relevant information is gathered and reported to senior management, including the President and CEO and the CFO, on a timely basis so that appropriate decisions can be made regarding public disclosure. ICOFR is designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of the financial statements in accordance with GAAP.

An evaluation of the effectiveness of design and operation of OPG's DC&P and ICOFR was conducted as of December 31, 2010. Accordingly, we, as OPG's President and CEO and CFO, will certify OPG's annual disclosure documents filed with the OSC, which includes attesting to the design and effectiveness of OPG's disclosure controls and procedures and internal control over financial reporting.

The Board of Directors, based on recommendations from its Audit and Finance Committee, reviews and approves the consolidated financial statements and the MD&A, and oversees management's responsibilities for the presentation and preparation of financial information, maintenance of appropriate internal controls, management and control of major risk areas and assessment of significant and related party transactions.

The consolidated financial statements have been audited by Ernst & Young LLP, independent external auditors appointed by the Board of Directors. The Auditors' Report outlines the auditors' responsibilities and the scope of their examination and their opinion on OPG's consolidated financial statements. The independent external auditors, as confirmed by the Audit and Finance Committee, had direct and full access to the Audit and Finance Committee, with and without the presence of management, to discuss their audit and their findings therefrom, as to the integrity of OPG's financial reporting and the effectiveness of the system of internal controls.



**Tom Mitchell**  
President and Chief Executive Officer



**Donn W. J. Hanbidge**  
Chief Financial Officer

March 4, 2011

## Independent Auditors' Report

### TO THE SHAREHOLDER OF ONTARIO POWER GENERATION INC.

We have audited the accompanying consolidated financial statements of Ontario Power Generation Inc., which comprise the consolidated balance sheets as at December 31, 2010 and 2009, and the consolidated statements of income, cash flows, changes in shareholder's equity and comprehensive income for the years then ended, and a summary of significant accounting policies and other explanatory information.

### Management's Responsibility for the Consolidated Financial Statements

Management is responsible for the preparation and fair presentation of these consolidated financial statements in accordance with Canadian generally accepted accounting principles, and for such internal control as management determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

### Auditors' Responsibility


Our responsibility is to express an opinion on these consolidated financial statements based on our audits. We conducted our audits in accordance with Canadian generally accepted auditing standards. Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the consolidated financial statements. The procedures selected depend on the auditors' judgment, including the assessment of the risks of material misstatement of the consolidated financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the consolidated financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements.

We believe that the audit evidence we have obtained in our audits is sufficient and appropriate to provide a basis for our audit opinion.

### Opinion

In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of Ontario Power Generation Inc. as at December 31, 2010 and 2009, and the results of its operations and its cash flows for the years then ended in accordance with Canadian generally accepted accounting principles.



**ERNST & YOUNG LLP**  
Chartered Accountants,  
Licensed Public Accountants

Toronto, Canada  
March 4, 2011

## Consolidated Statements of Income

Years Ended December 31 (millions of dollars – except where noted)	2010	2009
<b>Revenue</b> (Note 19)		
Revenue before revenue limit rebate	5,375	5,640
Revenue limit rebate (Note 17)	–	(27)
	<b>5,375</b>	5,613
Fuel expense (Note 19)	<b>908</b>	991
<b>Gross margin</b> (Note 19)	<b>4,467</b>	4,622
<b>Expenses</b> (Note 19)		
Operations, maintenance and administration	<b>2,903</b>	2,882
Depreciation and amortization (Note 6)	<b>698</b>	760
Accretion on fixed asset removal and nuclear waste management liabilities (Note 10)	<b>660</b>	634
Earnings on nuclear fixed asset removal and nuclear waste management funds (Note 10)	<b>(668)</b>	(683)
Property and capital taxes	<b>77</b>	86
Restructuring (Note 26)	<b>27</b>	–
	<b>3,697</b>	3,679
<b>Income before the following:</b>	<b>770</b>	943
Other losses and (gains) (Notes 4 and 18)	<b>5</b>	(10)
<b>Income before interest and income taxes</b>	<b>765</b>	953
Net interest expense (Note 9)	<b>176</b>	185
<b>Income before income taxes</b>	<b>589</b>	768
Income tax (recovery) expense (Note 11)		
Current	<b>(67)</b>	51
Future	<b>7</b>	94
	<b>(60)</b>	145
<b>Net income</b>	<b>649</b>	623
<b>Basic and diluted income per common share</b> (dollars)	<b>2.53</b>	2.43
<b>Common shares outstanding</b> (millions)	<b>256.3</b>	256.3

See accompanying notes to the consolidated financial statements



## Consolidated Statements of Cash Flows

Years Ended December 31 (millions of dollars)	2010	2009
<b>Operating activities</b>		
Net income	649	623
Adjust for non-cash items:		
Depreciation and amortization (Note 6)	698	760
Accretion on fixed asset removal and nuclear waste management liabilities (Note 10)	660	634
Earnings on nuclear fixed asset removal and nuclear waste management funds (Notes 10 and 19)	(668)	(683)
Pension costs (Note 12)	125	69
Other post employment benefits and supplementary pension plans (Note 12)	202	180
Future income taxes and other accrued charges (Note 11)	(89)	88
Provision for other liabilities	20	–
Provision for restructuring (Note 26)	27	–
Mark-to-market on derivative instruments	41	16
Provision for used nuclear fuel	41	35
Regulatory assets and liabilities (Note 7)	(222)	(429)
Other losses and (gains) (Note 18)	5	(10)
Other	(2)	29
	<b>1,487</b>	<b>1,312</b>
Contributions to nuclear fixed asset removal and nuclear waste management funds (Note 10)	(264)	(339)
Expenditures on nuclear fixed asset removal and nuclear waste management (Note 10)	(181)	(189)
Reimbursement of expenditures on nuclear fixed asset removal and nuclear waste management (Note 10)	100	104
Contributions to pension fund (Note 12)	(272)	(271)
Expenditures on other post employment benefits and supplementary pension plans (Note 12)	(82)	(81)
Revenue limit rebate (Note 17)	–	(112)
Expenditures on restructuring (Note 26)	(12)	–
Net changes to other long-term assets and liabilities	(6)	111
Net changes in non-cash working capital balances (Note 24)	47	(236)
<b>Cash flow provided by operating activities</b>	<b>817</b>	<b>299</b>
<b>Investing activities</b>		
Increase in regulatory assets (Note 7)	–	(2)
Investment in fixed and intangible assets (Notes 6 and 19)	(978)	(752)
Net proceeds from sale of long-term investments (Note 4)	33	1
<b>Cash flow used in investing activities</b>	<b>(945)</b>	<b>(753)</b>
<b>Financing activities</b>		
Issuance of long-term debt (Note 8)	1,160	565
Repayment of long-term debt (Note 8)	(978)	(359)
Net increase in short-term notes (Note 9)	155	–
Capital contribution by non-controlling interest	–	4
<b>Cash flow provided by financing activities</b>	<b>337</b>	<b>210</b>
<b>Net increase (decrease) in cash and cash equivalents</b>	<b>209</b>	<b>(244)</b>
<b>Cash and cash equivalents, beginning of year</b>	<b>71</b>	<b>315</b>
<b>Cash and cash equivalents, end of year</b>	<b>280</b>	<b>71</b>

See accompanying notes to the consolidated financial statements

## Consolidated Balance Sheets

As at December 31 (millions of dollars)	2010	2009
<b>Assets</b>		
<b>Current assets</b>		
Cash and cash equivalents	280	71
Accounts receivable (Note 5)	270	391
Fuel inventory	734	837
Prepaid expenses	42	47
Income and capital taxes recoverable	65	45
Future income taxes (Note 11)	73	51
Materials and supplies (Note 19)	85	132
	<b>1,549</b>	1,574
<b>Fixed assets</b> (Notes 6 and 19)		
Property, plant and equipment	19,654	18,695
Less: accumulated depreciation	6,099	5,859
	<b>13,555</b>	12,836
<b>Intangible assets</b> (Notes 6 and 19)		
Intangible assets	345	331
Less: accumulated amortization	297	279
	<b>48</b>	52
<b>Other long-term assets</b>		
Deferred pension asset (Note 12)	1,146	999
Nuclear fixed asset removal and nuclear waste management funds (Notes 10 and 19)	11,246	10,246
Long-term investments (Notes 4 and 22)	30	66
Long-term materials and supplies (Note 19)	400	388
Regulatory assets (Note 7)	1,559	1,396
Long-term accounts receivable and other assets	44	27
	<b>14,425</b>	13,122
	<b>29,577</b>	27,584

See accompanying notes to the consolidated financial statements

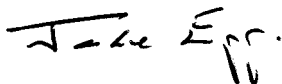
## Consolidated Balance Sheets

As at December 31 (millions of dollars)	2010	2009
<b>Liabilities</b>		
<b>Current liabilities</b>		
Accounts payable and accrued charges	762	933
Long-term debt due within one year (Note 8)	385	978
Short-term notes payable (Note 9)	155	–
Deferred revenue due within one year	12	12
	<b>1,314</b>	1,923
<b>Long-term debt</b> (Note 8)	<b>3,843</b>	3,068
<b>Other long-term liabilities</b>		
Fixed asset removal and nuclear waste management (Notes 10 and 19)	12,704	11,859
Other post employment benefits and supplementary pension plans (Note 12)	1,908	1,796
Long-term accounts payable and accrued charges	525	522
Deferred revenue	152	130
Future income taxes (Note 11)	798	633
Regulatory liabilities (Note 7)	248	172
	<b>16,335</b>	15,112
<b>Non-controlling interest</b> (Note 25)	<b>4</b>	4
<b>Shareholder's equity</b>		
Common shares (Note 15)	5,126	5,126
Retained earnings	3,024	2,375
Accumulated other comprehensive loss	(69)	(24)
	<b>8,081</b>	7,477
	<b>29,577</b>	27,584

Commitments and Contingencies (Notes 8, 12, 13, and 16)

See accompanying notes to the consolidated financial statements

On behalf of the Board of Directors:



**Honourable Jake Epp**  
Chairman



**M. George Lewis**  
Director

## Consolidated Statements of Changes in Shareholder's Equity

Years Ended December 31 (millions of dollars)	2010	2009
<b>Common shares</b> (Note 15)	5,126	5,126
<b>Retained earnings</b>		
Balance at beginning of year	2,375	1,752
Net income	649	623
Balance at end of year	3,024	2,375
<b>Accumulated other comprehensive loss, net of income taxes</b>		
Balance at beginning of year	(24)	(49)
Other comprehensive (loss) income for the year	(45)	25
Balance at end of year	(69)	(24)
<b>Total shareholder's equity at end of year</b>	<b>8,081</b>	<b>7,477</b>

## Consolidated Statements of Comprehensive Income

Years Ended December 31 (millions of dollars)	2010	2009
<b>Net income</b>	649	623
<b>Other comprehensive (loss) income, net of income taxes</b>		
Net (loss) gain on derivatives designated as cash flow hedges <sup>1</sup>	(39)	32
Reclassification to income of gains on derivatives designated as cash flow hedges <sup>2</sup>	(6)	(7)
Other comprehensive (loss) income for the year	(45)	25
<b>Comprehensive income</b>	<b>604</b>	<b>648</b>

<sup>1</sup> Net of income tax recoveries of \$1 million and tax expenses of \$2 million for the years ended December 31, 2010 and 2009, respectively.

<sup>2</sup> Net of income tax recoveries of \$4 million and \$3 million for the years ended December 31, 2010 and 2009, respectively.

See accompanying notes to the consolidated financial statements

# Notes to the Consolidated Financial Statements

For the years ended December 31, 2010 and 2009

## 1. Description of Business

Ontario Power Generation Inc. (“OPG” or the “Company”) was incorporated on December 1, 1998 pursuant to the *Business Corporations Act* (Ontario) and is wholly owned by the Province of Ontario (the “Province”). OPG is an Ontario-based electricity generation company whose principal business is the generation and sale of electricity in Ontario. OPG’s focus is on the efficient generation and sale of electricity from its generating assets, while operating in a safe, open and environmentally responsible manner.

## 2. Basis of Presentation

These consolidated financial statements were prepared in accordance with Canadian generally accepted accounting principles (“GAAP”) and are presented in Canadian dollars. The preparation of financial statements in conformity with Canadian GAAP requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenue and expenses, and the disclosure of contingent assets and liabilities. Actual results could differ from those estimates.

The consolidated financial statements include the accounts of OPG and its subsidiaries. OPG accounts for its interests in jointly controlled entities using the proportionate consolidation method. In accordance with Accounting Guideline 15, *Consolidation of Variable Interest Entities*, the applicable amounts in the accounts of the Nuclear Waste Management Organization (“NWMO”) are included in OPG’s consolidated financial statements. All significant intercompany transactions have been eliminated on consolidation.

Certain of the 2009 comparative amounts have been reclassified from financial statements previously presented to conform to the 2010 consolidated financial statement presentation.

## 3. Summary of Significant Accounting Policies

### CASH AND CASH EQUIVALENTS AND SHORT-TERM INVESTMENTS

Cash and cash equivalents include cash on deposit and money market securities with a maturity of less than 90 days on the date of purchase. All other money market securities with a maturity on the date of purchase that is greater than 90 days, but less than one year, are recorded as short-term investments. These securities are valued at the lower of cost and market.

Interest earned on cash and cash equivalents and short-term investments of \$2 million (2009 – \$1 million) at an average effective rate of 0.7 percent (2009 – 0.7 percent) is offset against interest expense in the consolidated statements of income.

### SALES OF ACCOUNTS RECEIVABLE

Asset securitization involves selling assets such as accounts receivable to independent entities or trusts, which buy the receivables and then issue interests in them to investors. These transactions are accounted for as sales, given that control has been surrendered over these assets in return for net cash consideration. For each transfer, the excess of the carrying value of the receivables transferred over the estimated fair value of the proceeds received is reflected as a loss on the date of the transfer, and is included in net interest expense. The carrying value of the interests transferred is allocated to accounts receivable sold or interests retained according to their relative fair values on the day the transfer is made. Fair value is determined based on the present value of future cash flows. Cash flows are projected using OPG’s best estimates of key assumptions, such as discount rates, weighted average life of accounts receivable and credit loss ratios.

As part of the sales of accounts receivable, certain financial assets are retained and consist of interests in the receivables transferred. Any retained interests held in the receivables are accounted for at cost. The receivables are transferred on a fully serviced basis and do not create a servicing asset or liability.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the years ended December 31, 2010 and 2009

### INVENTORIES

Fuel inventory is valued at the lower of weighted average cost and net realizable value.

Materials and supplies are valued at the lower of average cost and net realizable value. The determination of net realizable value of materials and supplies takes into account various factors including the remaining useful life of the related facilities in which the materials and supplies are expected to be used.

### FIXED AND INTANGIBLE ASSETS AND DEPRECIATION AND AMORTIZATION

Property, plant and equipment and intangible assets are recorded at cost. Interest costs incurred during construction and development are capitalized as part of the cost of the asset based on the interest rate on OPG's long-term debt. Expenditures for replacements of major components are capitalized.

Depreciation rates for the various classes of assets are based on their estimated service lives. Any asset removal costs that have not been specifically provided for in current or previous periods are also charged to depreciation expense. Repairs and maintenance are expensed when incurred.

Fixed assets are depreciated on a straight-line basis except for computers, and transport and work equipment, which are mostly depreciated on a declining balance basis. Intangible assets, which consist of major application software, are amortized on a straight-line basis. As at December 31, 2010, the depreciation and amortization periods of fixed and intangible assets are as follows:

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Nuclear generating stations and major components	15 to 59 years <sup>1</sup>
Thermal generating stations and major components	25 to 48 years <sup>2</sup>
Hydroelectric generating stations and major components	25 to 100 years
Administration and service facilities	10 to 50 years
Computers, and transport and work equipment assets – declining balance	9% to 40% per year
Major application software	5 years
Service equipment	5 to 10 years

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<sup>1</sup> As at December 31, 2010, the end of station life for depreciation purposes for the Darlington, Pickering A, Pickering B, Bruce A, and Bruce B nuclear generating stations ranges between 2014 and 2051. Major components are depreciated over the lesser of the station life and the life of the components. The Bruce A nuclear generating station was fully depreciated in 2003, however Bruce Power L.P. decided to refurbish the Bruce A generating station contributing to an increase in the asset retirement obligation and an increase in the carrying value of the Bruce A station. Changes to the end of station life for depreciation purposes are described under the heading *Changes in Accounting Policies and Estimates*.

<sup>2</sup> Lambton units 1 and 2 and Nanticoke units 2 and 3 were fully depreciated by September 30, 2010.

### IMPAIRMENT OF FIXED ASSETS

OPG evaluates its property, plant and equipment for impairment whenever conditions indicate that estimated undiscounted future net cash flows may be less than the net carrying amount of assets. In cases where the undiscounted expected future cash flows are less than the carrying amount, an impairment loss is recognized equal to the amount by which the carrying amount exceeds the fair value. Fair value is determined using expected discounted cash flows when quoted market prices are not available.

### RATE REGULATED ACCOUNTING

*Ontario Regulation 53/05*, a regulation pursuant to the *Ontario Energy Board Act, 1998*, provides that, effective April 1, 2005, regulated prices are received by OPG for electricity generated from the baseload hydroelectric facilities and all of the nuclear facilities that it operates. Beginning April 1, 2008, OPG's regulated prices for these regulated facilities are determined by the Ontario Energy Board ("OEB"). The OEB issued a decision in 2008 that determined the regulated prices effective April 1, 2008. The regulated prices were based on a forecast cost of service methodology. This methodology establishes regulated prices based on a revenue requirement taking into account a forecast of production volumes and total operating costs, and a return on rate base. Rate base is a regulatory construct that represents the average net level of investment in regulated fixed assets and an allowance for working capital.

The OEB is a self-funding Crown corporation. Its mandate and authority come from the *Ontario Energy Board Act, 1998*, the *Electricity Act, 1998*, and a number of other provincial statutes. The OEB is an independent, quasi-judicial tribunal that reports to the Legislature of the Province through the Minister of Energy and Infrastructure. It regulates market participants in the province's natural gas and electricity industries and carries out its regulatory functions through public hearings and other more informal processes such as consultations.

The OEB's decision issued in 2008 on the regulated prices, the OEB's decision issued in May 2009 on OPG's motion to review and vary a portion of the 2008 decision, and the OEB's decision issued in October 2009 on OPG's accounting order application authorized certain variance and deferral accounts, including those authorized pursuant to *Ontario Regulation 53/05*. The OEB's 2008 decision also ruled on the disposition of the balances previously recorded by OPG in variance and deferral accounts as at December 31, 2007 pursuant to *Ontario Regulation 53/05*. Variance accounts capture the difference between actual costs and revenues, and the corresponding forecast amounts approved in the setting of regulated prices.

In May 2010, OPG filed an application with the OEB for new regulated prices to be effective March 1, 2011 using a cost of service methodology. The application included OPG's request for the disposition of variance and deferral account balances as at December 31, 2010 as well as the establishment and continuation of variance and deferral accounts. The public hearing process on OPG's application concluded on December 21, 2010. As of the date of these consolidated financial statements, the OEB has not issued a decision on OPG's application. The OEB's decision is expected in March 2011.

The impact of the regulation and the OEB's decisions on OPG's revenue recognition policies is described under the heading, *Revenue Recognition*.

The balances in variance and deferral accounts are recognized as regulatory assets and liabilities as Canadian accounting standards recognize that rate regulation can create economic benefits and obligations that are required by the regulator to be obtained from, or settled, with the ratepayers. When a company assesses that there is sufficient assurance that incurred expenses will be recovered in the future, those expenses may be deferred and reported as a regulatory asset. When a regulator provides recovery through current rates for expenses that are not incurred, then a regulatory liability is reported. The measurement of regulatory assets and liabilities is subject to certain estimates and assumptions, including assumptions made in the interpretation of the regulation and the OEB's decisions. These estimates and assumptions are reviewed as part of the OEB's regulatory process.

Regulatory asset and liability balances approved by the regulator for inclusion in regulated prices are amortized based on approved recovery periods. Disallowed balances, including associated interest, are charged to operations in the period that the regulator's decision is issued. Interest is applied to regulatory balances as prescribed by the OEB, in order to recognize the cost of financing amounts to be recovered from, or repaid to, ratepayers.

Certain assets and liabilities arising from rate regulation have specific guidance under a primary source of Canadian GAAP that applies only to the particular circumstances described therein, including those arising under Canadian Institute of Chartered Accountants ("CICA") Handbook Section 1600, *Consolidated Financial Statements*, Handbook Section 3061, *Property, Plant and Equipment*, Handbook Section 3465, *Income Taxes*, and Handbook Section 3475, *Disposal of Long-Lived Assets and Discontinued Operations*. Other assets and liabilities arising from rate regulation do not have specific guidance under a primary source of GAAP. Therefore, Handbook Section 1100, *Generally Accepted Accounting Principles* ("Section 1100") directs the Company to adopt accounting policies that are developed through the exercise of professional judgment and the application of concepts described in Handbook Section 1000, *Financial Statement Concepts*. In developing these accounting policies, the Company may consult other sources including pronouncements issued by bodies authorized to issue accounting standards in other jurisdictions. Therefore, in accordance with Section 1100, the Company has determined that these assets and liabilities qualify for recognition under Canadian GAAP and this recognition is consistent with the Financial Accounting Standards Board Accounting Standards Codification Topic 980, *Accounting for the Effects of Certain Types of Regulation* (formerly Financial Accounting Standards No. 71).

See Notes 7 and 11 to these consolidated financial statements for additional disclosure related to regulatory assets and liabilities and rate regulated accounting.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the years ended December 31, 2010 and 2009

### INVESTMENTS IN OPG VENTURES

In accordance with Accounting Guideline 18, *Investment Companies* ("AcG-18"), investments owned by the Company's wholly owned subsidiary OPG Ventures Inc. ("OPGV") are recorded at fair value, and changes to the fair value of the investments are included in revenue in the period in which the change occurs. The fair values of these investments are estimated using a methodology that is appropriate in light of the nature, facts and circumstances of the respective investments and considers reasonable data and market inputs, assumptions and estimates. See Notes 13 and 22 to these consolidated financial statements for additional disclosure related to OPG's investments in OPGV.

### FIXED ASSET REMOVAL AND NUCLEAR WASTE MANAGEMENT LIABILITY

OPG recognizes asset retirement obligations for fixed asset removal and nuclear waste management, discounted for the time value of money. OPG has estimated both the amount and timing of future cash expenditures based on current plans for fixed asset removal and nuclear waste management. The liabilities are initially recorded at their estimated fair value, which is based on a discounted value of the expected costs to be paid.

On an ongoing basis, the liability is increased by the present value of the variable cost portion of the nuclear waste generated each year, with the corresponding amounts charged to operating expenses. Expenses relating to low and intermediate level nuclear waste are charged to depreciation and amortization expense. Expenses relating to the management or storage of nuclear used fuel are charged to fuel expense. The liability may also be adjusted due to any changes in the estimated amount or timing of the underlying future cash flows. Upon settlement of the liability, a gain or loss would be recorded.

Accretion arises because liabilities for fixed asset removal and nuclear waste management are reported on a net present value basis. Accretion expense is the increase in the carrying amount of the liabilities due to the passage of time. The resulting expense is included in operating expenses.

The asset retirement cost is capitalized by increasing the carrying value of the related fixed assets. The capitalized cost is depreciated over the remaining useful life of the related fixed assets and is included in depreciation and amortization expense.

### NUCLEAR FIXED ASSET REMOVAL AND NUCLEAR WASTE MANAGEMENT FUNDS

Pursuant to the Ontario Nuclear Funds Agreement ("ONFA") between OPG and the Province, OPG established a Used Fuel Segregated Fund ("Used Fuel Fund") and a Decommissioning Segregated Fund ("Decommissioning Fund") (together the "Nuclear Funds"). The Used Fuel Fund is intended to fund expenditures associated with the management of highly radioactive used nuclear fuel bundles, while the Decommissioning Fund was established to fund expenditures associated with nuclear fixed asset removal and the disposal of low and intermediate level nuclear waste materials. OPG maintains the Nuclear Funds in third-party custodial accounts that are segregated from the rest of OPG's assets.

The investments in the Nuclear Funds and the corresponding payables to the Province are classified as held-for-trading. Accordingly, the Nuclear Funds and the corresponding payables to the Province are measured at fair value based on the bid prices of the underlying securities with gains and losses recognized in net income.

### REVENUE RECOGNITION

All of OPG's electricity generation is offered into the real-time energy spot market administered by the Independent Electricity System Operator ("IESO"). Energy revenue, generated from the nuclear facilities since April 1, 2008, is based on a regulated price of 5.50¢/kWh pursuant to the OEB's decision issued in 2008. This price includes a rate rider of 0.20¢/kWh for the recovery of approved nuclear variance and deferral account balances based on recovery periods authorized by the OEB. Effective April 1, 2008, regulated hydroelectric generation receives a regulated price of 3.67¢/kWh. In its 2008 decision, the OEB also approved a revised incentive mechanism for production from regulated hydroelectric facilities, which became effective December 1, 2008. Under this mechanism, OPG receives the approved regulated price of 3.67¢/kWh for the actual average hourly net energy production from these hydroelectric facilities in that month. In the hours when the actual net energy production in Ontario is greater or less than the average hourly net volume in the month, hydroelectric revenues are adjusted by the difference between the average hourly net volume and the actual net energy production multiplied by the spot market price. The regulated price of 3.67¢/kWh includes the recovery of approved hydroelectric regulatory balances based on recovery periods authorized by the OEB's 2008 decision.



During 2009, OPG filed an accounting order application. In the application, OPG sought the continuation of the rate rider of 0.20¢/kWh for recovery of nuclear regulatory balances approved in the OEB's 2008 decision. OPG also sought to establish the basis for recording additions to existing variance and deferral account balances after 2009. These requests were approved by the OEB in October 2009. In addition, the OEB directed that OPG establish a new variance account to record potential over collection of hydroelectric variance account balances through the hydroelectric regulated price after 2009.

As part of the May 2010 application for new regulated prices, 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.

Electricity generated from OPG's other generating assets remains unregulated and continues to receive 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.

The Lambton and Nanticoke generating stations are subject to a contingency support agreement with the Ontario Electricity Financial Corporation ("OEFEC"). The agreement was put in place to enable OPG to recover the costs of those coal-fired generating stations following implementation of OPG's CO<sub>2</sub> emissions reduction strategy. Production from the Lennox generating station was subject to a reliability must run contract up to September 30, 2009. OPG finalized a Lennox Generating Station Agreement ("LGSA") with the Ontario Power Authority ("OPA") for the station for the period October 1, 2009 to December 31, 2010. The LGSA for 2011 was executed in the first quarter of 2011. In 2010, OPG and the OPA began negotiations of the Atikokan Biomass Energy Supply Agreement ("ABESA") for the supply of biomass-fuelled electricity generation from the Atikokan generating station. The ABESA is expected to be executed in 2011.

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 is 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.

The revenue limit was 4.8¢/kWh for the period May 1, 2008 to April 30, 2009. During this period, volumes sold under a Pilot Auction administered by the OPA were subject to a revenue limit that was 0.5¢/kWh higher than the revenue limit applicable to OPG's other generating assets. Revenues above these limits were returned to the IESO for the benefit of consumers. The term of the revenue limit rebate ended on April 30, 2009.

OPG also sells into, and purchases from, interconnected markets of other provinces and the U.S. northeast and midwest. All contracts that are not designated as hedges are recorded in the consolidated balance sheets at market value with gains or losses recorded in the consolidated statements of income. Gains and losses on energy trading contracts (including those to be physically settled) are recorded on a net basis in the consolidated statements of income. Accordingly, power purchases of \$69 million in 2010 and \$79 million in 2009 were netted against revenue.

OPG derives non-energy revenue under the terms of a lease arrangement and related agreements with Bruce Power L.P. related to the Bruce nuclear generating stations. This includes lease revenue and revenue for engineering analysis and design, technical and ancillary services. The lease payments are recognized in revenue on a straight-line basis over the term of the lease.

OPG also earns revenue from its joint venture share of the Brighton Beach Power Limited Partnership ("Brighton Beach") related to an energy conversion agreement between Brighton Beach and Shell Energy North America (Canada) Inc. It also earns revenue from its 50 percent share of the results of the Portlands Energy Centre ("PEC") gas-fired generating station, which is co-owned with TransCanada Energy Ltd. In addition, non-energy revenue includes isotope sales and real estate rentals. Revenues from these activities are recognized as services are provided or as products are delivered.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the years ended December 31, 2010 and 2009

### FINANCIAL INSTRUMENTS

Financial assets are classified as one of the following: held-to-maturity, loans and receivables, held-for-trading, or available-for-sale, and financial liabilities are classified as held-for-trading or other than held-for-trading. Financial assets and liabilities held-for-trading are measured at fair value with gains and losses recognized in net income. Financial assets held-to-maturity, loans and receivables, and financial liabilities other than those held-for-trading, are measured at amortized cost. Financial assets available-for-sale are measured at fair value with unrealized gains and losses due to fluctuations in fair value recognized in accumulated other comprehensive income (loss) ("AOCI"). Financial assets purchased and sold, where the contract requires the asset to be delivered within an established time frame, are recognized on a trade-date basis. All derivatives, including embedded derivatives that must be separately accounted for, generally must be classified as held-for-trading and recorded at fair value in the consolidated balance sheets. Transaction costs are expensed as incurred for financial instruments classified or designated as held-for-trading.

The standard permits designation of any financial instrument as held-for-trading (the fair value option) upon initial recognition. This designation by OPG requires that the financial instrument be reliably measurable, and eliminates or significantly reduces a measurement or recognition inconsistency that would otherwise arise from measuring assets or liabilities.

For the year ended December 31, 2009, OPG adopted CICA Handbook Section 3862, *Financial Instruments – Disclosures* and categorized its fair value measurements using a fair value hierarchy that reflects the significance of the inputs used in measuring the financial instruments. The fair value hierarchy has three levels. Fair value of assets and liabilities included in Level 1 is determined by reference to quoted prices in active markets for identical assets and liabilities. Assets and liabilities in Level 2 include valuations using inputs other than the quoted prices for which all significant inputs are based on observable market data, either directly or indirectly. Level 3 valuations are based on inputs that are not based on observable market data.

### Hedges

The standard specifies the criteria under which hedge accounting can be applied and how hedge accounting is to be executed for each of the permitted hedging strategies: fair value hedges, cash flow hedges and hedges of a foreign currency exposure of a net investment in a self-sustaining foreign operation. In a cash flow hedging relationship, the effective portion of the change in the fair value of the hedging derivative is recognized in other comprehensive loss. The ineffective portion is recognized in net income. The amounts recognized in AOCI are reclassified to net income in the periods in which net income is affected by the variability in the cash flows of the hedged item.

### Derivatives

Some of OPG's unregulated generation is exposed to changes in electricity prices associated with a wholesale spot market for electricity in Ontario. To hedge the commodity price risk exposure associated with changes in the wholesale price of electricity, OPG enters into various energy and related sales contracts. These contracts are expected to be effective as hedges of the commodity price exposure on OPG's generation portfolio. Gains or losses on hedging instruments are recognized in unregulated revenue over the term of the contract when the underlying hedged transactions occur. All contracts not designated as hedges are recorded as assets or liabilities at fair value with changes in fair value recorded in the Other category revenue (refer to Note 19).

OPG also enters into derivative contracts with major financial institutions to manage the Company's exposure to foreign currency movements. Foreign exchange translation gains and losses on these foreign currency denominated derivative contracts are recognized as an adjustment to the purchase price of the commodity or goods received.

OPG is exposed to changes in market interest rates on debt expected to be issued in the future. OPG uses interest rate derivative contracts to hedge this exposure. Gains and losses on interest rate hedges are recorded as an adjustment to interest expense for the debt being hedged. Gains and losses that do not meet the effectiveness criteria are recorded through net income in the period incurred.

OPG utilizes emission reduction credits ("ERCs") and allowances to manage emissions within the prescribed regulatory limits. ERCs are purchased from trading partners in Canada and the United States. Emission allowances are obtained from the Province and purchased from trading partners in Ontario. The cost of ERCs and allowances is held in inventory and charged to OPG's operations at average cost as part of fuel expense, as required.

Hedge accounting is applied when the derivative instrument is designated as a hedge and is expected to be effective throughout the life of the hedged item. The fair value of such derivative instrument is included in AOCI on a net of tax basis and changes to the fair value are recorded on the consolidated statements of comprehensive income. When a derivative hedging relationship is expired, the designation of a hedging relationship is terminated, or a portion of the hedging instrument is no longer effective, any associated gains or losses included in AOCI are recognized in the current period's consolidated statement of income.

#### **FOREIGN CURRENCY TRANSLATION**

Monetary assets and liabilities denominated in foreign currencies are translated into Canadian currency at year-end exchange rates. Any resulting gain or loss is reflected in revenue.

#### **RESEARCH AND DEVELOPMENT**

Research and development costs are charged to operations in the year incurred. Research and development costs incurred to discharge long-term obligations such as the nuclear waste management liabilities, for which specific provisions have already been made, are charged to the related liability.

#### **PENSION AND OTHER POST EMPLOYMENT BENEFITS**

OPG's post employment benefit programs include a contributory defined benefit registered pension plan, a defined benefit supplementary pension plan, group life insurance, health care and long-term disability benefits. Effective January 1, 2009, similar post employment benefit programs were established by the NWMO. Information on the Company's post employment benefit programs is presented on a consolidated basis.

OPG accrues its obligations under pension and other post employment benefit ("OPEB") plans. The obligations for pension and other post retirement benefit costs are determined using the projected benefit method pro-rated on service. The obligation for long-term disability benefits is determined using the projected benefit method on a terminal basis. Pension and OPEB obligations are impacted by factors including interest rates, adjustments arising from plan amendments, changes in assumptions, experience gains or losses, salary levels, inflation, and cost escalation. Pension and OPEB costs and obligations are determined annually by independent actuaries using management's best estimate assumptions.

Assumptions are significant inputs to actuarial models that measure pension and OPEB obligations and related effects on operations. Two critical assumptions—discount rate and inflation—are important elements of benefit costs and obligations. In addition, the expected return on assets is a critical assumption in the determination of pension costs. These assumptions, as well as other assumptions involving demographic factors such as retirement age, mortality, and employee turnover are evaluated periodically by management in consultation with an independent actuary. During the evaluation process, the assumptions are updated to reflect actual experience and expectations for the future. Actual results in any given year will often differ from actuarial assumptions because of economic and other factors, and in accordance with Canadian GAAP, the impact of these differences is accumulated and amortized over future periods.

The discount rates used by OPG in determining projected benefit obligations and the costs for the Company's employee benefit plans are based on representative AA corporate bond yields. The respective discount rates enable OPG to calculate the present value of the expected future cash flows on the measurement date. A lower discount rate increases the present value of benefit obligations and increases benefit plan costs. The expected rate of return on plan assets is based on current and expected asset allocation, as well as the long-term historical risks and returns associated with each asset class within the plan portfolio. A lower expected rate of return on plan assets increases pension cost.

Pension fund assets include equity securities and corporate and government debt securities, real estate and other investments which are managed by professional investment managers. The fund does not invest in equity or debt securities issued by OPG. Pension fund assets are valued using market-related values for purposes of determining actuarial gains or losses and the expected return on plan assets. The market-related value recognizes gains and losses on equity assets relative to a six percent assumed real return over a five-year period.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the years ended December 31, 2010 and 2009

Pension and OPEB costs include current service costs, interest costs on the obligations, the expected return on pension plan assets, adjustments for plan amendments and adjustments for actuarial gains or losses, which result from changes in assumptions and experience gains and losses. Past service costs arising from pension and OPEB plan amendments are amortized on a straight-line basis over the expected average remaining service life to full eligibility of the employees covered by the plan. Due to the long-term nature of post-employment liabilities, the excess of the net cumulative unamortized gain or loss, over 10 percent of the greater of the benefit obligation and the market-related value of the plan assets, is amortized over the expected average remaining service life, since OPG will realize the economic benefit over that period.

When the recognition of the transfer of employees and employee-related benefits gives rise to both a curtailment and a settlement, the curtailment is accounted for prior to the settlement. A curtailment is the loss by employees of the right to earn future benefits under the plan. A settlement is the discharge of a plan's liability.

### TAXES

Under the *Electricity Act, 1998*, OPG is required to make payments in lieu 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), as modified by regulations made under the *Electricity Act, 1998* and related regulations. This effectively results in OPG paying taxes similar to what would be imposed under the federal and Ontario tax acts.

OPG follows the liability method of accounting for income taxes. Under the liability method, future income tax assets and liabilities are determined based on differences between the accounting and tax bases of assets and liabilities and measured using the substantively enacted tax rates and laws that will be in effect when the differences are expected to reverse. The effect on future income tax assets and liabilities of a change in tax rates is included in income in the period the change is substantively enacted. Future income tax assets are evaluated and if realization is not considered more likely than not, a valuation allowance is established. In accordance with the CICA Handbook Section 3465, *Income Taxes*, beginning January 1, 2009, OPG recognizes future income taxes associated with its rate regulated operations and records an offsetting regulatory asset or liability for the future income taxes that are expected to be recovered or refunded through future regulated prices charged to customers.

OPG makes payments in lieu of property tax on its nuclear and thermal generating assets to the OEFC, and also pays property taxes to municipalities.

OPG pays charges on gross revenue derived from the annual generation of electricity from its hydroelectric generating assets. The gross revenue charge ("GRC") includes a fixed percentage charge applied to the annual hydroelectric generation derived from stations located on provincial Crown lands, in addition to graduated rate charges applicable to all hydroelectric stations. GRC costs are included in fuel expense.

### CHANGES IN ACCOUNTING POLICIES AND ESTIMATES

#### Depreciation of Long-Lived Assets

The accounting estimates related to the depreciation of long-lived assets require significant management judgment to assess the appropriate useful lives of OPG's long-lived assets, including consideration of various technological and other factors.

Effective January 1, 2009, the service life of thermal stations, for the purpose of calculating depreciation, was extended by two years to 2014 based on the Province of Ontario's announcement to phase out coal generation by the end of 2014. The life extension reduced depreciation expense by \$31 million annually. Subsequently, 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. As a result of the unit closures, effective September 2009, OPG revised the end of life for these units to October 2010 from December 2014. This change in estimate was accounted for on a prospective basis and increased depreciation expense by \$29 million in 2010 and \$11 million in 2009.

### **Change in Estimate Related to Darlington Refurbishment**

In February 2010, OPG announced its decision to commence the definition phase of the refurbishment of the Darlington nuclear generating station. Accordingly, the service life of the Darlington nuclear generating station, for the purposes of calculating depreciation, was extended from 2019 to 2051. The approval and the extension of service life also impacted the assumptions for OPG's liabilities for fixed asset removal and nuclear waste management primarily due to cost increases related to additional used fuel bundles, partially offset by a decrease in the liability for decommissioning, resulting from the change in the service life assumptions. The net increase in the liabilities was \$293 million, using a discount rate of 4.8 percent. The increase in liabilities was reflected with a corresponding increase in the fixed asset balance in the first quarter of 2010. As a result of these changes, OPG's depreciation expense decreased by \$135 million on an annual basis beginning in 2010.

### **Restructuring**

As a result of the decision to close two coal-fired units at each of the Lambton and Nanticoke generating stations, OPG recorded restructuring charges of \$27 million in 2010 related to severance costs. The severance costs were incurred in accordance with collective bargaining agreements for the Society of Energy Professionals and the Power Workers' Union.

### **Future Changes in Accounting Policy**

In February 2008, the Canadian Accounting Standards Board ("AcSB") confirmed that Publicly Accountable Enterprises will be required to transition from Canadian GAAP to International Financial Reporting Standards ("IFRS"), as issued by the International Accounting Standards Board ("IASB"), for interim and annual financial reporting purposes of fiscal years beginning on or after January 1, 2011. As a result of recent changes to Part I of the CICA Handbook – Accounting, by the AcSB, certain rate-regulated entities can defer the adoption of IFRS by one year to January 1, 2012. OPG meets the AcSB's criteria for the deferral and has chosen to adopt IFRS effective January 1, 2012.

IFRS are premised on a conceptual framework similar to Canadian GAAP, however, significant differences exist in certain matters of recognition, measurement and disclosure. In line with OPG's IFRS conversion project, an assessment has been completed to identify the key accounting differences from Canadian GAAP. OPG's assessment of the impact of IFRS will depend on the IFRS standards in effect at the time of conversion on January 1, 2012 and accounting elections made. Proposed changes to the IFRS accounting standards have the potential to introduce additional significant accounting differences. OPG's interim consolidated financial statements, as currently disclosed in accordance with Canadian GAAP, will be significantly different when presented in accordance with IFRS. OPG will publish its first consolidated financial statements prepared in accordance with IFRS for the three months ending and as at March 31, 2012, and for the corresponding comparative period. The opening balance sheet as at January 1, 2011 will be disclosed in the March 31, 2012 interim consolidated financial statements.

The IASB has deferred its work on its rate-regulated activities accounting project. The IASB has not provided interim guidance for the recognition and measurement of regulatory assets and liabilities. As a result, OPG is analyzing existing IFRS guidance and continues to determine the impact on its accounting for regulatory assets and liabilities upon its adoption of IFRS on January 1, 2012.

## **4. Investments in Asset-Backed Commercial Paper**

Pursuant to the terms of a restructuring plan announced by the Pan-Canadian Investors Committee for third-party Asset-Backed Commercial Paper ("ABCP"), OPG's commercial paper was exchanged for longer term notes of approximately \$58 million in January 2009. OPG received five classes of notes, which were supported by margin funding facilities from third-party asset providers, Canadian banks, and governments. OPG replaced existing ABCP notes that had a net book value of \$35 million (\$58 million book value less a provision of \$23 million) with new ABCP notes of \$35 million, which represented the fair value of the new ABCP notes.

In 2009, OPG classified the ABCP notes for the purposes of measurement as held-for-trading. Fair value was determined based on a discounted cash flow model, and OPG classified its investment in ABCP as Level 3 in the fair value hierarchy disclosures (Note 13).

As at December 31, 2009, the ABCP holdings were valued at \$36 million. During the fourth quarter of 2010, OPG sold its holdings of these notes for \$33 million and recognized a loss of \$3 million for the year in other losses and gains.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the years ended December 31, 2010 and 2009

### 5. Sale of Accounts Receivable

In October 2003, the Company signed an agreement to sell an undivided co-ownership interest in its current and future accounts receivable (the “receivables”) to an independent trust. The Company also retains an undivided co-ownership interest in the receivables sold to the trust. Under the agreement, OPG continues to service the receivables. The transfer provides the trust with ownership of a share of the payments generated by the receivables, computed on a monthly basis. The trust’s recourse to the Company is generally limited to its income earned on the receivables.

OPG reflected the initial transfer to the trust of the co-ownership interest, and subsequent transfers required by the revolving nature of the securitization, as sales in accordance with CICA Accounting Guideline 12, *Transfer of Receivables*. In accordance with this Guideline, the proceeds of each sale to the trust were deemed to be the cash received from the trust, net of the undivided co-ownership interest retained by the Company. In accordance with the receivable purchase agreement, OPG reduced the securitized receivable balance by \$50 million, from \$300 million to \$250 million in May and June of 2009 primarily due to lower cash flows from the IESO. During the third quarter of 2009, OPG renewed the agreement with a maturity date of August 31, 2010 and an amended commitment of \$250 million. During the third quarter of 2010, OPG renewed the agreement with a maturity date of August 31, 2013 and a commitment of \$250 million.

For 2010, OPG has recognized interest expense of \$4 million (2009 – \$4 million) on such sales at an average cost of funds of 1.5 percent (2009 – 1.5 percent). As at December 31, 2010, OPG had sold receivables of \$250 million from its total portfolio of \$377 million (2009 – \$436 million).

The accounts receivable reported and securitized by the Company are as follows:

(millions of dollars – except where noted)	Principal Amount of Receivables as at December 31		Average Balance of Receivables for the year ended December 31	
	2010	2009	2010	2009
Total receivables portfolio <sup>1</sup>	377	436	379	398
Receivables sold	250	250	250	267
Receivables retained	127	186	129	131
Average cost of funds			1.5%	1.5%

<sup>1</sup> Amount represents receivables outstanding, including receivables that have been securitized, which the Company continues to service.

An immediate 10 percent or 20 percent adverse change in the discount rate would not have a material effect on the current fair value of the retained interest. There were no credit losses for the years ended December 31, 2010 and 2009.

Details of cash flows from securitizations for the years ended December 31, 2010 and 2009 are as follows:

(millions of dollars)	2010	2009
Collections reinvested in revolving sales <sup>1</sup>	2,995	3,200
Cash flows from retained interest	1,548	1,577

<sup>1</sup> Given the revolving nature of the securitization, the cash collections received on the receivables securitized are immediately reinvested in additional receivables resulting in no further cash proceeds to the Company over and above the securitized amount. The amounts reflect the total of twelve monthly amounts.

## 6. Fixed and Intangible Assets and Depreciation and Amortization

Depreciation and amortization expense consists of the following as at December 31, 2010 and 2009:

(millions of dollars)	2010	2009
Depreciation	579	629
Amortization of intangible assets	16	21
Amortization of regulatory assets and liabilities (Note 7)	101	103
Nuclear waste management costs	2	7
	<b>698</b>	<b>760</b>

Fixed assets consist of the following as at December 31, 2010 and 2009:

(millions of dollars)	2010	2009
Property, plant and equipment		
Nuclear generating stations	7,220	6,693
Regulated hydroelectric generating stations	4,474	4,454
Unregulated hydroelectric generating stations	4,020	3,607
Thermal generating stations	1,424	1,674
Other fixed assets	1,039	1,043
Construction in progress	1,477	1,224
	<b>19,654</b>	<b>18,695</b>
Less: accumulated depreciation		
Generating stations	5,819	5,625
Other fixed assets	280	234
	<b>6,099</b>	<b>5,859</b>
	<b>13,555</b>	<b>12,836</b>

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the years ended December 31, 2010 and 2009

Intangible assets consist of the following as at December 31, 2010 and 2009:

(millions of dollars)	2010	2009
Intangible assets		
Nuclear generating stations	93	89
Unregulated hydroelectric generating stations	3	2
Thermal generating stations	2	2
Other intangible assets	239	225
Development in progress	8	13
	<b>345</b>	<b>331</b>
Less: accumulated amortization		
Generating stations	77	69
Other intangible assets	220	210
	<b>297</b>	<b>279</b>
	<b>48</b>	<b>52</b>

Interest capitalized to construction and development in progress at an average rate of six percent during the years ended December 31, 2010 and 2009 was \$76 million and \$57 million, respectively.

### 7. Regulatory Assets and Liabilities

The OEB's decision issued in 2008 authorized certain variance and deferral accounts effective April 1, 2008, including those authorized pursuant to *Ontario Regulation 53/05*, a regulation under the *Ontario Energy Board Act, 1998*. In that decision the OEB also ruled on the disposition of the balances previously recorded by OPG in variance and deferral accounts as at December 31, 2007 pursuant to *Ontario Regulation 53/05*. During the year ended December 31, 2010, the Company recorded additions to the variance and deferral accounts authorized by the OEB in that decision, and amortized approved regulatory balances based on recovery periods established by the OEB.

During the year ended December 31, 2010, the Company also recorded additions to the Tax Loss Variance Account, which was established in 2009 in accordance with the OEB's decision and order issued during the second quarter of 2009. This decision was in response to a motion by OPG that asked the OEB to review and vary a portion of the 2008 decision establishing current regulated prices, as it pertains to the treatment of tax losses and their use for mitigation of the regulated prices.

During the fourth quarter of 2009, the OEB issued its decision on OPG's application for an accounting order to address the treatment of the variance and deferral accounts for the period after December 31, 2009. The OEB granted OPG's application to continue to recover the nuclear regulatory balances as at December 31, 2007, through the rate rider of 0.20¢/kWh originally authorized by the OEB in its 2008 decision. In addition, effective January 1, 2010, the OEB directed OPG to establish the Hydroelectric Deferral and Variance Over/Under Recovery Variance Account to record any over collection of approved hydroelectric regulatory balances through the hydroelectric regulated price of 3.67¢/kWh that remains in effect after December 31, 2009. The OEB also approved OPG's proposed basis for recording additions to nuclear and hydroelectric variance and deferral accounts, for the period after December 31, 2009. As a result of this decision, during 2010, OPG continued to amortize nuclear variance and deferral account balances approved for recovery in the OEB's 2008 decision.

OPG recorded interest on outstanding regulatory balances at the interest rate prescribed by the OEB, which fluctuated in the range of 0.55 percent to 1.20 percent per annum during the year ended December 31, 2010. The interest rate fluctuated in the range of 0.55 percent to 2.45 percent per annum during the year ended December 31, 2009. Beginning on January 1, 2009, OPG also records a regulatory asset or liability related to the recognition of future income taxes associated with its rate regulated operations, as required by the CICA's guidance for accounting for rate regulated operations described in Notes 3 and 11 to these consolidated financial statements.



On May 26, 2010, OPG filed an application with the OEB for new regulated prices to be effective March 1, 2011. As part of the application, OPG sought recovery of variance and deferral account balances as at December 31, 2010, including balances recorded during the three months ended March 31, 2008 pursuant to *Ontario Regulation 53/05*. The public hearing process on OPG's application concluded on December 21, 2010. As of the date of these consolidated financial statements, the OEB has not issued a decision on OPG's application.

The regulatory assets and liabilities recorded as at December 31, 2010 and 2009 were as follows:

(millions of dollars)	2010	2009
<b>Regulatory assets</b>		
Future Income Taxes (Note 11)	711	592
Bruce Lease Net Revenues Variance Account	250	328
Tax Loss Variance Account	492	295
Pickering A Return to Service Deferral Account	33	82
Nuclear Liabilities Deferral Account	39	86
Other	34	13
<b>Total regulatory assets</b>	<b>1,559</b>	<b>1,396</b>
<b>Regulatory liabilities</b>		
Nuclear Development Variance Account	111	55
Hydroelectric Water Conditions Variance Account	70	55
Income and Other Taxes Variance Account	40	21
Other	27	41
<b>Total regulatory liabilities</b>	<b>248</b>	<b>172</b>

The changes in the regulatory assets and liabilities during 2010 and 2009 were as follows:

(millions of dollars)	Future Income Taxes	Bruce Lease Net Revenues Variance	Tax Loss Variance	Pickering A Return to Service Deferral	Nuclear Liabilities Deferral	Nuclear Develop- ment Variance	Hydro- electric Water Conditions Variance	Income and Other Taxes Variance	Other (net)
Regulatory assets (liabilities), January 1, 2009	–	260	–	123	132	(21)	(22)	–	(4)
Change during the year	592	64	292	–	–	(29)	(29)	(21)	(18)
Interest	–	4	3	2	1	–	–	–	(2)
Amortization during the year	–	–	–	(43)	(47)	(5)	(4)	–	(4)
Regulatory assets (liabilities), December 31, 2009	592	328	295	82	86	(55)	(55)	(21)	(28)
Change during the year	119	(81)	194	–	–	(50)	(14)	(19)	34
Interest	–	3	3	–	1	(1)	(1)	–	–
Amortization during the year	–	–	–	(49)	(48)	(5)	–	–	1
<b>Regulatory assets (liabilities), December 31, 2010</b>	<b>711</b>	<b>250</b>	<b>492</b>	<b>33</b>	<b>39</b>	<b>(111)</b>	<b>(70)</b>	<b>(40)</b>	<b>7</b>

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the years ended December 31, 2010 and 2009

### FUTURE INCOME TAXES

Effective January 1, 2009, OPG is required to recognize future income taxes associated with its rate regulated operations, including future income taxes on temporary differences related to the regulatory assets and liabilities recognized for accounting purposes. In addition, OPG is required to recognize a separate regulatory asset or liability for the amount of future income taxes expected to be included in future rates and recovered from or paid to customers. OPG recorded an additional \$119 million to the regulatory asset for future income taxes during the year ended December 31, 2010 (2009 – \$592 million).

### TAX LOSS VARIANCE ACCOUNT

The Tax Loss Variance Account authorized by the OEB in May 2009 and effective April 1, 2008 pertains to the treatment of tax losses and their use for mitigation. In accordance with the OEB's May 2009 decision on OPG's motion to review and vary the OEB's 2008 decision on regulated prices, this account records the difference between the amount of mitigation included in the approved regulated prices and the revenue requirement reduction available from tax loss carry forwards for the period April 1, 2005 to March 31, 2008 recalculated as per the OEB's 2008 decision. As such, during the year ended December 31, 2010, OPG recorded a regulatory asset of \$197 million, including \$3 million of interest, related to the Tax Loss Variance Account and a corresponding \$194 million increase to revenue. During the year ended December 31, 2009, OPG recorded a regulatory asset of \$295 million, including \$3 million of interest related to this variance account and a corresponding \$292 million increase to revenue. The increase to revenue of \$292 million in 2009 included an amount of \$125 million related to the period from April 1, 2008 to December 31, 2008.

### BRUCE LEASE NET REVENUES VARIANCE ACCOUNT

As per *Ontario Regulation 53/05*, OPG is required to include the difference between OPG's revenues and costs associated with its ownership of the two nuclear stations on lease to Bruce Power L.P. in the determination of the regulated prices for production from OPG's regulated nuclear facilities. In its 2008 decision, the OEB also established a variance account, effective April 1, 2008, that captures differences between the forecast revenues and costs associated with the Bruce generating stations that are included in the approved regulated nuclear prices, and the actual amounts. As at December 31, 2010, the variance account balance was \$250 million (2009 – \$328 million).

The regulatory asset as at December 31, 2010 includes \$353 million (2009 – \$259 million) of revenue variance related to the Bruce lease agreement ("Bruce Lease") and related agreements, including the impact of the derivative embedded in the Bruce Lease (refer to Note 13), a variance of \$47 million (2009 – \$214 million) from forecast as a result of lower earnings from the Nuclear Funds related to the Bruce generating stations, partially offset by a related variance in income tax expense of \$109 million (2009 – \$131 million). The account also includes variances for accretion expense related to OPG's liabilities for nuclear used fuel management and nuclear decommissioning and low and intermediate level waste management ("Nuclear Liabilities") associated with the Bruce generating stations and for depreciation expense related to these stations.

### PICKERING A RETURN TO SERVICE DEFERRAL ACCOUNT

Effective January 1, 2005, in accordance with *Ontario Regulation 53/05*, OPG was required to establish a deferral account in connection with non-capital costs incurred on or after January 1, 2005 that were associated with the planned return to service of all units at the Pickering A nuclear generating station. OPG commenced amortization of the deferral account in accordance with the terms of the regulation when Unit 1 of the Pickering A nuclear generating station was returned to service in November 2005. In its 2008 decision, the OEB authorized the recovery of the unamortized balance in the account as at December 31, 2007 over a 45-month period ending December 31, 2011. Therefore, effective April 1, 2008, OPG amortizes the December 31, 2007 balance of the account on a straight-line basis over this period. Amortization expense of \$49 million was recorded in 2010 (2009 – \$43 million). As at December 31, 2010, the balance in the deferral account was \$33 million (2009 – \$82 million).

### NUCLEAR LIABILITIES DEFERRAL ACCOUNT

Effective April 1, 2005, *Ontario Regulation 53/05* required OPG to establish a deferral account in connection with changes to the Nuclear Liabilities. The deferral account represents the revenue requirement impact associated with the changes in the Nuclear Liabilities arising from an approved reference plan, approved after April 1, 2005, in accordance with the terms of the ONFA.

On December 31, 2006, OPG recorded an increase in its Nuclear Liabilities of \$1,386 million arising from an update to the approved reference plan in accordance with the terms of the ONFA (the “2006 Approved Reference Plan”). Therefore, commencing January 1, 2007 and up to March 31, 2008, OPG recorded a regulatory asset associated with this increase in the Nuclear Liabilities arising from the approved reference plan. In its 2008 decision, the OEB authorized the recovery of the balance in this account as at December 31, 2007 over a 33-month period ended December 31, 2010. Therefore, effective April 1, 2008, OPG amortized the December 31, 2007 balance of the account on a straight-line basis over this period. In 2010, OPG recorded amortization of \$48 million (2009 – \$47 million). The balance of the regulatory asset was \$39 million as at December 31, 2010 (2009 – \$86 million).

#### **NUCLEAR DEVELOPMENT VARIANCE ACCOUNT**

Up to April 1, 2008, in accordance with *Ontario Regulation 53/05*, OPG recorded a regulatory asset for deferred non-capital costs incurred in the course of planning and preparing for the development of proposed new nuclear facilities incurred on or after June 13, 2006 for recovery through future regulated prices. The OEB’s 2008 decision approved a variance account to record deviations in these non-capital costs from the forecast approved in setting nuclear regulated prices effective April 1, 2008 and established the regulatory asset balance recorded up to April 1, 2008 as the opening balance of this variance account. As at December 31, 2010, the variance account balance was a liability of \$111 million (2009 – \$55 million). OPG recorded additional operations, maintenance and administration (“OM&A”) expenses of \$50 million related to this variance account during the year ended December 31, 2010 (2009 – \$29 million).

The OEB’s 2008 decision also authorized the recovery of the costs deferred as at December 31, 2007 over a 33-month period ended December 31, 2010. Accordingly, effective April 1, 2008, OPG recorded amortization of these deferred costs in the variance account on a straight-line basis over this period. Amortization expense of \$5 million was recorded in 2010 (2009 – \$5 million).

#### **HYDROELECTRIC WATER CONDITIONS VARIANCE ACCOUNT**

The OEB’s 2008 decision authorized the continuation of a variance account for the impact of the difference in hydroelectric electricity production due to differences between forecast and actual water conditions. Effective April 1, 2008, forecast water conditions refer to those underlying the hydroelectric production forecast approved by the OEB in setting hydroelectric regulated prices.

For the years ended December 31, 2010 and 2009, OPG recorded decreases in revenue of \$14 million and \$29 million, respectively, reflecting actual water conditions that were favourable compared to those approved by the OEB.

The OEB’s 2008 decision authorized the recovery of the balance in this variance account as at December 31, 2007 over a 21-month period ended December 31, 2009. Accordingly, effective April 1, 2008, the amortization of this balance was recorded by OPG on a straight-line basis over this period. No amortization was recorded during the year ended December 31, 2010 (2009 – \$4 million). The balance of the regulatory liability was \$70 million as at December 31, 2010 (2009 – \$55 million).

#### **INCOME AND OTHER TAXES VARIANCE ACCOUNT**

In its 2008 decision, the OEB authorized the establishment of a variance account effective April 1, 2008 to capture deviations in income, capital and certain other tax-related expenses for the regulated business from those approved by the OEB in setting regulated prices caused by changes in tax rates or rules under the *Income Tax Act* (Canada) and the *Taxation Act, 2007* (Ontario) (formerly the *Corporations Tax Act*), as modified by regulations made under the *Electricity Act, 1998*, as well as variances caused by reassessments. Variances resulting from reassessments of prior taxation years that have an impact on taxes payable for the periods after April 1, 2008 are included in the account. In addition, the variance account captures certain changes to the property tax expense.

During the year ended December 31, 2010, OPG recorded a regulatory liability of \$19 million in the variance account primarily related to the impact of investment tax credits on eligible scientific research and experimental development (“SR&ED”) expenditures, reassessments of prior taxation years, and lower than forecast statutory corporate income and capital tax rates. As a result, OPG recorded additional capital tax expense of \$11 million, additional OM&A expenses of \$14 million and a reduction to income tax expense of \$6 million during 2010. During the year ended December 31, 2009, OPG recorded a regulatory liability of \$21 million primarily related to the impact of investment tax credits on eligible SR&ED expenditures, resulting in additional OM&A expenses of \$17 million and additional income tax expense of \$4 million.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the years ended December 31, 2010 and 2009

### OTHER REGULATORY ASSETS AND LIABILITIES

As at December 31, 2010, other regulatory assets included \$21 million related to the under-recovery of approved nuclear variance and deferral account balances since April 1, 2008 and \$7 million in the Nuclear Interim Period Shortfall Variance Account for the period April 1, 2008 to November 30, 2008. These under-recoveries are recorded in the respective variance accounts established by the OEB's 2008 decision and result from the collection of approved nuclear balances and retroactive revenue based on actual production, which varies from the forecast production approved by the OEB. Other regulatory assets also include \$6 million in the Nuclear Fuel Cost Variance Account authorized by the OEB effective April 1, 2008 for the difference between forecast and actual nuclear fuel costs per unit of production, and the unamortized balance of the variance account related to transmission outages and transmission restrictions.

As at December 31, 2009, other regulatory assets included \$8 million related to the under-recovery of approved nuclear variance and deferral account balances since April 1, 2008 and \$5 million in the Nuclear Interim Period Shortfall Variance Account for the period April 1, 2008 to November 30, 2008, as well as the unamortized balance of the variance account related to the transmission outages and transmission restrictions.

As at December 31, 2010, other regulatory liabilities included \$9 million in the Ancillary Services Net Revenue Variance Account, \$8 million in the Capacity Refurbishment Variance Account, \$8 million in the Hydroelectric Deferral and Variance Over/Under Recovery Variance Account and \$2 million in the Hydroelectric Interim Period Shortfall Variance Account. The continuation of the previously existing Ancillary Services Net Revenue Variance Account was authorized by the OEB's 2008 decision and captures differences between forecast and actual ancillary services net revenue. The Capacity Refurbishment Variance Account was approved by the OEB effective April 1, 2008 and includes differences from forecast costs related to the refurbishment of the Darlington nuclear generating station as well as life extension initiatives at the Pickering B nuclear generation station. Forecast ancillary services net revenue and capacity refurbishment costs relate to those approved by the OEB in setting regulated prices.

As at December 31, 2009, other regulatory liabilities included \$21 million in the Nuclear Fuel Cost Variance Account, \$17 million in the Ancillary Services Net Revenue Variance Account and \$3 million in the Capacity Refurbishment Variance Account.

### SUMMARY OF THE IMPACT OF REGULATORY ASSETS AND LIABILITIES

The following table summarizes the income statement and other comprehensive income statement impacts of recognizing regulatory assets and liabilities:

	2010			2009		
	As Stated	Impact of Regulatory Assets and Liabilities	Financial Statements without the Impact of Regulatory Assets and Liabilities	As Stated	Impact of Regulatory Assets and Liabilities	Financial Statements without the Impact of Regulatory Assets and Liabilities
(millions of dollars)						
Revenue	5,375	(273)	5,102	5,613	(491)	5,122
Fuel expense	908	30	938	991	(19)	972
Operations, maintenance and administration	2,903	(69)	2,834	2,882	(43)	2,839
Depreciation and amortization	698	(120)	578	760	(106)	654
Accretion on fixed asset removal and nuclear waste management liabilities	660	13	673	634	(3)	631
Earnings on nuclear fixed asset removal and nuclear waste management funds	(668)	(168)	(836)	(683)	(119)	(802)
Property and capital taxes	77	(17)	60	86	(3)	83
Net interest expense	176	(1)	175	185	6	191
Income tax (recovery) expense	(60)	158	98	145	76	221
Other comprehensive (loss) income	(45)	12	(33)	25	(10)	15

## 8. Long-Term Debt

Long-term debt consists of the following:

(millions of dollars)	2010	2009
Notes payable to the Ontario Electricity Financial Corporation	3,865	3,675
UMH Energy Partnership debt	198	197
Share of non-recourse limited partnership debt	165	174
	<b>4,228</b>	<b>4,046</b>
Less: due within one year		
Notes payable to the Ontario Electricity Financial Corporation	375	970
UMH Energy Partnership debt	2	–
Share of non-recourse limited partnership debt	8	8
	<b>385</b>	<b>978</b>
Long-term debt	<b>3,843</b>	<b>3,068</b>

Holders of the senior debt are entitled to receive, in full, amounts owing in respect of the senior debt before holders of the subordinated debt are entitled to receive any payments. The OEFC currently holds all of OPG's outstanding senior and subordinated notes.

The maturity dates as at December 31, 2010 for notes payable to the OEFC are as follows:

Year of Maturity	Interest Rate	Principal Outstanding (millions of dollars)		
		Senior Notes	Subordinated Notes	Total
2011	6.65%	–	375	375
2012	5.72%	400	–	400
2015	3.43%	500	–	500
2016	4.91%	270	–	270
2017	5.35%	900	–	900
2018	5.27%	395	–	395
2019	5.44%	365	–	365
2020	4.07%	660	–	660
		<b>3,490</b>	<b>375</b>	<b>3,865</b>

Debt financing for the Niagara Tunnel, the PEC and the Lac Seul hydroelectric generating station projects is provided by the OEFC. As at December 31, 2010, debt financing for these projects, which is included as part of the notes payable to the OEFC, consisted of the following:

(millions of dollars)	Niagara Tunnel	Portlands Energy Centre	Lac Seul Hydroelectric Generating Station
Debt financing, as at December 31, 2009	490	390	50
New borrowing	200	–	–
Debt financing, as at December 31, 2010	<b>690</b>	<b>390</b>	<b>50</b>

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the years ended December 31, 2010 and 2009

In September 2005, OPG reached an agreement with the OEFC to provide debt financing for the Niagara Tunnel project. The funding, which is up to \$1.6 billion over the duration of the project, was amended in the third quarter of 2010 from \$1.0 billion and is in the form of ten-year notes, which will be issued quarterly to meet the project's obligations. Interest will be fixed for each note issued at the time of advance at a rate equal to the prevailing Benchmark Government of Canada 10-Year Bond, plus a credit spread determined by the OEFC based on a survey of market rates. As at December 31, 2010, OPG issued \$690 million against this facility, which included new borrowings of \$200 million under the facility in 2010.

In December 2006, OPG reached an agreement with the OEFC to provide debt financing for the Lac Seul Hydroelectric Generating Station and the PEC projects. There was up to \$50 million available for the Lac Seul project and up to \$400 million available for the PEC project under each credit facility. The credit facilities were drawn as needed to fund the respective projects over the construction period. The funding was in the form of 10-year notes with interest rates fixed for each note issued at the time of advance at a rate equal to the prevailing Benchmark Government of Canada 10-Year Bond, plus a credit spread determined by the OEFC based on a survey of market rates. Advances under these facilities were completed in 2009.

OPG reached an agreement with the OEFC in the first quarter of 2010 for a \$970 million credit facility to refinance notes as they mature over the period from January 2010 to December 2010. Refinancing under this agreement totalled \$960 million as at December 31, 2010, which included \$500 million of five-year notes at an average interest rate of 3.42 percent and \$460 million of ten-year notes at an average interest rate of 4.54 percent. No further advances are available under this facility.

Project financing was completed for the Upper Mattagami and Hound Chute project in May 2009. Senior notes totalling \$200 million were issued by the UMH Energy Partnership, a general partnership between OPG and UMH Energy Inc., a wholly owned subsidiary of OPG. Transaction costs that are directly attributable to the issuance of the senior notes are included in the amortized cost of the notes. The senior notes have an effective interest rate of 7.86 percent and will mature in 2041. These notes are secured by the assets of the Upper Mattagami and Hound Chute project. These notes are recourse to OPG until specified conditions have been satisfied following construction. The undiscounted contractual maturities are as follows:

(millions of dollars)	Principal
2011	2
2012	3
2013	3
2014	3
2015	3
2016 and thereafter	186

The non-recourse limited partnership debt is secured by a first charge on the assets of one of the joint venture limited partnerships, an assignment of the joint venture's bank accounts, and an assignment of the joint venture's project agreements. OPG's share of the total assets was \$236 million as at December 31, 2010 (2009 – \$251 million). The minimum principal repayments of the non-recourse limited partnership debt for the next five calendar years range from \$9 million to \$14 million annually. OPG's share of the non-recourse limited partnership debt included a note payable of \$119 million at an interest rate of 6.9 percent, with an effective interest rate of 7.0 percent. This note payable is repayable in quarterly payments commencing March 31, 2006 to March 31, 2024. The remaining non-recourse limited partnership debt is at various floating rates. The interest rates of the floating rate debt are referenced to various interest rate indices, such as the bankers' acceptance rate and the London Interbank Offered Rate, plus a margin. The joint venture has entered into floating-to-fixed interest rate hedges to manage the risks arising from fluctuation in interest rates.

Interest paid in 2010 was \$258 million (2009 – \$252 million), of which \$242 million (2009 – \$237 million) relates to interest paid on long-term corporate debt. Interest on the notes payable to the OEFC is paid semi-annually.

## 9. Short-Term Credit Facilities and Net Interest Expense

OPG maintains a \$1 billion revolving committed bank credit facility, which is divided into two tranches – a \$500 million 364-day term tranche and a \$500 million multi-year term tranche. In April 2010, OPG renewed and extended the maturity date of the 364-day term tranche to May 18, 2011. The multi-year term tranche has a maturity date of May 20, 2013. The total credit facility will continue to be used primarily as credit support for notes issued under OPG's commercial paper program. As at December 31, 2010, no commercial paper was outstanding (2009 – nil), and OPG had no other outstanding borrowings under the bank credit facility.

In the second quarter of 2008, OPG entered into a \$100 million five-year revolving committed bank credit facility in support of the Upper Mattagami and Hound Chute project. As at December 31, 2010, there were no borrowings under this credit facility.

During the third quarter of 2010, the Lower Mattagami Energy Limited Partnership established a \$700 million bank credit facility to support the initial construction phase for the Lower Mattagami project and launched a commercial paper program. As at December 31, 2010, \$155 million of commercial paper was issued under this program. Long-term financing arrangements are being established to support the total requirements of the project.

OPG also maintains \$25 million (2009 – \$25 million) in short-term uncommitted overdraft facilities and \$319 million (2009 – \$275 million) of short-term uncommitted credit facilities, which support the issuance of Letters of Credit. OPG uses Letters of Credit to support its supplementary pension plans and for other purposes. As at December 31, 2010, there was a total of \$281 million of Letters of Credit issued (2009 – \$231 million), which included \$254 million for the supplementary pension plans (2009 – \$210 million), \$20 million for general corporate purposes (2009 – \$14 million) and \$7 million related to the construction and operation of the PEC (2009 – \$7 million).

In addition, as at December 31, 2010, the NWMO issued a \$2 million Letter of Credit for its supplementary pension plan (2009 – \$1 million).

The following table summarizes the net interest expense for the year ended December 31, 2010 and 2009:

(millions of dollars)	2010	2009
Interest on long-term debt	244	240
Interest on short-term debt	16	15
Interest income	(3)	(5)
Capitalized interest	(76)	(57)
Interest applied to regulatory assets and liabilities	(5)	(8)
Net interest expense	176	185

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the years ended December 31, 2010 and 2009

### 10. Fixed Asset Removal and Nuclear Waste Management

The liability for fixed asset removal and nuclear waste management on a present value basis consists of the following for the years ended December 31, 2010 and 2009:

(millions of dollars)	2010	2009
Liability for nuclear used fuel management	7,534	6,525
Liability for nuclear decommissioning and low and intermediate level waste management	5,013	5,186
Liability for non-nuclear fixed asset removal	157	148
Fixed asset removal and nuclear waste management liabilities	12,704	11,859

The changes in the fixed asset removal and nuclear waste management liabilities for the years ended December 31, 2010 and 2009, are as follows:

(millions of dollars)	2010	2009
Liabilities, beginning of year	11,859	11,384
Increase in liabilities due to accretion	673	631
Increase in liabilities due to changes in assumptions related to the decision to commence the definition phase of the refurbishment of the Darlington nuclear generating station	293	–
Increase in liabilities due to nuclear used fuel, nuclear waste management variable expenses and other expenses	56	42
Liabilities settled by expenditures on fixed asset removal and waste management	(181)	(189)
Change in the liabilities for non-nuclear fixed asset removal	4	(9)
Liabilities, end of year	12,704	11,859

The cash and cash equivalents balance as at December 31, 2010 includes \$3 million of cash and cash equivalents that are for the use of nuclear waste management activities (2009 – \$11 million).

OPG's fixed asset removal and nuclear waste management liabilities are comprised of expected costs to be incurred up to and beyond termination of operations and the closure of nuclear, thermal generating plant facilities and other facilities. Costs will be incurred for activities such as dismantling, demolition and disposal of facilities and equipment, remediation and restoration of sites and the ongoing and long-term management of nuclear used fuel and low and intermediate level waste material.

Nuclear station decommissioning consists of original placement of stations into a safe store condition followed by a nominal 30-year store period prior to station dismantling. Under the terms of the lease agreement with Bruce Power L.P., OPG continues to be responsible for the nuclear fixed asset removal and nuclear waste management liabilities associated with the Bruce nuclear generating stations.



The following costs are recognized as a liability:

- The present value of the costs of dismantling the nuclear and thermal production facilities and other facilities at the end of their useful lives;
- The present value of the fixed cost portion of nuclear waste management programs that are required based on the total volume of waste expected to be generated over the assumed life of the stations; and
- The present value of the variable cost portion of nuclear waste management programs taking into account actual waste volumes generated to date.

The determination of the accrual for fixed asset removal and nuclear waste management costs requires significant assumptions, since these programs run for many years. The most recent update of the estimates for the nuclear used fuel management and nuclear decommissioning and low and intermediate level waste management liabilities was performed as at December 31, 2006. The update resulted in an increased estimate of costs mainly due to additional used fuel and waste quantities resulting from station life extensions, experience in decommissioning reactors, and changes in economic indices. The increase was partially offset by the impact of later end of life dates for some stations, which results in later decommissioning dates and a reduced present value of decommissioning costs. The change in the cost estimate resulted in an updated reference plan, the 2006 Approved Reference Plan, which was approved by the Province in accordance with the terms of the ONFA. The next update to the nuclear fixed asset removal and nuclear waste management obligation is being conducted throughout 2011 and will form the basis of the nuclear asset retirement obligation for December 31, 2011.

For the purposes of calculating OPG's fixed asset removal and nuclear waste management liabilities, as at December 31, 2010 consistent with the current accounting end of life assumptions, nuclear and thermal plant closures are projected to occur over the next four to 43 years. End of life dates may change as decisions on life extensions are made. The 2006 Approved Reference Plan includes cash flow estimates for decommissioning nuclear stations for approximately 40 years after station shutdown and to 2065 for placement of used fuel into the long-term disposal repository followed by extended monitoring. The undiscounted amount of estimated future cash flows associated with the liabilities is approximately \$27 billion in 2010 dollars. The discount rate used to calculate the present value of the liabilities was 5.75 percent for liabilities established prior to December 31, 2006. The increase in cost estimates related to the 2006 Approved Reference Plan and subsequent increases to the value of the undiscounted estimated cash flows for OPG's liability for nuclear waste management and decommissioning are discounted at 4.6 percent. The cost escalation rates ranged from 1.8 percent to 3.6 percent.

In February 2010, OPG announced its decision to commence the definition phase of the refurbishment of the Darlington nuclear generating station. Accordingly, the service life of the Darlington nuclear generating station, for the purposes of calculating depreciation, was extended from 2019 to 2051. The approval and the extension of service life also impacted the assumptions for OPG's liabilities for fixed asset removal and nuclear waste management primarily due to cost increases related to additional used fuel bundles, partially offset by a decrease in the liability for decommissioning, resulting from the change in the service life assumptions. The net increase in the liabilities was \$293 million, using a discount rate of 4.8 percent.

The significant assumptions underlying operational and technical factors used in the calculation of the accrued liabilities are subject to periodic review. Changes to these assumptions, including changes to assumptions on the timing of the programs, financial indicators or the technology employed may result in significant changes to the value of the accrued liabilities. With programs of this duration and the evolving technology to handle the nuclear waste, there is a significant degree of uncertainty surrounding the measurement accuracy of the costs for these programs, which may increase or decrease over time.

#### **LIABILITY FOR NUCLEAR USED FUEL MANAGEMENT COSTS**

The liability for nuclear used fuel management represents the cost of managing the highly radioactive used nuclear fuel bundles. The federal *Nuclear Fuel Waste Act* ("NFWA") released in 2002 requires that Canada's nuclear fuel waste owners form a nuclear waste management organization and that each waste owner establishes a trust fund for used fuel management costs. To estimate its liability for nuclear used fuel management costs, OPG has adopted a conservative approach consistent with the Adaptive Phased Management concept approved by the Government of Canada, which assumes a deep geologic repository in-service date in 2035.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the years ended December 31, 2010 and 2009

### **LIABILITY FOR NUCLEAR DECOMMISSIONING AND LOW AND INTERMEDIATE LEVEL WASTE MANAGEMENT COSTS**

The liability for nuclear decommissioning and low and intermediate level waste management represents the estimated costs of decommissioning nuclear generating stations after the end of their service lives, as well as the cost of managing low and intermediate level radioactive wastes generated by the nuclear stations. The significant assumptions used in estimating future nuclear fixed asset removal costs include decommissioning of nuclear generating stations on a deferred dismantlement basis where the reactors will remain in a safe storage state for a 30-year period prior to a ten-year dismantlement period.

The life cycle costs of low and intermediate level waste management include the costs of processing and storage of such radioactive wastes during and following the operation of the nuclear stations, as well as the costs of ultimate long-term management of these wastes. The current assumptions used to establish the accrued low and intermediate level waste management costs include a disposal facility for low and intermediate level waste with a targeted in-service date of 2018. Agreement has been reached with local municipalities for OPG to develop a deep geologic repository for the long-term management of low and intermediate level waste adjacent to the Western Waste Management Facility. A federal environmental assessment in respect of this proposed facility is in progress.

### **LIABILITY FOR NON-NUCLEAR FIXED ASSET REMOVAL COSTS**

The liability for non-nuclear fixed asset removal is based on third-party cost estimates after an in-depth review of active plant sites and an assessment of required clean-up and restoration activities. This liability represents the estimated costs of decommissioning thermal generating stations at the end of their service lives. As at December 31, 2010, the estimated retirement date of these stations is between 2014 and 2033.

In addition to the \$99 million liability for active sites, OPG also has an asset retirement obligation liability of \$58 million for decommissioning and restoration costs associated with plant sites that have been divested or are no longer in use.

OPG has no legal obligation associated with the decommissioning of its hydroelectric generating facilities and the costs cannot be reasonably estimated because of the long service life of these assets. With either maintenance efforts or rebuilding, the water control structures are assumed to be used for the foreseeable future. Accordingly, OPG has not recognized a liability for the decommissioning of its hydroelectric generating facilities.

### **ONTARIO NUCLEAR FUNDS AGREEMENT**

OPG sets aside and invests funds held in segregated custodian and trustee accounts specifically for discharging its nuclear fixed asset removal and nuclear waste management liabilities in accordance with the ONFA and the NFWA. OPG jointly oversees the investment management of the Nuclear Funds with the Province. The assets of the Nuclear Funds are maintained in third-party custodian accounts that are segregated from the rest of OPG's assets.

The Decommissioning Fund was established to fund the future costs of nuclear fixed asset removal and long-term low and intermediate level nuclear waste management and a portion of used fuel storage costs after station life. As at December 31, 2010 and 2009, the Decommissioning Fund was in an underfunded position. OPG bears the risk and liability for cost estimate increases and fund earnings in the Decommissioning Fund.

The Used Fuel Fund was established to fund future costs of long-term nuclear used fuel waste management. OPG is responsible for the risk and liability for cost increases for used fuel waste management, subject to graduated liability thresholds specified in the ONFA, which limit OPG's total financial exposure at approximately \$11.2 billion in December 31, 2010 dollars based on used fuel bundle projections of 2.23 million bundles, consistent with the station lives included within the initial financial reference plan. The graduated liability thresholds do not apply to additional used fuel bundles beyond 2.23 million as projected in the 2006 Approved Reference Plan.

OPG makes quarterly payments to the Used Fuel Fund over the life of its nuclear generating stations, as specified in the ONFA. Required funding for 2010 under the ONFA was \$264 million, including a contribution to The Ontario NFWA Trust (the "Trust") of \$136 million. Included in the 2010 funding was a \$147 million contribution related to future bundles over the 2.23 million threshold. Based on the current ONFA Reference Plan, OPG is required to contribute annual amounts to the Used Fuel Fund, ranging from \$94 million to \$250 million annually over the years 2011 to 2015 (Note 16).

The NFWA was proclaimed into force in November 2002. As required under the NFWA, OPG established the Trust in November 2002 and made an initial deposit of \$500 million into the Trust. The NFWA required OPG to make annual contributions of \$100 million to the Trust until such time the NWMO proposed funding formula to address the future financial costs of implementing the Adapted Phase Management approach was approved by the Minister of Natural Resources. In 2009, this funding formula was approved, requiring OPG to make a 2008 contribution true-up of \$25 million in addition to a contribution amount of \$128 million for 2009. The contribution for 2011 is \$139 million. The Trust forms part of the Used Fuel Fund, and contributions to the Trust, as required by the NFWA, are applied towards OPG's ONFA payment obligations.

As required by the terms of the ONFA, the Province has provided a Provincial Guarantee to the Canadian Nuclear Safety Commission ("CNSC") since 2003, on behalf of OPG. The *Nuclear Safety and Control Act* (Canada) requires OPG to have sufficient funds available to discharge the current nuclear decommissioning and waste management liabilities. The Provincial Guarantee provides for any shortfall between the long-term liabilities and the current market value of the Used Fuel Fund and the Decommissioning Fund. OPG pays the Province an annual guarantee fee of 0.5 percent of the amount of the Provincial Guarantee provided by the Province. In December 2009, the CNSC approved an increase in the amount of the Provincial Guarantee to \$1,545 million effective on 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. The increase was primarily a result of the market value losses experienced by the Nuclear Funds in 2008. In 2010, OPG paid a guarantee fee of \$7 million based on a Provincial Guarantee amount of \$760 million and \$1,545 million, for the period January 1, 2010 to February 28, 2010 and March 1, 2010 to December 31, 2010, respectively.

In accordance with CICA Handbook Section 3855, *Financial Instruments – Recognition and Measurement* ("Section 3855"), the investments in the Nuclear Funds and the corresponding payables to the Province are classified as held-for-trading and are measured at fair value with realized and unrealized gains and losses recognized in OPG's consolidated financial statements.

### **Decommissioning Fund**

Upon termination of the ONFA, the Province has a right to any excess funding in the Decommissioning Fund, which is the excess of the fair market value of the Decommissioning Fund over the estimated completion costs as per the most recently approved ONFA Reference Plan. When the Decommissioning Fund is overfunded, OPG limits the earnings it recognizes in its consolidated financial statements, through a charge to the Decommissioning Fund with a corresponding payable to the Province, such that the balance of the Decommissioning Fund would equal the cost estimate of the liability based on the most recently approved ONFA Reference Plan. The payable to the Province could be reduced in subsequent periods in the event that the Decommissioning Fund earns less than its target rate of return or in the event that a new ONFA Reference Plan is approved with a higher estimated decommissioning liability. When the Decommissioning Fund is underfunded, the earnings on the Decommissioning Fund reflect actual fund returns based on the market value of the assets.

The Province's right to any excess funding in the Decommissioning Fund upon termination of the ONFA results in OPG capping its annual earnings at 5.15 percent, which is the rate of growth in the liability for the estimated completion cost, as long as the Decommissioning Fund is in an overfunded status.

The Decommissioning Fund's asset value on a fair value basis was \$5,267 million as at December 31, 2010, which was less than the liability per the 2006 Approved Reference Plan. At December 31, 2009, the Decommissioning Fund's asset value on a fair value basis was \$4,876 million, which was less than the liability per the 2006 Approved Reference Plan. Under the ONFA, if there is a surplus in the Decommissioning Fund such that the liabilities, as defined by the most recently approved ONFA Reference Plan, are at least 120 percent funded, OPG may direct up to 50 percent of the surplus over 120 percent to be treated as a contribution to the Used Fuel Fund, and the OEFC would be entitled to a distribution of an equal amount. Since OPG is responsible for the risks associated with liability cost increases and investment returns in the Decommissioning Fund, future contributions to the Decommissioning Fund may be required should the fund be in an underfunded position at the time of the next liability reference plan review.

The investments in the Decommissioning Fund include a diversified portfolio of equities and fixed income securities that are invested across geographic markets. The Nuclear Funds are invested to fund long-term liability requirements, and as such, the portfolio asset mix is structured to achieve the required return over a long-term horizon. While short-term fluctuations in market value will occur, managing the long-term return of the Nuclear Funds remains the primary goal.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the years ended December 31, 2010 and 2009

### Used Fuel Fund

Under the ONFA, the Province guarantees OPG's annual return in the Used Fuel Fund at 3.25 percent plus the change in the Ontario Consumer Price Index for funding related to the first 2.23 million used fuel bundles ("committed return"). OPG recognizes the committed return on the Used Fuel Fund and includes it in the earnings on the nuclear fixed asset removal and nuclear waste management funds. The difference between the committed return on the Used Fuel Fund and the actual market return, based on the fair value of the Used Fuel Fund's assets, which includes realized and unrealized returns, is recorded as due to or due from the Province. The due to or due from the Province represents the amount OPG would pay to or receive from the Province if the committed return were to be settled as of the balance sheet date. As part of its regular contributions to the Used Fuel Fund, OPG was required to allocate \$147 million of its 2010 contribution towards its liability associated with future fuel bundles that exceed the 2.23 million threshold. As prescribed under the ONFA, earnings related to OPG's contributions for incremental fuel bundles do not grow at the Province's guaranteed rate of return, but rather earn the return of the Used Fuel Fund based on changes in the market value of the assets.

As at December 31, 2010, the Used Fuel Fund asset value on a fair value basis was \$5,979 million. The Used Fuel Fund value included a payable to the Province of \$219 million related to the committed return adjustment. As at December 31, 2009, the Used Fuel Fund asset value on a fair value basis was \$5,370 million, including a payable to the Province of \$33 million related to the committed return adjustment.

Under the ONFA, the Province is entitled to any surplus in the Used Fuel Fund, subject to a threshold funded ratio of 110 percent compared to the value of the associated liabilities.

The nuclear fixed asset removal and nuclear waste management funds as at December 31, 2010 and 2009 consist of the following:

(millions of dollars)	Fair Value	
	2010	2009
Decommissioning Fund	5,267	4,876
Used Fuel Fund <sup>1</sup>	6,198	5,403
Due to Province – Used Fuel Fund	(219)	(33)
	5,979	5,370
	11,246	10,246

<sup>1</sup> The Ontario NFWA Trust represented \$1,949 million as at December 31, 2010 (2009 – \$1,693 million) of the Used Fuel Fund on a fair value basis.

The fair value of the securities invested in the Nuclear Funds, which include the Used Fuel Fund and the Decommissioning Fund, as at December 31, 2010 and 2009, is as follows:

(millions of dollars)	Fair Value	
	2010	2009
Cash and cash equivalents and short-term investments	581	463
Alternative investments	61	–
Pooled funds	1,835	1,497
Marketable equity securities	5,226	4,699
Fixed income securities	3,735	3,596
Derivatives	3	–
Net receivables/payables	29	30
Administrative expense payable	(5)	(6)
	11,465	10,279
Due to Province – Used Fuel Fund	(219)	(33)
	11,246	10,246

The bonds and debentures held in the Used Fuel Fund and the Decommissioning Fund as at December 31, 2010 and 2009 mature according to the following schedule:

(millions of dollars)	Fair Value	
	2010	2009
1 – 5 years	1,135	1,276
5 – 10 years	1,092	857
More than 10 years	1,508	1,463
Total maturities of debt securities	3,735	3,596
Average yield	3.4%	3.7%

The change in the Nuclear Funds for the years ended December 31, 2010 and 2009, is as follows:

(millions of dollars)	Fair Value	
	2010	2009
Decommissioning Fund, beginning of year	4,876	4,325
Increase in fund due to return on investments	465	631
Decrease in fund due to reimbursement of expenditures	(74)	(80)
Decommissioning Fund, end of year	5,267	4,876
Used Fuel Fund, beginning of year	5,370	4,884
Increase in fund due to contributions made	264	339
Increase in fund due to return on investments	557	664
Decrease in fund due to reimbursement of expenditures	(26)	(24)
Increase in due to Province	(186)	(493)
Used Fuel Fund, end of year	5,979	5,370

The earnings from the Nuclear Funds during 2010 and 2009 were partially reduced by the impact of the Bruce Lease Net Revenues Variance Account established by the OEB's 2008 decision. The earnings on the Nuclear Funds for 2010 and 2009 are as follows:

(millions of dollars)	2010	2009
Decommissioning Fund	465	631
Used Fuel Fund	371	171
Bruce Lease Net Revenues Variance Account (Note 7)	(168)	(119)
Total earnings	668	683

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the years ended December 31, 2010 and 2009

### 11. Income Taxes

OPG follows the liability method of tax accounting for all its business segments and records an offsetting regulatory asset or liability for the future income taxes that are expected to be recovered or refunded through future regulated prices charged to customers.

During the year ended December 31, 2010, OPG recorded an increase to the future income tax liability for the future taxes that are expected to be recovered or refunded through regulated prices charged to customers of \$119 million. Since these future income taxes are expected to be recovered through future regulated prices, OPG has recorded a corresponding increase to the regulatory asset for future income taxes. As a result, the future income taxes for the year ended December 31, 2010 were not impacted. The increase in the future income tax liability of \$119 million for the rate regulated operations for the year ended December 31, 2010 included \$24 million related to the increase to the regulatory asset for future income taxes.

The following table summarizes the future income tax liabilities recorded for the rate regulated operations:

(millions of dollars)	2010	2009
<b>January 1:</b>		
Future income tax liabilities on temporary differences related to regulated operations	452	340
Future income tax liabilities resulting from the regulatory asset for future income taxes	140	126
	592	466
<b>Changes during the year:</b>		
Increase in future income tax liabilities on temporary differences related to regulated operations	95	112
Increase in future income tax liabilities resulting from the regulatory asset for future income taxes	24	14
Balance at December 31	711	592

A reconciliation between the statutory and the effective rate of income taxes is as follows:

(millions of dollars – except where noted)	2010	2009
Income before income taxes	589	768
Combined Canadian federal and provincial statutory income tax rates, including surtax	31.0%	33.0%
Statutory income tax rates applied to accounting income	183	253
(Decrease) increase in income taxes resulting from:		
Income tax component of the Bruce Lease Net Revenues Variance Account	(21)	36
Higher (lower) future tax rate on temporary differences	17	(16)
Non-taxable income items	(6)	1
Change in income tax positions	(96)	(6)
Changes in future tax rate	–	3
Income and Other Taxes Variance Account	(6)	4
Regulatory asset for future income taxes	(131)	(130)
	(243)	(108)
Income tax (recovery) expense	(60)	145
Effective rate of income taxes	(10.2%)	18.9%

In the second quarter of 2010, all outstanding tax matters relating to a tax audit of certain previous years were resolved. As a result, OPG reduced its income tax liability by \$102 million. Of the total reduction to the liability, \$96 million reduced income tax expense and the remaining \$6 million reduced OM&A.

The Bruce Lease Net Revenues Variance Account and Income and Other Taxes Variance Account authorized by the OEB effective April 1, 2008, are discussed in Note 7 to these consolidated financial statements.

Significant components of the income tax (recovery) expense are presented in the table below:

(millions of dollars)	2010	2009
Current income tax (recovery) expense:		
Current payable	35	53
Change to income tax position	(96)	(6)
Income and Other Taxes Variance Account	(6)	4
	<b>(67)</b>	51
Future income tax expense:		
Change in temporary differences	159	185
Changes in future income tax rate	-	3
Income tax component of the Bruce Lease Net Revenues Variance Account	(21)	36
Regulatory asset for future income taxes	(131)	(130)
	<b>7</b>	94
Income tax (recovery) expense	<b>(60)</b>	145

The income tax effects of temporary differences that give rise to future income tax assets and liabilities as at December 31, 2010 and 2009 are presented in the table below:

(millions of dollars)	2010	2009
Future income tax assets:		
Fixed asset removal and nuclear waste management liabilities	3,169	2,968
Other liabilities and assets	777	656
Future recoverable Ontario minimum tax	30	12
	<b>3,976</b>	3,636
Future income tax liabilities:		
Fixed assets	(1,160)	(1,078)
Nuclear fixed asset removal and nuclear waste management funds	(2,813)	(2,567)
Other liabilities and assets	(728)	(573)
	<b>(4,701)</b>	(4,218)
Net future income tax liabilities	<b>(725)</b>	(582)
Represented by:		
Current portion – asset	73	51
Long-term portion – liability	(798)	(633)
	<b>(725)</b>	(582)

The amount of cash income taxes paid for 2010 was \$44 million (2009 – \$192 million).

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the years ended December 31, 2010 and 2009

### 12. Pension and Other Post Employment Benefit Costs

The pension and OPEB obligations, and the pension fund assets, are measured as at December 31, 2010. Details of OPG's pension and OPEB obligations, pension fund assets and costs are presented in the following tables.

	Registered and Supplementary Pension Plans		Other Post Employment Benefits	
	2010	2009	2010	2009
<b>Weighted Average Assumptions – Benefit Obligation at Year-End</b>				
Rate used to discount future benefits	5.80%	6.80%	5.67%	6.69%
Salary schedule escalation rate	3.00%	3.00%	–	–
Rate of cost of living increase to pensions	2.00%	2.00%	–	–
Initial health care trend rate	–	–	6.53%	6.61%
Ultimate health care trend rate	–	–	4.69%	4.70%
Year ultimate rate reached	–	–	2030	2030
Rate of increase in disability benefits	–	–	2.00%	2.00%

	Registered and Supplementary Pension Plans		Other Post Employment Benefits	
	2010	2009	2010	2009
<b>Weighted Average Assumptions – Cost for the Year</b>				
Expected return on plan assets net of expenses	7.00%	7.00%	–	–
Rate used to discount future benefits	6.80%	7.50%	6.69%	7.46%
Salary schedule escalation rate	3.00%	3.00%	–	–
Rate of cost of living increase to pensions	2.00%	2.00%	–	–
Initial health care trend rate	–	–	6.62%	6.58%
Ultimate health care trend rate	–	–	4.69%	4.70%
Year ultimate rate reached	–	–	2030	2018
Rate of increase in disability benefits	–	–	2.00%	2.00%
Average remaining service life for employees (years)	12	12	11	11



(millions of dollars)	Registered Pension Plans		Supplementary Pension Plans		Other Post Employment Benefits	
	2010	2009	2010	2009	2010	2009
<b>Changes in Plan Assets</b>						
Fair value of plan assets at beginning of year	8,216	7,254	-	-	-	-
Contributions by employer	272	271	5	7	77	74
Contributions by employees	80	86	-	-	-	-
Actual return on plan assets net of expenses	973	1,051	-	-	-	-
Settlement	(10)	-	-	-	-	-
Benefit payments	(413)	(446)	(5)	(7)	(77)	(74)
Fair value of plan assets at end of year	9,118	8,216	-	-	-	-
<b>Changes in Projected Benefit Obligation</b>						
Projected benefit obligation at beginning of year	8,610	7,440	179	142	1,910	1,591
Employer current service costs	160	120	6	5	52	40
Contributions by employees	80	86	-	-	-	-
Interest on projected benefit obligation	583	554	12	11	128	118
Benefit payments	(413)	(446)	(5)	(7)	(77)	(74)
Settlement	(10)	-	-	-	(2)	-
Past service costs	-	-	-	-	-	8
Net actuarial loss	1,365	856	27	28	330	227
Projected benefit obligation at end of year	10,375	8,610	219	179	2,341	1,910
Funded Status – Deficit at end of year	(1,257)	(394)	(219)	(179)	(2,341)	(1,910)

Pension fund assets are allocated among three principal investment categories. Furthermore, equity investments are diversified across Canadian, U.S. and non-North American stocks. There is also a small real estate portfolio that is less than one percent of pension fund assets.

	2010	2009
Registered pension plan fund asset investment categories		
Equities	60%	62%
Fixed income	35%	34%
Cash and short-term investments	5%	4%
Total	100%	100%

Based on the most recently filed actuarial valuation of the OPG registered pension plan, as at January 1, 2008, there was an unfunded liability on a going-concern basis of \$239 million and a deficiency on a wind-up basis of \$2,846 million. In the previously filed actuarial valuation, as at January 1, 2005, there was an unfunded liability on a going-concern basis of \$465 million and a deficiency on a wind-up basis of \$1,979 million. The deficit disclosed in the next filed funding valuation, which must have an effective date no later than January 1, 2011, could be significantly different.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

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Based on the most recently filed actuarial valuation of the NWMO registered pension plan, as at January 1, 2010, there was a surplus on a going-concern basis of \$4 million and a deficiency on a wind-up basis of \$5 million. Based on the filed initial actuarial valuation of the NWMO registered pension plan, as at January 1, 2009, there was a surplus on a going-concern basis of \$2 million and a deficiency on a wind-up basis of \$4 million. The next filed funding valuation must have an effective date no later than January 1, 2011.

The supplementary pension plans are not funded, but are secured by Letters of Credit totalling \$256 million (2009 – \$211 million).

(millions of dollars)	Registered Pension Plans		Supplementary Pension Plans		Other Post Employment Benefits	
	2010	2009	2010	2009	2010	2009
<b>Reconciliation of Funded Status to Accrued Benefit Asset (Liability)</b>						
Funded status – deficit at end of year	(1,257)	(394)	(219)	(179)	(2,341)	(1,910)
Unamortized net actuarial loss	2,393	1,365	51	25	487	157
Unamortized past service costs	10	28	–	1	17	19
Accrued benefit asset (liability) at end of year	1,146	999	(168)	(153)	(1,837)	(1,734)
Short-term portion	–	–	(8)	(7)	(89)	(84)
Long-term portion	1,146	999	(160)	(146)	(1,748)	(1,650)

(millions of dollars)	Registered Pension Plans		Supplementary Pension Plans		Other Post Employment Benefits	
	2010	2009	2010	2009	2010	2009
<b>Components of Cost Recognized</b>						
Current service costs	160	120	6	5	52	40
Interest on projected benefit obligation	583	554	12	11	128	118
Expected return on plan assets net of expenses	(636)	(623)	–	–	–	–
Settlement	–	–	–	–	(2)	–
Amortization of past service costs	18	18	1	1	2	5
Amortization of net actuarial loss	–	–	1	–	–	–
Cost recognized	125	69	20	17	180	163

(millions of dollars)	Registered Pension Plans		Supplementary Pension Plans		Other Post Employment Benefits	
	2010	2009	2010	2009	2010	2009
<b>Components of Cost Incurred and Recognized</b>						
Current service costs	160	120	6	5	52	40
Interest on projected benefit obligation	583	554	12	11	128	118
Actual return on plan assets net of expenses	(973)	(1,051)	-	-	-	-
Settlement gain	-	-	-	-	(2)	-
Past service costs	-	-	-	-	-	8
Net actuarial loss	1,365	856	27	28	330	227
Cost incurred in year	1,135	479	45	44	508	393
Differences between costs incurred and recognized in respect of:						
Actual return on plan assets net of expenses	337	428	-	-	-	-
Past service costs	18	18	1	1	2	(3)
Net actuarial loss	(1,365)	(856)	(26)	(28)	(330)	(227)
Cost recognized	125	69	20	17	180	163

A one percent increase or decrease in the health care trend rate would result in an increase in the service and interest components of the 2010 OPEB cost recognized of \$30 million (2009 – \$24 million) or a decrease in the service and interest components of the 2010 OPEB cost recognized of \$23 million (2009 – \$19 million), respectively. A one percent increase or decrease in the health care trend rate would result in an increase in the projected OPEB obligation at December 31, 2010 of \$394 million (2009 – \$270 million) or a decrease in the projected OPEB obligation at December 31, 2010 of \$307 million (2009 – \$217 million).

### 13. Financial Instruments

The Risk Oversight Committee (“ROC”) assists the Board of Directors to fulfill its oversight responsibilities for matters relating to identification and management of the Company’s key business risks. Risk management activities are coordinated by a centralized Corporate Risk Management group led by the Chief Risk Officer (“CRO”). Risks that would prevent business units from achieving business plan objectives are identified at the business unit level. Senior management sets risk limits for the financing, procurement, and trading activities of the Company and ensures that effective risk management policies and processes are in place to ensure compliance with such limits in order to maintain an appropriate balance between risk and return. OPG’s risk management process aims to continually evaluate the effectiveness of risk mitigation activities for identified key risks. The findings from this evaluation process are reported quarterly to the ROC.

OPG is exposed to risks related to changes in electricity prices associated with a wholesale spot market for electricity in Ontario, changes in interest rates, and movements in foreign currency that affect its assets, liabilities, and forecast transactions. Select derivative instruments are used to limit such risks. Derivatives are used as hedging instruments, as well as for trading purposes.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the years ended December 31, 2010 and 2009

The following is a summary of OPG's financial instruments as at December 31, 2010:

Financial Instruments <sup>1</sup> (millions of dollars)	Designated Category	Fair Value	
		2010	2009
Cash and cash equivalents	Held-to-maturity	280	71
Long-term investments <sup>2</sup>	Held-for-trading	–	36
Nuclear fixed asset removal and nuclear waste management funds	Held-for-trading	11,246	10,246
Long-term debt (including current portion)	Other than Held-for-trading	(4,256)	(4,021)
Derivative Embedded in the Bruce Lease agreement	Held-for-trading	(163)	(118)
Other commodity derivative instruments included in current and long-term account receivable <sup>3</sup>	Held-for-trading	3	7
Other commodity derivative instruments included in current and long-term account payable <sup>3</sup>	Held-for-trading	–	(6)

<sup>1</sup> The carrying value of other financial instruments included in accounts receivable and accounts payable and accrued charges approximates their fair value due to the immediate or short-term maturity of these financial instruments.

<sup>2</sup> Excludes investments of \$30 million owned by the Company's wholly owned subsidiary, OPGV, that are recorded at fair value in accordance with AcG-18.

<sup>3</sup> Derivative instruments not qualifying for hedge accounting.

### RISKS ASSOCIATED WITH FINANCIAL INSTRUMENTS

#### Credit Risk

Credit risk is the risk that a counterparty to a financial instrument might fail to meet its obligation under the terms of a financial instrument. To manage credit risk, the Company enters into transactions with creditworthy counterparties, limits the amount of exposure to each counterparty where possible, and monitors the financial condition of counterparties.

The following table provides information on credit risk from electricity transactions and trading activities as at December 31, 2010:

Credit Rating <sup>1</sup>	Number of Counterparties <sup>2</sup>	Potential Exposure for Largest Counterparties		
		Potential Exposure <sup>3</sup>	Number of Counterparties	Counterparty Exposure
		(millions of dollars)		(millions of dollars)
Investment grade	24	26	4	18

<sup>1</sup> Credit ratings are based on OPG's own analysis, taking into consideration external rating agency analysis where available, as well as recognizing explicit credit support provided through guarantees and Letters of Credit or other security.

<sup>2</sup> OPG's counterparties are defined by each master agreement.

<sup>3</sup> Potential exposure is OPG's assessment of maximum exposure over the life of each transaction at a 95 percent confidence interval.

The majority of OPG's revenues are derived from sales through the IESO administered spot market. Net credit exposure to the IESO of the securitized receivables retained at December 31, 2010 was \$127 million (Note 5). Although the credit exposure to the IESO represents a significant portion of OPG's accounts receivable, the Company's management accepts this risk due to the IESO's primary role in the Ontario electricity market. The remaining receivables exposure was a diverse group of generally high quality counterparties. OPG's allowance for doubtful debts at December 31, 2010 was less than \$1 million.

OPG also enters into financial transactions with highly rated financial institutions in order to hedge interest rate and currency exposures. The potential credit exposure with these counterparties was less than approximately \$10 million at December 31, 2010. Other credit exposures include the investing of excess cash.

### **Investments**

The Company limits its exposure to credit risk by investing in reasonably liquid (i.e., in normal circumstances, capable of liquidation within one month) securities that are rated by a recognized credit rating agency in accordance with minimum investment quality standards. In regard to derivative contracts, the Company limits its exposure to credit risk by engaging with high credit-quality counterparties.

### **Guarantees**

As part of normal business, OPG and certain of its subsidiaries and joint ventures enter into various agreements providing financial guarantees to third-parties on behalf of certain subsidiaries and joint ventures. Such agreements include guarantees, standby Letters of Credit and surety bonds.

### **Market Risk**

Market risk is the risk that changes to market prices, such as foreign exchange rates, interest rates, electricity prices, and equities, will affect OPG's income or the value of the Company's holdings of financial instruments. The objective of market risk management is to manage and control market risk exposures within acceptable parameters, while optimizing the return on risk.

The Company manages its exposure to market risks using forwards and various derivative products in the ordinary course of business. All such transactions are carried out within the guidelines set by the Executive Risk Committee.

### **Foreign Exchange Risk**

OPG's foreign exchange exposure is attributable to two primary factors: United States dollar ("U.S. dollar") denominated transactions such as the purchase of fuels; and the influence of U.S. dollar denominated commodity prices on Ontario electricity spot market prices. OPG enters into foreign exchange spot and/or forward contracts with major financial institutions to manage the Company's exposure to foreign currency movements.

### **Interest Rate Risk**

Interest rate risk is the risk that the value of OPG's assets and liabilities can decrease and increase, respectively, because of a change in the related interest rates. OPG considers interest rate risk related to cash and cash equivalents and short-term borrowings to be low because of their short-term nature. Changes in interest rates do not currently have a significant impact on the Company's interest expense, since long-term borrowings are on a fixed rate basis.

The Company is exposed to interest rate risk on its long-term borrowings expected to be issued in the future. The Company manages the exposure to changes in market interest rates on anticipated issuance of long-term borrowings by entering into forward start interest rate contracts and floating-to-fixed interest rate swap contracts.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the years ended December 31, 2010 and 2009

### Electricity Price Risk

Electricity price risk for the Company is the potential for adverse movements in the market price of electricity. Exposure to electricity price risk is reduced as a result of regulated prices and other contractual arrangements for a significant portion of OPG's business. To manage this risk, the Company seeks to maintain a balance between the commodity price risk inherent in its electricity production and electricity forward sales contracts to the extent that trading liquidity in the electricity commodity market provides the economic opportunity to do so.

The table below summarizes a sensitivity analysis for significant unsettled market risk exposures with respect to the Company's financial instruments as at December 31, 2010, with all other variables held constant. It shows how net income and other comprehensive income before tax would have been affected by changes in the relevant risk variable that were reasonably possible, at that date, over the year.

(millions of dollars – except where noted)	A Change of:	Impact on Net Income Before Tax	Impact on Other Comprehensive Income Before Tax
Foreign exchange – U.S. dollar	+/- 0.18 %	–	n/a
Interest rate <sup>1</sup>	+/- 43 basis points	–	+43/-50
Electricity price – Trading <sup>2</sup>		+/-0.25	n/a

<sup>1</sup> The interest rate sensitivity analysis was determined based on the exposure to interest rates for derivative instruments designated as hedges at the date of the consolidated balance sheets.

<sup>2</sup> The sensitivity analysis around electricity prices was constructed using forward price volatilities that were based on historical daily forward electricity contract prices. The analysis considered contracts of varying time frames, traded in Ontario and neighbouring electricity markets.

### Nuclear Funds Equity Price Risk

Equity price risk is the risk of loss or unexpected volatility due to a decline in the values of individual equities and/or equity indices. The Company is exposed to equity price risk primarily related to equity investments held in the Nuclear Funds that are classified on the consolidated balance sheets as held-for-trading and measured at fair value. To manage this risk, OPG has established investment policies and procedures that set out an investment framework for the funds, including the investment assumptions, permitted investments, and various investment constraints for the Nuclear Funds. Such policies and procedures are approved annually by OPG and the Province in the case of the Decommissioning Fund, and by the Province in the case of the Used Fuel Fund.

Under the ONFA, the annual return in the Used Fuel Fund is guaranteed by the Province for funding related to the first 2.23 million used fuel bundles. As at December 31, 2010, OPG had made contributions of approximately \$177 million towards incremental fuel bundles in excess of the 2.23 million threshold prescribed in the ONFA. As prescribed under the ONFA, earnings related to OPG's contributions for incremental fuel bundles will be exposed to equity price risk. OPG is exposed to equity price risk in the Decommissioning Fund. Due to the long-term nature of the Decommissioning Fund's liabilities, the target asset mix of the fund was established with the goal of meeting the long-term liabilities. As such, the Company is prepared to accept shorter term market fluctuations with the expectation that equity securities will provide adequate returns over the long term.

The table below approximates the potential dollar impact on OPG's pre-tax profit, associated with a one percent change in the specified equity indices. This analysis is based on the market values of the Decommissioning Fund's equity holdings at December 31, 2010, as well as on the assumption that when one equity index changes by one percent, all other equity indices are held constant.

(millions of dollars)	December 31, 2010
S&P/TSX Capped Composite Index	13
S&P 500	4
MSCI EAFE Index	5
MSCI World Index	6

### **Risk Associated with Leases and Partnership Arrangements**

OPG has leased its Bruce nuclear generating stations to Bruce Power L.P. and is also a party to a number of partnerships which operate generating stations such as Brighton Beach and the PEC. Each of these generating stations are 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, counterparty claims, defaults, or other risk factors could materially adversely affect the Company.

In addition, under the Bruce Lease, lease revenue is reduced in each calendar year where the annual arithmetic average of the Hourly Ontario Electricity Price ("Average HOEP") falls below \$30/MWh and certain other conditions are met. The conditional reduction to revenue in the future, embedded in the terms of the Bruce Lease, is treated as a derivative according to CICA Section 3855, *Financial Instruments – Recognition and Measurement*. Derivatives are measured at fair value and changes in fair value are recognized in the consolidated statements of income. As a result of a decrease in expected future Average HOEP during 2010, the fair value of the derivative liability increased to \$163 million at December 31, 2010. The exposure will continue until the Bruce units that are subject to this mechanism are no longer in operation, specific units are refurbished, or when the lease agreement is terminated. This exposure is mitigated as part of the OEB regulatory process, since the revenue from the lease of the Bruce generating stations is included in the determination of regulated prices.

### **DERIVATIVES AND HEDGING**

At the inception of a hedging relationship, OPG documents the relationship between the hedging instrument and the hedged item, its risk management objective and its strategy for undertaking the hedge. OPG also requires a documented assessment, both at hedge inception and on an ongoing basis, of whether or not the derivatives that are used in hedging transactions are highly effective in offsetting the changes attributable to the hedged risks in the fair values or cash flows of the hedged items.

Hedge accounting is applied when the derivative instrument is designated as a hedge and is expected to be effective throughout the life of the hedged item. When such a derivative instrument hedge ceases to exist or to be effective as a hedge, or when designation of a hedging relationship is terminated, any associated deferred gains or losses are carried forward to be recognized in income in the same period as the corresponding gains or losses associated with the hedged item. When a hedged item ceases to exist, any associated deferred gains or losses are recognized in the current period's consolidated statement of income.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the years ended December 31, 2010 and 2009

### Derivative Instruments Qualifying for Hedge Accounting

The following table provides the estimated fair value of derivative instruments designated as hedges.

OPG holds financial commodity derivatives primarily to hedge the commodity price exposure associated with changes in the price of electricity.

	Notional Quantity	Terms	Fair Value	Notional Quantity	Terms	Fair Value
	December 31, 2010			December 31, 2009		
(millions of dollars – except where noted)						
Electricity derivative instruments	–	–	–	0.4TWh	1 year	16
Floating-to-fixed interest rate hedges	35	1-9 years	(4)	38	1-10 years	(4)
Forward start interest rate hedges	375	1-12 years	21	490	1-13 years	3

One of the Company's joint ventures is exposed to changes in interest rates. The joint venture entered into an interest rate swap to manage the risk arising from fluctuations in interest rates by swapping the short-term floating interest rate with a fixed rate of 5.33 percent. OPG's proportionate interest in the swap is 50 percent and is accounted for as a hedge.

Net losses of \$6 million and \$7 million, respectively, which includes the impact of income taxes, related to derivative instruments qualifying for hedge accounting were recognized in net income during the years ended December 31, 2010 and 2009, respectively. Existing net losses of \$5 million deferred in accumulated other comprehensive loss at December 31, 2010 are expected to be reclassified to net income within the next 12 months.

### Derivative Instruments Not Qualifying for Hedge Accounting

The carrying amount (fair value) of commodity derivative instruments not designated for hedging purposes is as follows:

	Notional Quantity	Fair Value	Notional Quantity	Fair Value
	December 31, 2010		December 31, 2009	
(millions of dollars – except where noted)				
Commodity derivative instruments				
Assets	1.7 TWh	3	3.6 TWh	7
Liabilities	0.07 TWh	–	1.3 TWh	(6)
		3		1
Market liquidity reserve		–		(1)
Total		3		–

Forward pricing information is inherently uncertain so that fair values of derivative instruments may not accurately represent the cost to enter into these positions. To address the impact of some of this uncertainty on trading positions, OPG established liquidity reserves against the mark-to-market gains or losses of these positions. These reserves increased trading revenue by \$1 million during the year ended December 31, 2010 (2009 – increase in trading revenue by \$3 million).

Under the Bruce Lease, lease revenue is reduced in each calendar year where the Average HOEP falls below \$30/MWh, and if certain other conditions are met. The conditional reduction to revenue included in the lease agreement is treated as a derivative according to Section 3855. OPG reported a liability of \$163 million as at December 31, 2010 (2009 – \$118 million), which reflected the fair value of a derivative embedded in the Bruce Power lease agreement. This increase in the fair value of the derivative liability was primarily due to reductions in the expected future Average HOEP since the beginning of 2010. Under reasonably possible alternative assumptions, the effect of changing expected future electricity prices ranged from a decrease to long-term accounts payable of \$83 million to an increase of \$86 million. This sensitivity analysis is determined based on the existing assessment of market conditions with consideration of historical changes in electricity prices. The income statement impact as a result of changes to the liability is offset by the income statement impact of the Bruce Lease Net Revenues Variance Account.



## FAIR VALUE HIERARCHY

OPG is required to classify fair value measurements using a fair value hierarchy. This hierarchy groups financial assets and liabilities into three levels based on the significance of inputs used in measuring the fair value of the financial assets and liabilities. The level within which the financial asset or liability is classified is determined based on the attribute of significance to the inputs to the fair value measurement. The fair value hierarchy has the following levels:

Level 1: Valuation of inputs is based on unadjusted quoted market prices observed in active markets for identical assets or liabilities

Level 2: Valuation is based on inputs other than quoted prices under level 1 that are observable for the asset or liability, either directly or indirectly

Level 3: Valuation is based on inputs for the asset or liability that are not based on observable market data

The following table presents financial assets and liabilities measured at fair value in accordance with the fair value hierarchy:

(millions of dollars)	December 31, 2010			Total
	Level 1	Level 2	Level 3	
Decommissioning Fund	2,540	2,698	29	5,267
Used Fuel Fund	2,722	3,225	32	5,979
Forward start interest rate hedges	–	(21)	–	(21)
Commodity derivative instruments	–	–	–	–
Investments in OPGV	13	–	17	30
Floating-to-fixed interest rate hedges	–	(4)	–	(4)
Derivative embedded in the Bruce Lease	–	–	(163)	(163)
<b>Total assets and liabilities</b>	<b>5,275</b>	<b>5,898</b>	<b>(85)</b>	<b>11,088</b>

(millions of dollars)	December 31, 2009			Total
	Level 1	Level 2	Level 3	
Asset-Backed Commercial Paper	–	–	36	36
Decommissioning Fund	2,302	2,574	–	4,876
Used Fuel Fund	–	5,370	–	5,370
Forward start interest rate hedges	–	3	–	3
Commodity derivative instruments	–	14	–	14
Investments in OPGV	13	–	17	30
Floating-to-fixed interest rate hedges	–	(4)	–	(4)
Derivative embedded in the Bruce Lease	–	–	(118)	(118)
<b>Total assets and liabilities</b>	<b>2,315</b>	<b>7,957</b>	<b>(65)</b>	<b>10,207</b>

During the year ended December 31, 2010, there were no transfers between level 1 and level 2, and no transfers into and out of level 3 fair value measurements.

Fair value is the value that a financial instrument can be closed out or sold, in a transaction with a willing and knowledgeable counterparty. The fair value of financial instruments traded in active markets is based on quoted market prices at the consolidated balance sheet dates. A market is regarded as active if quoted prices are readily and regularly available from an exchange, dealer, broker, industry group, pricing service, or regulatory agency, and those prices represent actual and regularly occurring market transactions on an arm's length basis. The quoted market price used for financial assets held by OPG is the current bid price. These instruments are included in level 1 and are comprised primarily of electricity contracts, equity investments, and fund investments.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

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For financial instruments which do not have quoted market prices directly available, fair values are estimated using forward price curves developed from observable market prices or rates which may include the use of valuation techniques or models based, wherever possible, on assumptions supported by observable market prices or rates prevailing at the dates of the consolidated balance sheets. This is the case for over-the-counter derivatives and securities, which include energy commodity derivatives, foreign exchange derivatives, interest rate swap derivatives, and fund investments. Valuation models use general assumptions and market data and therefore do not reflect the specific risks and other factors that would affect a particular instrument's fair value. The methodologies used for calculating the fair value adjustments are reviewed on an ongoing basis to ensure that they remain appropriate. If all significant inputs required to fair value an instrument are observable, the instrument is included in level 2.

If one or more of the significant inputs is not based on observable market data, the instrument is included in level 3. Specific valuation techniques were used to value these instruments. Significant level 3 inputs include recent comparable transactions, comparable benchmark information, bid/ask spread of similar transactions, and other relevant factors.

The following table presents the changes in OPG's assets and liabilities measured at fair value based on level 3 for the year ended December 31, 2010.

(millions of dollars)	Decommissioning Fund	Used Fuel Fund	Investments in OPGV	Asset-Back Commercial Paper	Derivative Embedded in the Bruce Lease
Opening balance	–	–	17	36	(118)
Total losses included in net income <sup>1</sup>	(1)	(1)	–	(3)	(45)
Purchases	34	36	–	–	–
Settlements	(4)	(3)	–	(33)	–
Closing balance	29	32	17	–	(163)

<sup>1</sup> Total losses exclude the impact of regulatory assets and liabilities.

### Sensitivity Analysis

The valuation of the derivative embedded in the Bruce lease required assumptions related to future electricity prices. The effect of changing inputs to reasonably possible alternative assumptions is as follows:

(millions of dollars)	Long-term Accounts Payable	Net Income Before Tax <sup>1</sup>
Favourable change in assumptions related to electricity prices	(83)	83
Unfavourable change in assumptions related to electricity prices	86	(86)

<sup>1</sup> Net Income Before Tax excludes the impact of regulatory assets and liabilities.

The volatilities of OPG's investments in OPGV that were classified as level 3 were not considered significant. As such, a sensitivity analysis on these investments resulted in a negligible change in the fair value.

### Liquidity Risk

OPG's derivative and non-derivative liabilities include current accounts payable, floating-to-fixed interest rate hedges, and long-term debt. The contractual maturity of long-term debt is disclosed in Notes 8 and 16.

Liquidity risk arises through excess financial obligations over available financial assets, due at any point in time. The Company's approach to managing liquidity is to continuously monitor its ability to maintain sufficient liquidity to meet its liabilities when due, under both normal and stressed conditions, without incurring unacceptable losses.

## 14. Capital Management

The Board of Directors' objectives when managing capital are to safeguard the Company's assets and its ability to operate on a commercial basis, while undertaking future development projects that provide an adequate return to the shareholder, and benefits to other stakeholders. The Company attempts to maintain an optimal capital structure and minimize the cost of capital.

The Company is owned 100 percent by the Province. To minimize its cost of capital, the Company targets financial metrics consistent with an investment grade credit rating. This provides the Company with access to capital markets in the future, while targeting a low cost of debt financing.

The Company monitors capital on the basis of the ratio of total debt to total capitalization. Debt is calculated as total borrowings, including long-term debt due within one year, long-term debt and the amount of the Letters of Credit. Total capitalization is calculated as total debt plus total shareholder's equity as shown in the consolidated balance sheets. A financial covenant in OPG's \$1 billion revolving committed bank credit facility requires OPG to maintain, on a fully consolidated basis, a ratio of debt to total capitalization of not greater than 0.65:1.0 at any time.

As per the OEB's 2008 decision on OPG's regulated prices, the deemed capital structure for the regulated business is 53 percent debt and 47 percent equity.

The table below summarizes OPG's debt to total capitalization position as at December 31, 2010 and 2009:

(millions of dollars – except where noted)	2010	2009
Long-term debt due within one year	385	978
Long-term debt	3,843	3,068
Letters of Credit <sup>1</sup>	281	231
Total debt	4,509	4,277
Total shareholder's equity	8,081	7,477
Total capitalization	12,590	11,754
Total debt to total capitalization	36%	36%

<sup>1</sup> The NWMO Letter of Credit of \$2 million has not been included above.

There were no changes in the Company's approach to capital management during the year ended December 31, 2010.

## 15. Common Shares

As at December 31, 2010 and 2009, OPG had 256,300,010 common shares issued and outstanding at a stated value of \$5,126 million. OPG is authorized to issue an unlimited number of common shares without nominal or par value. Any issue of new shares is subject to the consent of OPG's shareholder.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the years ended December 31, 2010 and 2009

### 16. Commitments and Contingencies

#### LITIGATION

Various legal proceedings are pending against OPG or its subsidiaries covering a wide range of matters that arise in the ordinary course of its business activities.

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

British Energy is involved in arbitration with the current owners of Bruce Power L.P. 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 L.P. (the "Arbitration"). 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 L.P. 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.

In September 2008, a certain First Nation served a Notice of Action against the Government of Canada, the Province of Ontario, 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. OPG continues to assess the merits of the litigation.

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. The arbitration is not expected to have any material impact on the Company's financial position.

Certain First Nations have commenced actions for interference with reserve and traditional land rights. OPG has been brought into certain actions by a First Nation against other parties as a third party defendant. The claims relating to some of these First Nations matters against OPG total \$97 million and the other claims are for unspecified amounts.

Each of these matters is subject to various uncertainties. Some of these matters may be resolved unfavourably with respect to OPG and could have a significant effect on OPG's financial position. Management has provided for contingencies that are determined to be likely and are reasonably measurable.

## ENVIRONMENTAL

Current operations are subject to regulation with respect to emissions to air, water, and land as well as other environmental matters by federal, provincial, and local authorities. The cost of obligations associated with current operations is provided for on an ongoing basis. Management believes it has made adequate provision in its consolidated financial statements to meet certain other environmental obligations. As at December 31, 2010, OPG has recorded a provision for environmental obligations of \$39 million (2009 – \$40 million).

## GUARANTEES

As part of normal business, OPG and certain of its subsidiaries and joint ventures enter into various agreements providing financial or performance assurance to third-parties on behalf of certain subsidiaries. Such agreements include guarantees, standby Letters of Credit and surety bonds.

## CONTRACTUAL AND COMMERCIAL COMMITMENTS

The Company's contractual obligations and other significant commercial commitments as at December 31, 2010, are as follows:

(millions of dollars)	2011	2012	2013	2014	2015	Thereafter	Total
Contractual obligations:							
Fuel supply agreements	341	201	139	76	73	107	937
Contributions under the ONFA	250	240	157	94	96	662	1,499
Long-term debt repayment	384	412	12	13	515	2,895	4,231
Interest on long-term debt	216	188	173	173	166	721	1,637
Unconditional purchase obligations	22	22	22	22	25	15	128
Operating lease obligations	29	31	32	33	35	–	160
Operating licence	33	38	40	50	50	–	211
Pension contributions <sup>1</sup>	280	–	–	–	–	–	280
Other	48	44	39	93	16	55	295
	1,603	1,176	614	554	976	4,455	9,378
Significant commercial commitments:							
Niagara Tunnel	231	143	44	1	–	–	419
Lower Mattagami	361	434	508	194	182	–	1,679
Total	2,195	1,753	1,166	749	1,158	4,455	11,476

<sup>1</sup> The pension contributions include additional funding requirements towards the deficit and ongoing funding requirements in accordance with the actuarial valuations of the OPG registered pension plan as at January 1, 2008 and the NWMO registered pension plan as at January 1, 2010. The contributions are subject to material change as a result of actuarial valuations as at January 1, 2011 which must be filed by September 30, 2011 in the case of the OPG plan and by June 30, 2011 in the case of the NWMO plan. The contributions are affected by various factors including market performance, changes in actuarial assumptions, plan experience, changes in the pension regulatory environment, and the timing of funding valuations. Funding requirements after 2011 are excluded due to significant variability in the assumptions required to project the timing of future cash flows.

## Niagara Tunnel

As of December 31, 2010, the Tunnel Boring Machine (“TBM”) had progressed 9,152 metres, which is 90 percent of the tunnel length. Some uncertainty with respect to the cost and schedule for both the tunnel excavation and liner installation will continue. Notwithstanding the uncertainty, the Niagara Tunnel is expected to be completed within the revised approved budget of \$1.6 billion and the revised approved project completion date of December 2013.

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

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the years ended December 31, 2010 and 2009

### Lower Mattagami

Construction activities on the Lower Mattagami River commenced in June 2010 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.

OPG and the OPA finalized and executed a HESA during the year. A comprehensive agreement was executed with the local First Nation that resolves grievances attributed to the construction and subsequent operation and maintenance of OPG facilities in the area. The agreement provides the First Nation with a right to purchase up to a 25 percent equity interest in the project. 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.

### Other Commitments

In addition to the previously disclosed commitments, the Company has the following commitments:

The Company maintains labour agreements with the Power Workers' Union and The Society of Energy Professionals; the agreements are effective until March 31, 2012 and December 31, 2012, respectively. As at December 31, 2010, OPG had approximately 11,800 regular employees and approximately 89 percent of its regular labour force is covered by the collective bargaining agreements.

Contractual and commercial commitments as noted exclude certain purchase orders as they represent purchase authorizations rather than legally binding contracts and are subject to change without significant penalties.

### PROXY PROPERTY TAXES

In November 2005, OPG received a letter from the Ministry of Finance indicating its intent to recommend to the Minister of Finance that an Ontario regulation covering proxy property taxes be updated retroactive to April 1, 1999 to reflect reassessments and appeal settlements of certain OPG properties since that date. OPG continues to monitor resolution to this issue with the Ministry of Finance as updates to the regulation may not occur for several years. OPG has not recorded any amounts relating to this anticipated regulation change.

## 17. Revenue Limit Rebate

Eighty-five percent of the generation output from OPG's unregulated generation assets, excluding the Lennox generating station, and forward sales as of January 1, 2005, was subject to a revenue limit. The term of the revenue limit rebate ended on April 30, 2009.

The revenue limit rebate liability for the year ended December 31, 2009 is as follows:

(millions of dollars)	2009
Liability, beginning of year	85
Increase to provision during the year	27
Payments made during the year	(112)
Liability, end of year	—

## 18. Other Losses and (Gains)

(millions of dollars)	2010	2009
Change in estimated cost required to decommission thermal generating stations	–	(9)
ABCP (Notes 4 and 13)	3	(1)
Other	2	–
Other losses and (gains)	5	(10)

During the fourth quarter of 2009, the Company re-estimated the costs to complete the remaining work to remediate the Lakeview coal-fired generating station site. As a result, OPG recorded a recovery of \$9 million in other losses and gains to reflect a change in the estimated costs.

## 19. Business Segments

OPG has five reportable business segments. The business segments are Regulated – Nuclear Generation, Regulated – Nuclear Waste Management, Regulated – Hydroelectric, Unregulated – Hydroelectric, and Unregulated – Thermal.

### REGULATED – NUCLEAR GENERATION SEGMENT

OPG's Regulated – Nuclear Generation business segment operates in Ontario, generating and selling electricity from the nuclear generating stations that it owns and operates. The business segment includes electricity generated by the Pickering A and B, and Darlington nuclear generating stations. This business segment also includes revenue under the terms of a lease arrangement and related agreements with Bruce Power L.P. related to the Bruce nuclear generating stations. This revenue includes lease revenue and revenue from engineering analysis and design, technical and other services. Revenue is also earned from isotope sales and ancillary services. Ancillary revenues are earned through voltage control and reactive support. Revenues from isotope sales and ancillary services are included in the computation of the regulated prices for OPG's nuclear facilities by the OEB.

### Bruce Nuclear Generating Stations

In May 2001, the Company leased its Bruce A and Bruce B nuclear generating stations to Bruce Power L.P. until 2018, with options to renew for up to 25 years.

During 2010, OPG recorded lease revenue related to the Bruce generating stations of \$232 million (2009 – \$160 million). The net book value of fixed assets on lease to Bruce Power L.P. at December 31, 2010 was \$855 million (2009 – \$1,073 million).

### REGULATED – NUCLEAR WASTE MANAGEMENT

OPG's Regulated – Nuclear Waste Management segment engages in the management of used nuclear fuel and low and intermediate level waste, the decommissioning of OPG's nuclear generating stations (including the stations on lease to Bruce Power L.P.), the management of the Nuclear Funds, and related activities including the inspection and maintenance of the waste storage facilities. Accordingly, accretion expense on the Nuclear Liabilities and earnings from the Nuclear Funds is reported under this segment.

As the nuclear generating stations operate over time, OPG incurs variable costs related to nuclear used fuel and low and intermediate level waste generated. These costs increase the Nuclear Liabilities through the generation of additional used nuclear fuel bundles and other waste. These variable costs are charged to current operations in the Regulated – Nuclear Generation segment in order to reflect the cost of producing energy and the earning of revenue under the Bruce Power lease arrangement and related agreements. Since variable costs increase the Nuclear Liabilities in the Regulated – Nuclear Waste Management segment, OPG records an inter-segment charge between the Regulated – Nuclear Generation and the Regulated – Nuclear Waste Management segments. The impact of the inter-segment charge between these segments is eliminated on OPG's consolidated statements of income and balance sheets.

The Regulated – Nuclear Waste Management segment is considered regulated because the costs associated with the Nuclear Liabilities are included in determination of regulated prices for production from OPG's regulated nuclear facilities by the OEB.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the years ended December 31, 2010 and 2009

### REGULATED - HYDROELECTRIC SEGMENT

OPG's Regulated – Hydroelectric business segment operates in Ontario, generating and selling electricity from most of the Company's baseload hydroelectric generating stations. The business segment is comprised of electricity generated by the Sir Adam Beck 1, 2 and Pump generating station, DeCew Falls 1 and 2, and the R.H. Saunders hydroelectric facilities. Ancillary revenues related to these stations are earned through offering available generating capacity as operating reserve and through the supply of other ancillary services including voltage control and reactive support, certified black start facilities and automatic generation control. These ancillary revenues are included in the computation of the regulated prices for these facilities by the OEB.

### UNREGULATED - HYDROELECTRIC SEGMENT

The Unregulated – Hydroelectric business segment operates in Ontario, generating and selling electricity from its hydroelectric generating stations that are not subject to rate regulation. Ancillary revenues earned through offering available generating capacity as operating reserve, and through the supply of other ancillary services including voltage control and reactive support, certified black start facilities, automatic generation control, and other services.

### UNREGULATED - THERMAL SEGMENT

The Unregulated – Thermal business segment operates in Ontario, generating and selling electricity from its thermal generating stations, which are not subject to rate regulation. Ancillary revenues are earned through offering available generating capacity as operating reserve, and the supply of other ancillary services including voltage control and reactive support, automatic generation control, and other services.

### OTHER

The Other category includes revenue that OPG earns from its 50 percent joint venture share of Brighton Beach related to an energy conversion agreement between Brighton Beach and Shell Energy North America (Canada) Inc. This category also includes OPG's share of joint venture revenues and expenses from the PEC gas-fired generating station, which is co-owned with TransCanada Energy Ltd. In addition, the Other category includes revenue from real estate rentals.

The revenue and expenses related to OPG's trading and other non-hedging activities are also included in the Other category. As part of these activities, OPG transacts with counterparties in Ontario and neighbouring energy markets in predominantly short-term trading activities of typically one year or less in duration. These activities relate primarily to physical energy that is purchased and sold at the Ontario border, sales of financial risk management products and sales of energy-related products. All contracts that are not designated as hedges are recorded as assets or liabilities at fair value, with changes in fair value recorded in other revenue as gains or losses.

OM&A expenses of the generation segments include an inter-segment service fee for the use of certain property, plant and equipment, and intangible assets held within the Other category. The total service fee is recorded as a reduction to the Other category's OM&A expenses. The service fee included in OM&A expenses by segment for the years ended December 31, 2010 and 2009 is as follows:

(millions of dollars)	2010	2009
Regulated – Nuclear Generation	25	27
Regulated – Hydroelectric	2	3
Unregulated – Hydroelectric	3	4
Unregulated – Thermal	8	9
Other	(38)	(43)



Segment Income (Loss) for the Year Ended December 31, 2010 (millions of dollars)	Regulated			Unregulated				Total
	Nuclear Generation	Nuclear Waste Management	Hydro- electric	Hydro- electric	Thermal	Other	Elimination	
Revenue	3,030	45	742	497	936	168	(43)	5,375
Fuel expense	185	-	254	64	405	-	-	908
Gross margin	2,845	45	488	433	531	168	(43)	4,467
Operations, maintenance and administration	2,101	52	99	227	449	18	(43)	2,903
Depreciation and amortization	401	-	62	73	103	59	-	698
Accretion on fixed asset removal and nuclear waste management liabilities	-	653	-	-	7	-	-	660
Earnings on nuclear fixed asset removal and nuclear waste management funds	-	(668)	-	-	-	-	-	(668)
Property and capital taxes	39	-	11	4	13	10	-	77
Restructuring	-	-	-	-	27	-	-	27
Other losses	2	-	-	-	-	3	-	5
Income (loss) before interest and income taxes	302	8	316	129	(68)	78	-	765

Segment Income (Loss) for the Year Ended December 31, 2009 (millions of dollars)	Regulated			Unregulated				Total
	Nuclear Generation	Nuclear Waste Management	Hydro- electric	Hydro- electric	Thermal	Other	Elimination	
Revenue	3,179	44	782	615	918	143	(41)	5,640
Revenue limit rebate	-	-	-	(10)	(17)	-	-	(27)
Fuel expense	210	-	264	104	413	-	-	991
Gross margin	2,969	44	518	501	488	143	(41)	4,622
Operations, maintenance and administration	2,057	48	106	210	492	10	(41)	2,882
Depreciation and amortization	481	-	75	73	79	52	-	760
Accretion on fixed asset removal and nuclear waste management liabilities	-	627	-	-	7	-	-	634
Earnings on nuclear fixed asset removal and nuclear waste management funds	-	(683)	-	-	-	-	-	(683)
Property and capital taxes	41	-	10	9	18	8	-	86
Other gains	-	-	-	-	(9)	(1)	-	(10)
Income (loss) before interest and income taxes	390	52	327	209	(99)	74	-	953

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the years ended December 31, 2010 and 2009

Selected Consolidated Balance Sheet Information as at December 31, 2010 (millions of dollars)	Regulated			Unregulated			Total
	Nuclear Generation	Nuclear Waste Management	Hydro- electric	Hydro- electric	Thermal	Other	
Segment fixed assets in service, net	3,963	–	3,750	3,324	282	759	12,078
Segment construction in progress	174	–	913	367	20	3	1,477
Segment property, plant and equipment, net	4,137	–	4,663	3,691	302	762	13,555
Segment intangible assets in service, net	18	–	–	2	1	19	40
Segment development in progress	3	–	–	–	–	5	8
Segment intangible assets, net	21	–	–	2	1	24	48
Segment materials and supplies inventory, net:							
Short-term	65	–	–	–	19	1	85
Long-term	364	–	–	1	35	–	400
Segment fuel inventory	337	–	–	–	397	–	734
Fixed asset removal and nuclear waste management liabilities	–	(12,547)	–	–	(151)	(6)	(12,704)
Nuclear fixed asset removal and nuclear waste management funds	–	11,246	–	–	–	–	11,246

Selected Consolidated Balance Sheet Information as at December 31, 2009 (millions of dollars)	Regulated			Unregulated			Total
	Nuclear Generation	Nuclear Waste Management	Hydro- electric	Hydro- electric	Thermal	Other	
Segment fixed assets in service, net	3,661	–	3,791	2,968	384	808	11,612
Segment construction in progress	217	–	663	308	32	4	1,224
Segment property, plant and equipment, net	3,878	–	4,454	3,276	416	812	12,836
Segment intangible assets in service, net	22	–	–	2	–	15	39
Segment development in progress	8	–	–	1	1	3	13
Segment intangible assets, net	30	–	–	3	1	18	52
Segment materials and supplies inventory, net:							
Short-term	70	–	–	–	60	2	132
Long-term	386	–	–	1	1	–	388
Segment fuel inventory	333	–	–	–	504	–	837
Fixed asset removal and nuclear waste management liabilities	–	(11,711)	–	–	(146)	(2)	(11,859)
Nuclear fixed asset removal and nuclear waste management funds	–	10,246	–	–	–	–	10,246

Selected Consolidated Cash Flow Information (millions of dollars)	Regulated			Unregulated			Total
	Nuclear Generation	Nuclear Waste Management	Hydro- electric	Hydro- electric	Thermal	Other	
Year ended December 31, 2010	211	–	272	442	23	30	978
Investment in fixed and intangible assets							
Year ended December 31, 2009	200	–	254	239	32	27	752
Investment in fixed and intangible assets							

## 20. Related Party Transactions

Given that the Province owns all of the shares of OPG, related parties include the Province, Infrastructure Ontario, the OPA and the other successor entities of Ontario Hydro, including Hydro One Inc. (“Hydro One”), the IESO, and the OEFC. The transactions between OPG and related parties are measured at the exchange amount, which is the amount of consideration established and agreed to by the related parties.

These transactions are summarized below:

(millions of dollars)	Revenue 2010	Expenses 2010	Revenue 2009	Expenses 2009
Hydro One				
Electricity sales	18	–	20	–
Services	–	16	–	13
Province of Ontario				
GRC, water rentals and land tax	–	116	–	146
Guarantee fee	–	7	–	4
Used Fuel Fund rate of return guarantee	–	186	–	493
OEFC				
GRC and proxy property tax	–	208	–	224
Interest expense on long-term notes	–	203	–	210
Capital tax	–	11	–	31
Income taxes, net of investment tax credits	–	77	–	199
Contingency support agreement	258	–	412	–
Infrastructure Ontario				
Reimbursement of expenses incurred during the procurement of new nuclear units	–	3	–	21
IESO				
Electricity sales	4,215	27	4,434	31
Revenue limit rebate	–	–	(27)	–
Ancillary services	61	–	153	–
OPA	142	–	45	–
	<b>4,694</b>	<b>854</b>	<b>5,037</b>	<b>1,372</b>

As at December 31, 2010, accounts receivable included \$3 million (2009 – \$2 million) due from Hydro One, \$129 million (2009 – \$189 million) due from the IESO, and \$22 million (2009 – \$6 million) due from the OPA. Accounts payable and accrued charges at December 31, 2010 included \$2 million (2009 – \$3 million) due to Hydro One and \$3 million (2009 – \$21 million) due to Infrastructure Ontario.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the years ended December 31, 2010 and 2009

### 21. Joint Ventures

Significant joint ventures include Brighton Beach and the PEC, which are 50 percent owned by OPG.

The following condensed information from the consolidated statements of income, cash flows and balance sheets details the Company's share of its investments in joint ventures and partnerships that has been proportionately consolidated:

(millions of dollars)	2010	2009
<b>Proportionate joint venture operations</b>		
Revenue	97	76
Expenses	(62)	(49)
Net income	35	27
<b>Proportionate joint venture cash flows</b>		
Operating activities	74	34
Investing activities	(3)	(17)
Financing activities	(76)	(25)
Share of changes in cash	(5)	(8)
<b>Proportionate joint venture balance sheets</b>		
Current assets	25	31
Long-term assets	553	583
Current liabilities	(15)	(14)
Long-term liabilities	(167)	(172)
Share of net assets	396	428

### 22. Investment Company

The Company applied AcG-18 for all investments owned by OPGV. OPGV is a wholly owned subsidiary of the Company and its results are included in the Company's consolidated financial statements. The carrying amount of OPGV's investments was \$30 million (2009 – \$30 million) and the amount was included as long-term investments on the consolidated balance sheets.

As a result of the application of this policy, the Company's net income and other assets for 2010 decreased by \$1 million (2009 – \$11 million). The net realized gains for OPGV were nil in 2010 (2009 – \$7 million).

The gross unrealized gains and losses on the investment held by OPGV as at December 31, 2010 were \$11 million and \$25 million, respectively. The gross unrealized gains and losses on the investment held by OPGV as at December 31, 2009 were \$11 million and \$24 million, respectively.

### 23. Research and Development

For the year ended December 31, 2010, research and development expenses of \$127 million (2009 – \$112 million) were charged to operations.

## 24. Net Changes In Non-Cash Working Capital Balances

(millions of dollars)	2010	2009
Accounts receivable	101	105
Prepaid expenses	5	(15)
Fuel inventory	103	(101)
Materials and supplies	47	–
Revenue limit rebate	–	27
Accounts payable and accrued charges	(189)	(103)
Income and capital taxes recoverable	(20)	(149)
	<b>47</b>	<b>(236)</b>

## 25. Non-Controlling Interest

OPG has entered into a partnership agreement with the Lac Seul First Nation (“LSFN”) regarding the 12.5 MW Lac Seul generating station. In July 2009, OPG transferred ownership of the station to the Lac Seul LP partnership. OPG has a 75 percent ownership interest in the partnership, while the LSFN has a 25 percent interest.

OPG consolidates the results of the Lac Seul LP and the non-controlling interest represents the LSFN’s 25 percent ownership interest in the partnership.

## 26. Restructuring

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. The closures occurred on October 1, 2010. OPG conducted discussions with key stakeholders, including the Society of Energy Professionals and the Power Workers’ Union, in accordance with their respective collective bargaining agreements. As determined by the collective bargaining agreements, restructuring costs of \$27 million were recorded during 2010 for those employees who have elected to leave. The change in the restructuring liability for severance costs for the year ended December 31, 2010 is as follows:

(millions of dollars)	2010
Liability, beginning of year	–
Restructuring charges during the period	27
Payments during the period	(12)
Liability, end of year	15

# Officers



**Jake Epp**  
Chairman



**Tom Mitchell**  
President and  
Chief Executive Officer



**Robert Boguski**  
Senior Vice President,  
Business Services and  
Information Technology



**Bruce Boland**  
Senior Vice President,  
Corporate Affairs



**David Brennan**  
Senior Vice President,  
Law and General Counsel



**Frank Chiarotto**  
Senior Vice President,  
Thermal



**Donn Hanbidge**  
Senior Vice President and  
Chief Financial Officer



**Barb Keenan \***  
Senior Vice President,  
Human Resources and  
Chief Ethics Officer



**Catriona King**  
Vice President,  
Corporate Secretary



**Pat McNeil \***  
Senior Vice President,  
Corporate Business  
Development and  
Chief Risk Officer



**John Murphy**  
Executive Vice President,  
Hydro



**Wayne Robbins**  
Chief Nuclear Officer



**W.R. (Bill) Robinson \***  
Executive Vice President,  
Nuclear Refurbishment  
Projects and Support



**Colleen Sidford**  
Vice President, Treasurer

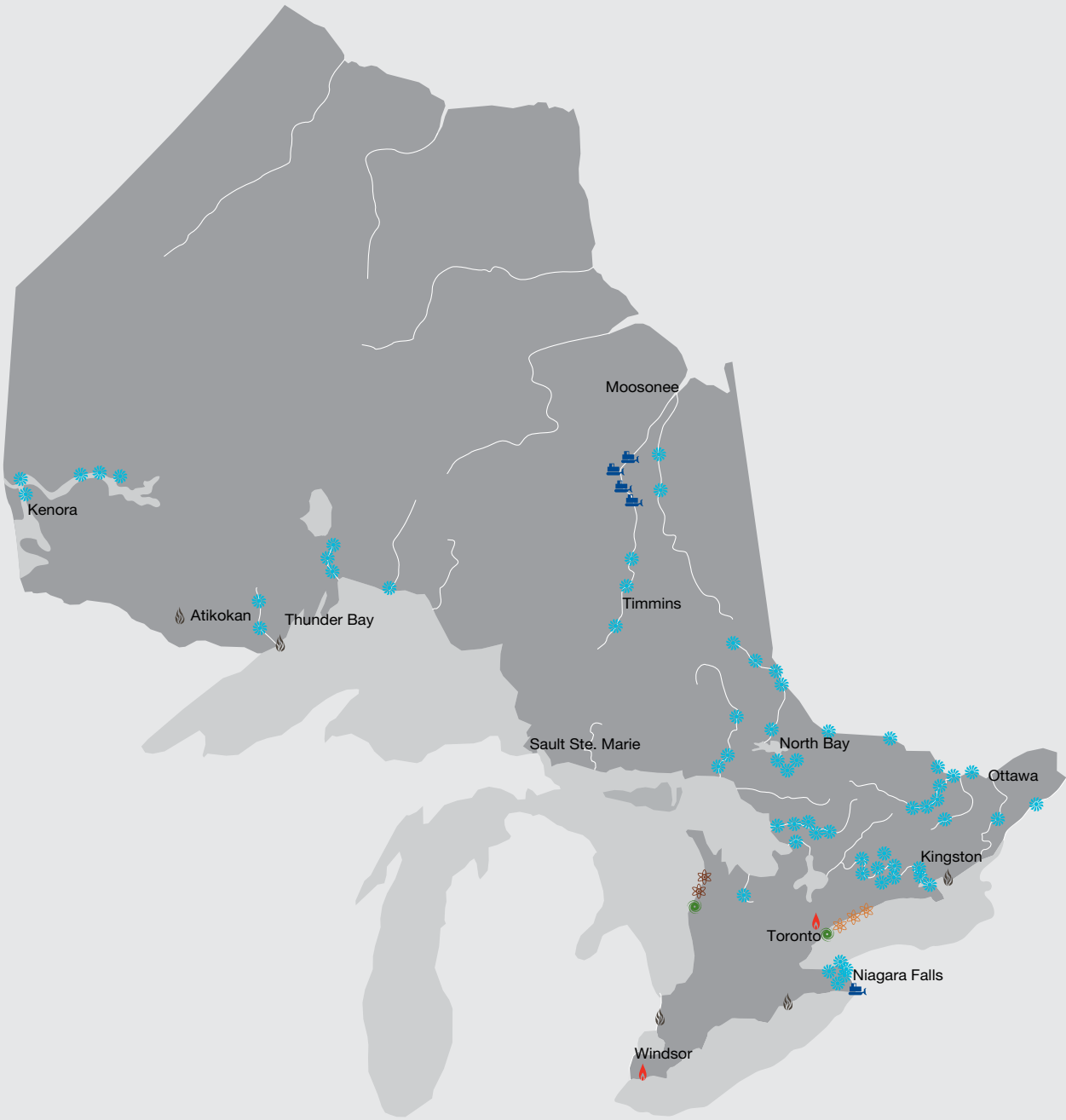


**Albert Sweetnam \***  
Executive Vice President,  
Darlington New Nuclear Project

\* Appointed officers in 2010

# Ontario Power Generation Facilities

As of December 31, 2010, OPG's electricity generating portfolio had an in-service capacity of 19,931 MW



Nuclear Stations

Leased Nuclear Stations

Thermal Stations

Co-owned Gas-Fired Stations\*

Hydroelectric Stations

Wind Power Turbines

Hydroelectric Projects Under Construction\*\*

\* The 550 MW Portlands Energy Centre gas-fired generating station in Toronto (co-owned by OPG and TransCanada Energy Ltd.) and the 580 MW Brighton Beach gas-fired generating station, co-owned by OPG and ATCO Power Canada Ltd.

\*\* Consist of two hydroelectric projects: (1) the Niagara Tunnel, near Niagara Falls; (2) and the Lower Mattagami project in northeastern Ontario, which will result in the addition of generating units to existing stations in Little Long, Harmon, and Kipling and will also replace a fourth generating station, Smoky Falls, with a new, three-unit station at the existing site.

AJAX, ATIKOKAN, CAMPBELLFORD, CLARINGTON, CORNWALL, GREATER NAPANEE, HALDIMAND COUNTY, KAPUSKASING, MATTAGAMI FIRST NATION, MOOSE CREE FIRST NATION, NIAGARA FALLS, NORTH BAY, OSHAWA, PICKERING, RENFREW, ST. CLAIR TOWNSHIP, TAYKWA TAGAMOU NATION, THUNDER BAY, TIMMINS, WHITBY, AJAX, ATIKOKAN, CAMPBELLFORD, CLARINGTON, CORNWALL, GREATER NAPANEE, HALDIMAND COUNTY, KAPUSKASING, MATTAGAMI FIRST NATION, MOOSE CREE FIRST NATION, NIAGARA FALLS, NORTH BAY, OSHAWA, PICKERING, RENFREW, ST. CLAIR TOWNSHIP, TAYKWA TAGAMOU NATION, THUNDER BAY, TIMMINS, WHITBY,

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Ce rapport est également publié en français sur notre site Web – at [www.opg.com](http://www.opg.com).

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