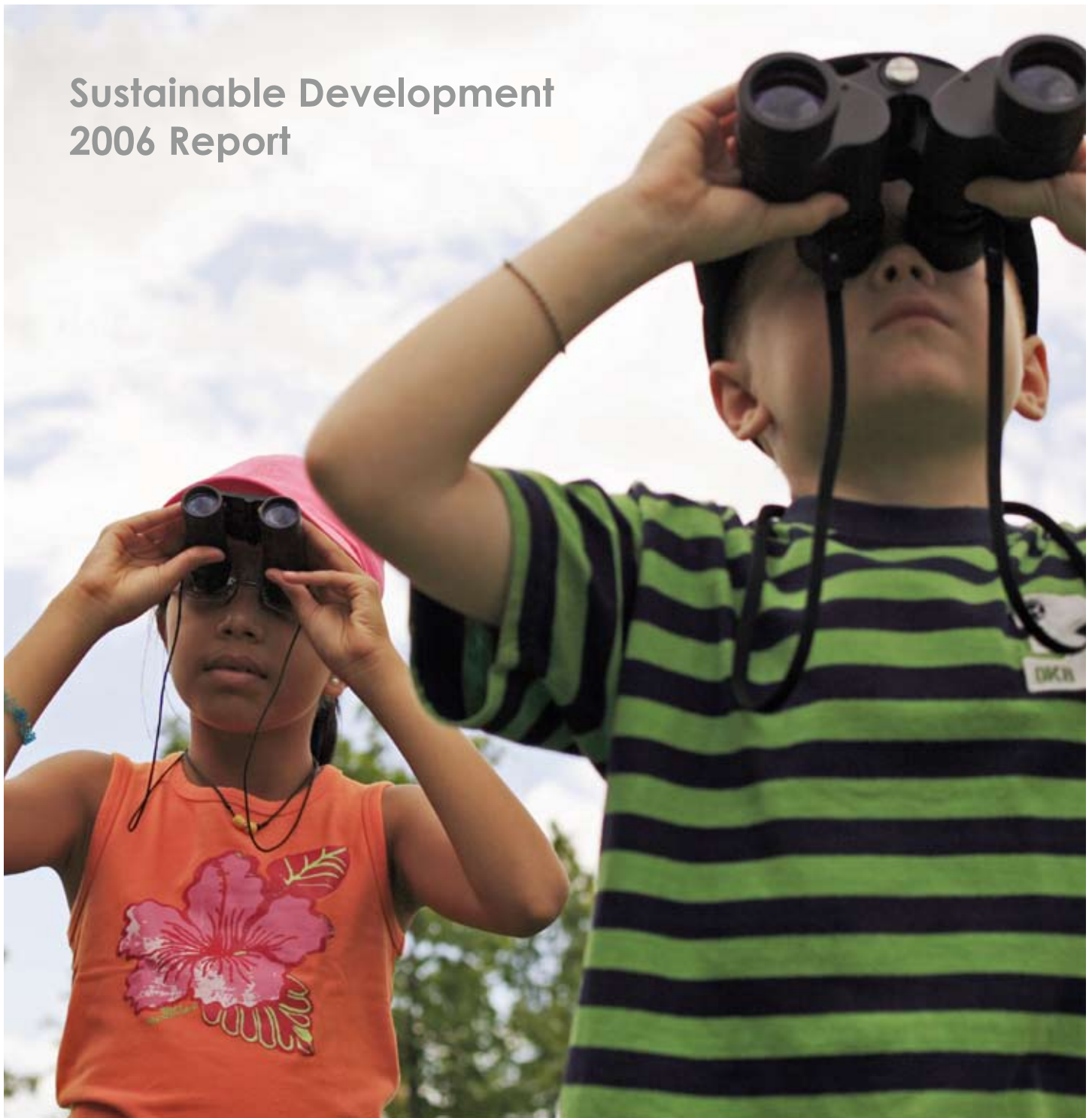


Sustainable Development 2006 Report



ONTARIO**POWER**
GENERATION

Performance Highlights

Recognizing that good stewardship is good business, OPG committed to becoming a sustainable development company in 1999. Since then, we have published an annual Sustainable Development Report which enables stakeholders to review our progress.

OPG's sustainable development performance highlights for 2006 include:

- Approximately 76 per cent of OPG electricity production was derived from hydroelectric and nuclear sources that were virtually free of air emissions causing smog, acid rain and global warming.
- OPG's Environmental Performance Index (EPI) score was 132.5 (out of a maximum of 150), the best the company has ever achieved. The EPI is determined based upon performance regarding spills, regulatory compliance, energy efficiency, radiation emissions and waste management.
- OPG's fleet of five fossil-fuelled plants collectively set an "all-time personal best" for acid gas emission rates (NO_x plus SO₂ per kilowatt hour of electricity produced). The 2006 total acid gas emission rate of 4.71 grams per kilowatt hour was almost 70 per cent lower than it was in 1983. This result was, in part, influenced by Lambton GS Units 3 & 4, which are equipped with Flue Gas Desulphurization (FGD) equipment, and the installation and operation of Selective Catalytic Reduction (SCR) technology.

It is noteworthy that Lambton GS Units 3 & 4 are recognized as two of the cleanest coal-fired generating units in North America. The decline in SO₂ emission rates across the fossil fleet since 2004 has resulted due to a combination of burning lower sulphur coal at Nanticoke GS, unit optimization and a greater percentage of production coming from the low emission units.

- As part of the OPG biodiversity program, approximately 300,000 native trees were planted in ecologically strategic locations. Since the Spring of 2000, OPG has planted 2.5 million trees on 1,100 hectares.
- OPG was awarded the President's Bronze Award from the Canadian Electricity Association (CEA) for top quartile 2005 safety performance among Canadian utilities.
- OPG was named one of the top 50 Employers in the Greater Toronto Area in the annual study conducted by Hewitt Associates.
- Approximately 600 supervisors and managers from across OPG received sustainable development training.

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Ontario Power Generation Facilities



Company Profile

Ontario Power Generation Inc. is an Ontario-based electricity generation company whose principal business is the generation and sale of electricity in Ontario. Our focus is on the efficient production and sale of electricity from our generation assets, while operating in a safe, open and environmentally responsible manner.

In 2006, OPG generated 105.2 terawatt hours (TWh) of electricity.

OPG's electricity generating portfolio as of December 31, 2006, had a total in-service capacity of 22,147 megawatts (MW), which consisted of:

- three nuclear generating stations with a capacity of 6,606 MW
- five fossil-fuelled generating stations with a capacity of 8,578 MW
- 64 hydroelectric generating stations with a capacity of 6,956 MW, and
- three wind generating stations (which includes a 50% interest in the Huron Wind joint venture) with a capacity of 7 MW.

In addition, OPG, ATCO Power Canada Ltd. and ATCO Resources Ltd. co-own the Brighton Beach gas-fired generating station. OPG also owns two other nuclear generating stations, which are leased on a long-term basis to Bruce Power L.P.

Message from the President of OPG and the Vice President Sustainable Development

As a performance driven company accountable to the people of Ontario, OPG provides regular updates on its performance to its many stakeholders. This Sustainable Development Report focuses on OPG's sustainable development performance for 2006 -- our eighth such report since becoming a company in 1999. As with our previous reports, it provides an open and transparent account of our performance in the three areas critical to fulfilling our sustainable development commitment: our environmental impact; our social and community performance; and our economic contribution to Ontario.

Environmental Performance

Our 2006 environmental performance was better than target in a number of areas:

- spills
- regulatory compliance
- energy efficiency
- air emissions
- radiation emissions
- low and intermediate level radioactive waste, and
- ash and gypsum diverted from landfills

Notably, 2006 was OPG's best year ever with respect to spills and regulatory compliance. Additionally, we continued to implement our biodiversity program, planting 300,000 native trees in ecologically strategic locations. Since the spring of 2000, OPG has planted 2.5 million trees on 1,100 hectares. We were also nearly 50 per cent better than target in terms of energy efficiency, representing an annual savings of \$100 million since our efficiency program began in 1994, with annual emissions savings of 2.16 million tonnes of CO₂.

We are especially pleased with the environmental performance of our fossil-fuelled stations. In 2006, they achieved their lowest recorded acid gas emissions and emission rates. They also achieved an approximate 35 per cent decline in CO₂ emissions since 2000, due in part to our previous investments in new equipment, and new processes, which in combination improved plant efficiency and environmental performance. Lower emissions were also the result of lower electricity demand in Ontario, which reduced the need to run our fossil plants as frequently as in previous years.

Social Performance

OPG operates facilities in large and small communities across Ontario. We are strongly committed to these communities, as it is their trust and goodwill that gives us our license to operate. We manifest that commitment in a number of ways.

In 2006, our Corporate Citizenship Program provided \$1.8 million to help support over 850 environmental, community and educational initiatives throughout the communities in which OPG operates. Additionally, OPG employees and pensioners contributed \$1.79 million through our annual Charity Campaign. Much of this money also went to assist charitable causes in our local communities.

In the area of public safety, OPG continued to operate its facilities according to stringent safety standards set by both our regulators and ourselves. With respect to our nuclear operations, no member of the public has ever been harmed as a result of radiation from our nuclear plants or nuclear waste management. Exposure levels at our three nuclear plants remained consistently and significantly lower than prescribed by regulation and what people normally receive from natural sources.

At our hydroelectric stations, we continued to administer an extensive Public Water Safety Program to inform and protect the public regarding potential hazards at our hydroelectric stations and dams. Initiatives undertaken in 2006 included installing video surveillance cameras and improved safety booms at

several of our hydro stations, as well as installing a new safety fence near the R.H Saunders generating station on the St. Lawrence River.

Economic Performance

OPG's economic contribution to Ontario continued to be substantial in 2006.

As a company, OPG made payments to the Province of Ontario that totaled \$1.54 billion, which included payments in lieu of taxes, gross revenue charges, dividends, interest on long term debt, Market Power Mitigation Agreement rebates and revenue limit rebates.

OPG also provided economic support to the province through the purchase of goods and services totaling \$2.02 billion.

Virtually all of OPG's 11,500 employees live in Ontario, thus they "contribute" to the province through their payment of Ontario-based taxes and the purchase of Ontario-made goods and services. Above and beyond this economic contribution, many OPG employees contribute to their communities through charitable donations and volunteer work.

Our Commitment to Sustainable Development is Strong

OPG advanced its commitment to sustainable development in 2006 by updating its Environmental Policy (see page 43). The updated policy, which was ratified by the OPG Board in May 2006, sets out OPG's commitment to continually improve its environmental performance by integrating commitment to environmental protection into:

- decision-making
- employee education programs
- site and community support programs, and
- corporate and site reporting

The updated Environmental Policy also affirms that all OPG employees are responsible for protecting the environment and complying with the policy. Consistent with this imperative, in 2006 OPG expanded the

mandate of its Sustainable Development Education Training Program to include not only new supervisors, but also managers. Six hundred supervisors and managers were trained in 2006, bringing the total number trained, since inception of the program in 2002, to 2,800 employees. The broader training initiative will continue over the next several years.

OPG is committed to improving its performance in all areas, including sustainable development. In the pages that follow, we report on a wide range of our sustainable development activities. It is our hope that you will find it to be an open, informative and honest account of our performance in this important area. We encourage you to contact OPG with any comments or observations you may have. Contact information is available on the back cover of this report.

As Ontario's largest power producer, OPG has a responsibility to operate in a manner that contributes positively to the environment and to society. We expect to be held accountable – by you and by ourselves -- on our ability to fulfill this responsibility.

Sincerely,



Jim Hankinson
President and CEO



Cara Clairman
Vice President
Sustainable Development





OPG and its conservation partners are engaged in substantial tree planting.

Since 2000

2.5 million

trees and shrubs planted by OPG and its conservation partners.

In 2007

320,000

more trees will be planted.

This increases our total plantings to

2.8 million

trees to restore and replace critical woodland habitat for wildlife.

Accountability

OPG's President is accountable to the Board of Directors for making certain the company manages the environmental, social and economic aspects of its business in a manner consistent with OPG's Environmental Policy (see page 43) and Code of Conduct.

Additionally, OPG's Environmental Policy affirms that OPG's Vice President Sustainable Development, Business Unit leaders, and indeed every employee, are all accountable for protecting the environment and complying with the Environmental Policy.

Site environmental and community advisors, working in collaboration with the Corporate Sustainable Development Group, lead a variety of stewardship initiatives (described throughout this report) and sustainable development activities that take place across OPG's operations.

To ensure that OPG employees remain "ahead-of-the-curve" in the area of sustainable development, in 2006 the company continued a program initiated in 2002, that requires all new supervisors to participate in training entitled "Sustainable Development at OPG: Our Commitment to the Environment, Society and Economy". The purpose of this training, which is ongoing, is to ensure that supervisors can advise employees under their direction of the need and means to operationalize sustainable development on a daily basis. In 2006, approximately 600 supervisors from across OPG received sustainable development training.

Environmental Performance





Key Environmental Performance Targets

OPG must comply with literally hundreds of environmental laws, regulations, by-laws and requirements contained in operating permits and Certificates of Approval. We consider regulatory compliance to be a minimum, non-negotiable standard for progress towards sustainable development by our company, and we have established voluntary internal environmental targets to help ensure that our overall performance continues to improve beyond compliance.

Accordingly, each year OPG sets key targets for improving environmental performance, and these targets are tracked and managed through the Environmental Management System (EMS). These efforts are reinforced by an Annual Incentive Plan that links management's compensation to meeting or surpassing internally set established environmental targets.

As is evident based on a review of Table 1, OPG's performance in meeting 2006 environmental targets was favourable.

OPG's commitment to sustainable development is reflected in our efforts to minimize the environmental footprint of our operations, while meeting the company's obligation to produce power for the residents of Ontario.

Table 1:

2006 Corporate Environmental Performance Targets (All targets are voluntary except where otherwise specified)

Category	2006 Target	2006 Year-End	Target Met
Spills ⁽¹⁾	Major A = 0	0	Yes
	Moderate B = 0	0	Yes
	Minor C ≤ 20	14	Yes
	Minor D ⁽²⁾ - No Adverse Environmental Effect	29	No Target
Regulatory Compliance	Major Infractions ⁽³⁾ = 0	0	Yes
	Moderate Infractions ⁽⁴⁾ ≤ 82	43	Yes
	Minor Infractions (No Target)	35	No Target
Energy Efficiency	26.5 GWh (Hydro - 25, Fossil - 1.5)	55.7 GWh	Yes
Air Emissions	NO _x (as NO ₂) ≤ 32.3 Gg net ⁽⁵⁾	30.8 net	Yes
	SO ₂ ≤ 146.1 Gg net ⁽⁵⁾	87.3 net	Yes
	Total Acid Gas = 236 Gg gross ⁽⁵⁾	118.1	Yes
	NO _x (as NO ₂) rate (Gg/TWh-delivered) ⁽⁶⁾	1.21	Mixed ⁽⁷⁾
	CO ₂ (gross Tg)	24.9 gross	No Target
Critical Group Dose	Pickering ≤ 10 µSv	3.6	Yes
	Darlington ≤ 7.5 µSv	1.2	Yes
Low & Intermediate Level Radioactive Waste	≤ 4,014 m ³	3,455 m ³	Yes
Ash & Gypsum Diverted from Landfill	≥ 625 Gg	746.27 Gg	Yes

(1) OPG ranks the severity of spills according to guidelines set by the company's Spills Severity Rating Procedure, which mirrors Ontario Ministry of the Environment guidelines.

(2) Reporting of Category D spills (minor spills with no adverse environmental effect) commenced July 1, 2005, in response to passage of the Ontario Environmental Enforcement Statute Law Amendment Act in June 2005.

(3) Major infractions are defined as Director's Orders, charges and convictions.

(4) Moderate infractions include Municipal Industrial Strategy for Abatement (MISA) and Certificate of Approval violations and provincial officers' orders.

(5) The use of emission reduction allowances and credits were used to meet net emission reduction targets for NO_x. O.Reg.397/01 limits OPG's annual net emissions to 32.3 Gg for NO_x (as NO₂) and 146.06 Gg for SO₂. O.Reg.153/99 limits OPG's total gross SO₂ emissions to 175 Gg and the total acid gas emissions to 236 Gg (with NO_x expressed as NO₂).

(6) NO_x emission rate targets are based on "delivered energy". Delivered energy is defined as "gross energy output from a generating unit, less unit service (energy supplied by and consumed by the unit), while connected to the electricity grid". The NO_x emission rate (Gg/TWh-delivered) is the total of all fossil station NO_x emissions divided by the total delivered energy from all fossil units.

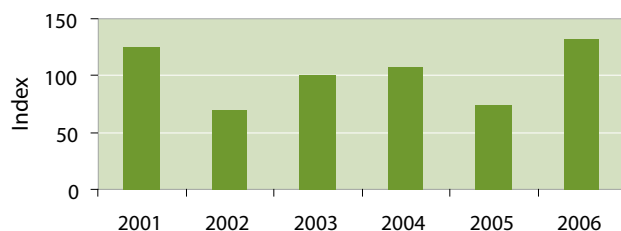
(7) NO_x rate targets vary by generating unit. Two NO_x target rates were not met due to extended minimum and low load operation.



OPG's environmental practices are assessed annually using an Environmental Performance Index (EPI). The EPI was first introduced in 2001, and it is based upon weighted scores calculated relative to voluntary performance targets for spills, regulatory compliance, energy efficiency, radiation emissions and waste management. The scoring system ranges from zero to 150, with higher scores reflecting better performance. An overall score of 100 indicates that, on average, targets were met. Scores greater than 100 indicate performance better than target, and scores less than 100 indicate performance that did not meet targets.

In 2006, OPG's EPI was 132.5, which is the best score the company has ever achieved (see Figure 1). This score reflects exemplary performance across almost all aspects of the index referenced in the paragraph above.

Figure 1: Environmental Performance Index, 2001 - 2006



OPG's ISO 14001 Environmental Management System (EMS) helps to ensure that the company complies with its environmental policy within a framework of continual improvement. OPG first received certification for its Corporate level EMS and all of its generating facilities in 1999, with the exception of Evergreen Energy, which was certified in 2000. In 2006, the Corporate level EMS and the EMSs for all of the generating facilities withstood an external registration audit process to retain certifications based on an upgraded ISO 14001:2004 standard.

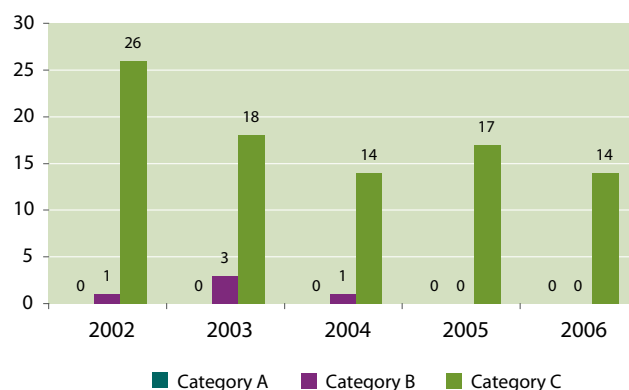
Spills

The classification of spills is based on their potential impact on the environment: Category A spills have a major impact, Category B spills have a moderate impact, and Category C spills have a minor impact. These categories mirror the Ontario Ministry of the Environment (MOE) guidelines.

In 2006, OPG experienced zero category A and B spills. At year end, OPG experienced 14 category C spills, which was substantially lower than the target of 20. Independent of this company-wide success, the Hydro division incurred 10 C spills, which exceeded its target of eight.

Overall, 2006 was OPG's best year with respect to spills performance (see Figure 2). When a spill occurs, a root cause analysis of why the spill occurred is completed, and if appropriate, an action plan to prevent a re-occurrence is developed and applied company-wide.

Figure 2: Spills Performance 2002 - 2006¹



¹ Category A, B and C spills have major, moderate and minor environmental impacts, respectively.

Regulatory Compliance

OPG must comply with a multitude of requirements contained in statutes, regulations, bylaws, operating permits and Certificates of Approval.

The classification of non-compliance events is categorized by OPG as major, moderate or minor.

Major Infractions: Major infractions include Director's Orders, charges or convictions.

In 2006, OPG experienced zero major infractions, which met OPG's self-imposed target, and was an improvement over 2005, when two major infractions were incurred.

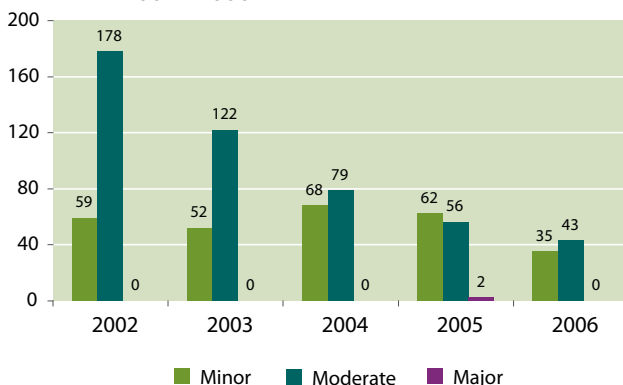
Moderate Infractions: Moderate Infractions include those that cause, or may likely cause, an adverse environmental effect, limit OPG's ability to operate its plants, may result in fines or charges or stand to impact the reputation of the company. These infractions include all Certificate of Approval and MISA infractions, notices of violation, and provincial officer's orders.

OPG incurred 43 moderate infractions in 2006, which was substantially better than the set target of 82, and was an improvement over 2005, when 56 infractions took place.

Minor Infractions: A total of 35 minor infractions occurred in 2006.

A five year summary of regulatory compliance performance trends is shown in Figure 3. As is evident, overall performance across the categories of major, moderate and minor infractions has been trending down since 2002.

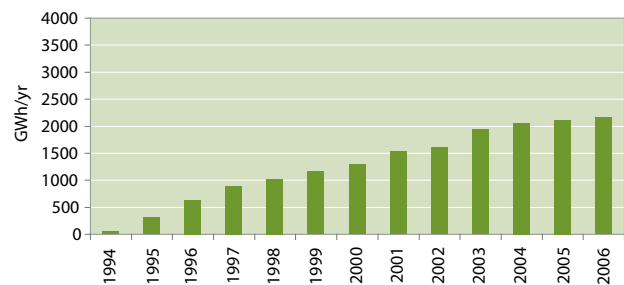
Figure 3: Environmental Regulatory Infractions, 2002 - 2006



Efficiency

Beginning in 1994, OPG's predecessor company, Ontario Hydro, committed to an energy efficiency program, and 13 years later the program remains highly successful. Indeed, from 1994 – 2006, OPG's annualized energy savings have increased by 2,167 GWh, resulting in savings of \$100 million per year (@ 4.6 cents per kilowatt-hour) and annual emission savings of 2.16 million tonnes of CO₂ (see Figure 4).

Figure 4: Cumulative Energy Efficiency Savings 1994 - 2006



In 2006, OPG achieved an internal energy efficiency savings of 55.7 GWh, which exceeded the company's self-imposed energy efficiency target of 26.5 GWh. Energy savings in 2006 originated primarily from hydroelectric operations, such as:

- 15.4 GWh/yr from turbine runner upgrades on 2 units at Abitibi Canyon GS
- 14.8 GWh/yr from turbine runner upgrades on 2 units at Caribou Falls GS
- 8.5 GWh/yr from re-stroking (i.e., an improvement to output cabling which increases servo motor stroke) on one unit at DeDew Falls GS
- 6 GWh/yr from a turbine runner upgrade on one unit at Ranney Falls GS, and
- 4.3 GWh/yr from two transformer replacements at Mountain Chute and one runner upgrade at Chats Falls GS.

Energy efficiency improvements from fossil-fuelled operations totaled 6.4 GWh/yr (i.e., 4.0 GWh/yr from Lennox, 1.0 GWh/yr from Lambton, and 1.4 GWh/yr from Thunder Bay GS).

“

While some organizations talk about the need for greater energy efficiency in their own facilities – but fail to act – OPG has taken efficiency to the very foundation of their operations. But responsibility and commitment starts at the top. Jim Hankinson, OPG’s President and CEO, spoke of his commitment to energy efficiency and I wanted to confirm for myself the extent to which he was walking the talk. It didn’t take much effort to confirm the degree to which OPG believes in one of the most critical issues facing Canadians today.”



Ken Elsey
President and CEO
Canadian Energy
Efficiency Alliance

Air

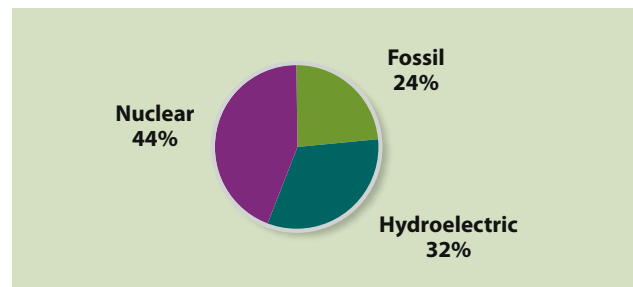
Generation Mix

In 2006, approximately 76 per cent of OPG’s electricity production was derived from hydroelectric and nuclear sources that were virtually free of air emissions causing smog, acid rain and global warming (see Figure 5).

The remaining production came from five fossil-fuelled stations. Four of these stations use coal as their primary source of energy and one is dual-fuelled by oil and natural gas. An advantage of fossil stations, relative to nuclear and hydroelectric facilities, is their capacity to respond to short term peaks in demand for power.

OPG’s fossil-fuelled plants supply demand that is not first met by other Ontario supply sources such as nuclear, hydro and Ontario’s growing portfolio of alternative generation. Due to the decline in Ontario electricity demand in 2006, and fewer demand peaks during the summer, production from OPG’s fossil-fuelled plants was 19 per cent lower in 2006 compared to 2005 – thus affecting lower total emissions of NO_x, SO₂ and CO₂, which are more fully described below.

Figure 5: OPG’s Generation Mix 2006



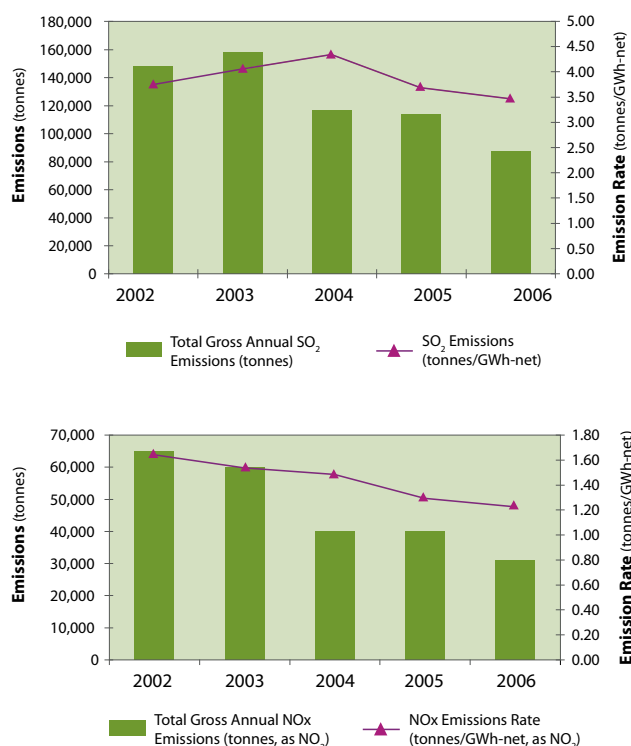
Nitrogen Oxides (NO_x) and Sulphur Dioxide (SO₂) Emissions

Generating electricity through the combustion of coal results in air emissions that include nitrogen oxides (NO_x), sulphur dioxide (SO₂) and carbon dioxide (CO₂). Various other pollutants, released in lesser amounts as a result of combustion, are documented in Appendix B.

NO_x and SO₂ emissions lead to the formation of acid gases, ground-level ozone and smog. Accordingly, recognizing that NO_x and SO₂ can have negative environmental impacts, these emissions have long been the focus of OPG’s air emission reduction efforts.

Notably, in 2006, OPG's fleet of five fossil-fuelled plants collectively set an "all-time personal best" for acid gas emission rates (NO_x plus SO₂ per kilowatt hour of electricity produced). Indeed, the 2006 total acid gas emission rate of 4.71 grams per kilowatt hour was almost 70 per cent lower than it was in 1983. This result was, in part, influenced by Lambton GS Units 3 & 4, which are equipped with Flue Gas Desulphurization (FGD) equipment, and the installation and operation of Selective Catalytic Reduction (SCR) technology. It is noteworthy that Lambton GS Units 3 & 4 are recognized as two of the cleanest coal-fired generating units in North America. The decline in SO₂ emission rates across the fossil fleet since 2004 has resulted due to a combination of burning lower sulphur coal at Nanticoke GS, unit optimization and a greater percentage of production coming from the low emission units.

Figure 6: SO₂ and NO_x Emissions and Emission Rates for OPG Fossil Generation (2002 – 2006).



Greenhouse Gas (GHG) Emissions Management

OPG's primary greenhouse gas emission is CO₂, released through the operation of fossil-fuelled generating

stations. In 2006, OPG generated approximately 76 per cent of its energy from nuclear and hydroelectric sources, which avoided the equivalent emission of 79 million tonnes of CO₂ that would have been released had that electricity been generated from fossil-fuelled stations.

“Ontario is second only to Quebec when comparing lowest carbon emission intensity amongst the provinces.”

CIBC World Markets, *Global Warming: Province against Province?*
Globe and Mail, B7, March 14, 2007

In 2006, OPG's total gross CO₂ emissions were 25 million tonnes (see Figure 7). The carbon dioxide emission rate from the fossil-fuelled fleet was 996 tonnes/GWh-net.

The CO₂ emission rate varies slightly from year to year and is influenced by the distribution of generation across the fossil fleet. In 2006, a relatively high degree of “powering up and down” of the fossil generating units lead to a slight increase in the CO₂ emission rate relative to 2005. On the longer term horizon, overall energy efficiency improvements within OPG generating stations should continue to contribute to reductions in energy consumption and CO₂ emissions per unit of electricity produced. For example, increased efficiencies and upgrades across OPG fossil-fuelled stations since April 1999, have saved approximately enough electricity to power the city of Hamilton for one year.

With a focus on reducing GHG emissions, in 2006 OPG experimented with a “carbon neutral” feedstock – biomass – at its Nanticoke GS and Thunder Bay GS facilities. The use of biomass as feedstock has received accolades from a variety of Nanticoke GS stakeholders. (see inset). Moving forward, there are technical issues to consider such as the effect on equipment, transportation and storage issues, and sourcing and pricing issues. Resolving these issues will require input from many sources - including government, business, academe, the community as well as OPG - to determine whether or not it's feasible to pursue the biomass option. OPG wants to be as flexible as possible when it comes to adopting new processes like biomass. At the same time, we are committed to operating as a responsible commercial business and as a responsible corporate citizen. It's a delicate balance, but an important one to maintain.



"We are committed to maintaining and operating our coal-fuelled plants so they continue to be safe, reliable and environmentally responsible suppliers of electricity for as long as they are required. We will continue to make prudent investments to reduce their environmental footprint."

Jim Twomey
Executive Vice President, Fossil

Biomass Test at Nanticoke Successful

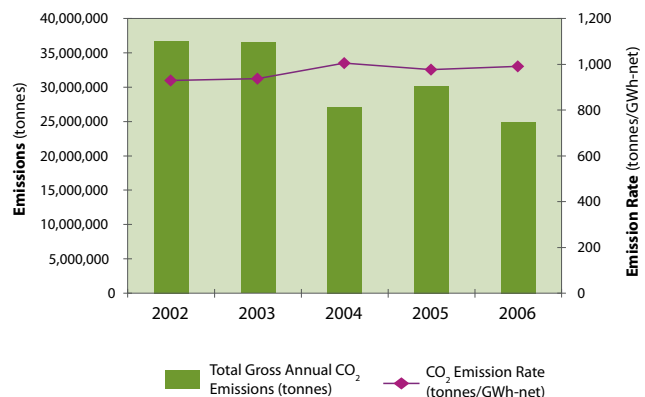
Nanticoke GS Senior Environmental Advisor Gerry McKenna says that community interest in biomass as a potential fuel has taken off. And Nanticoke GS, which has thousands of acres of farmland surrounding it, is a natural venue to test biomass grown locally.

"In recent months [2006] we have been contacted by the Ministry of Agriculture, Food & Rural Affairs (OMAFRA), the Ontario Miller's Association, the Ontario Federation of Agriculture, a local sawmill and proponents of an ethanol plant. All of them are interested in the fuel potential of biomass", says McKenna. "The use of biomass provides an economic opportunity in the agricultural sector and has generated a great deal of interest in energy from crops."

Seeds for the Nanticoke GS test were sown when McKenna met OMAFRA Client Account Officer Peter Ilnyckyj at a conference. Subsequently, Ilnyckyj brought Mark Hayhoe, President of the Ontario Millers Association, to Nanticoke GS to consider the possibilities of a test burn of "millers shorts" – a by-product of milling wheat into flour – and considered an ideal fuel.

Les Marshall, Combustion & Fuels Specialist in OPG, managed the test's technical aspects. *"We have been keeping up with biomass developments in the UK and Europe where biomass, co-firing with coal, is seen as the lowest cost form of green energy."* Marshall said Nanticoke GS test burns exceeded the biomass energy outputs of British and Dutch power plants.

Figure 7: CO₂ Emissions and CO₂ Emission Rates for Fossil Generation 2002 - 2006



Greenhouse Gas

Q & A



With Jim Burpee
Executive Vice President,
Corporate Development

What is OPG's GHG Action Plan Going Forward?

A *Going forward, OPG will continue its focus on improving energy efficiency in our plants, tree planting through our biodiversity program, pursuing the use of biofuels, preparing for "carbon" trading, and researching the impacts of climate change on our operations. It should be noted even if carbon emissions were stabilized globally at today's levels, temperature will still rise for a number of years, and we will need to better understand what risk this poses to our operations (e.g., will*

precipitation patterns change, will the temperature of the Great Lakes rise, etc). When federal regulations are established, we will revise our practices to ensure compliance with the new regulations. I also consider our hydroelectric expansion projects, and our preparations for nuclear refurbishment and new nuclear, as part of the province's overall plan to reduce GHG emissions.

To date, in your view, has OPG done a “good job” to address GHG mitigation/adaptation?

A OPG, and its predecessor Ontario Hydro, have been very active on this file since 1994. Our energy efficiency initiatives, which have resulted in CO₂ emission reductions of over 2,000,000 tonnes per year, have been recognized with a number of awards. We have also participated in many national and international associations promoting voluntary action and working towards solutions. However, over the past five years, with the federal government moving towards mandatory programs, and with the provincial government's earlier position on coal phase out by 2007, we have been far less visible -- but now that we know we will be burning coal until 2014, and with the emergence of federal regulation, we will become much more visible. There is one advantage of the impending regulations... a price for carbon will be established. This will help OPG to make better informed decisions on the use of biofuels, energy efficiency improvements, etc. -- the CO₂ reduced will have an identifiable and “workable” economic value.

What are your key long-term (10 - 25 years out) concerns regarding GHG emissions and OPG's future?

A The long term is full of opportunity for OPG. What is certain in my mind is the continuing need for more nuclear and more hydroelectric. From my perspective OPG is well positioned to be a major provider of non GHG emitting electricity to a North American market. Our total fleet carbon intensity is already among the lowest in North America, and there is no reason we can't further exploit our capabilities in this area.

How do you feel OPG is performing on the GHG front relative to other companies in the electricity generation sector?

A There are very few companies who have done as much in this area as OPG and Ontario Hydro over the past 13 years. We are seen as a leader within the industry, and by other leaders in other industries. While we have been criticized as being the largest corporate emitter

in Canada, with the largest single point source of CO₂ (Nanticoke), our carbon intensity makes us a leader. Factor in the improvements in our fossil facilities over the past 10+ years, the efficiency improvements across our entire fleet, and our proactive stance with government regulators - and we are clearly a leader within the North American electricity generation sector.

Radiation

The operation and maintenance of OPG's nuclear reactors releases low levels of radioactivity. The design of the nuclear plants minimizes these releases through, for example, multiple passive barriers including a one kilometre exclusion zone separating the public from the reactor building. Air dryers are used to remove tritium from the air, and filters capture particulate matter and iodine. Operating procedures also protect the health of employees and the public.

“Critical Group Dose” is a method used to measure radiation exposure to members of the public who live in close proximity to nuclear plants. Critical Group Dose calculations focus on the public's actual eating and drinking habits as obtained from survey data. The survey includes six age groups: three month old nursing infant, one year old infant, children aged five, 10 and 15 years and adult. Critical Group Dose is measured in microsieverts (μSv), an international unit.

In 2006, Critical Group Dose levels for Pickering GS and Darlington GS were 3.6 and 1.2 μSv, respectively, substantially below the limit of 1,000 μSv set by the Federal government. By comparison, the average Canadian receives about 2,000 μSv per year from natural sources such as cosmic rays and radon in the soil.



Nanticoke engineers a wetland for waste water management (above); Lennox manages wetlands and protects a provincially significant colony of black terns; Lambton restores tall grass prairie; and Atikokan manages fisheries and waterfowl.

Land

Low and Intermediate Level Radioactive Waste (LILRW)

Nuclear operations produce Low and Intermediate Level Radioactive Waste (LILRW), which may include gloves, coveralls, booties, wipes and tools that have been radioactively contaminated. In 2006, LILRW production (3,455 m³) was below the annual target (4,014 m³).

The 2006 LILRW performance is a significant improvement over 2005, when the year-end target for waste production was not met (2005: 5,692 m³ actual vs. 4,206 m³ year-end target). However, external and internal assessments (e.g., World Association of Nuclear Operators - WANO, Electric Power Research Institute – EPRI, Operational Safety and Review Team - OSART) of the LILRW Program indicated there is still “room for improvement” in nearly all program elements.

Accordingly, in 2007, plans are being developed to improve performance and to integrate such plans into the business planning process. For example, at the Darlington GS, waste reduction improvement plans will continue to focus on a de-packaging program. Work with the Pickering GS on the implementation of new re-washables is also planned for 2007.

At the Pickering GS, the number of outages is the largest contributor to LILRW. The 2006 LILRW target for Pickering GS was four per cent below the 2005 actual and 10 per cent below the 2005 target. The reduction plan for 2007 includes the implementation of three rewashable products station wide. Additional waste sorting as labour permits and Radiation Protection coaching during outages is also planned to help reduce waste.

Ash and Gypsum Diversion

Coal fly ash, coal bottom ash and gypsum are by-products of fossil fuel combustion. In an effort to turn this “waste” into a commercial product, OPG has developed markets for this by-product. Specifically, fly ash is used for the manufacture of cement and concrete, in controlled low strength material or flowable fill applications, and it is also used in engineered landfills. Bottom ash is used as granular fill in road beds and gypsum is used for the manufacture of wallboard. OPG is also continuing to explore the potential for coal fly ash to be used as filler in paint and plastics, and as a soil conditioner.

In 2006, OPG utilized 67 per cent of its total ash and gypsum production, or 746,270 tonnes out of a total production of 1,117,023 tonnes. This result reflects OPG’s second best utilization of this by-product since 2002. For solid combustion by-products that are not used, they are sent to a recoverable landfill where they may be subsequently used in the event that markets develop.

PCB Management

Although OPG is not yet required to eliminate PCBs, the company's policy on PCB management mandated the phase-out and destruction of 81 per cent (relative to 1994 inventories) of in-storage PCB waste and high-level in-service PCBs by 2005, and the remainder by 2015.

OPG is on track to eliminate all of its in-storage PCB waste and in-service high-level PCBs by the end of 2007. Building upon the initiative of its predecessor company, Ontario Hydro, OPG has reduced the inventory of in-service PCBs and PCB waste by approximately 98 per cent since 1994. In 2006, OPG shipped approximately 332 tonnes of high- and low-level PCB waste for destruction. As of December 2006, OPG's PCB waste and in-service PCB equipment inventory was 65 tonnes, as compared to 3,427 tonnes in 1994 (excluding PCB equipment controlled by Bruce Power).

Mercury Monitoring and Reporting

In 2006, OPG continued to implement a voluntary mercury monitoring and reporting program. Through extensive testing, the work provides valuable information on the effect differing coal blends and generating unit configurations have on mercury capture. This is important technical information for both the Regulators developing the Canada-Wide Standard and protocols governing mercury emissions from coal-fired power plants and OPG in preparing to implement the Standard.

Information on OPG's mercury monitoring program can be found at the CEA mercury program website: http://www.ceamercuryprogram.ca/EN/sampling_data_OPG.html

Further information on the Canada-Wide Standard can be found at the CCME website: http://www.ccme.ca/ourwork/air.html?category_id=86

Land Assessment and Remediation

In 1997, in response to a Director's Order from the Ontario Ministry of the Environment, OPG introduced a program to assess and remediate historical contamination on properties occupied by its generating facilities. The contaminants of concern were fuel oil, transformer oil, waste lubricants and tritium. Sites were assessed and ranked as high, medium and low in reference to the need for remediation. OPG's first

Site Assessment Plan, filed with the Ministry in 1998 and each year thereafter, identified 50 high priority sites with known or potential contamination. OPG has completed all of the assessments required by the Director's Order, and the Order was closed out by the Ministry of the Environment, March 2004. Assessment of medium and low priority sites continues under OPG's voluntary site assessment program.

At the end of 2006, remediation of 23 sites had been completed. Remediation was ongoing at six sites and planned for six additional sites starting in 2007. By the end of 2008, remediation of all medium and low priority sites will be complete. All assessment and remediation work is peer reviewed by independent third party consultants.

Other Contaminants

OPG's National Pollutant Release Inventory (NPRI), which documents emissions to air, water and land for 2005, is presented in Appendix B.

For detailed information on the breakdown of OPG's NPRI data by emissions to air, water and land please visit the NPRI web site at http://www.ec.gc.ca/pdb/npri/npri_home_e.cfm.

Biodiversity and Habitat Stewardship

The conservation of biological diversity is an integral part of OPG's sustainable development efforts. Biodiversity, as a term, refers to the variety of life on earth. It includes the diversity of ecosystems, the diversity of species within those ecosystems and the genetic diversity within species. It is an inclusive concept, referring to the entire ecosphere and all of its ecosystems and component living parts and the ecological and evolutionary processes that keep them functioning and evolving. From an OPG perspective, it refers to the variety of life in the regions where we operate or may effect.

OPG, and its predecessor company Ontario Hydro, has a multi-decade long record as a company working to protect nature. Our Biodiversity Policy goal is to demonstrate that we can co-exist with nature without causing or contributing to the long-term decline of species, or the habitats upon which they depend, on a regional basis. Our policy is both consistent with and complementary to Ontario's Biodiversity Strategy. That strategy recognizes that all levels of government,

Stewardship organizations that have partnered with OPG in the delivery of tree planting efforts:

- Long Point World Biosphere Reserve and Long Point Region Conservation Authority
- Kettle Creek Conservation Authority
- Catfish Creek Conservation Authority
- Trees Unlimited
- Upper Thames Conservation Authority
- Ausable Bayfield Conservation Authority

non-governmental organizations, industry and the community in general must cooperate in the care of Ontario's biological assets.

In the spirit of conservation and stewardship, each of our plants and hydroelectric plant groups have developed their own biodiversity plans to help protect and enhance significant habitats and the species they support. Our effects on nature do not stop at the boundaries of our plants, nor do our efforts to protect and restore nature. Accordingly, we have invested in significant habitat protection and restoration efforts in the communities where we operate and in strategic locations across southern Ontario, including some of the most biologically imperiled regions in Canada.

OPG's habitat stewardship efforts not only help to conserve biodiversity, but it also helps to protect what sustains us. Our efforts to enhance and restore native habitats also help to attenuate pollution by providing enhanced "ecosystem services" through the provision of clean air, clean water, productive soils and the provision of renewable resources. Habitat restoration is not only good for nature, but it is also good for people, who are of course, sustained by all of nature's services.

The following examples profile various means by which OPG is conserving biodiversity.

Corporate Contributions to Biodiversity Conservation

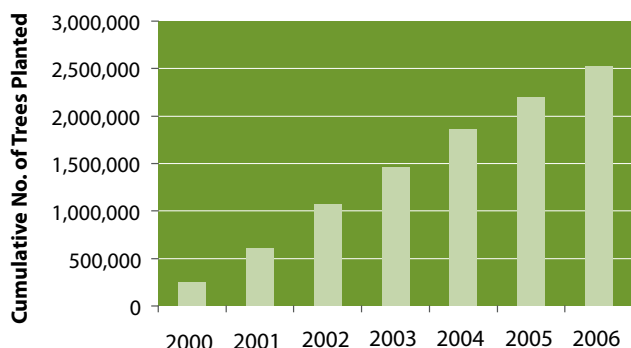
OPG's biodiversity management effort involves an off-site component, our Carbon Sequestration and Biodiversity Management program. This tree planting program links the need to sequester carbon, as an offset to greenhouse gas emissions from our fossil plants, with habitat restoration for forest wildlife that are at risk in the highly fragmented landscapes of southern Ontario. Since its introduction in the spring of 2000, OPG and its conservation partners, have planted more than 2.5 million native trees and shrubs matched to site conditions, on more than 1,100 hectares of land.

In 2007, OPG will be planting more than 320,000 trees through its various partners, bringing our total plantings well above 2.8 million trees (see Figure 8). This cumulative effort could potentially trap and offset about 1,600,000 tonnes of CO₂ over the lifetime of those trees, helping to mitigate global warming.

The planting program focuses on restoring forest habitat in southern Ontario (defined as the region south of the Canadian Shield), which has lost more than 80 per cent of its original forest cover. Habitat losses are most acute in the Carolinian biotic zone of southwestern Ontario, which is considered one of the most ecologically imperiled regions in all of Canada.

Restoration sites are strategically chosen based upon big picture regional conservation needs. More specifically, our plantings are targeted to expand key core forested areas and connect woodland patches to help promote the recovery of wildlife that are at risk because of the loss and fragmentation of habitat. Management plans have been developed for each site with explicit objectives linked to regional biodiversity conservation priorities.

Figure 8: OPG Tree Planting 2000-2006



This restoration effort builds upon the collective work of a variety of government and non-government



OPG has donated more than \$150,000 to Ontario Nature in support of the management of their nature reserves systems. L – R : Steve Hounsell (OPG), Rosemary Spears (President, Ontario Nature), Jake Epp (Chairman, OPG)

organizations that have been working together to define an interconnected greenway system of habitats to protect and restore the biodiversity of southern Ontario. That same greenway system of natural areas will also provide enhanced recreational opportunities for the communities living within the region, while also providing renewable resources and other important ecosystem services by reducing erosion, enhancing soil structure, recycling nutrients and enhancing both water and air quality. In short, OPG is part of an expanding effort to help protect and restore the forested ecosystems which once characterized much of the southern Ontario landscape.

In addition to the sequestering of greenhouse gases, this effort is also an important adaptation strategy for reducing the adverse effects of climate change on southern Ontario's forest wildlife. An interconnected system of habitat cores and habitat corridors, facilitating the dispersal of plants and animals to more favourable habitats, is an important management strategy to help conserve biodiversity in the face of rapidly changing climatic regimes. Whereas much remains to be done to enhance the integrity of southern Ontario's forest ecosystems, OPG is certainly doing its part to restore the rich biodiversity of the province.

Building upon this notable forest habitat restoration effort, we continue to support external organizations dedicated to the protection of nature. Through the Corporate Citizenship Program (see also CCP section) OPG has contributed to many organizations dedicated to the protection of our natural heritage, including Ducks Unlimited and the Canadian Peregrine Foundation. These progressive conservation efforts have been largely focused around our various site communities.

As part of our community outreach and engagement on biodiversity conservation, in 2006 we were proud to have donated, on behalf of the Global 3E, US\$142,850 to Ontario Nature (formerly the Federation of Ontario Naturalists), in support of the management of their

nature reserves system. With 21 properties totalling 2,045 hectares, Ontario Nature's nature reserves system preserves some of the province's best remaining examples of imperilled and vulnerable habitats. This contribution will be directed towards the management, stewardship and restoration of key habitats in ON's nature reserve system and will further contribute to the realization of Ontario Nature's greenway vision for the future. That vision seeks to conserve biodiversity through an interconnected system of habitat cores and corridors.

Ontario Nature's provincial focus resonates with OPG's provincial focus and its mission for the protection and restoration of nature in Ontario aligns well with our own Biodiversity Policy and associated programs. It represents an excellent outreach to one of the province's most respected conservation organizations.

Wildlife Habitat Council Recognizes OPG's Commitment to Biodiversity:

One of OPG's notable biodiversity partnerships is with the U.S. based Wildlife Habitat Council (WHC). The WHC is a not-for-profit, non-lobbying group of corporations, conservation organizations and individuals dedicated to assisting corporate landowners in the development of programs that protect, conserve and enhance wildlife habitat and biodiversity and foster environmental values. The WHC was established in 1988 with a mission to work with industry to make better use of their land holdings for wildlife and biodiversity needs. They act as an independent advisor and certifier of programs and work to build the company's image while contributing to wildlife habitat rehabilitation. WHC members include more than 100 corporations and two dozen conservation organizations.

Currently, eight OPG sites are certified by the WHC for their wildlife habitat programs. Those sites include: Atikokan GS, Lambton GS, Lennox GS, Nanticoke GS, Thunder Bay GS, Niagara Plant Group, Darlington Nuclear and Pickering Nuclear. These sites have both

protected and enhanced wildlife habitat on their properties, demonstrating their commitment to environmental stewardship and the conservation of native biodiversity. The Nuclear Waste Management Division is currently seeking recognition and certification by WHC for their management efforts at the Bruce site.

The quality of the programs undertaken at OPG sites is reflected in the number of international awards and nominations for awards that OPG has received from the Wildlife Habitat Council, including:

- 1997 – Darlington Nuclear wins Rookie of the Year Award
- 2001 – Pickering Nuclear wins Corporate Habitat of the Year Award
- 2004 – Pickering Nuclear nominated for Corporate Habitat of the Year Award
- 2005 – Darlington Nuclear nominated for Corporate Habitat of the Year Award, and
- 2005 – Lennox GS nominated for Rookie of the Year Award.



The Wildlife Habitat Council, a U.S.-based not-for-profit group, has given international awards to two OPG sites, and certified eight OPG sites in total, for their wildlife habitat programs.

Fossil Generation's Contribution to Biodiversity

OPG has long been (up to and including 2006) on the path to demonstrate that we can indeed co-exist with nature, which represents the fundamental intent of OPG's Biodiversity Policy. Accordingly, the fossil generation plants have been engaged in the inventory, protection and enhancement of appropriate habitats

on their sites. These activities range from wetland management at Lennox GS and the protection of a provincially significant colony of Black Terns, to tall grass prairie restoration at Lambton GS, to fisheries and waterfowl management at Atikokan GS, to an engineered wetland for waste water management which also doubles as important wetland habitat for wildlife at Nanticoke GS. In addition, the fossil generating plants have been pro-active in partnering with external organizations to further enhance habitat conservation efforts within local regions.

Hydro Generation's Contribution to Biodiversity

The hydro plant groups have been engaged in the inventory, protection and enhancement of appropriate habitats at their sites, largely through the water management planning process. The management of fish passage issues and appropriate water flow and levels for spawning activity are just some of the issues routinely managed by hydro. In addition, they have been pro-active in partnering with external organizations to further enhance habitat conservation efforts, as part of the water management process.

The biodiversity conservation efforts at our hydro plants include a variety of programs ranging from wetlands management and threatened species management, to water flow management for fish spawning, to rescue operations for stranded Lake Sturgeon, to a stocking program for the American eel to help offset widespread population declines.

Nuclear Generation's Contribution to Biodiversity

The nuclear generation group at OPG continues to support robust biodiversity programs that have earned the support of staff, the local community and local environmental groups.

Of all OPG's generating facilities, Darlington GS was the first plant to be Wildlife Habitat Council certified, and it was also distinguished with the international Rookie of the Year Award in 1997. Darlington's efforts have not waned and they have been successful ever since in maintaining their certification and indeed have been profiled by WHC for their biodiversity and educational efforts. Not to be outdone, Pickering GS won the international Habitat of the Year Award in 2001 and likewise has been successful in retaining its certification and recognition by WHC. Both Darlington



Nuclear Waste Management is protecting the spotted turtle, an endangered species, by funding a partnership with Laurentian University to define the spotted turtle's critical habitat and recovery actions.

GS and Pickering GS have also been certified for WHC's "Corporate Lands for Learning" program. This certification recognizes the use of site resources to meet local environmental education needs.

Nuclear generation's habitat conservation efforts are impressive, and at Darlington GS include the development of a butterfly meadow, wildflower garden, pond and marsh management for amphibians, turtles and waterfowl, the installation of nest boxes for cavity nesting birds and significant native tree planting to help create a natural woodland corridor on site. Similarly, Pickering GS has created two wildflower gardens and is working to create a wildlife habitat corridor across the site to connect to nearby habitats. Considerable work has been undertaken in Hydro Marsh to control invasive carp and Purple Loosestrife, while providing nesting platforms for common terns, ospreys and black terns. In addition, a network of 46 bird nest boxes has been installed across the site to attract cavity nesting birds.

Pickering GS and Darlington GS have an impressive record in working in partnership with local environmental groups, including the Toronto and Region Conservation Authority and Central Lake Ontario Conservation Authority. Their efforts not only include the enhancement and management of streams and nearby wetlands (e.g. Hydro Marsh and Frenchman's Bay at Pickering and Second Marsh near Darlington), but also greenway planning, providing wildlife habitat corridors which run through our sites to important regional habitats off site. OPG is a part of broader regional efforts to help protect and restore significant habitats, demonstrating the notion of acting locally but thinking regionally in terms of conservation needs and priorities. These efforts have done much to build a solid community license to operate and indeed demonstrate that our sites can co-exist with nature.

Nuclear Waste Management Division's (NWMD) Contribution to Biodiversity

NWMD is also seeking recognition/certification from the Wildlife Habitat Council's Corporate Wildlife Habitat Certification/International Accreditation Program. This program recognizes commendable wildlife habitat management and environmental education programs at individual sites (see also Corporate Contributions to Biodiversity Conservation). WHC certification adds value to programs by providing third-party credibility and an objective evaluation of projects.

The protection and recovery of species at risk, and most notably endangered species, is a key priority for any biodiversity program. The Spotted Turtle (*Clemmys guttata*), which is a schedule 1 endangered species, has been identified in the proximity of OPG lands at the Bruce GS on Lake Huron. Recognizing the importance of protecting this species and the significance of this local population, NWMD has funded a partnership with Laurentian University to define the spotted turtle's occurrence on and around OPG lands and to define its critical habitat and recovery actions. This effort has been enthusiastically supported and embraced by local conservation groups who are partnering in this effort to recover the Spotted Turtle population.

“OPG’s contributions have been critically important in sustaining the Long Point World Biosphere’s Forest Corridor project, which is connecting key forest habitats across our landscape by restoring strategically chosen parcels of land. These restoration efforts are effectively contributing to the conservation of our plants and animals, reducing the adverse effects of climate change, providing enhanced ecosystem services, and improving recreational opportunities for our community. OPG’s Environmental Advisor Steve Hounsell’s expert advice and guidance has been invaluable.”

Paula McKinlay Jongerden,
President, Long Point World Biosphere
Reserve Foundation



OPG’s biodiversity initiatives are designed to implement the 4 Rs of biodiversity: retain what is significant; restore habitats that have been degraded; replace habitats that have been lost; and work to recover species that are at risk

SOCIAL PERFORMANCE

OPG's Diving Team works to ensure that everyone follows a safe work plan.



OPG is committed to building quality relationships with our external stakeholders and employees. Most importantly, we strive to ensure that safety characterizes all aspects of our operations. We also believe that a good company gives back to its host communities, thus we support many charitable and not-for-profit initiatives in the communities where we operate.

Safety

In 2006, OPG's Board of Directors reaffirmed our safety-related commitments and expectations in our Health and Safety Policy which continues to clearly define our strong safety culture. OPG sustains this safety culture through the implementation of targeted risk mitigation programs and safety management systems, and by creating a work environment where employees are expected to consistently build safety into every task they perform. Our goal is to achieve excellence in employee, contractor and public safety, striving for zero injuries.

In November 2006, OPG was awarded the President's Bronze Award from the Canadian Electricity Association (CEA) for top quartile 2005 safety performance among Canadian utilities. While OPG maintained its strong commitment to workplace safety and advanced on a number of safety management fronts in 2006, OPG was not satisfied with its safety performance in 2006 relative to its strong past performance in this area. Although many individual sites and businesses achieved excellent safety results, the company's overall performance did not improve from 2005 levels.

OPG's 2006 All Injury Rate (AIR), which is a measure of the frequency of injuries resulting in lost time or medical treatment, was 1.30 injuries per 200,000 hours worked which was slightly better than 2005 performance of 1.33 injuries per 200,000 hours, and within the top quartile set by the Canadian Electricity Association.

OPG's 2006 Accident Severity Rate (ASR), which is a measure of the number of days lost due to injuries, was 5.87 days lost per 200,000 hours worked. This is poorer than our 2005 ASR of 2.03 days lost per 200,000 hours and not within the CEA's top quartile threshold.

OPG is committed to improving our safety performance. To achieve this goal, plans have been developed to improve our risk-based safety management systems, launch innovative communications to strengthen our safety culture, and implement programs to address our key safety risk areas such as in electrical safety, fall management and musculoskeletal disorder prevention. Some specific accomplishments in 2006 were:

- OPG completed the development of a corporate-level Pandemic Influenza Plan and worked with external stakeholders to ensure that OPG will be prepared to fulfill our role in maintaining the province's electrical energy supply. Work on this plan continues in 2007 with the development of business specific plans.
- To maintain our safety culture, OPG issued the "Keep Your Promise" communication campaign featuring posters of OPG employees describing their personal commitment to safety. OPG has also maintained a strong emphasis on the Internal Responsibility System, which focuses on the role of each employee to achieve a safe workplace.
- OPG also maintained the focus on Young Worker Safety in 2006 with several key initiatives. On April 28, OPG President and CEO, Jim Hankinson, joined with the Power Workers' Union President, Don McKinnon and well-known young worker health and safety advocate Rob Ellis in a simulcast involving 24 high schools in the Greater Toronto Area to bring the vital message of workplace safety to high school students. A videotaped presentation of Rob Ellis discussing the issues of safety in the workplace was shown simultaneously in the high schools, followed by a question and answer session where students were able to address the company representatives, including those from OPG. In addition, OPG partnered with the Society of Energy Professionals to be exclusive sponsors of LINK, a Youth Health and Safety Forum held during the 2006 IAPA Conference and Trade Show. The forum was attended by more than 2,000 young workers from across Ontario. Internally, OPG spread the safety word to its own young workers with the production of a "Safety for Rookies" video by our Northwest Fossil business, which featured safety messages from young workers in OPG.
- While OPG has always been a leader in workplace safety, 2006 marked a year where OPG demonstrated our commitment to be part of a learning community where we willingly share best practices, contributing to the general improvement of workplace safety across all industries. OPG achieved this through our active sharing of safety-related best practices with numerous companies and industry associations. Notable initiatives included OPG's Gold sponsorship of the 2006 IAPA Conference and Tradeshow where we shared our best practices in the areas of electrical safety, young worker safety and the development of healthy workplaces. OPG continues to be an active participant in the Ontario Steering Committee of the CEO Health and Safety Leadership Charter, delivering an Electrical Safety Workshop in October to over 40 charter members.





OPG President and CEO Jim Hankinson, student Zachary Sleep, and Power Workers' Union President Don McKinnon were among the participants in an event promoting young worker safety at the Toronto District School Board.

- OPG continued to improve its Contractor Management Program in 2006 to ensure that contractors contribute to our strong safety culture. OPG shared this "best in class" program externally with many organizations hoping to improve safety. This included delivery of a three hour workshop at the 2006 IAPA Conference and Trade Show, and
- A commitment to Public Safety is an important part in the operation of OPG generating stations and is highlighted in OPG's Health and Safety Policy.

Water Safety

OPG's dams and hydroelectric stations are located throughout the Province of Ontario. In fact, in Ontario alone there are more than 240 dams and 64 hydroelectric generating stations on 25 river systems.

To help ensure public safety around all watercourses, OPG works closely with its partners in its site communities, and safety messages are broadly communicated to the public using radio advertisements, newspapers, magazines brochures, videos and a computer game for children.

Beginning in 2003, and continuing through to 2006, public survey results show OPG's public awareness program is "working". Increasingly so, the public is showing further awareness of the need to remain a safe distance from hydroelectric dams and stations. The public continues to support OPG's efforts to upgrade and improve safety measures, which includes signage, booms and buoys around our hydroelectric facilities.

Employee Wellness

OPG recognizes that healthy employees and healthy workplaces are a critical partnership that positively affects our business operations. Accordingly, OPG provides a comprehensive set of employee wellness programs. To illustrate:

- Mental health education remains a cornerstone to promoting mental well-being and to reducing negative stereotypes associated with mental illness. Employees have access to a wide range of information and services, including a mental health video library, mental health workshops, stress awareness seminars and a mental health website
- Occupational health nurses and physicians are located on many sites



- Disability management programs focus on early intervention including support and assistance during a time of illness
- Family assistance programs help employees with a range of solutions-focused advice, counseling and referral services
- Illness prevention and health awareness activities provide, for example, on-site flu shot clinics, blood pressure and cholesterol screening, and health fairs, and
- On-site fitness facilities are located across locations.

Diversity and Employment Equity

OPG's commitment to diversity is embedded in our Code of Business Conduct and articulated in our corporate policies on Diversity, Equity and Human Rights. Complementing these policy statements is a long-standing vision developed by the Corporate Tripartite Diversity Committee that underscores OPG's commitment to having "...an equitable and diverse workplace where everyone can realize their full potential with equal access to opportunities." At its core, diversity at OPG means identifying and removing barriers to employment, while creating respectful and inclusive workplaces that value employees and appreciate their differences. OPG's commitment to diversity is also linked to Employment Equity (EE), as defined by the federal legislation that focuses on employment for designated groups – specifically women, visible minorities, Aboriginal peoples and people with disabilities.

In 2006, OPG made a strategic decision to integrate the Diversity/EE portfolio with Talent Management, and more specifically with recruitment. We recognize it is imperative to the future of our business and to the broader Ontario community that we attract, motivate and retain diverse talent. In terms of our recruitment and selection processes, we continue to place an emphasis on the importance of bias-free selection, highlighting this importance in 2006 with the development of some new training and tools for hiring managers and Human Resources staff. A new behavioural based interview skills workshop was introduced, along with tools for interviewing and competency based assessments.

By investing in diversity and creating an inclusive, respectful workplace culture we are better prepared to meet the imminent challenges of changing labour force demographics and the aging workforce. To this end, OPG continued its targeted employment outreach efforts aimed at members of the designated EE groups. We were involved in a variety of activities and programs in different communities across the province, including career fairs for Aboriginals, Persons with Disabilities and specific events related to Women in Engineering. In addition, OPG participated in a number of events associated with the development and implementation of strategies for integrating New Canadians into the workforce. Largely as a result of the enthusiastic involvement of employees at Pickering GS to volunteer as mentors for internationally trained professionals,

OPG received recognition from The Mentoring Partnership and the Toronto Region Immigrant Employment Council as one of their top five employers in the Greater Toronto Area.

We have also made some significant headway in terms of ensuring our employees have safe, healthy and positive work environments. Building upon employee engagement results, OPG continues to develop action plans to address such issues as work life balance, work load management, and training and development. Education on creating and sustaining positive work environments continues at different levels, with Diversity committees and other tripartite groups actively involved. In 2006, OPG was

named one of the top 50 Employers in the Greater Toronto Area in an annual study conducted by Hewitt Associates.



Code of Business Conduct

OPG's Code of Business Conduct helps to define our company's culture by establishing the standards, expectations and accountabilities for ethical business behaviour. Within the Code, there are some key values and principles that are simply non-negotiable for the company to be successful. These include:

- An absolute commitment to the safety and health of our employees and the communities in which we live
- Respect for each other, our customers, and stakeholders, and
- Respect for the environment.

Each of OPG's Executive Committee members is accountable for monitoring compliance with the Code within their business and for submitting an annual due diligence report to the Chief Ethics Officer.

Managers continue to have accountabilities within the Code, including:

- Ensuring that all of their employees, both current and new hires, understand their responsibilities under the Code and are in compliance
- Ensuring that all of their employees complete any required training on the Code and any required sign-off. New employees are required to complete Code of Business Conduct Training as part of their orientation through the Code of Business Conduct Computer Based Training
- Reporting suspected violations of the Code to their supervisors and/or the Chief Ethics Officer
- Ensuring employees complete a written declaration of any potential or actual conflict of interest and addressing any issues in consultation with the Chief Ethics Officer, and
- Creating a work environment that encourages ethical behaviour.

Striving to be a Good Neighbour

The communities that host our facilities are not just where OPG operates, they are also home for many of our employees. Our employees work year round to maintain an open dialogue with our host communities. We regularly meet with neighbours, community organizations and elected officials to keep them updated about our operations and to help us understand how we can improve our performance in the community.

OPG also conducts community events, such as a Neighbourhood Walk, where OPG employees can speak

directly with neighbours, one-on-one, about their interests and concerns with our operations.

Neighbours Newsletters

We keep our communities informed about our operations through our community newsletters called "Neighbours". The newsletters provide information on plant performance, environmental initiatives as well as educational and community projects supported by OPG. This is one more way OPG works to maintain an open dialogue with the community and encourage community feedback on our operations. "Neighbours" is published and distributed on a regular basis in OPG's major site communities and is also available on our Web site at www.opg.com.



New Relationships with First Nations

Building commercial relationships with First Nations in potential hydroelectric projects is an important part of OPG's hydroelectric development strategy. In 2006, OPG settled past grievances with the Long Lake #58 and Lac Seul First Nations. Memoranda of Understanding and project participation agreements were signed with the Mattagami First Nation and the Taykwa Tagamou First Nation. A Protocol Agreement was reached with the Moose Cree First Nation. OPG is also moving forward on a number of other potential hydro projects in northern Ontario. These include:

- The Lower Mattagami project – a potential 450 MW upgrade of four OPG hydro stations in Northeast Ontario now well into the "definition" stage of development, and



- Four other potential hydroelectric projects (Upper Mattagami; Hound Chute; Mattagami Lake Dam; and Healey Falls) also in the definition stage, representing about 55 MW.

Corporate Citizenship Program (CCP)

As a large company and the primary employer in many Ontario communities, OPG takes seriously its responsibility to be a good corporate citizen and neighbour. We believe that good corporate citizenship is directly based on operating our electricity generating facilities in a safe, efficient, productive, reliable and environmentally responsible manner. We also believe that a good company gives back to the communities in which it operates, clearly making a difference in the quality of life in those communities. OPG helps make a difference by supporting a variety of charitable and non-profit initiatives in the communities where we operate.

Under its CCP, OPG carefully considers proposals from registered charities and non-profit organizations; these may include donation or sponsorship requests for financial and/or in-kind contributions, strategic alliances, awards, grants, scholarships and mentoring programs. Our CCP focuses support in the areas where OPG and our host communities have special interest. This includes initiatives that are innovative and are consistent with the company's commitment to be an engaged and productive member of the community. Ultimately this means minimizing our impact on the

environment and ensuring that our contribution to the broader community is consistently positive. To achieve this goal, OPG's CCP focuses support in three primary areas:



Environment: We contribute to a healthier environment for future generations by providing support to innovative environmental initiatives and partnerships that look at solutions - ones that focus on wildlife and habitat restoration, naturalization, emissions reduction, biodiversity and recycling.

Education: We help future generations through support of youth educational initiatives at the primary, secondary and post-secondary levels. Specifically, we focus on projects that promote science, engineering, technology, business and the environment through educational programming, scholarships and awards, sponsorship of camps, competitions and conferences, as well as educational and mentoring programs.

Community Initiatives: We contribute to the quality of life in the communities in which we operate. In addition to local environmental and educational initiatives, we support health and safety organizations, arts and cultural initiatives, humanitarian organizations such as the United Way, food banks, shelters, and local youth amateur sports initiatives.

In 2006, the CCP provided \$1.8 million to over 850 registered charitable and non-profit initiatives with an emphasis on grass roots initiatives in our host communities.

Examples of OPG's 2006 initiatives funded through the CCP include:

- **OPG Secondary School Student Achievement Award (SSSAA):** Each year, OPG honours a select group of graduating secondary school students with the SSSAA. The 2006 awards celebrated 235 exceptional recipients from 118 secondary schools in our plant site communities across Ontario. These awards recognize the recipients' outstanding academic achievements, communication and leadership skills and involvement in extracurricular activities. The awards target students with a particular interest in post-secondary studies in the fields of engineering, science, technology, environmental studies, physics, mathematics and business. An OPG ambassador presents the SSSAA at each school graduation and each recipient receives a bursary to put towards their post-secondary education and a Certificate of Achievement.
- **Lieutenant Governor's Aboriginal Youth Literacy Summer Camps:** OPG's hydroelectric plant groups in the Northeast and Northwest were proud to support the Lieutenant Governor's camps for the Moose Cree and Wabaseemoong



Members of the OPG Kincardine Youth Basketball League "Rockets", who were the League Champions in the Senior Division.

First Nations. The aim of the camp program is to help build the English literacy skills of Aboriginal youth living in remote First Nations communities in Ontario. In 2006, literacy camps were held in 28 First Nation communities involving 1,800 young people with 137 participants from Moose Cree and Wabaseemoong First Nations. The curriculum for the camps was designed by Frontier College, a national, non-profit literacy organization founded in 1899 with a strong history of delivering successful literacy programs. Curriculum includes reading and writing skill development, literacy activities and community specific content such as story-telling, music, arts and crafts. Testimonials from First Nation community members indicate that the camps have enhanced their youth's ability to read and learn, as well as help to build self-esteem and healthy outlooks among the young people.

- **Sponsorship of Youth Amateur Sports:** In 2006, OPG had over 260 amateur sports teams under sponsorship representing thousands of youth (under 18) in our host communities that are playing on OPG sponsored hockey, baseball, lacrosse, basketball, soccer and ringette teams. Additionally, OPG sponsors figure skating, gymnastics and swimming.
- **Canadian Peregrine Foundation (CPF):** OPG provided support for 48 CPF Environmental Education Project School Visits in 2006, primarily in localities surrounding our major generating stations. The CPF helps young people to understand and appreciate birds of prey and our environment.
- **Waterfowl Viewing Day, Thunder Bay GS:** The Thunder Bay GS sponsors the annual Fall Waterfowl Viewing Day at Mission Island Marsh and Conservation Area. In addition, the station provides financial and in-kind support to the Lakehead Region Conservation Authority for its tree planting projects at the Marsh during Arbour Week.

- **Eco-School Education:** OPG's Pickering GS, in collaboration with the Durham District School Board (DDSB), invited elementary teachers in the DDSB to participate in "GreenSprouts", a classroom-based project with an environmental focus. A maximum of \$200 was available for each elementary school class with a project that focused on either waste reduction, energy conservation, schoolyard greening or environmental literacy with strong student involvement and engagement.



GreenSprouts (L to R) Holly Bradbury, Matthew Van Luven and Wesley Harrington, of Gertrude Colpus Public School in Oshawa, work with a composter.



OPG provides support for heart monitor/defibrillator units for Atikokan General Hospital. L to R are Derrick Brooks - OPG Plant Manager/NW, Bob Wilson - CEO Atikokan General Hospital, Ed Enge - Station Manager and Judi Simmons - Hospital Foundation Chair

- **Community Health Care:** Health is a key concern for everyone, and Northwest Fossil's Atikokan GS was pleased to contribute to the Atikokan General Hospital's efforts to acquire a pair of first-rate heart monitor/defibrillator units. Wayne Smith, Patient Services Director, Atikokan General Hospital has indicated the new units are generations ahead of what the hospital had been using, thereby helping to improve patient care for community residents.
- **Energy Efficient Christmas Lighting:** Nanticoke GS was a natural fit to support the Simcoe Christmas Panorama Committee's efforts in 2006 to switch from incandescent lighting to LED lights. The "Lighting Up Norfolk County" Simcoe Christmas Panorama is an annual outside display that features more than 70,000 lights. Switching from incandescent to LED lights for the displays has made the Christmas Panorama about 90 per cent more energy efficient.
- **OPG Celebrates 100 Years:** As part of the celebrations to recognize the 100th Anniversary of Electrical Power in Ontario, 100th Anniversary Celebrations were held across OPG site communities in 2006 – for example, Lambton GS placed 100 titles about electricity and energy in community libraries in Lambton County. The books were linked to school curriculum requirements for use by students, teachers and the public. The response to the book commemorative was sufficiently positive that the Ottawa Plant Group, Darlington GS and Pickering GS undertook similar initiatives with their local libraries.



OPG celebrates the 100th Anniversary of Electrical Power in Ontario. President and CEO Jim Hankinson (left) joins with students as OPG donates books to community libraries.

ECONOMIC PERFORMANCE



In reference to the economic dimension of sustainable development, OPG creates value for the government and residents of Ontario that complements our commitment to ensure a reliable supply of electricity. For example, value creation results through payments made to the Province of Ontario, competitive employee compensation programs, the procurement of goods and services within the province and the moderating influence that our electricity supply has on the price that consumers pay.

OPG's Earnings Increased in 2006

Net Income Rose: OPG's 2006 net income of \$486 million increased from 2005 earnings of \$366 million. This increase was due in part to two extraordinary factors:

- OPG's 2005 net income was unfavourably impacted by a write-off of \$265 million recorded in 2005 for OPG's Lennox GS and Units 2 and 3 at the Pickering A GS.
- OPG's 2006 net income was impacted favourably by a decrease in depreciation expense as a result of extending the lives, for accounting purposes, of OPG's coal stations and its Pickering A and B nuclear stations.

OPG's 2006 earnings were unfavourably impacted by several factors. These included lower revenues resulting from lower electricity generation caused by lower Ontario electricity demand, as well as lower average electricity sales prices compared to 2005.

Challenges Ahead: OPG faces challenges which could impact its financial performance, including:

- Slower growth in Ontario electricity demand
- Continuing lower electricity prices
- Increased expenditures to improve the performance and reliability of existing assets, and
- Increasing demands on OPG to undertake new capital-intensive generation projects

2007 Financial Priorities: OPG will continue its focus on operating in a commercially responsible manner. Accordingly, 2007 financial priorities will be to:

- achieve a maintainable level of financial performance
- generate sufficient funds from operations to meet operational requirements, improve generating performance and increase generating capacity, and
- ensure access to cost-effective sources of capital

Investing to Improve Performance

In 2006, OPG's asset improvement programs were aimed at increasing electricity production.

Improving the Nuclear Fleet: OPG undertook six planned outages in an effort to improve plant condition and reactor performance in 2006. While several of those outages went beyond their scheduled completion dates, they accomplished much in terms of operational efficiency. Additionally, OPG has made it a priority to improve outage completion times in 2007.

Pickering A: The station's Unit 4 planned outage went beyond schedule to repair degraded boiler nozzles discovered during inspection. Other key improvement initiatives included feeder tube and boiler inspections and equipment maintenance to reduce the forced loss rate for the next cycle.

Pickering B: In late 2006, Pickering B completed the last phase of a major four year inspection and maintenance program on 1,554 fuel channels. The procedure prevents contact between pressure tubes and calandria tubes within fuel channels. This is an important step toward shorter outages, longer operating runs and higher electricity output.

Darlington: Darlington GS conducted two major planned outages in 2006. The first outage, although extended, enabled the station's Unit 3 to be the first Darlington unit to enter a 36-month outage cycle, improving on the station's current 24-month cycle. Eventually scheduled for all Darlington units, the new outage cycle will help increase operating time. Darlington Unit 1 underwent a Fall outage, which was completed on time and within budget. A key achievement included the completion of Darlington's first ever multiple feeder pipe replacement program – an important step in enhancing Darlington's reliability and performance.

Improving the Hydroelectric Fleet: OPG invests an average of \$160 million a year to maintain and enhance performance at its hydroelectric stations. Improvements in 2006 included: runner upgrades at Abitibi Canyon and Ranney Falls; rehabilitation of the Caribou Falls station; and upgrades to the switchgear at the Whitedog generating station in Northwest Ontario.

Since 1992, improvements like these have added 425 MW of additional capacity to OPG's hydroelectric supply – including 25 MW added during 2006. Future upgrades will add another 116 MW to OPG's hydroelectric capacity by 2015, helping to ensure continued reliable service from these vital heritage assets.

Improving the Fossil-Fuelled Assets: Improvements to enhance reliability at OPG's fossil fleet in 2006 included:

- Installing a new high pressure turbine at the Nanticoke generating station in Unit 5
- Initiating work leading to a major generator overhaul of Lambton's Unit 3, and
- Replacing the original control system at the Thunder Bay station.

New Supply Projects

In an effort to meet Ontario's long-term energy and economic needs, OPG has adopted a variety of new approaches to project management, as described below.

Managing Construction Risk: Unlike its predecessor, Ontario Hydro, OPG does not build generating stations using its own work force. OPG acts as project manager, contracting with third party firms who largely assume a project's responsibilities and risks relating to costs, schedule adherence and other key areas. OPG has adopted this approach with respect to two new design/build initiatives it is managing.

Niagara Tunnel: The contractor for the Niagara Tunnel is Strabag Inc. – an Austrian based firm with a strong international reputation. Work on the tunnel is now well underway, following the launch of "Big Becky," the world's largest hard rock tunnel boring machine (TBM). After some initial growing pains, resulting in slower than expected excavation progress, the TBM is now completely underground. When complete, the Niagara Tunnel will enable OPG's Beck hydroelectric stations to generate an additional 1.6 billion kilowatt hours of renewable hydroelectricity per year.

Lac Seul: The 12.5 MW Lac Seul hydroelectric generating station in Northwestern Ontario is being constructed by SNC Lavalin Inc. The project is on schedule to be in-service by the end of 2007.

Construction milestones at year end 2006 included: completion of the powerhouse substructure, erection of the powerhouse frame and substantial completion of the water conveyance tunnel. Work has proceeded

safely, with no lost time injuries or "near miss" safety incidents for 2006.

Partnerships with Other Companies: OPG joined forces with established energy providers to develop and explore new supply initiatives. These partnerships combine OPG's strengths with the strengths and expertise of other companies to undertake emerging energy opportunities.

To illustrate, OPG and TransCanada Energy conducted the official groundbreaking of the Portlands Energy Centre in downtown Toronto. This is a design/build project. Construction of the 550 MW combined cycle gas generating station has been underway since the summer 2006. The site is now cleared and foundation work has started. The project is targeted to produce its first power using simple cycle generation by summer 2008. It will employ combined cycle generation, using waste heat to generate electricity, in the following summer.

In September 2006, Portlands signed a 20 year Accelerated Clean Energy Supply contract with the Ontario Power Authority. OPG is also working with Enersource Hydro Mississauga Services Inc. to explore the possibility of developing a gas-fired generating station. It would be located at the site of the former Lakeview coal-fired generating station, which was closed in 2005.

Advancing Nuclear Generation

OPG is considering the potential refurbishment of nuclear operations, and new nuclear units, as a means to meet Ontario's long-term energy needs.

Pickering B Refurbishment: It has been a busy period since the Ontario Government's directive to OPG to begin feasibility studies on the potential refurbishing of Pickering B. In 2006, a federal Environmental Assessment commenced on the Pickering B Refurbishment and Continued Operations Project. OPG launched a public consultation program to give the public and stakeholders the opportunity to learn about and provide input into the EA studies. By the end of the year, an array of consultation activities had been launched that included: stakeholder briefings and project updates, public open houses, newsletters and presentations, a toll-free number and a dedicated website.

In addition to environmental factors, the business case

assessment for Pickering B's potential refurbishment will consider the safety, financial, technological and logistical implications of refurbishment. The business case will be presented to OPG's Board in early 2008, at which time a decision will be made on whether to proceed with the undertaking. Refurbishment will only occur if it is supported by a strong business case.

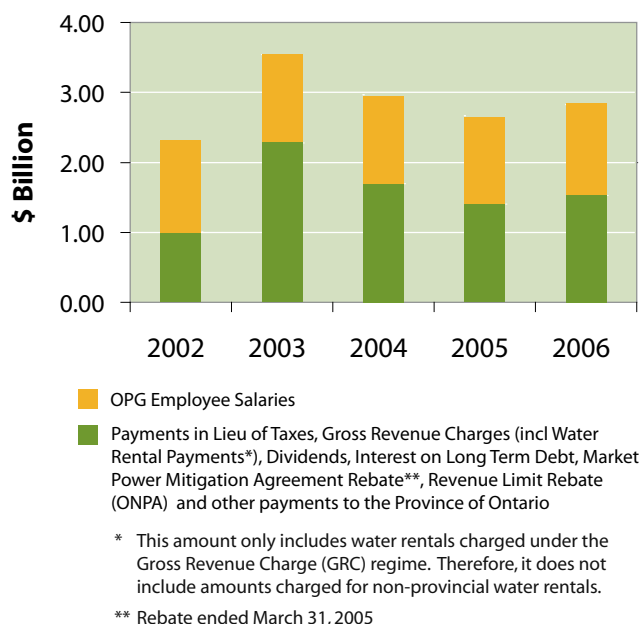
Nuclear New Build Programs: OPG was also directed by the Ontario Government in 2006 to begin the federal approvals process for the potential construction of new nuclear units at an existing facility. By year-end, five community information sessions had been held to introduce the community to the project and the federal approvals process, and to receive their input on how they would like to be involved. Additionally, a toll-free information line and a Project website were established to enable the public and stakeholders to access information about the project and status of the approvals. The public consultation process will continue through 2007 and beyond.

Employee Compensation and Provincial Payments

In ongoing efforts to attract and retain a highly qualified workforce, OPG offers employees competitive compensation. In 2006, compensation to OPG employees totaled approximately \$1.29 billion (see Figure 8). Recognizing that most OPG employees live in Ontario and purchase their goods and services locally, this compensation directs a substantial transfer of wealth back to the province.

OPG creates additional benefit for the provincial economy through payments made in lieu of taxes, gross revenue charges (including water rental payments*), dividends, interest on long term debt, Market Power Mitigation Agreement Rebate**, Revenue Limit Rebate (ONPA) and other payments to the Province of Ontario (see Figure 8). In 2006, these payments totaled nearly \$1.54 billion.

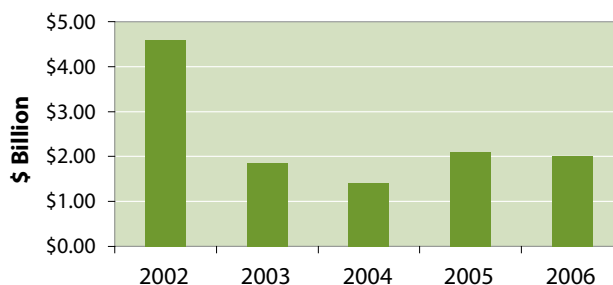
Figure 8: OPG Salaries and Payments Made to the Province of Ontario



Purchase of Goods and Services

OPG provides support to the Province of Ontario through the purchase of goods and services. In 2006, the total purchase of goods and services in Ontario by OPG totaled \$2.02 billion (see Figure 9).

Figure 9: Total Purchase of Goods and Services by OPG within Ontario*



* 2002-2005 figures restated from 2005 SD Report.

OPG Ventures Inc.

Through its wholly owned corporate venture capital group, OPG Ventures Inc. (OPGV), OPG continues to manage a portfolio of investments in enterprises developing and commercializing leading-edge energy technologies. OPGV was established to invest in private companies developing or commercializing emerging energy technologies for the purposes of yielding financial returns and strategic benefits for OPG.

Since it was established in 2001, OPG Ventures has invested directly and indirectly in small private companies developing technologies that generate, transmit, store, transact or utilize electricity more efficiently, more cost effectively and in cases with reduced environmental impact. As of the end of 2006, the fair value of the entire investment portfolio was about \$32 million.

Given OPG's current mandate to focus on its core generation business, OPGV has scaled back its investment activities to meeting existing commitments and making selective follow-on investments with a view to monetizing the investment portfolio in a manner that optimizes the return to OPG.

Stakeholder Feedback on this Report

OPG's Sustainable Development 2006 Report profiles our successes and areas for improvement in reference to environmental, social and economic performance at the company, generating station and plant group levels.

To assist OPG in improving sustainable development performance, we invite you to submit comments and recommendations to Cara Clairman, Vice President Sustainable Development, at the coordinates provided on the back cover of this report. Your comments will prove invaluable in helping our company to strengthen its sustainable development performance and reporting.

Port Weller Public School's Grade 6 Science class were the winners of OPG's name the tunnel boring machine contest. The winners won \$1000 for their school. Present were the Minister of Energy Dwight Duncan, Minister of Transportation Donna Cansfield and Minister of Tourism Jim Bradley. Representing OPG were EVP John Murphy and VP Hydroelectric Development Emad Elsayed.



GLOSSARY & APPENDICES

Glossary

k	kilo	$\times 10^3$	kg = 1,000 grams	kWh (kilowatt-hour) = unit of electricity production
M	Mega	$\times 10^6$	Mg = one million grams = one tonne	MWh (megawatt-hour) = 1,000 kWh which is approximately equivalent to the electricity used by one household in a month
G	Giga	$\times 10^9$	Gg = 1,000 tonnes	GWh (gigawatt-hour) = one million kilowatt-hours which is approximately equivalent to the electricity used by 80 homes in one year
T	Tera	$\times 10^{12}$	Tg = one million tonnes	TWh (terawatt-hour) = 1,000 GWh which is approximately equivalent to the electricity used by 80,000 homes in one year. In 2006, OPG generated 105 Twh (net) of electricity
Gross Generation (generally expressed in MWh)				Total electricity produced by a generating station
Net Generation (generally expressed in MWh)				Gross generation minus internal energy use
Generation Capacity (generally expressed in MW)				Indicator of generating station size.

APPENDIX A

- Ontario Power Generation for the years ended December 31
- Totals may not add up due to rounding

Nuclear

General Information

Pickering A & B GS

Generation (net GWh)

Critical Group Dose (µSv)

Generation capacity:
Pickering A: 1,030 MW net
Pickering B: 2,064 MW net

Located on Lake Ontario in the city of Pickering, each generating station has 4 units. Two of the 515 MW Pickering A units taken out of service during the nuclear recovery program will not be refurbished.
Number of used fuel bundles stored on site: 552,364
Tel: (905) 839-1151

2006	2005	2004	2003	2002	2006	2005	2004	2003	2002
19,801	17,297	15,672	12,770	14,300	3.6	6.8	4.1	4.7	6.3

Darlington GS

Generation (net GWh)

Critical Group Dose (µSv)

Generation capacity:
3,512 MW net

Located on Lake Ontario in the town of Newcastle, 70 km east of Toronto. This generating station has 4 units.
Number of used fuel bundles stored on site: 300,542
Tel: (905) 623-6670

2006	2005	2004	2003	2002	2006	2005	2004	2003	2002
26,968	27,491	26,486	24,810	27,600	1.2	0.9	1.2	1.1	1.1

Fossil

General Information

Net Generation and Emissions*

Atikokan GS

Generation capacity:
215 MW net

Located west of Thunder Bay, the station has 1 coal-fired unit equipped with low-NOx burners.

Generation (net GWh)						Emissions (tonnes)					
2006	2005	2004	2003	2002		2006	2005	2004	2003	2002	
737	965	1,018	946	823	SO ₂	3,304	4,774	6,430	6,446	4,934	
					NO _x	1,435	1,701	2,240	1,862	1,550	
					CO ₂	849,400	1,104,000	1,177,200	996,000	889,000	

Lambton GS

Generation capacity:
1,975 MW net

Located on the St. Clair River south of Sarnia, the station has 4 coal-fired units, 2 of which are equipped with SO₂ scrubbers and selective catalytic reduction (SCR) equipment to reduce NOx emissions.

Generation (net GWh)						Emissions (tonnes)					
2006	2005	2004	2003	2002		2006	2005	2004	2003	2002	
6,856	9,422	7,672	10,636	10,022	SO ₂	17,227	29,343	25,907	36,877	29,882	
					NO _x	6,179	8,804	8,100	10,938	14,991	
					CO ₂	6,451,000	8,692,000	7,169,900	9,499,000	8,990,000	

Lennox GS

Generation capacity:
2,140 MW net

Located on Lake Ontario in the town of Greater Napanee. The station has 4 oil and/or natural gas-fired units.

Generation (net GWh)						Emissions (tonnes)					
2006	2005	2004	2003	2002		2006	2005	2004	2003	2002	
317	1,263	602	2,775	2,762	SO ₂	623	2,503	2,449	4,060	2,268	
					NO _x	420	1,554	1,016	2,970	2,895	
					CO ₂	281,720	953,530	613,000	1,954,900	1,720,000	

Nanticoke GS

Generation capacity:
3,948 MW net

Located on Lake Erie, the station has 8 coal-fired units fitted with low-NOx burners, 2 of which are equipped with selective catalytic reduction (SCR) equipment to reduce NOx emissions.

Generation (net GWh)						Emissions (tonnes)					
2006	2005	2004	2003	2002		2006	2005	2004	2003	2002	
16,174	17,666	14,466	20,393	22,156	SO ₂	61,958	67,946	61,256	83,969	86,670	
					NO _x	20,048	22,942	21,065	35,268	37,363	
					CO ₂	16,222,800	17,580,000	14,671,800	19,737,000	21,367,000	

Thunder Bay GS

Generation capacity:
310 MW net

Located in Thunder Bay, this station has 2 coal-fired units.

Generation (net GWh)						Emissions (tonnes)					
2006	2005	2004	2003	2002		2006	2005	2004	2003	2002	
959	962	965	1,474	1,490	SO ₂	4,163	4,215	5,035	8,885	9,125	
					NO _x	2,701	2,632	2,498	3,017	3,135	
					CO ₂	1,127,620	1,149,600	1,126,000	1,581,000	1,663,000	

* NOx is reported as NO₂.

All fossil emission reports are in compliance with Ontario Regulation 397/01 (i.e. main stack emissions only).

Hydroelectric

Niagara Plant Group	Generation (net GWh)				
Generation Capacity: 2,338 MW Includes 5 stations, Head Quarters (HQ) in Niagara area	2006	2005	2004	2003	2002
	11,538	12,526	12,597	11,944	12,268
Ottawa/St. Lawrence Plant Group	Generation (net GWh)				
Generation capacity: 2,571 MW Includes 10 stations, HQ in Renfrew	2006	2005	2004	2003	2002
	13,133	11,869	13,002	11,935	12,262
Northeast Plant Group	Generation (net GWh)				
Generation capacity: 1,294 MW Includes 13 stations, HQ in Timmins	2006	2005	2004	2003	2002
	4,552	4,109	5,320	5,515	4,758
Northwest Plant Group	Generation (net GWh)				
Generation capacity: 661 MW Includes 10 stations, HQ in Thunder Bay	2006	2005	2004	2003	2002
	3,355	4,426	4,852	2,982	4,755
Evergreen Energy Evergreen Energy EcoLogoSM-certified	Generation (net GWh)				
Generation capacity: 152 MW HQ in North Bay	2006	2005	2004	2003	2002
EcoLogo SM -certified Green Power generation capacity from 32 OPG stations (29 small hydro stations including 4 NEPG stations), 2 wind turbines, and 50% of Huron Wind (5 wind turbines, partnership with a consortium of Canadian companies): 134 MW (at Dec 31, 2006)	743	624	709	716	671
EcoLogo SM -certified Green Power capacity available from Power Purchase Agreements: 12 MW	50	37	47	41	42
Total available EcoLogo SM -certified Green Power capacity: 146 MW	793	660	756	757	713
Other Evergreen Energy capacity	Generation (net GWh)				
Other Evergreen Energy capacity (non-EcoLogo – Eugenia Falls hydroelectric station: 6.1 MW)	19	27	23	18	24

APPENDIX B

Indicator					
ENERGY GENERATION BY SOURCES (gross GWh)	2006	2005	2004	2003	2002
Fossil	26,756	32,816	28,921	41,235	41,632
Hydroelectric (Renewable - excl. Evergreen Energy)	32,977	32,418	35,384	32,097	34,256
Nuclear	49,763	47,810	45,051	40,353	44,800
Evergreen Energy (includes 4 N.E. Plant Group stations)	811	688	780	774	737
Total Internal Energy Generated	110,308	113,732	110,135	114,459	121,425

ENERGY GENERATION BY SOURCE (net GWh)	2006	2005	2004	2003	2002
Fossil	25,042	30,938	27,020	39,030	39,600
Hydroelectric (Renewable - excl. Evergreen Energy)	32,475	31,912	35,017	31,677	33,563
Nuclear	46,769	45,005	42,158	37,700	41,900
Evergreen Energy (incl. 4 NE Plant Group stations, wind, power purchases)	811	687	780	774	737
Total Internal Energy Output (incl. power purchases)	105,098	108,543	104,974	109,181	115,800

ENERGY CONVERSION EFFICIENCY OF FOSSIL GENERATING STATIONS	2006	2005	2004	2003	2002
Total Energy Input (GWh equiv.)	75,760	92,986	82,823	118,215	118,796
Net Energy Output (GWh)	25,042	30,938	27,020	39,030	39,600
Fuel Conversion Efficiency (%)	33.1	33.3	32.6	33.0	33.3

OPG INTERNAL ENERGY EFFICIENCY	2006	2005	2004	2003	2002
Gross Generation (GWh)	110,308	113,732	110,135	114,459	121,425
Net Generation (GWh)	105,098	108,543	104,974	109,181	115,800
Generation Energy Efficiency (%)	95.28	95.44	95.31	95.39	95.37
Internal Energy Saving - Cumulative since 1994 (GWh)	2,167	2,111	2,054	1,947	1,607
Avoided CO ₂ , NO _x (as NO ₂) and SO ₂ (tonnes)	2,167,777	2,071,357	2,070,215	1,831,128	1,509,487
\$ Value of Energy Savings @ market clearing rate (2006 = 4.63¢/kwh; 2005 = 4.6¢/kwh; 2002-2004 = 4.3 ¢/kwh)	\$100,334,031	\$97,123,940	\$88,318,130	\$83,699,500	\$69,088,100
Annual Incremental Energy Saving (% of internal energy use)	1.1	1.1	2.1	6.4	28.6
Annual Incremental Energy Saving (GWh)	55.7	57.5	107.4	339.8	72.6

ATMOSPHERIC EMISSIONS - FOSSIL	2006	2005	2004	2003	2002
Total Gross Annual CO ₂ Emissions (tonnes)	24,932,840	30,198,130	27,077,400	36,498,700	36,992,000
Total Gross Annual SO ₂ Emissions (tonnes)	87,275	113,642	116,913	157,809	147,237
Total Gross Annual NO _x Emissions (tonnes, as NO ₂)	30,783	39,043	39,847	59,678	64,766

EMISSION RATES - FOSSIL					
CO ₂ Emissions (tonnes/GWh-net)	996	976	1002	935	934
SO ₂ Emissions (tonnes/GWh-net)	3.49	3.67	4.33	4.04	3.72
NO _x Emissions (tonnes/GWh-net, as NO ₂)	1.23	1.26	1.47	1.53	1.64

ATMOSPHERIC EMISSIONS - NUCLEAR					
Total Gross Annual CO ₂ Emissions (tonnes)	6,271	11,459	7,247	15,961	9,800
Total Gross Annual SO ₂ Emissions (tonnes)	1	2.19	20	3	12.0
Total Gross Annual NO _x Emissions (tonnes, as NO ₂)	23	64	144	126	55

ATMOSPHERIC EMISSIONS - OPG					
Total Gross Annual CO ₂ Emissions (tonnes)	24,939,111	30,210,459	27,084,647	36,514,661	37,001,800
Total Gross Annual SO ₂ Emissions (tonnes)	87,276	113,645	116,933	157,812	147,249
Total Gross Annual NO _x Emissions (tonnes, as NO ₂)	30,806	39,107	39,991	59,803	64,821

EMISSION RATES – TOTAL OPG					
CO ₂ Emissions (tonnes/GWh-net)	237	278	258	334	320
SO ₂ Emissions (tonnes/GWh-net)	0.83	1.05	1.11	1.45	1.27
NO _x Emissions (tonnes/GWh-net, as NO ₂)	0.29	0.36	0.38	0.55	0.56

NUMBER OF REPORTABLE SPILLS					
Category A Spills	0	0	0	0	0
Category B Spills	0	0	1	3	1
Category C Spills	14	17	14	18	26
Category D Spills (reportable effective July 1, 2005)	29	12	NR	NR	NR
NR = not reported in given year					

All fossil emission reports are in compliance with O. Reg 397/01 (i.e., main stack emissions only).

PCB MANAGEMENT (tonnes)	2006	2005	2004	2003	2002
High Level PCB material in storage	3	1	2	2	4
High Level PCB materials sent for destruction	326	97	135	99	113
Estimated inventory of High-Level PCB material in service*	56	411	449	608	728
Low-Level PCB materials in storage	2	2	0.4	6	5
Low-Level PCB material sent for destruction	6	74.2	38	9	8
Estimated inventory of Low-Level PCB material in service	3	2.6	4.4	4.3	5.7
Total Year-End Inventory (waste in storage + in-service equipment)	65	417	456	620	744
Total PCB material sent for destruction	332	171	172	109	121

*Excludes in-service high-level PCB equipment at Bruce Power included in previous SD Report inventories

RADIOACTIVE WASTE MANAGEMENT					
Used fuel - annual production (tonnes of uranium)	1,409	1,290	1,216	1,022	969
Used fuel in Storage (tonnes of uranium)	32,302	30,862	29,667	28,451	27,429
Low and Intermediate Radioactive Waste produced (m ³)	3,455	5,695	4,651	4,059	4,817
Low and Intermediate Radioactive Waste stored (m ³)	2,538	2,577	1,979	3,481	1,680

UTILIZATION OF SOLID COMBUSTION BY PRODUCTS					
Total Ash and Gypsum Produced (tonnes)	1,117,023	1,286,980	1,175,109	1,468,310	1,550,063
Total Ash and Gypsum Recycled (tonnes)	746,270	801,913	865,624	824,398	807,560
Diversion Rate (%)	67	62	74	56	52

HAZARDOUS WASTE GENERATION					
Solids (tonnes)	165	348	645	220	225
Liquids (kilolitres)	2,146	1,567	2,313	4,488	6,100

WATER USE (million m³)					
Turbine flows - hydroelectric stations (total flow)	450,579	440,574	486,901	420,206	447,574
Cooling and service water use (non-consumptive)	13,264	14,192	13,716	13,473	13,852

National Pollution Release Inventory (NPRI)

NPRI Emissions: air, water and land ⁽⁴⁾ (tonnes unless otherwise specified)	2005 ⁽¹⁾	2004	2003	2002	2001
Aluminum	343.950	286.18	NR ⁽²⁾	NR	NR
Ammonia	29.447	28.34	34.21	22.37	28.93
Arsenic	22.638	12.41	25.27	25.15	27.13
Benzo(a)anthracene	0.000	0.014	15	0.006	0.011
Benzo(a)phenanthrene	0.000	0.041	0	0.000	0
Benzo(a)pyrene	0.000	0.006	0.008	0.003	0.006
Benzo(b)fluoranthene	0.000	0.005	0.005	0.003	0.009
Benzo(e)pyrene	0.000	0.011	0.019	0.005	0.010
Benzo(g,h,i)perylene	0.000	0.010	0.011	0.003	0.010
Benzo(j)fluoranthene	0.000	0.000	0.003	0.000	0
Benzo(k)fluoranthene	0.000	0.000	0.0 kg	0.0 kg	0.1 kg
Cadmium	341kg	315 kg	10.2 kg	NR	NR
Chromium	67.601	43.90	84.42	121.98	129.96
Cobalt	10.135	2.13	25.55	29.07	38.8
Copper	73.245	45.16	89.99	100.2	123.37
Dibenz(a,h)anthracene	0.000	0.002	0	0	0.003
Dibenz(a,j)acridine	0.000	0.005	0	0.001	0
Dibenzo(a,i)pyrene	0	0	0	0	0.001
Dioxins & Furans	1.642 g TEQ ⁽³⁾	3.13 g TEQ	1.31 g TEQ	1.49 g TEQ	1.65 g TEQ
7H-Dibenzo(c,g)carbazole	0.004	0.003	0	0	0
Fluoranthene	1.547	0.010	0.018	0.008	0.011
HCFC-22	0	0	0	0.81	NR
Hexachlorobenzene	6.86 grams	197.20 grams	33.39 grams	3.92 grams	185.85 grams
Hydrazine	1.039	0.942	0.98	0.85	0.91
Hydrochloric Acid	2,845.693	5,037.46	4,871.07	9,231.04	8,902.54
Hydrogen Fluoride	345.7	403.9	538.65	551.19	520.1
Indeno(1,2,3-cd)pyrene	0	0.001	0	0	0.002
Lead	0.00	15.87	28.15	42.53	42.64
Manganese	99.62	59.32	147.98	159.66	172.46
Mercury	550 kg	476 kg	883 kg	896 kg	821.08 kg
Nickel	49.038	27.624	55.82	81.77	89.18
n-Hexane	0	0	0	24.56	NR
Perylene	0.008	0	5 kg	0 kg	1 kg
Phenanthrene	574	0.106	0.132	0.067	0.098
Phosphorus	49.038	349	NR	NR	NR
Pyrene	0.001	0.015	0.022	0.011	0.014
Selenium	9.285	5.15	15.26	20.79	19.72
Sulphuric Acid	289.474	4.972	728.44	698.93	795.2
Vanadium	107.2	64.79	149.46	214.15	196.76
Zinc	80.922	46.95	71.94	132.17	99.86

Criteria Air Contaminants (tonnes)	2005 ⁽¹⁾	2004	2003	2002	2001
Carbon Monoxide	12,267.66	11,407.96	13,263.45	11,755.19	NR
Oxides of Nitrogen (as NO ₂)	39,780.32	40,617.94	59,159.19	66,245.19	NR
PM - Total Particulate Matter	10,421.67	8,696.56	12,130.13	12,479.9	NR
PM10 - particulate matter ≤ 10µ ⁽⁵⁾	4,665.46	5,801.61	8,090.62	8,341.12	NR
PM2.5 - particulate matter ≤ 2.5 µ	1,603.94	2,376.28	3,308.87	3,370.92	NR
Sulphur Dioxide	113,645.3	116,979.3	157,805.7	147,254.4	NR
Volatile Organic Compounds (VOCs)	437.85	387.88	537.09	557.36	NR

(1) Year 2006 data was not available at the time of printing.

(2) NR = not reported in given year

(3) g TEQ = grams Toxic Equivalent

(4) For detailed information on the breakdown of OPG's NPRI data by emissions to air, water, and land please visit the NPRI web site at http://www.ec.gc.ca/pdb/npri/npri_home_e.cfm

(5) µ = microns (particle diameter)

Environmental Policy

Effective:	May 10, 2006
Policy Statement:	OPG will strive to continually improve its environmental performance by committing to the following seven requirements:
Requirements:	• Meet or Exceed Legal Requirements: Meet all legal requirements and OPG's voluntary commitments, with the objective of exceeding those standards where appropriate and feasible. • Advance Environmental Stewardship: Contribute to environmental protection, pollution prevention and energy and resource use efficiency. • Maintain ISO 14001 System: Maintain registrations to the International Management System. • Integrate Environment in Decision-Making: Integrate environmental factors and stakeholder considerations into our planning, decision-making and business practices. • Engage Employees: Engage and educate employees to conduct their activities in a manner that respects and protects the environment. • Contribute to Our Communities: Contribute to and enhance the environmental well-being of the communities in which we operate and the broader public who grant us our license to operate. • Communicate: Measure and publicly communicate our environmental performance with employees, governments, local communities, contractors and other stakeholders. This Environmental Policy is an important part of OPG's commitment to Sustainable Development.
Accountabilities:	The President and CEO is accountable for this Policy. The Vice President Sustainable Development is accountable for monitoring and reporting regularly to the Executive and Board on OPG's environmental performance and progress in implementing this Policy, including immediate notification of a Significant Environmental Event. The Business Unit leaders are accountable for environmental performance and compliance within their Business Unit. All employees have accountability for protecting the environment and for complying with this Policy.

Sponsoring Unit:
Vice President Sustainable Development

Approval: Board of Directors
Date: May 10, 2006

Ontario Power Generation's focus is on the efficient production and sale of electricity from our generation assets, while operating in a safe, open and environmentally responsible manner.







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We welcome any comments or questions you may have.

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