

# Ontario Power Generation Overview

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SVP, Nuclear Programs and Training





- Corporate profile
- Core values
- Strategic objectives
  - Performance Excellence
  - Generation Development
  - Developing & Acquiring Talent



# OPG's Corporate Profile

- 100% owned by the Province of Ontario
- 21,762 MW in-service generating capacity
  - 65 hydroelectric, 3 nuclear, 5 fossil stations
  - 9,938 MW (46%) regulated
  - 11,824 MW (54%) unregulated
- Produced 107.8 TWh in 2008, ~70% of Ontario's electricity
- Approx. 12,000 employees
- Investment Grade credit ratings



	Long Term Debt	Commercial Paper	Outlook
S&P	A-	A-1 (low) Cdn	Stable
DBRS	A (low)	R-1 (low)	Stable



# Regulatory Structure

## Regulated

**Baseload  
Hydro**

**Nuclear**

**ROE: 8.65%**

## Unregulated

**Fossil**

**(~85% subject to  
a cost recovery  
mechanism)**

**Intermediate &  
Peaking Hydro**



# Core Values

- OPG's core values are incorporated in every aspect of the business to drive performance excellence and continuous improvement
  - Safety
  - Social responsibility & Corporate citizenship
  - Environmental stewardship
  - Financial sustainability





***To be a leader in clean energy generation,  
leading Ontario's transition to a more  
sustainable energy future***





# Strategic Objectives

**Performance Excellence**

**Generation Development**

**Developing & Acquiring Talent**



# Performance Excellence





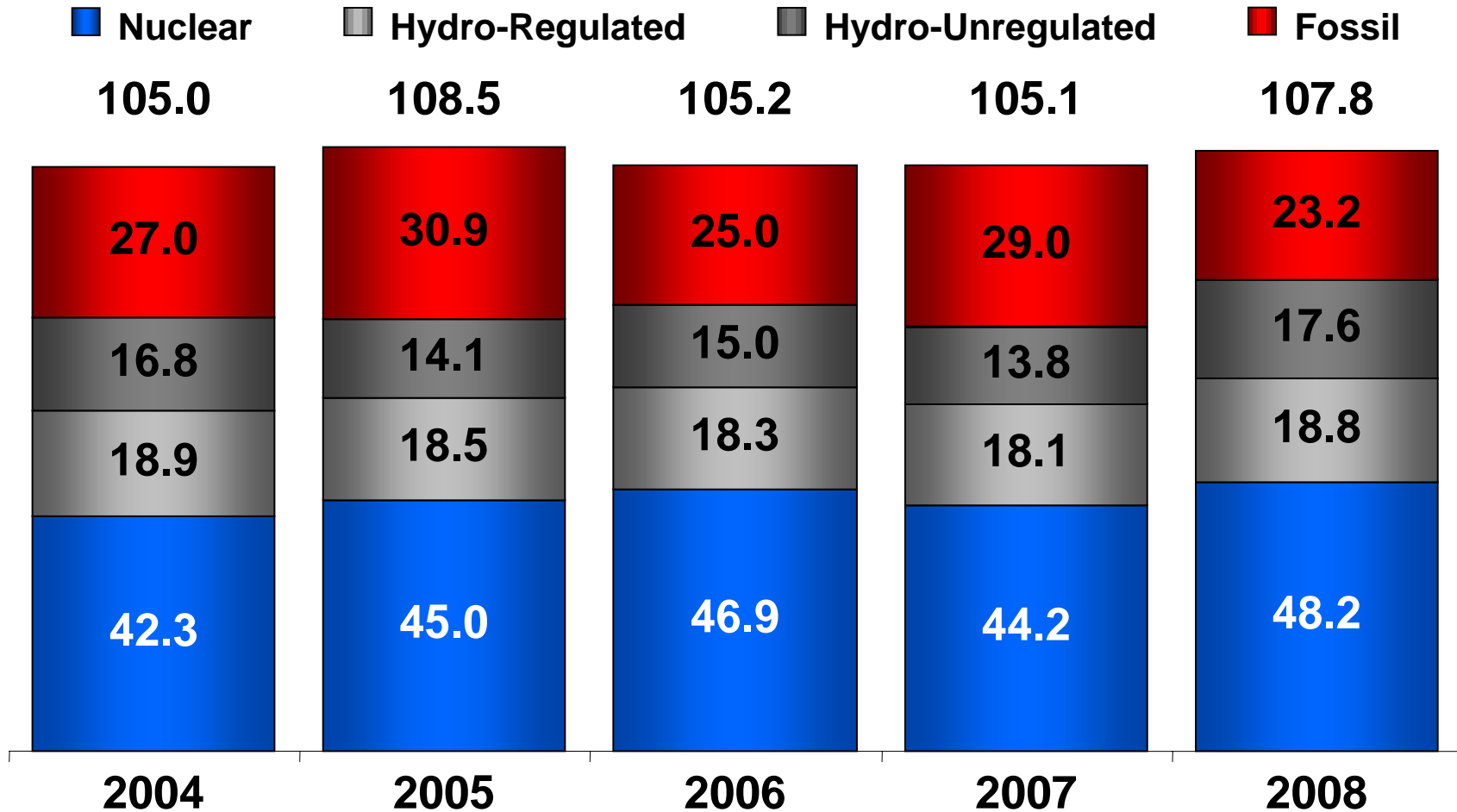
## Performance Excellence

- To efficiently and reliably generate electricity and deliver value to the Shareholder, OPG is committed to Performance excellence in:
  - Generation
  - Safety
  - Environment
  - Financial sustainability





## Electricity Production by Asset Type (TWh)





- OPG is committed to achieving performance excellence in employee and public safety
- OPG measures its safety performance through two primary indicators:
  - Accident Severity Rate (ASR): number of days lost due to injuries
  - All-Injury Rate (AIR): frequency of injuries resulting in lost time or requiring medical treatment
- 2007 and 2008 were the Best Safety Performance years since OPG's inception in 1999



**ZERO INJURIES**

**Believe it. Achieve it.**



# The Environment

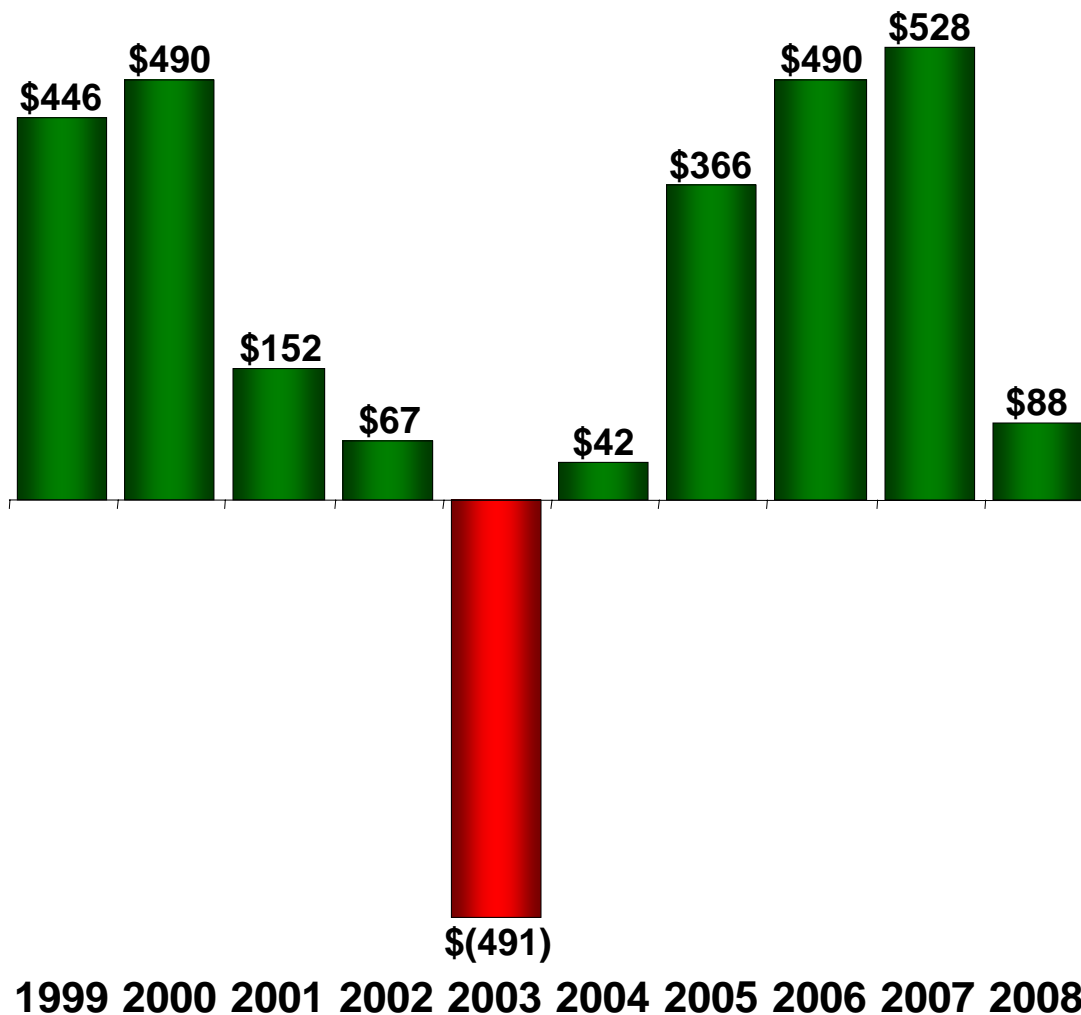
- OPG is ISO 14001: 2004 certified
- Environmental Policy: Meet all legal requirements and voluntary limits, and exceed standards where appropriate and feasible
  - Reducing CO<sub>2</sub> emissions from coal plants 2009-2014
- Integrate environmental factors into business planning and decision-making, and maintain environmental management systems
  - Coal plant to be phased out by December 2014
- Performance targets are established for many environmental indicators
  - Spills, air and water emissions, energy efficiency improvements, and reduction in waste generated





# Financial Sustainability

## Net Income (\$M)



- Exploit opportunities to increase revenues
- Implement cost management initiatives
- Access low cost & diversified funding sources
- Utilize technology
- Improve efficiency
- World-Class Finance function

# Generation Development





# Hydroelectric Development

## Lac Seul Station (12.5 MW)

- In-service February 2009
- Equivalent electricity for 5,000 homes

## Niagara Tunnel (1.6 TWh/yr)

- 10.2 km long, 14.5 m diameter tunnel under city of Niagara Falls
- Project completion by December 2013

## Other Hydroelectric Projects

- Upper Mattagmi & Hound Chute (↑11MW)
- Lower Mattagmi (↑450 MW)
- Albany River
- Pumped storage



Path of the Niagara Tunnel



## Portlands Energy Centre (550 MW)

- Gas-fired, combined cycle station
- Joint venture between OPG and TransCanada Energy
- In-service April 2009

## Biomass

- Investigating potential to convert coal units to biomass units
- Atikokan successfully burned 100% biomass producing 170 MW on July 17, 2008
- Studies also being conducted at Nanticoke and Thunder Bay





# Nuclear Development

## Refurbishment

- Feasibility study to refurbish Pickering B and Darlington in progress
- Pickering B end-of-life is 2016, Darlington end-of-life is 2025
- Refurbishment will extend operations by ~30 years

## New Build

- Province selected Darlington as the site for 2 new nuclear units
- RFP process complete
- Province suspended procurement process



Pickering B Nuclear Station: 4 Units – 2,064 MW

# Developing & Acquiring Talent





## The OPG Workforce

- OPG strives to be an employer of choice by:
  - Attracting, developing and retaining a talented, and engaged workforce
  - Providing employees with opportunities for learning and growth
- OPG's resource strategy is to develop and acquire talented employees with excellent leadership qualities, and the ability to achieve corporate objectives

