ONTARIO POWER GENERATION

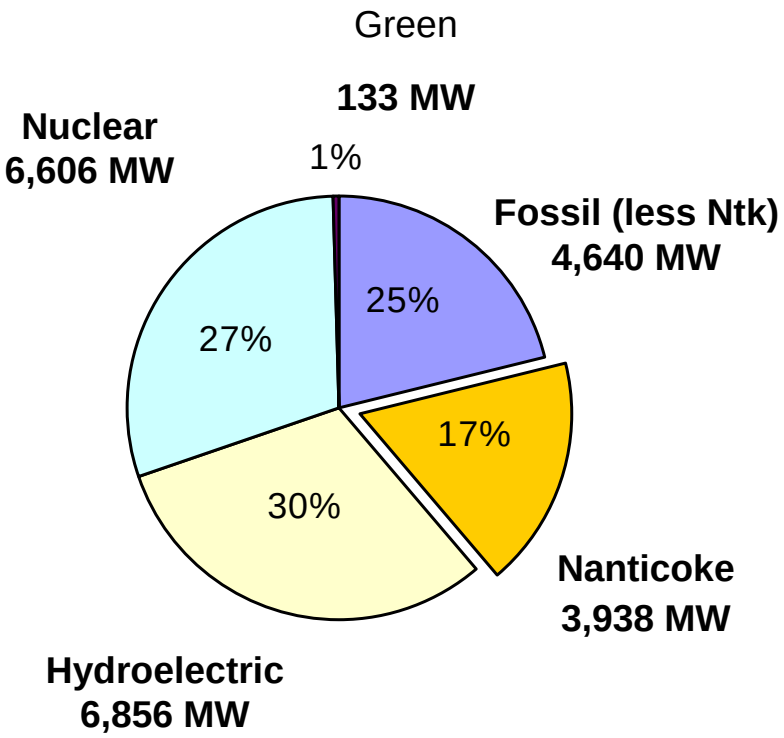
# Backgrounder

## *Nanticoke Generating Station*

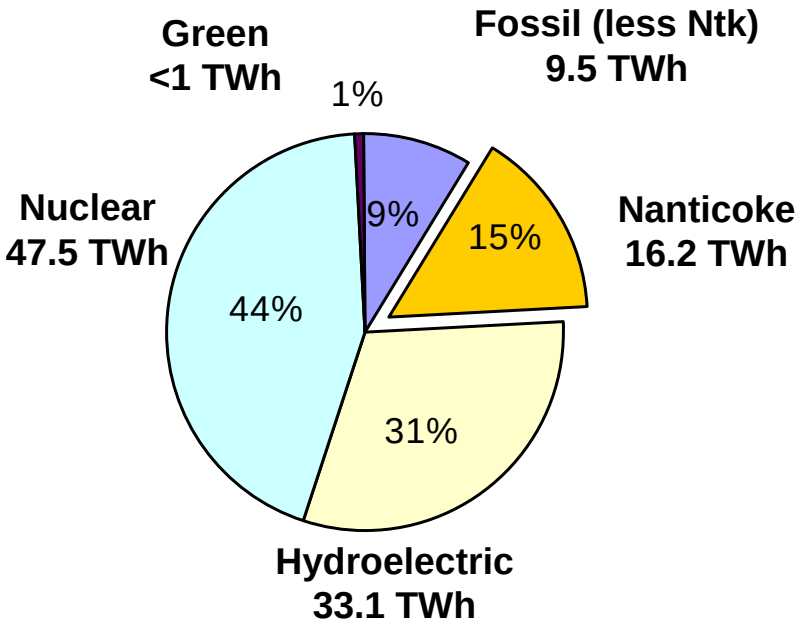
***March 2007***

# OPG's Capacity and Energy

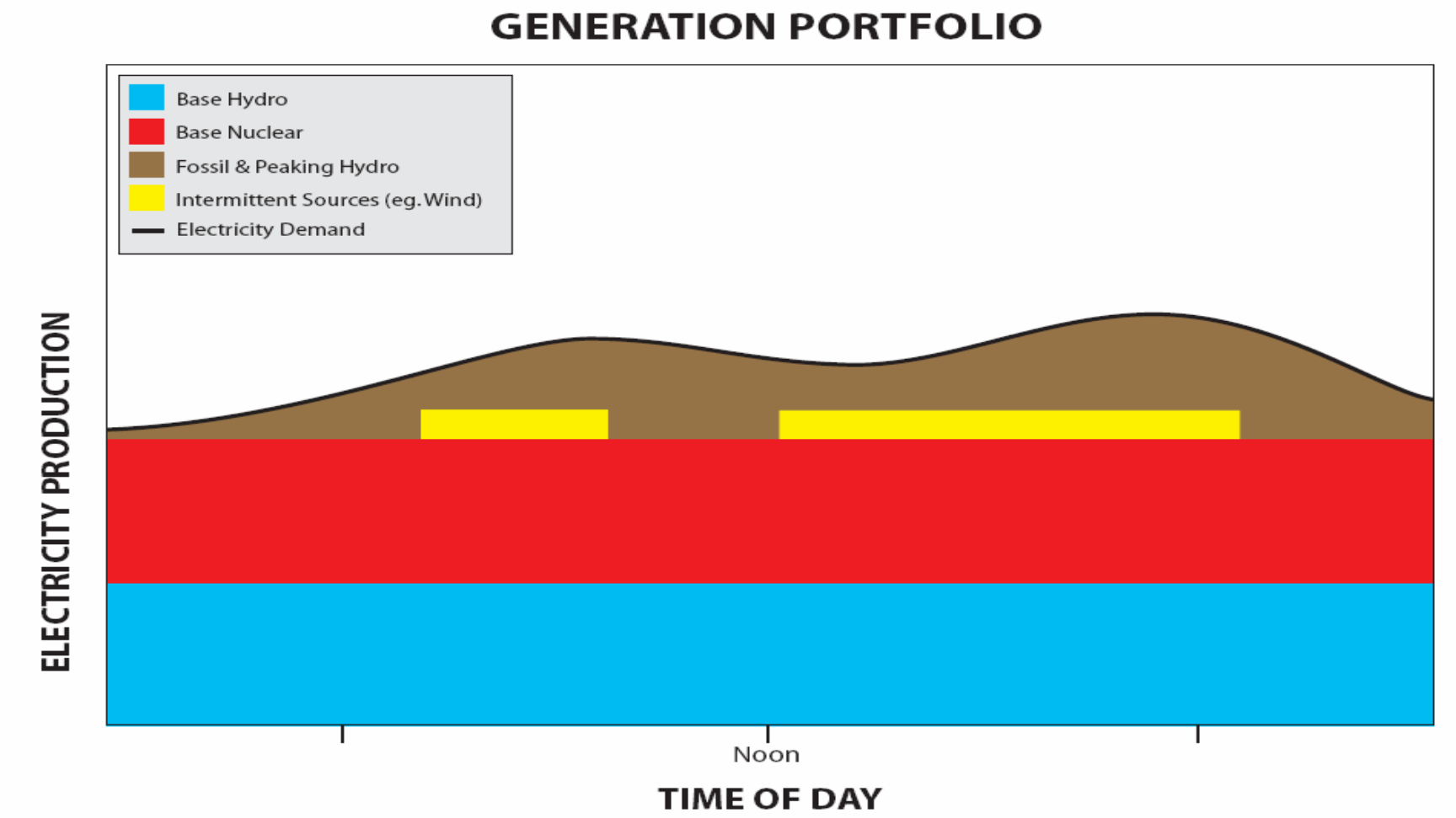
**2006 OPG Capacity**
**22,173 MW**




**2006 OPG Energy Production**
**106.4 TWh**



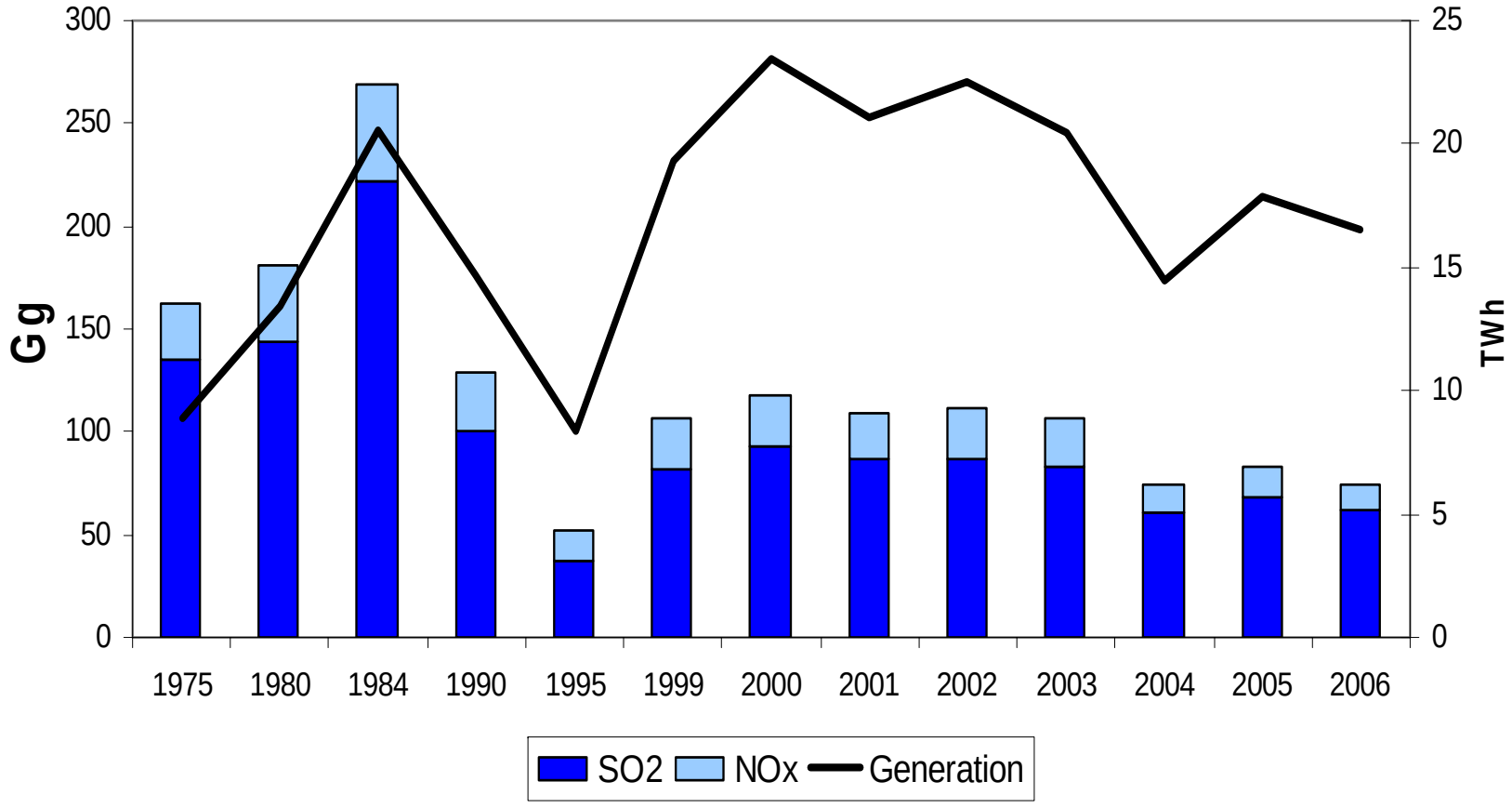
# The Role of Fossil



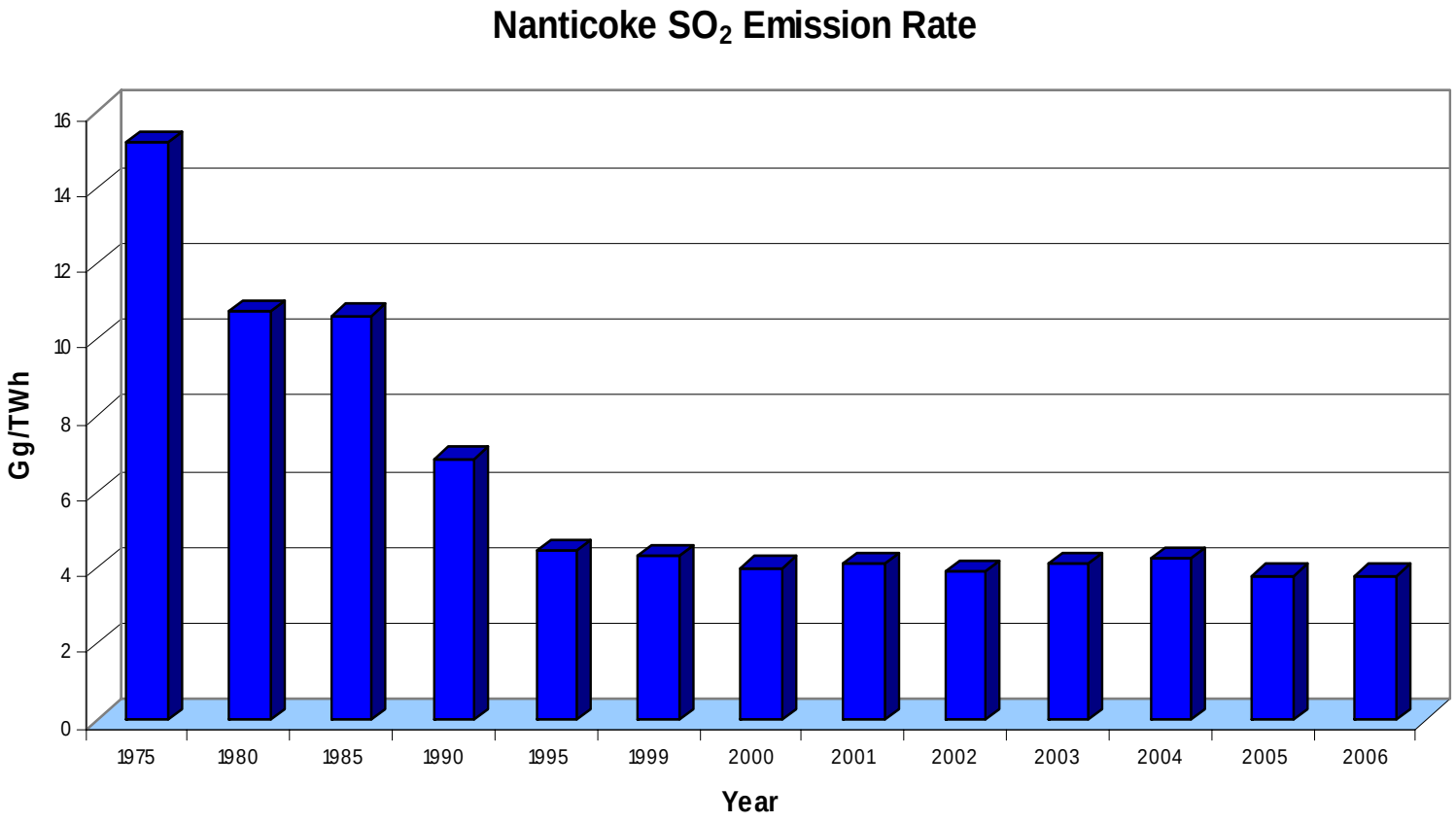
# Nanticoke – Contribution to Supply

- **Capacity - Ontario's largest capacity plant**
- **Energy - Ontario's third largest producer of electricity**
- **Flexibility –large range in annual production**
- **Transmission support**

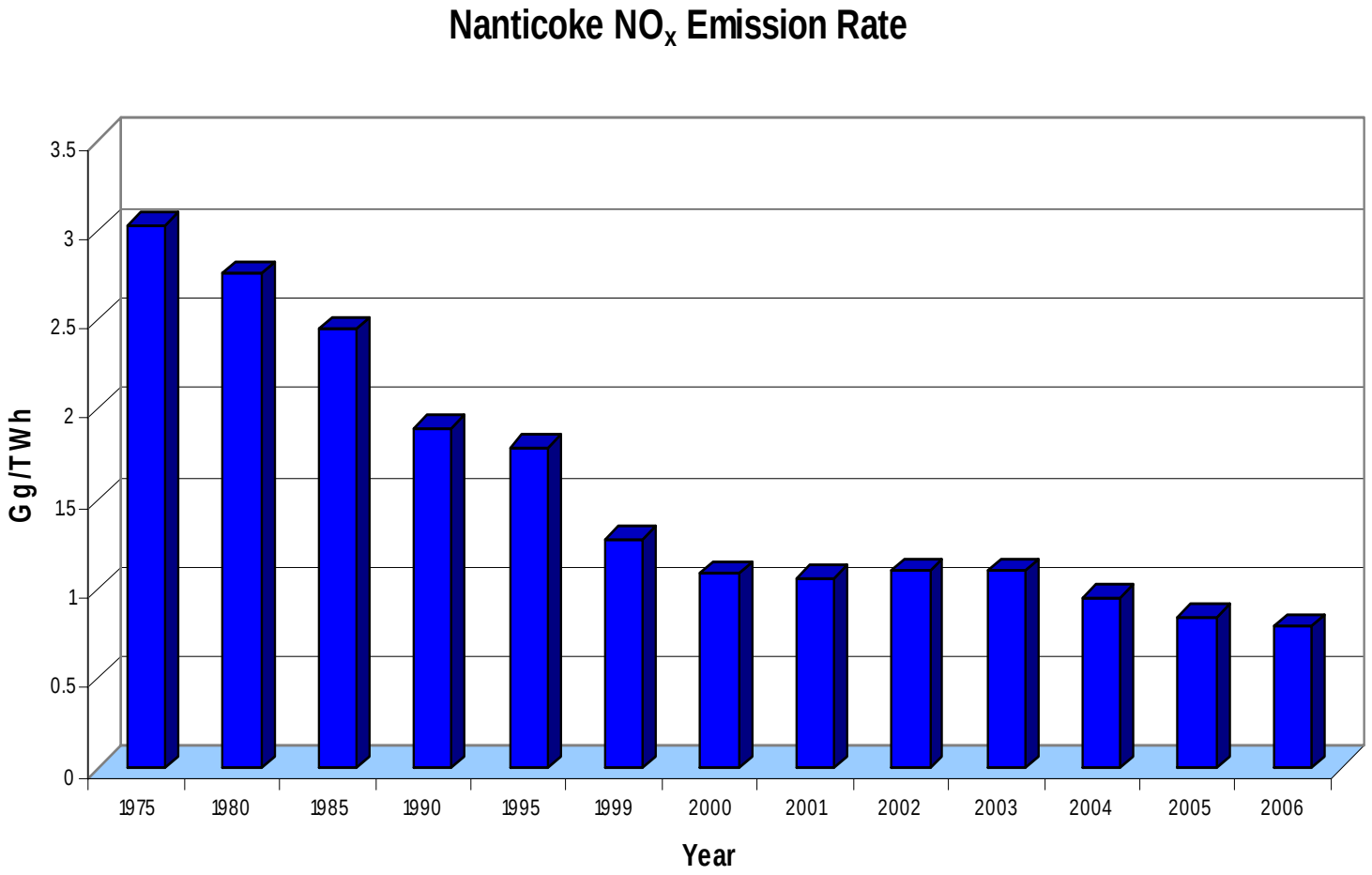
# Nanticoke Production & Emissions



# Progress on Air Emissions



# Progress on Air Emissions



# Sources of Nitrogen Oxide Affecting Ontario

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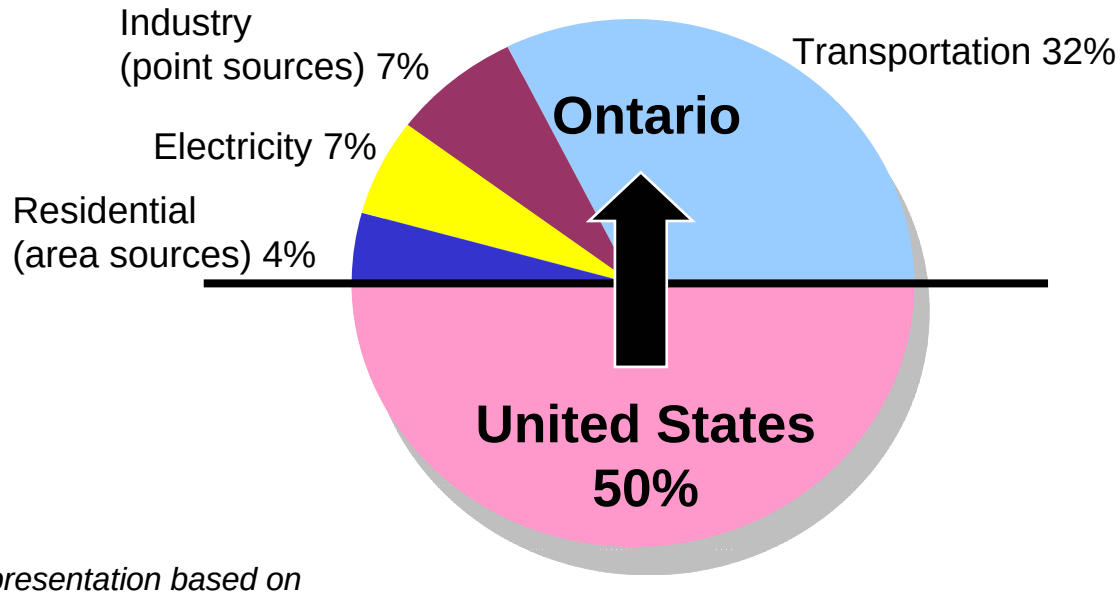
More than half of the nitrogen oxide, a precursor of smog, affecting Ontario comes from the United States*




** Smog representation based on nitrogen oxide emissions*

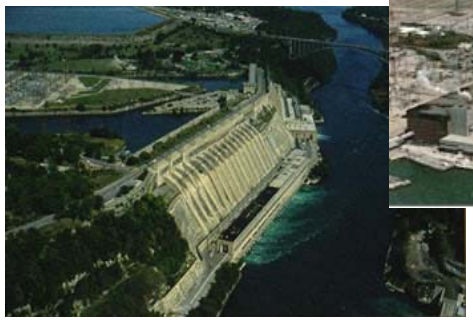
Source: Ministry of Environment
1999 Data

# Reducing Greenhouse Gas Emissions

Efficiency improvements

Biomass

Increase generation from non-fossil sources



# Biomass

- OPG is conducting research into the use of biomass as a new energy source. Biomass consists primarily of wood pellets and agricultural by-products such as grain screenings, corn and other crops that can be burned to generate electricity.

- For power companies, biomass has the potential to play an important role in reducing net greenhouse gas emissions by supplementing coal.

- OPG's Nanticoke Generating Station successfully co-fired milling by-products with coal and, in August 2006 OPG's Thunder Bay Generating Station conducted a test burn using pelletized grain screenings.

Pelletized grain screenings being delivered to OPG's Thunder Bay Station