



# Global Emerging Issues and Strategies in D&D

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**ONTARIO** **POWER**  
GENERATION



# OPG Highlights

- Nuclear power provides over 55% of Ontario's electricity
- Largest nuclear facility owner in Canada – 20 Reactors at 3 sites
  - OPG owns and operates 6 reactors at Pickering and 4 at Darlington
    - ▶ 2 additional Reactors at Pickering are shutdown and in Safestor
  - OPG owns 8 reactors under lease to Bruce Power
- Pickering Station end of operations scheduled for 2020
- Darlington and Bruce reactors expected to be refurbished over next decade
- OPG owns and operates its own waste management facility at Bruce site
  - Only licensed incinerator in Canada, one of two in North America
  - Currently under license application to build a DGR at Bruce site for its L&ILW waste – first of a kind in North America



# Emerging Redefinition of Community

- No longer just the immediate surrounding community
  - Communities expanding to regional, national and international
- Growing number of stakeholders within broader community
  - Higher involvement from citizens, community leaders, NGO's and First Nations
- Growing level of interest and expectation of involvement
  - Higher demand for detailed information
  - Higher demand for transparency
  - Higher demand for direct and meaningful input
- Increasing level of media interest, particularly in waste files
  - 2013 OPG Nuclear media inquiries;
    - ▶ 159 on DGR
    - ▶ 60 on Darlington and
    - ▶ 14 on Pickering



# Increasing Focus on Decommissioning Funding

- What decommissioning option is the safest and best value for ratepayer?
  - Prompt vs Safestor (is there a trend toward Safestor?)
- How confident is the estimate when the dismantlement is 30 to 60 years away?
  - Are allowances and contingencies adequate
- How secure are the invested funds?
- How deeply do you vet the assumptions of record?
  - What are the waste volume reduction assumptions
  - What technologies are assumed in dismantlement
  - What is the assumed release criteria
  - What assumptions are made for soils and groundwater
- Regulator must have confidence in estimate and funding



# Challenge to Find Locations for Decommissioning Waste

- Used Fuel under Federal control in North America
  - How long will interim storage be required at site
  - What will be ultimate cost to Licensee, what do you budget
  
- North American Regulators view is Low and Intermediate Level Waste is the responsibility of licensees
  - Do you depend on market to deliver disposal options
  - Do you go it alone
  - How much cost do you allocate when decommissioning is 30 to 60 years away
  - Will changing communities accept your plans