



**PICKERING NUCLEAR
GENERATING STATION**

Part 2 Hearing
Licence Renewal
June 25-29 2018

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CMD 18-H6.1C





Presentation Outline

- Opening Remarks
- Our Commitments
- Our Request and Supporting Case for Licence Renewal
- Clarifications from Part 1 Hearing
- Interventions
- Conclusions



Opening Remarks



Pickering's Commitments

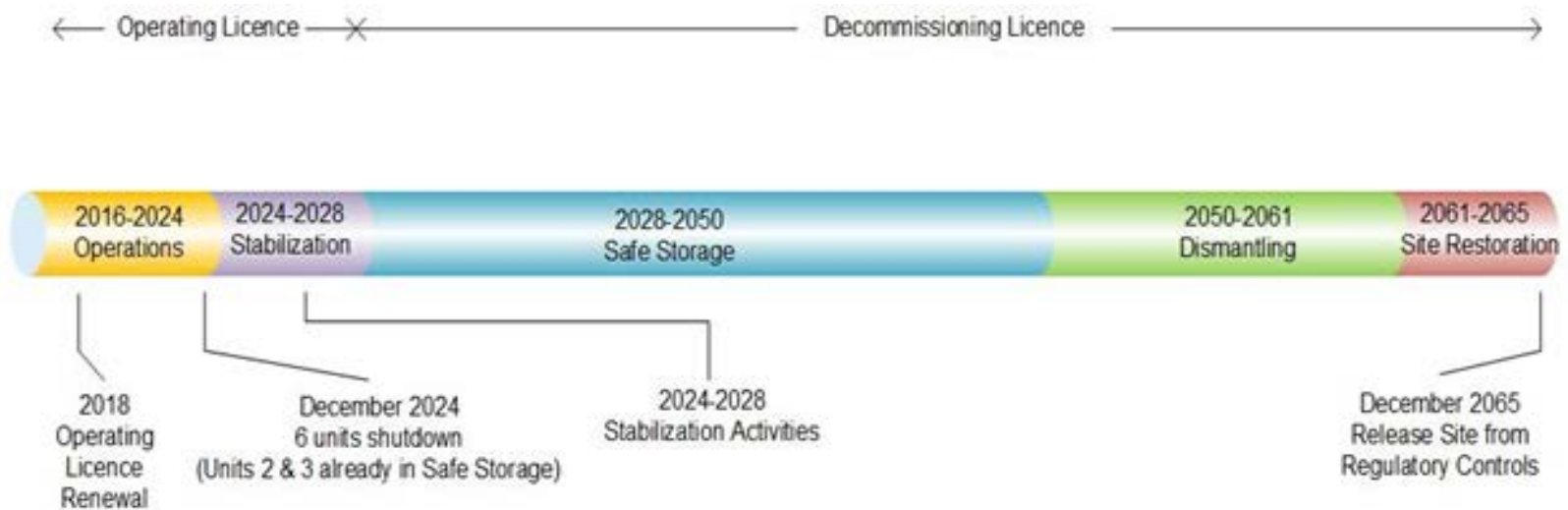
- Uphold **nuclear safety**
- Assure **fitness for service**
- Sustain an **engaged workforce**
- Maintain **low impacts of operation**
- Support **transparency and engagement** with the public
- Continue to **invest**

We are Nuclear Professionals



Request for Licence Renewal

- OPG is seeking a 10-year licence renewal (September 1, 2018 to August 31, 2028):
 - Continued commercial operation to end of 2024 (up to 295,000 Equivalent Full Power Hours)
 - Stabilization period (fuel and water removed from reactors)
 - Start of safe storage by 2028





Summary of Supporting Case

- Pickering plays an important role in providing clean, safe, reliable, low cost electricity
 - Protecting the public, workers, and the environment
 - Fostering open and respectful relationships with communities
- Long history of safe operation at OPG nuclear facilities
 - Engaged, experienced and motivated staff will keep Pickering operating well
 - Increasingly high levels of plant performance, some are best ever
 - Fit for service through to 2024
- Through continued investments, the Pickering station is safe today and will be safer tomorrow

Safe Today, Safer Tomorrow



Clarifications from Part I Hearing

Role of EME

- OPG's post-Fukushima response effort included the addition of portable and flexible equipment, i.e., EME
- Phase 1 EME provides added defence-in-depth for fuel cooling; Phase 2 EME provides added containment defence-in-depth
- Both Phase 1 and Phase 2 EME implementation are complete
- All Fukushima Action Items closed in 2015



Committed to Nuclear Safety

Periodic Safety Review (PSR): Safety Enhancements

- In addition and separate from Fukushima Action Items; part of continual safety improvement
- e.g., Firewater modifications to provide an additional source of cooling water to Units 1,4 Heat Transport Systems, Steam Generators, and Calandria Vessels
- Will provide even more diverse ways to cool the fuel – in addition to the station systems and EME



Committed to Nuclear Safety

Fission Chambers

- Under current licence, very small amounts of enriched uranium used as a coated layer in part of fission chambers for Units 1-4 Shutdown Systems
- Also, used within Core Discharge Monitors owned, operated and controlled by IAEA per safeguards program

Committed to Nuclear Safety





Interventions



OPG Review and Comment

- OPG has reviewed all available written and oral intervention material in relation to Pickering licence renewal
- We respect the public views and interest in our operations
- Common concerns among several intervenors are addressed

Respecting public input

Transparency

- OPG proactively posts key documents for public access
 - station operating performance reports, full suite of PSR reports, PSA summaries, Environmental monitoring reports and assessments, Evacuation Time Estimates report, End of Commercial Operations letter
- OPG fosters open communication via engagement with local communities, external stakeholders, and Indigenous communities



Committed to openness and transparency



Committed to Fitness for Service

Fitness For Service

- Fitness for service of major components rigorously confirmed through to end of commercial operation (2024)
 - fuel channels / feeders / steam generators / reactor components
 - regularly assessed via comprehensive Aging Management Program
 - maintenance / testing / inspections / monitoring
 - meet/exceed CNSC requirements & CSA Standards
 - confirmed by extensive PSR
- Supported by Continued Investments and Innovation

Emergency Preparedness (EP)

- Pickering has many robust and diverse barriers on site to protect the public
- OPG's EP plans are well integrated with off-site authorities
- Exercise Unified Control demonstrated readiness on a large scale
- OPG collaborates with local and provincial government to promote EP public awareness
- KI pills pre-distributed
- PNERP updated, Pickering Implementing Plan approved



Promoting public awareness and safety



Proactive environmental stewardship

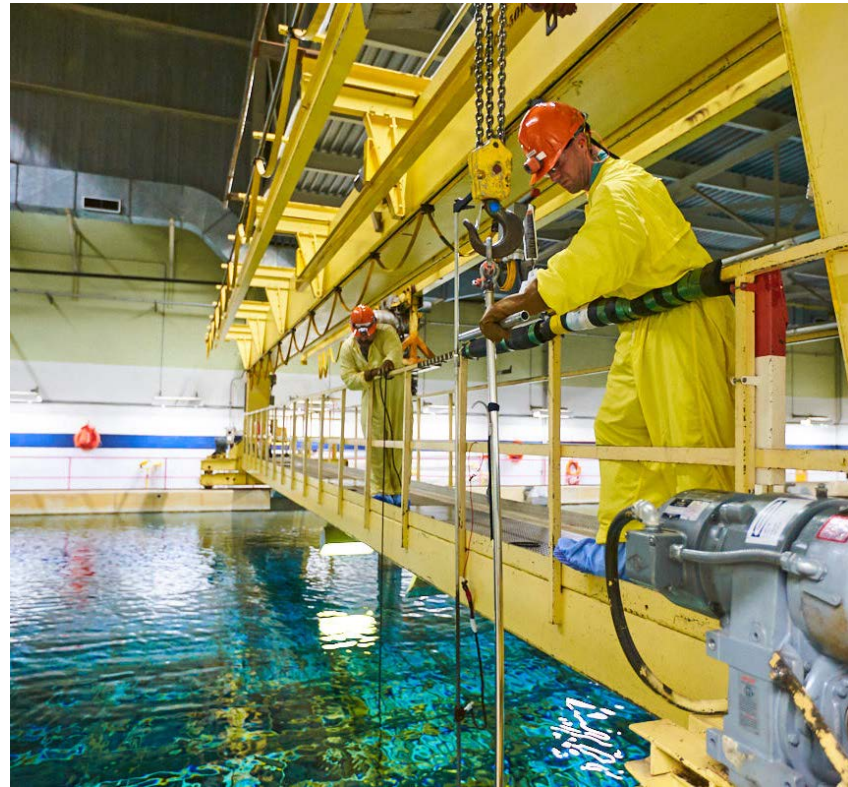
Environmental Protection

- Effective mitigation of any environmental impacts (low risk)
- Routinely monitor air, water, soil, food and vegetation
- Radiological releases into air and water are far below regulatory limits (<1%)
- Nurture wildlife through diversity and habitat programs
- Fish Authorization for Pickering

Nuclear Waste & Used Fuel

- Well-established programs and plans in place to safely manage all nuclear waste and used fuel from Pickering
 - low and intermediate waste; wet and dry storage of used fuel
 - separately licensed waste management facilities
 - Including long-term strategy, per regulatory process
- Irradiated Fuel Bays at Pickering
 - assessed as part of the PSR
 - sufficient storage capacity to support station needs

Responsible waste management



Community



Community



Community



Conclusions



- Qualified to operate safely
- Continuing to protect the public, workers, and the environment

Our last years will be our best