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# Pickering Nuclear 2026

Durham Nuclear Health Committee, April 19 2024

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# Today's Agenda



- 1 Background
- 2 Why Extend Pickering?
- 3 Work Done in the Past Year
- 4 Regulatory Process
- 5 Resources

# Background

- Pickering's current power reactor operating (PROL) licence allows operation of all units until December 2024.
- OPG is seeking approval of the Canadian Nuclear Safety Commission (CNSC) to continue operating Pickering's Units 5 to 8 to the end of December 2026.
- OPG submitted an application to the CNSC in June 2023
- The CNSC will hold a public hearing in June 2024
- Units 1 and 4 will retire at the end of 2024 as planned and be placed in safe storage. (Units 2 and 3 are already placed in safe storage.)



# Why Extend Pickering 5-8?

- Extensive refurbishment programs on both the Bruce and Darlington Units have temporarily reduced Ontario's power supply
- The Independent Electricity System Operator is projecting a significant and growing capacity deficit on the Ontario system, beginning in 2023
- Pickering produces 10% of the world's Cobalt-60 supply
- The safe, sequential shutdown of all units will maximize the economic benefits of the generation station in the community
- Continual investments in equipment reliability improvements ensure continued strong performance through 2026



# Work Done in the Past Year

- **Ontario government approval to extend Pickering 5-8**
- **Canadian Nuclear Safety Commission (CNSC) approval still outstanding**
- **Periodic Safety Review (PSR)** conducted to re-assess that existing nuclear designs and components can continue to operate safely and reliably
  - Opportunities identified for Nuclear Safety enhancements to be completed by the end of 2024
  - Concluded that the current plant design, operation, processes and management system will ensure continued safe operation of Pickering NGS Units 5 to 8 to the end of December 2026
- **Pickering Nuclear Environmental Risk Assessment (ERA)** submitted to CNSC in April 2023 and is available on-line via [opg.com](http://opg.com)
  - Confirmed that Pickering NGS is continuing to operate in a manner that is protective of the health of the public and the environment.
- **Safe Storage Predictive Effects Assessment Addendum** updated in April 2023 to address comments received from the CNSC and to reflect continued operation of Pickering NGS until 2026
  - Concluded that there are no potential adverse effects predicted to human health or the environment from continued operation of Pickering NGS (Unit 5 to Unit 8) to 2026

# Regulatory Process

All nuclear power plants require a licence from the CNSC. To be granted a licence, a facility must meet regulatory requirements grouped under 14 topics called Safety and Control Areas.

To obtain a licence:

01

The nuclear power plant operator must provide the CNSC with a licence application that addresses all applicable regulatory requirements.

02

CNSC reviews the application and associated materials and provides a recommendation to the Commission in the form of a CMD

03

The Commission makes decisions on the licensing of major nuclear facilities through a public hearing process which give involved parties and members of the public an opportunity to be heard by the Commission.

04

Following the public hearing, the Commission decides on whether a licence should be issued

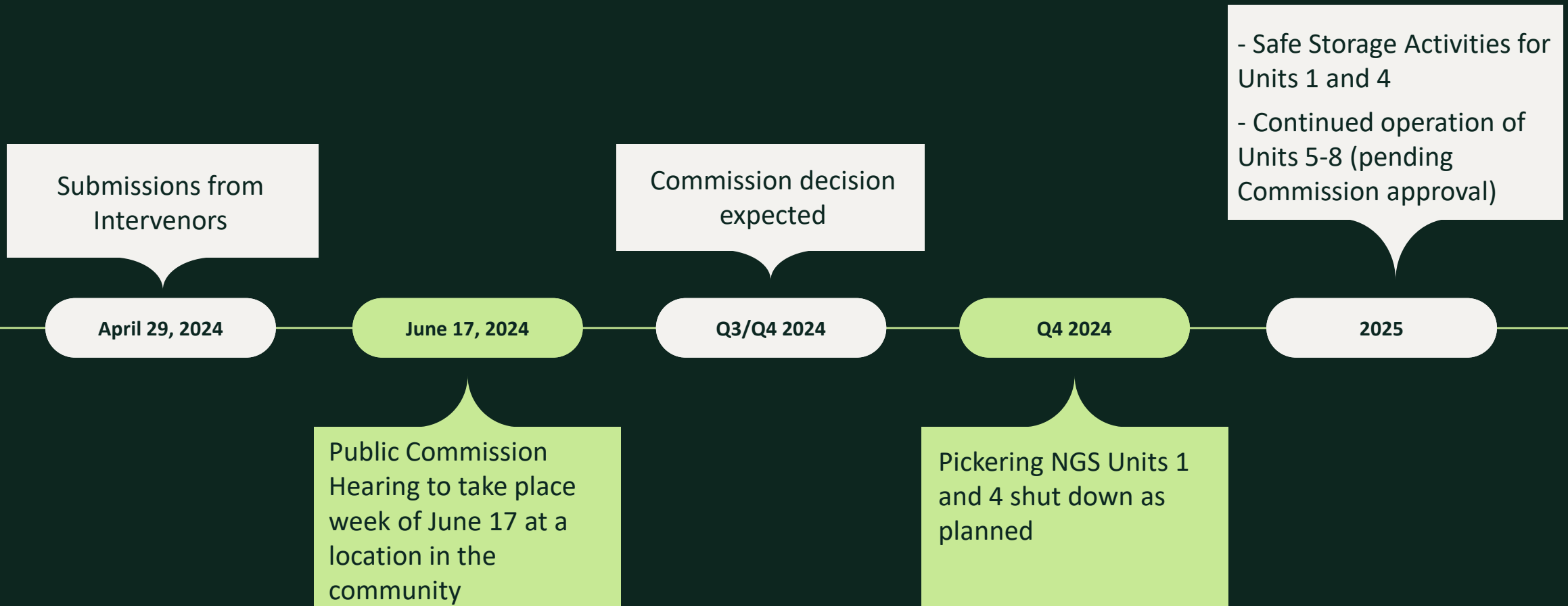
05

If a licence is granted, the applicant can operate the facility for the duration and under the conditions of its licence

# Interventions

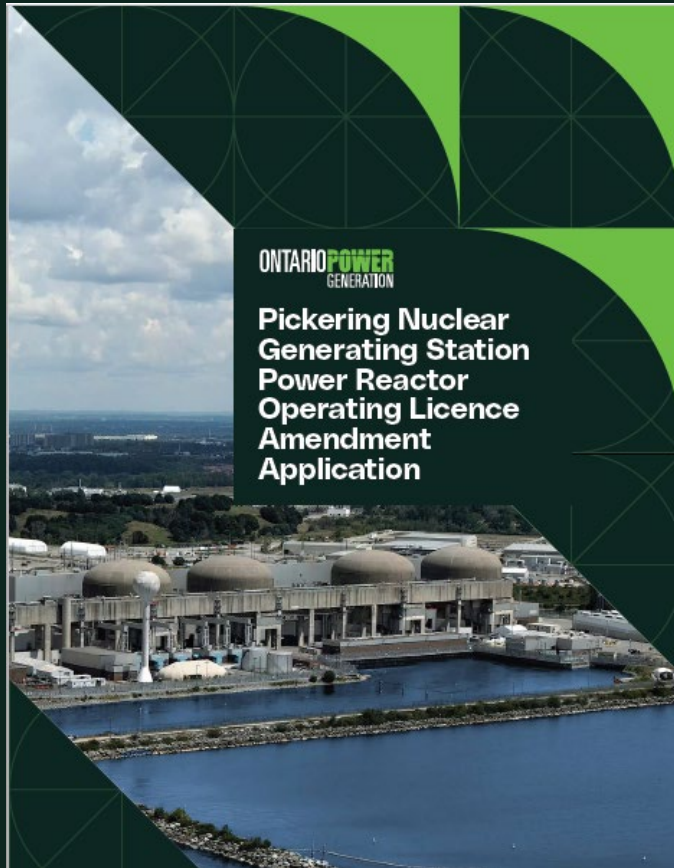
- Persons/Organizations who have an interest or expertise in this matter or information that may be useful to the Commission in coming to a decision, are invited to comment on OPG's application.
- Requests to intervene must be filed with the Commission Registry by April 29, 2024 using the online request form (<https://www.nuclearsafety.gc.ca/eng/the-commission/intervention/>) or email to: [interventions@cnsccsn.gc.ca](mailto:interventions@cnsccsn.gc.ca)
- The request to intervene must include the following information:
  - a written submission of the comments to be presented to the Commission
  - a statement setting out whether the requester wishes to intervene by way of written submission only or by way of written submission and oral presentation
  - the requester's name, address, telephone number and email address

# Milestones





# Resources



OPG's application is available at <https://www.opg.com/power-generation/our-power/nuclear/operating-licences/P>

- *Note - written submissions from OPG and CNSC staff will be submitted on Feb. 28, 2024.*

CNSC website: <https://nuclearsafety.gc.ca/eng/>

CNSC Notice of Public hearing: [https://nuclearsafety.gc.ca/eng/the-commission/hearings/documents\\_browse/results.cfm?dt=17-Jun-2024&yr=2024](https://nuclearsafety.gc.ca/eng/the-commission/hearings/documents_browse/results.cfm?dt=17-Jun-2024&yr=2024)

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