



**Written submission from the
City of Pickering**

**Mémoire de la
ville de Pickering**

In the Matter of the

À l'égard d'

Ontario Power Generation Inc.

Ontario Power Generation Inc.

Application to extend the operation of
Pickering Nuclear Generating Station
Units 5 to 8 until December 31, 2026

Demande visant à prolonger l'exploitation
des tranches 5 à 8 de la centrale nucléaire de
Pickering jusqu'au 31 décembre 2026

Commission Public Hearing

Audience publique de la Commission

June 2024

Juin 2024



Sent by email

April 26, 2024

Participant Funding Program Administrator
Canadian Nuclear Safety Commission
280 Slater Street
Ottawa, ON K1P 5S9
interventions@cnscccsn.gc.ca

Subject: Letter of Support
- Pickering Nuclear Generating Station Units 5 to 8
File: A-1000-002

To the Commission:

As Mayor of the City of Pickering, please accept this letter as an indication of my support for Ontario Power Generation (OPG) and its Licence Amendment Application to the Canadian Nuclear Safety Commission (CNSC) for continued operations of the Pickering Nuclear Generating Station (PNGS) Units 5 to 8 to the end of December 2026.

The City of Pickering is proud to recognize OPG as a valued community partner. OPG's unwavering support has made an overwhelmingly positive impact on our residents, community, and local economy. OPG currently provides 4,500 high-quality jobs in Pickering and supports an additional 7,500 jobs in the supply chain across Ontario.

PNGS accounts for approximately 14 per cent of Ontario's electricity, demonstrating that nuclear power is the best option to meet the constant and growing electricity demands of Ontario. Nuclear energy provides a reliable, large-scale, and cost-effective solution without the environmental impacts of greenhouse gas and carbon emissions.

The Canadian Association of Nuclear Host Communities (CANHC), of which the City of Pickering is a listed member, engaged Dr. Kirk Atkinson as the technical expert for the review of OPG's licence application and related documentation from the CNSC. Dr. Atkinson's findings have been reviewed by the City of Pickering, acknowledging the thoroughness of his findings. Attached below, you will find a summary of Dr. Atkinson's report.

Moreover, it is important to note that Mayor Adrian Foster (Chair of CANHC) and Region of Durham Chair John Henry have extended their support for the licence amendment application. Mayor Foster and Chair Henry have also submitted letters of support for the OPG licence amendment.

Yours truly

A handwritten signature in black ink, appearing to read "Kevin Ashe". The signature is stylized with a large initial "K" and "A".

Kevin Ashe
Mayor, City of Pickering

Attachment

Copy: John Henry, Regional Chair and CEO
Adrian Foster, Chair of CANHC

Members of Council
Chief Administrative Officer
Director, Economic Development

SMR Insights Training & Consultancy

TECHNICAL CRITIQUE – SUMMARY OF FINDINGS Ontario Power Generation Pickering Nuclear Generating Station Power Reactor Operating Licence Amendment Application

In June 2023, OPG submitted a Licence Amendment Application (LAA) for its extant ten- year Pickering Nuclear Generating Station (PNGS) Power Reactor Operating Licence (PROL 48.01 / 2028) to permit continued operation of Units 5-8 for two additional years, until late 2026. This application included production of PSR2-B, an update of the PNGS Periodic Safety Review (PSR). The Canadian Association of Nuclear Host Communities (CANHC) tasked SMR Insights with reviewing and providing feedback on the LAA (and other relevant information) in a technical critique (an 8-page report, the findings of which this document summarises) to help guide their intervention ahead of the public hearing in June 2024. No independent safety analysis was conducted. The LAA does not replace the extant ten-year PNGS PROL, it solely seeks a change in the licence conditions to permit operation of Units 5-8 for two additional years in a manner equivalent to how they have been operated to date. Other activities will continue, as licenced, but perhaps with different scheduling, irrespective of the outcome of the LAA. Potential refurbishment has not been considered.

After reviewing the LAA and PSR2-B, it appears that OPG has adequately demonstrated that PNGS Units 5-8 can be safely operated for two additional years. The approach taken by OPG was essentially based on establishing, and assessing the significance of, the differences between operating until late 2024 and late 2026. In terms of power operations, continuing as now, there is little difference. Similarly, there are no significant differences in terms of the potential consequences from either normal operations or hypothesised accident conditions. What is different, however, is the age (in terms of Effective Full Power Hours) reached by the various reactor Systems, Structures, and Components (SSCs), and the implications thereof. Assuring this will not pose a greater hazard than is currently licenced for (and that this remains compliant with current applicable Laws, Regulations, Codes, and Standards) was the dominant theme. In this regard, Fuel Channels (including the Pressure Tubes therein) were the biggest concern given they serve both as pressure boundaries and barriers to radiological release. OPG has methodically assessed each SSC of concern (and any aggregated effects) and shown they can be operated safely until the end of 2026. The approach to assessment meets or exceeds international best practice and necessary standards for the post-Fukushima era. Given the modest lifetime extension and the safeguards in place vis-à-vis condition monitoring, it is not obvious that OPG could have done anything differently to make their case.

In conclusion, given the benefits continued operation of PNGS will yield, from a safe use of nuclear energy perspective, SMR Insights believes CANHC, and the City of Pickering, can comfortably endorse the LAA. CANHC should of course request from OPG that it continue its engagement efforts and report updates on outstanding or ongoing matters (such as condition assessments) in a timely and transparent manner.