



Oral presentation

Exposé oral

**Written submission from the
Pickering Nuclear Community
Advisory Council**

**Mémoire du
Pickering Nuclear Community
Advisory Council**

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

PICKERING NUCLEAR GENERATING STATION

Community Advisory Council

April 24, 2024

CD# P-CORR-00531-23266P
Ref. 2024-H-05

Senior Tribunal Officer
Canadian Nuclear Safety Commission
280 Slater Street,
PO Box 1046, Station B
Ottawa, ON K1P 5S9

**Intervention: Ontario Power Generation's Request for Authorization to Operate
Pickering NGS Units 5 to 8 Beyond 2024**

This is the intervention of the Pickering Nuclear Generating Station (PNGS) Community Advisory Council (CAC).

On April 27, 2018, the PNGS CAC presented our intervention to the CNSC in support of OPG's application for renewal of the PNGS operating licence for a 10-year term (2018-2028) which covered the extension of service to 2024 as well as the transition to the post shutdown phase. Ontario Power Generation's current operating licence for OPG's Pickering Nuclear Generating Station Units is valid until August 31, 2028. In this intervention we support OPG's request for authorization to operate Pickering NGS Units 5 to 8 beyond December 31, 2024.

The Pickering Community Advisory Council is a vehicle for dialogue between OPG and the community. We were formed in 1999 and we assist the Pickering Nuclear Generating Station in identifying and responding effectively to the concerns of the community. Primary areas of discussion include plant safety, emergency preparedness, environmental impact, public health and safety, and the economy (including employment and local business benefits). We meet about 6 times per year and interact with senior management of the Plant. All meetings are open to the public and minutes are available on OPG's website (<https://www.opg.com/communities/host-communities/southern-ontario-durham/>). Our Terms of Reference and List of members and their affiliations are attached as enclosures.

We are comprised of 20 citizens, representatives of community organizations and members of local government staff and agencies. Our membership represents a large

number of sectors in Durham Region and Eastern Toronto, including community associations, municipal government, health, the environment, education, youth, business (including the Ajax-Pickering Board of Trade) and members at large. Most members report back to one or more constituencies. CAC members from government or agencies will provide their interventions through those organizations rather than this intervention from the CAC.

Over the years, OPG managers and technical staff have provided comprehensive details to the Community Advisory Council on the operation of Pickering Nuclear. CAC members receive regular updates from OPG on the extensive testing of equipment as well as major investments, maintenance plans and improvements of the plant to ensure fitness for service. PNGS has also involved Council members as participants and observers in annual stakeholder information sessions and in major emergency drills.

At our regular meetings, OPG has provided us with the detailed level of analysis and chain of logic that supports their decision making. We are informed about their attention to safety and performance. OPG presenters always respond fully and openly to our questions, however challenging. Each meeting also provides us with an opportunity to report on questions and concerns from our contacts in the community and includes a report on OPG's activities in the community. Our interaction with OPG gives us confidence that OPG is able to manage the proposed life extension during the requested licensing period as they move Units 1 and 4 into safe storage and then undertake major refurbishment of Units 5 to 8.

In support of this intervention:

1. CAC members received an overview of the application at our meeting of Tuesday, January 23, 2024;
2. A CAC member and I, as facilitator, attended the OPG sponsored Pickering Nuclear Life Extension Workshop on March 5, 2024;
3. We reviewed the report "*Pickering Nuclear Generating Station Power Reactor Operating Licence Amendment Application*", June 16, 2023; We noted but did not review the completion of "*Pickering NGS Periodic Safety Review 2-B (PSR2-B) Submission of Integrated Implementation Plan*", May 2023, and; noted but did not review the completion of "*Pickering NGS – Assurance of Major Components Fitness-for-Service for the Conservative Protected Operating Hours of Pickering Units 5-8*" April 21, 2023;
4. We met independent of OPG and discussed the draft intervention among CAC members at an ad hoc meeting on March 19, 2024 and confirmed our support for the intervention at our regular meeting on April 16, 2024.

As CAC facilitator, I reviewed the report *“Pickering Nuclear Generating Station Power Reactor Operating Licence Amendment Application”*, June 16, 2023 and presented the results of my review as a discussion item for CAC members.

Intervention

Our intervention is in support of OPG’s licence amendment application for the Pickering Nuclear Generating Station Power Reactor Operating Licence, PROL 48.01/2028, to amend the current end of commercial operating date of Pickering NGS units 5 to 8 from December 31, 2024 to December 31, 2026.

We based our intervention on the following:

- We receive ongoing results of regular external monitoring, e.g. World Association of Nuclear Operators (WANO), with respect to OPG plant safety and its management record. We observe and support the current operating licence requirement that any request to operate beyond 2024 be supported by an assessment of the Periodic Safety Review results, PSR2-B (p. 15).
- We note that, as an important aspect of operations, OPG reviewed fuel channel life assurance and extension factors. (p. 33) They reviewed new versions of operating standards and reviewed and reached positive conclusions about fuel channel fitness for service (p. 22, 48, 51). We further note that OPG has instituted an Integrated Aging Management Program (p. 96).
- A Fuel Channel Life Cycle Management Plan (FCLCMP) is in place so as to assess degradation and provide ongoing confident management. Inspection and monitoring matters addressed include: wall thinning, diameter expansion, sag, axial elongation, deuterium ingress and hydrogen isotope concentration (p. 50 – 54). Inspections included 1600 inspection items across 6 operating units (p. 97).
- Through their review, OPG has drawn the conclusion that heat transport system safety margins can be maintained (p. 28). Major components (fuel channels, steam generator, feeders, reactor components and structures) have been assessed and OPG concluded they are fit-for-service (p. 95).
- OPG has completed a Probabilistic Safety Assessment (PSA) and concluded that the risk of internal and external hazards is low (p. 31 and Table 3). They conclude there are no safety issues that would impede continued safe operation (p. 32).
- The Periodic Safety Review (PSR) examined the cumulative effects of plant aging and plant modifications, their operating experience and ongoing technical developments

for gaps, adherence to new laws and procedures. OPG also compared Pickering operations to Darlington operations and concluded that any differences were acceptable (p. 45, 46). They conclude that the current design will ensure safe performance.

- OPG has assessed, as part of Licence Condition, a Sustainable Operations Plan (SOP) that anticipates unique challenges and changes arising as a result of the End of Commercial Operations (ECO) (p. 75). We note that PNGS continues to invest in equipment reliability improvements and has set increasing Equipment Reliability Index targets (ERI) to the End of Commercial Operations (p. 93). CAC members were informed that, to wit, OPG has reduced the backlog of corrective critical and corrective non-critical work orders from 2017 to 2022 Quarter 4 by 97%. Over the same period the deficient critical and deficient non-critical work orders were reduced by 88%.
- A Preliminary Decommissioning Plan is in place for the eventual removal of all structures on site and radioactive material to be disposed of at licenced facilities (p. 114, 115).
- Delivery of service by PNGS reactors has been at record high levels in recent years, indicating the quality of care by OPG personnel. This, despite the cessation of commercial operations that had been planned. We note that OPG has put in place transition plans for employees affected by any closing down of reactors.

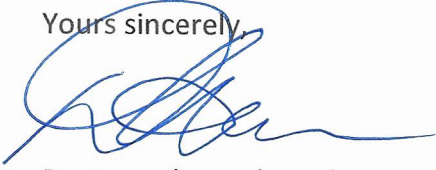
Conclusion

On the basis of the above information, we conclude that Pickering Units 5 – 8 are, and will continue to be, fit for service. Further, based on our review of OPG’s application to amend their operating licence, they are qualified to operate Units 5 – 8 to December 2026, thereby providing needed supply to Ontario’s electric grid during the completion of the refurbishment project at Darlington Nuclear Generation Station. In conclusion, the Pickering Community Advisory Council supports the continued operation of Units 5 – 8 to December 2026.

Recommendation

We, as an interested and informed representative cross section of members of the Pickering community, recommend that the CNSC approve the new licence limit for operation of Units 5 – 8 to December 2026

Yours sincerely,



Dave Hardy, BA (Hons), MES, R.P.P., F.C.I.P.
Facilitator
Pickering Nuclear Community Advisory Council

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Enclosures:

- CAC Terms of Reference
- List of CAC members with affiliations

cc. to:

- Pickering Nuclear Generating Station (PNGS)
- Darlington Nuclear Generating Station (DNGS)
- PNGS Community Advisory Council
- Durham Nuclear Health Committee
- Municipality of Clarington
- City of Oshawa
- Region of Durham
- City of Pickering
- Town of Ajax
- City of Toronto

MPs and MPPs:

- Ajax
- Pickering
- Durham
- Markham-Stouffville
- Northumberland and Peterborough South
- Oshawa
- Pickering-Uxbridge
- Whitby
- Scarborough-Rouge Park
- Scarborough-Guildwood

PICKERING NUCLEAR COMMUNITY ADVISORY COUNCIL

Mission: maintain a solid working relationship between Pickering Nuclear and its neighbours through the exchange of viewpoints on topics of mutual interest

TERMS OF REFERENCE

Background

The CAC traces its history back to the Community Working Group (CWG), which Pickering Nuclear Generating Station (PN) established in 1998 to open up dialogue regarding strong concerns in the community at that time about station operations. The CWG was seen as credibly representing the community. Pickering Nuclear said that, if the group would identify issues of concern to the community, the station would address them. The group met over a period of five months and ultimately identified 160 issues, on which it sought information as to how these issues are managed at the site. Pickering Nuclear accepted that it needed to respond to this list of questions and concerns. From that point on there was a change for the better in the station's relationship with the community.

In 1999, with the CWG's work completed, Pickering Nuclear initiated a broader, more proactive community consultation and communication program. The core component of the program was the formation of a Community Advisory Council (CAC). The Council is made up of citizens, representatives of non-government organizations and members of local government staff who examine a wide range of issues associated with the station. Among these are ongoing aspects of the 160 Environmental Issues, originally identified by the CWG and deemed by the Council to have been satisfactorily addressed or as being satisfactorily managed.

This document sets out the scope of work and administrative procedures for the Community Advisory Council. It will be discussed and revised from time to time by the Council and Pickering Nuclear.

1.0 CAC Purpose and Activities

The Community Advisory Council assists Pickering Nuclear Generating Station (PN) in identifying and responding effectively to the concerns of the community. The Council:

- Identifies community issues and concerns
- Provides advice to PN on community expectations in all areas of interest or concern to the community as well as topics raised by PN
- Defines the actions members believe will be required to continuously improve operations at the site and promote the well-being of the community
- Provides advice on PN communications activities and performance reports to the community on the environmental, economic and social effects of the operation of the plant on the surrounding communities

- Monitors programs at the station which have an impact on the surrounding communities.
- Provides input into environmental assessments related to Ontario Power Generation and Durham Region, e.g. on refurbishment of nuclear reactors or the possibility of new build
- Participates in tours of relevant OPG or other sites
- Identifies target outreach groups
- Provides advice in identifying and implementing community outreach activities
- From time to time, produces a report to the community on CAC activities
- Maintains a brochure on the CAC as an information and recruiting tool, updating it as required
- Works with other organizations and consultation mechanisms related to the nuclear industry in the Region, in a manner that maximizes information sharing and minimizes duplication

Council advice focuses on, but is not limited to, the following topics:

- The effects of Pickering Nuclear operations on the environmental, health, safety, social and economic interests of the community
- Government plans for Ontario's future energy mix and security of supply as they apply to the area
- Waste management activities on and off site that relate to Pickering Nuclear, including the work of the Nuclear Waste Management Organization (NWMO)
- New technologies and trends in nuclear power or other forms of power that may involve the Pickering site.

2.0 CAC Composition

To ensure that the Council is representative of community opinion, membership will be as broad as possible, within the limits set by Council effectiveness. Membership will include individuals (who may or may not be members of community organizations) as well as representatives of specific community organizations and staff members from local governments. Members will be sought primarily from Durham Region, and will also include participation from Toronto East and those using the Pickering area as a commuter route.

In recruiting members representing specific organizations, the facilitator will determine which individual (and alternative) will represent the organization; this decision will be made in consultation with the organization, the CAC and PN management. Representatives of particular organizations will be expected to communicate the concerns of their constituencies at CAC meetings and share CAC feedback with their constituencies.

Citizens at large will be persons who have demonstrated an interest in community affairs and the role of Pickering Nuclear in the community. The CAC, PN management or the facilitator may recommend citizens at large for membership on the Council. As well, citizens may recommend themselves. The facilitator will recruit citizens at large in consultation with the CAC and PN management.

Every effort will be made to ensure that the Council as a whole reflects the demographic and ethnic diversity and range of stakeholder interests in Durham Region.

While it is unlikely that all relevant constituencies will be represented on the Council at any one time, it is anticipated that, over time, all of these constituencies will play a role in Council discussions.

Constituencies

Citizens at Large

- Residents of Durham Region and Toronto East
- Business
- Labour Movement*
- Education
- Post-secondary Education (UOIT/Durham College)
- Health
- Youth or post-secondary student
- Women in Nuclear (or Women in Engineering)*
- Faith Community (ecumenical focus)
- Commuter corridor user

Appointed Representatives

- City of Pickering
- Town of Ajax
- Durham Region
- Toronto and Region Conservation Authority
- Pickering East Shore Community Association
- West Rouge Community Association
- Ajax-Pickering Board of Trade
- Pickering Naturalists
- Boating community

*Not an employee or retiree of OPG

3.0 Role of Members of Council

All members of the Council will be equals. Members will be expected to participate vigorously in debates to ensure that their position or the position of the organization they represent is understood. At the same time, however, members will show respect to each other, whether or not they agree. Members will work toward providing constructive, actionable advice to Pickering Nuclear.

In order to ensure that the CAC reflects a broad range of community interests, members or alternates are expected to attend all meetings. If the repeated absence of a member is felt to be limiting the ability of the CAC to carry out its work effectively, the facilitator may ask the member to withdraw or take a leave of absence.

At the end of each meeting, members will review the meeting and note any opportunities for process improvements. As well, the CAC will annually conduct evaluations of the consultation process to ensure that the CAC is operating as effectively as possible.

4.0 Role of Pickering Nuclear

Pickering Nuclear will:

- Provide information on agenda topics in a timely manner so the Council can assist PN to develop an appropriate course of action
- Provide operating and scientific expertise from internal resources to support the work of the Council; Pickering Nuclear will endeavour to provide independent professional resources to support the work of the Council when that expertise is required.
- Arrange for resource persons from the Ministry of Energy, Ontario Power Authority or other relevant agencies to attend meetings to address CAC questions when OPG is not the logical organization to respond
- Participate in discussions with a view to developing solutions and actions to meet the objectives of the company and the community
- Use the Council as a sounding board with respect to the tone, objectivity and content of communications
- Provide feedback to the Council on decisions taken and on progress of programs

5.0 Recommendations and Reporting Relationships

5.1 Reporting to Pickering Nuclear

The CAC will submit advice and recommendations to the Pickering Nuclear Site Senior Vice Presidents. There is a preference for face-to-face communications between the Council and representatives of senior PN management concerning advice and feedback. Both recommendations from the CAC and responses from PN management will be documented in the minutes. In cases where PN has decided not to follow Council recommendations, the reasons for this decision will be explained to the Council.

The facilitator is responsible for recruitment of new members under the direction of the CAC and PN management.

5.2 Relationship of the CAC to the Broader Public

The work of the CAC will be of interest to the public and many different stakeholder groups. CAC meetings will be advertised and will be open to the public. Members of the public who want to attend meetings should arrange with the facilitator in advance (jvincett@pdalternatives.com, Tel: 416-961-4006); at the meeting they will be invited to make comments during a specified period on the agenda.

Once approved by the members, Council minutes will be posted on the OPG public web site (www.opg.com/ops/pickcac/N_PickCommAdv.asp).

Outside meetings, members are free to comment on Ontario Power Generation and Pickering Nuclear, but do so as individuals. Public comments attributed to the CAC must be approved by the members in advance.

From time to time, the CAC will produce a report to the community on CAC activities.

5.3 Relationship to Existing Consultation Mechanisms

The CAC recognizes that there are other organizations and consultation mechanisms in place related to the nuclear industry in the Region. New initiatives sometimes create new mechanisms for consultation. The CAC will work with such initiatives in a manner that maximizes information sharing and minimizes duplication.

6.0 Conduct of Meetings

6.1 Frequency

CAC members can expect to meet 10 times a year. Taking the months of July and August off, the Council meets on the third Tuesday of each month at the PNGS Information Centre (unless otherwise arranged).

6.2 Facilitation

A contractor will provide facilitation services to the CAC, with the support of administrative personnel provided by Pickering Nuclear. The facilitator will serve the interests of both the members of the Council and Pickering Nuclear, without bias.

The facilitator will:

- coordinate arrangements for meetings with designated Pickering Nuclear staff
- prepare agendas for all meetings of the CAC and committees in discussion with CAC members and Pickering Nuclear
- facilitate all meetings of the CAC and subcommittees
- maintain contact with members and with Pickering Nuclear to ensure that the process is meeting expectations
- assist technical presenters to make presentation materials understandable, free of industry jargon and responsive to the needs of the members
- ensure that minutes of meetings are kept, approved by members and distributed on time
- prepare reports under the direction of the CAC and its subcommittees
- work with the CAC to maintain a work plan
- work with the CAC Agenda Advisory Committee (AAC) to ensure the effective development of agendas for CAC meetings (This committee will involve PN Public Affairs and Environmental managers on a regular basis, and the Manager of Waste Management when agenda planning requires input on that topic.)

The CAC will review the effectiveness of the facilitation team on an annual basis. It is the Council's role to make recommendations concerning the facilitation team and PN's role to make hiring decisions.

6.3 Minutes

The facilitator will provide a person who will record the discussion. The minutes will reflect all views expressed by members, including minority positions. The minutes will not attribute comments to a particular person or group unless specifically requested to do so by the person or group. From time to time, members may speak to an official position

of their organization, in which case that fact will be noted. Minutes will summarize discussions and will report on the range of opinions offered by members.

Draft minutes from each meeting will be circulated to all members at the same time and be received at least five days before the next meeting. Members are expected to review the minutes in advance and comment on them at the next meeting.

As noted in Section 4.1, CAC minutes will be posted on the OPG public web site (www.opg.com/ops/pickcac/N_PickCommAdv.asp).

6.4 Subcommittees

The CAC may establish subcommittees to progress their work. Subcommittees appointed to address specific issues will be composed of some members of the CAC but may, with the approval of the CAC, add outside members with specific skills in the area being addressed.

Upon reaching a draft report or recommendation, each committee shall submit the same to the full CAC for review and comment either at a full meeting of the CAC or by feedback between meetings. Subcommittees will not make recommendations to Pickering Nuclear. Any final report or recommendation will be submitted to PN by the CAC.

7.0 Confidentiality

Pickering Nuclear may designate specific information as confidential. In doing so, the company will also specify the audiences who can receive the information and the period for which the information will be confidential. Members will then decide whether they will receive the information or withdraw. If they elect to stay, they will respect the confidential designation for the specified period. Meetings will be in camera for the presentation and discussion of confidential information.

8.0 Conflict of Interest

CAC members will identify issues with which they may have a conflict of interest. The CAC will then determine if the conflict is such that the member should be excused from the discussion. The CAC may take any further actions deemed to be necessary to address a situation determined to be a conflict of interest.

Pickering Nuclear will provide to the CAC on an annual basis a list of community organizations it supports.

9.0 Expense Reimbursement

CAC membership is voluntary; members will not be reimbursed for time spent working on CAC activities. However, Pickering Nuclear will reimburse reasonable travel and out of pocket expenses incurred as a result of attending meetings of the CAC. These expenses will be paid in accordance with OPG reimbursement guidelines.

March 15, 2011

APPENDIX

CAC Terms of Reference Guidelines

- Produce a Report to the Community on CAC activities (1.0).
Facilitator to work with the CAC to determine useful timing for the production of the next Report to the Community. Factors influencing the production of a new report would be: a perceived need; and a change in circumstances that have made the previous report outdated. CAC will review final product.
- Maintain a brochure on the CAC as an information and recruiting tool (to be updated as required) (1.0).
Facilitator will work with Pickering Nuclear Public Affairs on the production of a suitable information sharing document. Content to be reviewed annually to ensure it is current. CAC to review final product. It may be that the Report to the Community will serve this function.
- Recruitment of new members (2.0).
Facilitator responsible for recruitment of new members under the direction of the CAC and the CAC Agenda Advisory Committee.
- Review each meeting at its conclusion (3.0).
Facilitator will ask evaluation question at the end of each meeting.
- Conduct an annual evaluation of the consultation process to ensure that the CAC is operating as effectively as possible (3.0).
Facilitator will produce a questionnaire to be distributed in advance of the December meeting in hard copy and in electronic format to identify areas for improvement.
- Advertise forthcoming CAC meetings (5.2).
Meeting recorder works with OPG webmaster to ensure that agenda is posted on the OPG/PNGS website. Posting to be concurrent with mailing of agendas to CAC members. A link with the municipal websites will be created.
- As required, work with other organizations and consultation mechanisms in place related to the nuclear industry in Durham Region (5.3).
Meeting recorder reviews minutes of the DNHC and any other groups deemed pertinent to the process as a first step in co-ordination. CAC members are encouraged to flag any similar opportunities. Facilitator raises any matters considered to be important at the CAC Agenda Advisory Committee and at the CAC for direction.

- Review the effectiveness of the facilitation team on an annual basis (6.2).
Facilitator will produce a questionnaire to be distributed in advance of the December meeting in hard copy and in electronic format to identify areas for improvement.
- Preparation of minutes of the CAC meetings (6.3)
Meeting recorder prepares draft minutes that are sent to speakers, CAC Agenda Advisory Committee members and CAC members. Minutes are approved at the next meeting and, once approved, the meeting recorder works with OPG webmaster to ensure they are posted on the OPG/PNGS website. Posting to be effective within seven days from the meeting at which approval is received.
- CAC members will identify issues with which they may have a conflict of interest (8.0).
CAC members are responsible for raising matters which they may feel could be a conflict of interest or perceived by others as conflicts at the time the issue occurs. To initiate this process, the member should contact the facilitator in the case of a perceived conflict of interest. The matter will be brought to the CAC for disclosure and discussion.

March 15, 2011

Pickering CAC Members and Affiliations, 2024

Craig Bamford, Pickering West Shore Community Association

Pamela Collins, Centennial Community and Recreation Association (Alternate Denise Bacon)

Frank Dempsey, Pickering Naturalists

Nick Fontana, Lakeridge Health

Bill Houston, Citizen at Large

Tim Kellar, Pickering-Ajax Board of Trade; Financial Advisor

Tracey MacCharles, Citizen at Large

Pat Mattson, Citizen at Large

Sean McCullough, Town of Ajax

Cody Morrison, City of Pickering

Tavis Nimmo, Region of Durham

Peter Ottensmeyer, Citizen at Large

Eric (Zhen) Qin, Student, Ontario Tech University

Robert Rock, Citizen at Large

Helen Shamsipour, City of Toronto (lives in Scarborough)

Dan Shire, Pickering Naturalists

John Simpson, Citizen at Large

Nick West, Business