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Written submission from BWXT Canada Ltd.

Mémoire de BWXT Canada Ltd.

In the Matter of the

Ontario Power Generation Inc.

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

Commission Public Hearing

June 2024

À l'égard d'

Ontario Power Generation Inc.

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

Audience publique de la Commission

Juin 2024

Canada

BWXT Canada Ltd.

April 24, 2024

Senior Tribunal Officer, Secretariat
Canadian Nuclear Safety Commission
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Subject: CNSC public hearing on Ontario Power Generation's request for authorization to operate Pickering Nuclear Generating Station Units 5 to 8 beyond December 31, 2024 – Ref. 2024-H-05

Dear President and Commission Members,

BWXT Canada Limited (BWXT) appreciates the opportunity to provide written feedback to the Canadian Nuclear Safety Commission (CNSC) on the request for authorization by Ontario Power Generation (OPG) to operate Pickering Nuclear Generating Station (NGS) Units 5-8 until December 31, 2026, in advance of the public hearing scheduled for the week of June 17, 2024.

For background, BWXT is Canada's most comprehensive nuclear supply chain company, with over 60 years of expertise and experience in the designing, manufacturing, commissioning, and servicing nuclear power generation equipment.

As a supplier of more than 300 CANDU and pressurized water reactor steam generators worldwide - in addition to other major plant components and fuel used at Pickering NGS - BWXT is on the front line of developing innovative solutions for all areas of plant operations, from the nuclear reactor itself to conventional systems, fuel handling equipment and parts, pressurizers, primary piping, critical heat exchangers and spent fuel storage. Our core business is maintaining the supply of components, nuclear fuel, services, engineering, equipment, and parts for the nuclear power industry, as well as producing nuclear medicine for life science companies, radio pharmacies, hospitals, and researchers.

Nuclear power is the backbone of Ontario's clean electricity system, representing fully one-third of the province's installed capacity and satisfying more than 50 per cent of the energy needed to power Canada's largest economy. Pickering NGS is among the most proven and reliable nuclear power stations in the world, and a critical component of Ontario's electricity resource adequacy. With six active CANDU reactors, Pickering NGS produces about 14 per cent of Ontario's power reliably, affordably, and without greenhouse gas (GHG) emissions through the creation of its energy.

As Ontario's other nuclear stations undergo refurbishment, the Independent Electricity System Operator (IESO) has identified a tightening of supply beginning mid-decade and growing into the 2030s. With Pickering NGS' continued strong performance, OPG is justified in seeking CNSC's approval through a transparent process to operate Pickering NGS Units 5-8 to December 2026. The current licence allows operations until the end of 2024 and safe storage operations through the end of 2028. However, extending the operations of these units in preparation for refurbishment will secure more than 2,000 MW of reliable baseload electricity through 2025 and 2026 when the station's output will be exceptionally valuable to Ontario.

In December 2023, OPG released Pickering NGS' mid-term update highlighting that the station continues to meet the expectations of CNSC and demonstrates compliance to requirements through CNSC Compliance Verification activities. The evaluations of all findings for the safety and control areas show that Pickering NGS made adequate provisions for the protection of the health, safety and security of persons and the environment during this licensing period. Pickering NGS units' performance has improved significantly due to investments and enhancements made over the licensing period. As a result, in 2022 all six units at Pickering NGS had a record 109-day continuous run. This was the longest such run in the history of the station's current configuration and is strong evidence that the plant is being operated and maintained well.

BWXT is confident that OPG's detailed evaluation of Pickering NGS future operations through 2026, and ongoing work with CNSC will ensure the utmost safety for the Pickering community and the staff who work at Pickering NGS. BWXT has first-hand experience working closely with OPG over more than five decades and can attest to their exceptional standards of nuclear safety culture, steadfast regulatory compliance, and deep commitment to operational excellence. This is demonstrated by the fact that no member of the public has ever been harmed by OPG's nuclear operations and Pickering NGS has never had a serious accident since it began operating nearly 50 years ago.

We would similarly submit, based on our own extensive experience, that CNSC regulatory processes are in all respects world-class when it comes to oversight of the use of nuclear energy and materials to protect health, safety, and security of Canadians, as well as Canada's environment.

Furthermore, we believe OPG possesses all necessary competencies to adhere to the safety and continued operations of Pickering NGS. OPG is a proven leader in the generation of safe, clean, and reliable electricity, and Pickering NGS is a critical resource that will help to continue to power Ontario's growth during this important period of time.

Sincerely,

John MacQuarrie
President