



Canadian Nuclear
Safety Commission

Commission canadienne
de sûreté nucléaire

CMD 26-M5.1

Date: 2026-01-09

**Written Submission from the
Nuclear Innovation Institute**

In the matter of the

**Regulatory Oversight Report for
Canadian Nuclear Power Generating
Sites for 2024**

Commission Meeting

March 2026

**Mémoire de la
Nuclear Innovation Institute**

À l'égard du

**Rapport de surveillance réglementaire
des sites de centrales nucléaires au
Canada : 2024**

Réunion de la Commission

Mars 2026



NII response to the CNSC Regulatory Oversight Report for Canadian Nuclear Power Generating Sites for 2024

DATE: January 9, 2026

TO: Canadian Nuclear Safety Commission

FROM: Nuclear Innovation Institute

CC: N/A

RE: *Notice of Participation at a Commission Meeting – Ref. No. 2026-M-03 to 07*

Overview

The following submission responds to the Canadian Nuclear Safety Commission's notice of participation at a Commission Meeting regarding the Regulatory Oversight Report (ROR) for Canadian nuclear power generating sites for 2024, with comments pertaining specifically to the Bruce Nuclear Generating Station.

This submission provides an overview of Bruce Power's collaboration with the Nuclear Innovation Institute (NII) towards protecting the natural environment, building strong community relations and operational innovation and safety.

Protecting the Natural Environment

As evidenced by CNSC's Staff's findings in Section 2.5.9 of the ROR, Environmental Protection, Bruce Power has demonstrated a continued commitment to environmental protection, with CNSC staff's review of the quarterly and annual reports concluding that Bruce Power met regulatory requirements. Bruce Power continues to comply with all applicable environmental standards, ensuring that radiological releases to the



environment and public remain below regulatory limits. Beyond regulatory compliance, Bruce Power has monitored the environment in this region for decades, studying the effects of its operations to ensure that potential impacts are continuously identified, understood, and mitigated. In 2024, through collaboration with NII, Bruce Power continued to expand its environmental research portfolio and enhanced public access to valuable findings and analyses.

Environmental & human health research

Environment and human health research programming, as part of the Bruce Power Nexus Research Centre at NII, provided a platform to advance leading research on ecosystems and the environment throughout the Bruce, Grey and Huron region and beyond. In 2024, NII continued to advance public health and environmental research, with ongoing research programs focusing on understanding the effects of background and sub-background radiation exposure, the biological effects of radon gas, neutron spectroscopy and using computer vision to achieve anonymized occupancy mapping for more accurate assessment of neutron dose rates.

Additionally, NII launched the *Climate Project*, a Bruce Power-funded project. This project is a living, trusted, and accessible digital hub delivering localized climate change research and actionable intelligence to help people better understand what a changing global climate could mean for where they live. The Climate Project aims to address issues like the effects of climate changes on our local environment by gathering scientific research from qualified sources in academia, municipal, provincial and federal governments, conservation authorities, NGOs, industry partners, and sources of local Indigenous knowledge. Its purpose is to share the body of localized research and scientific knowledge on climate change pertaining to people in this region—those in Bruce, Grey and Huron counties and local Indigenous communities—all located within the Saugeen Ojibway Nation Territory. Following its launch, the *Climate Project* had extensive reach through participation in key events, such as a Youth Climate Action Conference, the Métis Knowledge and Energy Symposium and delegations to Bruce, Grey and Huron County councils.

With the support of Bruce Power, the Environment program continued to bring leading scientists and researchers to the Bruce, Grey and Huron region to better understand our natural environment throughout 2024.

Building Strong Community Relations

Clean Energy Frontier program

The Clean Energy Frontier program is an advocacy, awareness-raising and economic development initiative led by Bruce Power, operating out of NII. The program focuses



on demonstrating the valuable contributions that the clean energy sector in Bruce, Grey and Huron counties makes to Ontario and Canada, while working to build on the region's advantages in clean energy. While the end goal of the program is to promote and advance the region as a whole, the process of doing so inherently builds connections between communities, thus enhancing trust and strengthening relationships in the region.

The program builds on the success of supplier expansion and economic development efforts by Bruce Power since 2016 to ensure that major companies in the Bruce Power supply chain were providing a direct economic benefit to the communities closest to the Bruce Power site. These efforts have seen tremendous results. In 2016, the 16 major suppliers in the area were concentrated only in Bruce County. By 2023, there were more than 60 major suppliers operating in 14 communities across Bruce, Grey and Huron counties. This also includes Indigenous-owned businesses and partnerships like Makwa Development Corporation and Makwa-Cahill.

The Clean Energy Frontier program communicates this significant advantage by demonstrating the impact of these operations not only to the region but to the rest of the province. For example, an economic impact study commissioned by the program in 2021 found that the impact of Bruce Power's historical operations contributed approximately \$4 billion to the province of Ontario's annual GDP. NII has commissioned the Ontario Chamber of Commerce to complete an updated Economic Impact Assessment & Report on the proposed Bruce C project. Interim report findings released in the Fall of 2025 outline significant economic opportunities—contributing nearly \$200 billion to Canada's Gross Domestic Product (GDP) over its lifetime, including \$172 billion for Ontario. The final report, expected at the end of Q1 2026, will include a literature review, stakeholder engagement feedback, the full economic impact assessment and research on the economic, environmental and social benefits of the proposed Bruce C project. The program also engages regularly with local elected officials and municipal staff to support them in communicating about clean energy, nuclear power, net zero and other topics. The program maintains a plain language toolkit, sharing it with local elected officials to provide them with the key information needed to comfortably communicate about nuclear power in other forums. Furthermore, the program hosts an annual conference that provides an opportunity for municipalities, local supply chain companies and other key stakeholders to come together and discuss the challenges and opportunities facing the region.

NII Advance Technology Campus

Owned and operated by NII, the Advance Technology Campus is a critical asset supporting Bruce Power's commitment to worker safety, operational excellence, and workforce readiness. The Campus provides purpose-built, high-quality learning environments that support classroom-based training, technical knowledge transfer, and safety focused education, strengthening worker readiness and knowledge across the

existing and future workforce. By delivering industry-led training, youth engagement, and technical demonstrations, NII uses the Campus to strengthen the talent pipeline and bring meaningful training, employment, and innovation opportunities to the Clean Energy Frontier region. In 2024, the Campus supported this mandate by hosting key programs and events, including the Clean Energy Frontier Conference, the Saugeen Sparks Welding Program, Science Olympics, and the Schulich Project Management course.

Commitment to Innovation and Safety

Bruce Power advances safety, operational excellence, and plant efficiency through its collaboration with NII. Guided by NII's vision to strengthen Canada's nuclear sector as a critical part of a clean energy future, Bruce Power works with NII and its Founding Members to apply Kaizen-based process improvements to real operational challenges. Since 2019, this collaboration has delivered practical innovations that reduce risk to workers, improve work execution, and enhance plant performance; achieving safety and efficiency improvements that would not be possible for individual organizations working alone.

Technical contact

Should you have any questions about the content contained within this submission, please feel free to contact the Nuclear Innovation Institute by e-mailing Jessica Linthorne at jessica.linthorne@nii.ca or by calling 519-387-0037.

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