



**Written submission from
Brilliant Energy Institute**

Mémoire du Brilliant Energy Institute

In the Matter of the

À l'égard d'

Ontario Power Generation Inc.

Ontario Power Generation Inc.

Application for a licence to construct one BWRX-300 reactor at the Darlington New Nuclear Project Site (DNNP)

Demande visant à construire 1 réacteur BWRX-300 sur le site du projet de nouvelle centrale nucléaire de Darlington (PNCND)

**Commission Public Hearing
Part-2**

**Audience publique de la Commission
Partie-2**

January 2025

Janvier 2025



November 1, 2024

Canadian Nuclear Safety Commission
280 Slater Street
PO Box 1046 Stn B
Ottawa, ON K1P5S9
OPG CNSC public hearing – license to construct DNNP.

Re: Support for Ontario Power Generation's Darlington New Nuclear Project

Dear Members of the Commission,

On behalf of the Brilliant Energy Institute, in the Office of the Vice President & Research at Ontario Tech University, I am writing to express support for Ontario Power Generation's (OPG) Darlington New Nuclear Project (DNNP) and to advocate for its advancement as a significant contribution to Canada's clean energy future. As a leader in research, innovation, and training in the energy sector, the DNNP project aligns closely with Brilliant Energy Institute's collective goals for reducing greenhouse gas emissions, ensuring energy security, and advancing economic resilience in Ontario and beyond.

The deployment of small modular reactors (SMRs) supports decarbonization using technology that is safe, easy to operate, and efficient to construct and maintain. The Darlington New Nuclear Project is a prime example of how advanced nuclear technology can be responsibly leveraged to meet net-zero objectives while supporting Ontario's growing energy demands.

OPG has prioritized safety as a core value in its decision-making process for the DNNP, exemplified in the selection of the BWRX-300 small modular reactor. Meeting or exceeding stringent regulatory standards, the BWRX-300 leverages insights from nine previous generations of boiling water reactors (BWRs) worldwide, incorporating passive safety features and an optimized, simplified design to enhance both operational safety and reliability. OPG and the experienced contractors they have selected for the DNNP project are fully prepared to implement the steps outlined in the License to Construct (LTC) application, ensuring that each phase of construction upholds the highest standards of safety, security, and environmental protection. Through this commitment, OPG's record demonstrates its ability and commitment to protecting the well-being of employees, the public, and the environment.

OPG's dedication to safety, environmental stewardship, and community engagement is impressive. OPG's commitment to working transparently and collaboratively to address environmental and social considerations highlights the company's integrity and responsibility in contributing to the public good.

In addition to the environmental benefits, the economic impact of the Darlington New Nuclear Project will be considerable, supporting skilled jobs, fostering technological innovation, and enhancing Ontario's position as a global leader in clean energy solutions. The project can create additional opportunities for research and development within the nuclear sector, opening avenues for partnerships, academic collaboration, and training opportunities that align with our mission at the Brilliant Energy Institute. Ontario Tech offers Canada's only undergraduate nuclear engineering program, complimented by a suite of core engineering programs. Our highly qualified alumni have gone onto roles at OPG and supply chain partners, representing the qualified and competent talent dedicated to safe and responsible nuclear operations.

As the Canadian Nuclear Safety Commission considers the application for this important project, we urge you to recognize the potential of the Darlington New Nuclear Project to advance Canada's energy strategy. We support OPG's vision and commitment to creating a more sustainable, prosperous, and secure energy future.

Thank you for considering our perspective on this matter. The Brilliant Energy Institute looks forward to continued collaboration with Ontario Power Generation and other stakeholders in shaping a cleaner, more sustainable future for all Canadians.

Sincerely,



Jennifer Alsop
Director
Brilliant Energy Institute

