Canadian Nuclear Safety Commission | Commission canadienne de sûreté nucléaire

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Written submission from Prodigy Clean Energy Limited

In the Matter of the

Ontario Power Generation Inc.

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

Commission Public Hearing
Part-2

January 2025

Mémoire de Prodigy Clean Energy Limited

À l'égard d'

Ontario Power Generation Inc.

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

Audience publique de la Commission
Partie-2

Janvier 2025

Canada

Intervention for CNSC Darlington Ontario Power Generation Inc.'s application for a licence to construct one BWRX-300 reactor for its Darlington New Nuclear Project Part 2 Hearing

Prodigy Clean Energy Limited is intervening to recommend to the Commission that OPG's Request For a Licence to Construct for the Darlington New Nuclear Project be granted.

Reasons Why This Licence to Construct Should Be Granted

- We commend OPG for being the first Commercial proponent for SMR technology in Canada, as we believe that expanding nuclear generating capacity by deploying SMRs, is one of Canada's best options to meet the growing demand for safe, reliable, affordable and emissions free power.

- As a first mover, OPG has established its leadership in the advancement of SMRs and advanced reactors domestically and globally.

- If approved and built after undergoing the rigorous pre-licensing assessment by the CNSC for safety, functionality of the design etc., this first project would increase the confidence of investors and the public to enable fleet-scale deployment of SMR projects in Canada and globally.

- We have confidence in the regulatory assessments conducted by CNSC, and in OPG as a responsible, experienced nuclear operator. We therefore support the CNSC's recommendation to issue a Licence to Construct for the Darlington New Nuclear Project.

About Prodigy Clean Energy Limited

- Prodigy packages Small Modular Reactors (SMRs) and Microreactors into pre-fabricated and transportable power plant structures, standardized to deploy nuclear energy safely and securely in various environments
- Prodigy's Transportable Nuclear Power Plants (TNPPs) simplify the full facility lifecycle, dramatically reducing new build costs and complexity. The power plant arriving fully assembled at its deployment location, coupled with significantly reduced site works and site construction, reduce the environmental impact. Further, at end of service life, the facility would be removed from site for centralized decommissioning.
- We have active programs with SMR and Microreactor developers to package their reactors into a Prodigy TNPP system.
- Prodigy recently received a grant under the Natural Resources Canada's Enabling SMRs Program to enable TNPPs as part of the SMR supply chain. This project aims to carry out research required to produce a system level TNPP configuration that meets regulatory requirements, is optimized for operation, maintenance, waste minimization

and decommissioning that has integrated design input from major stakeholders including indigenous rights holders.

Reasons why Prodigy's Intervention/Opinion is of Value To this Commission Hearing

- Prodigy possesses knowledge of how SMRs work and their importance as a reliable non-emitting source of energy for a low carbon future in Canada.
- We are well versed and have expertise in the environmental benefits of SMRs, the regulation of these technologies, SMR power plant cost analyses and lifecycle planning, and logistical efficiencies for SMR manufacturing, power plant construction, and waste prevention and decommissioning that significantly improve SMR new build costs and schedule, as well as the efficacy of SMR deployment in coastal and remote regions
- Prodigy firmly believes that successful execution of the OPG Darlington New Nuclear Project would pave the way for future SMR deployments needed to achieve Canada's climate change mitigation goals and to fortify our nation's energy security.
- With strong partnerships formed with Indigenous rights holders across Canada, Prodigy has specific expertise as it relates to integrating Indigenous leadership and ownership as part of the nuclear supply chain and future SMR energy projects.