



**Written submission from
AtkinsRéalis**

Mémoire d'AtkinsRéalis

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

AtkinsRéalis Representation Regarding DNNP Licence to Construct

1. INTRODUCTION

This document constitutes the AtkinsRéalis written submission to the Canadian Nuclear Safety Commission in support of the licence to construct a BWX-300 SMR at the Darlington site.

About AtkinsRéalis' Nuclear Business

AtkinsRéalis has over 70 years of global nuclear expertise, delivering nuclear technology products and full-service solutions to nuclear utilities around the world. AtkinsRéalis is the steward of CANDU® nuclear technology, operating on four continents, and provides advisory and engineering services to other nuclear developers. With an innovative technology portfolio, including access to over 500 patented solutions, AtkinsRéalis solves technically complex challenges across the whole nuclear lifecycle from design and new build through asset management and from life extension and late life management through decommissioning and waste management. AtkinsRéalis is part of the consortium that is engineering the BWRX-300 along with GE Hitachi.

BWXR-300 Project

SMRs, like the BWRX-300, support decarbonization using technology that is safe, easy to operate, and efficient to construct and maintain. Safety was a critical consideration in OPG's technology selection of the BWRX-300 which meets or exceeds regulatory requirements. This design has leveraged lessons learned and operating experience from the previous nine generations of BWRs deployed and operating around the world. OPG's history of safe operations and project management success like our Darlington Refurbishment Project, combined with AtkinsRéalis' strength as an engineering services company with worldwide expertise will ensure that the project is on budget and schedule.

3. AtkinsRéalis' relationship with the Ontario Power Generation

Our predecessor organization (AECL-CANDU, the commercial arm of AECL) was the primary design partner (with Ontario Hydro) for the units currently operated by OPG.

AtkinsRéalis is a strategic partner to OPG, primarily providing engineering design plus emergent and planned outage support. This includes:

- Fuel channel inspection and maintenance campaigns.
- Steam generator cleaning.
- Refurbishment of the Darlington site including major component replacement
- Various engineering service type of projects for various engineering systems including conceptual, preliminary, and detailed designs, Design Change Package (DCP), and Design Change Notice (DCN) for multi-disciplinary engineering.

AtkinsRéalis is a partner along with GE Hitachi and Aecon for the design and development of the BWX-300 at the Darlington site. AtkinsRéalis has deep engineering expertise with highly skilled staff that we are collaborating with our partners to ensure a safe and reliable operating reactor while using the best engineering practices.

5. AtkinsRéalis' experience working with OPG

Ontario Power Generation has continued to demonstrate the characteristics of a mature, capable nuclear operator and licensee. AtkinsRéalis has been an integral part of the refurbishment of the Darlington Nuclear Station, supplying engineering and staff that has enabled the large project to remain on schedule and within budget – we expect to perform equally well on the DNNP project. During the refurbishment we have noted that OPG:

- Takes strong ownership of the station.
- Puts safety first.
- Demands technical excellence from its suppliers and partners.
- Clearly strives for excellence in safety, environmental and economic performance.
- Maintains an open attitude to improvements and a willingness to invest in innovative technologies and methodologies.
- Is open to challenging itself and its suppliers when appropriate.
- Reaches out to other stations to resolve issues and offer solutions; and
- Collaborates with the broader nuclear community to improve knowledge and performance.

6. Summary

A managed system is in place to effectively conduct the proposed licensed activities with safety as the top priority and consideration. Our staff and those of the constructor are qualified and competent to carry on the proposed licensed activities; Nuclear safety will be assured, protecting public, personnel and the environment; and OPG will continue to engage and communicate with Indigenous Nations and the community about the project during this upcoming stage of the project.

In conclusion, AtkinsRéalis believes that Ontario Power Generation has demonstrated that it is a capable, safe operator of nuclear power that makes positive contributions to its local community, and beyond.