



Darlington New Nuclear Project Update

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ONTARIOPOWER
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Darlington New Nuclear Project



Leading the world in new nuclear development



- Darlington is the only site in Canada licensed for new nuclear build with accepted environmental assessment.
- In March 2022, OPG awarded a contract to ES Fox for **site preparation**, construction services, and support infrastructure.
- On Dec. 2, 2021, we announced we will work together with **GE Hitachi Nuclear Energy** (GEH) to deploy a Small Modular Reactor (SMR) at the Darlington new nuclear site.
 - OPG will work with GEH on SMR engineering, design, planning, and preparing the licencing and permitting materials.
- Creating new opportunities for Ontario's robust nuclear sector and supply chain.
- Allows low-carbon nuclear energy to continue playing an important role in Ontario's future energy mix.

Technology Overview

GE Hitachi: BWRX-300

- **GEH SMR Technologies Canada** is the Canadian division of the world-leading provider of reactor technology and nuclear services.
- ~300 megawatt electrical (MWe)
- Light water, boiling water reactor technology
- Generation III+ Design
- Designed for a 60-year operational life



Site Preparation Announcement

- **OPG has awarded a contract to ES Fox** for site preparation, construction services, and support infrastructure.
- Onboarding, planning and design work is underway; site preparation work to take place on-site towards the end of 2022.
- **What will this contract cover?**
 - Infrastructure such as: water, electrical power, information technology, roads and some buildings.
 - Remember, no nuclear construction can take place yet.



Under Water Geotechnical Work

- May – September drilling of barges off the shore of Lake Ontario, visible from site
- Work is to conduct geotechnical investigations of the lake water cooling structure for New Nuclear
- Investigations will utilize 16 boreholes, approx. 40 metres into the underlying shale and limestone bedrock
- Rock core tested to characterize the bedrock formation for suitability for the construction of intake/outfall structures
- Integrity of Lake Ontario will be maintained during investigations, which are being conducted on the treaty and traditional territory of the Michi Saagiig and Chippewa Nations,





2022 Project Lookahead

Our goal is to build the first on-grid SMR on-schedule and on-budget at the Darlington site, as early as 2028.



Beginning of Site Preparation Activities



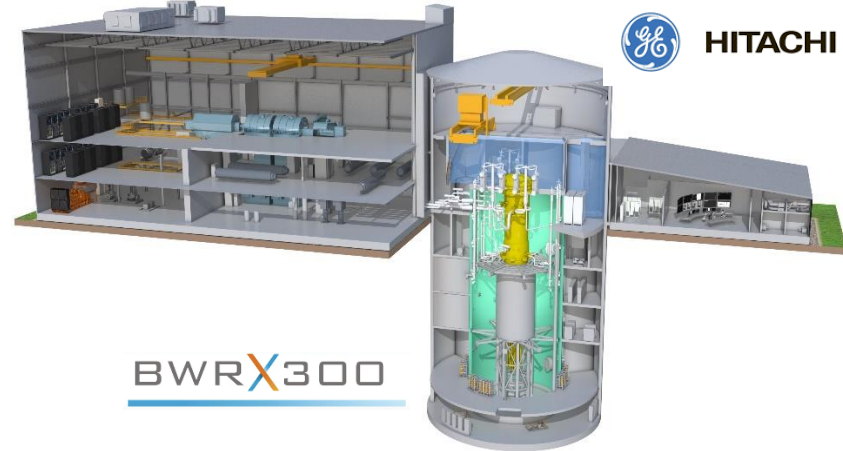
Application to the CNSC for a
Licence to Construct



Further refine
the cost estimate



Continue collaboration with GE Hitachi on SMR
design, engineering, planning and licensing.





Questions?

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