

# EXTENDING THE BENEFITS OF NUCLEAR

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#### BWRX-300 Small Modular Reactor





### **UPDATE** Darlington New Nuclear Project (DNNP)



**Standard Plant Design** 

**Options Development Phase** 

**Unit 1 Validation** Phase

**Unit 1 Execution** Phase

**Unit 2-4 Planning/Engineering Phase** 

**Unit 2-4 Execution Phase** 

2021

Technology Selection Ontario Power Generation (OPG)

selects BWRX-

300

Darlington site preparation begins

Licence to

2022

Construct **Application** OPG applies to the Canadian **Nuclear Safety** Commission (CNSC) for a Licence to Construct

2023

**Project Team Formed** GEH, OPG. AtkinsRéalis &

Aecon

Standard Design Funded TVA, OPG, Synthos & GEH

3 More Units Planned

investing

Planning and licensing for 3 additional units announced by Ontario

**GNF** Selected for Fuel **Fabrication** 

Early site

2024

preparation work at Darlington complete

Licensing **Progresses** CNSC confirms **DNNP** existing Environmental Assessment is applicable to BWRX-300

CNSC issued timeline for license approval public hearings scheduled in October 2024

2025 2026 2027

2028

2029

2030+



### Optimized for local industrial supply chain





## CONSTRUCTABILITY AND DESIGN-TO-COST

- Underground construction using proven methods from other industries
- Maximum use of catalogue items
- "Off the shelf" turbine/generator
- 90% volume reduction in safety-related concrete

Existing domestic supply chain can provide high %

#### Extending the benefits of nuclear – GE Vernova



#### Added capacity competitively

- Grid scale electricity generation
   Innovative solutions for value in
- District heating
- Process heating
- Data centers
- Hydrogen for clean eFuels
- Clean steel & aluminum
- CO2 Direct Air Capture (DAC)





