

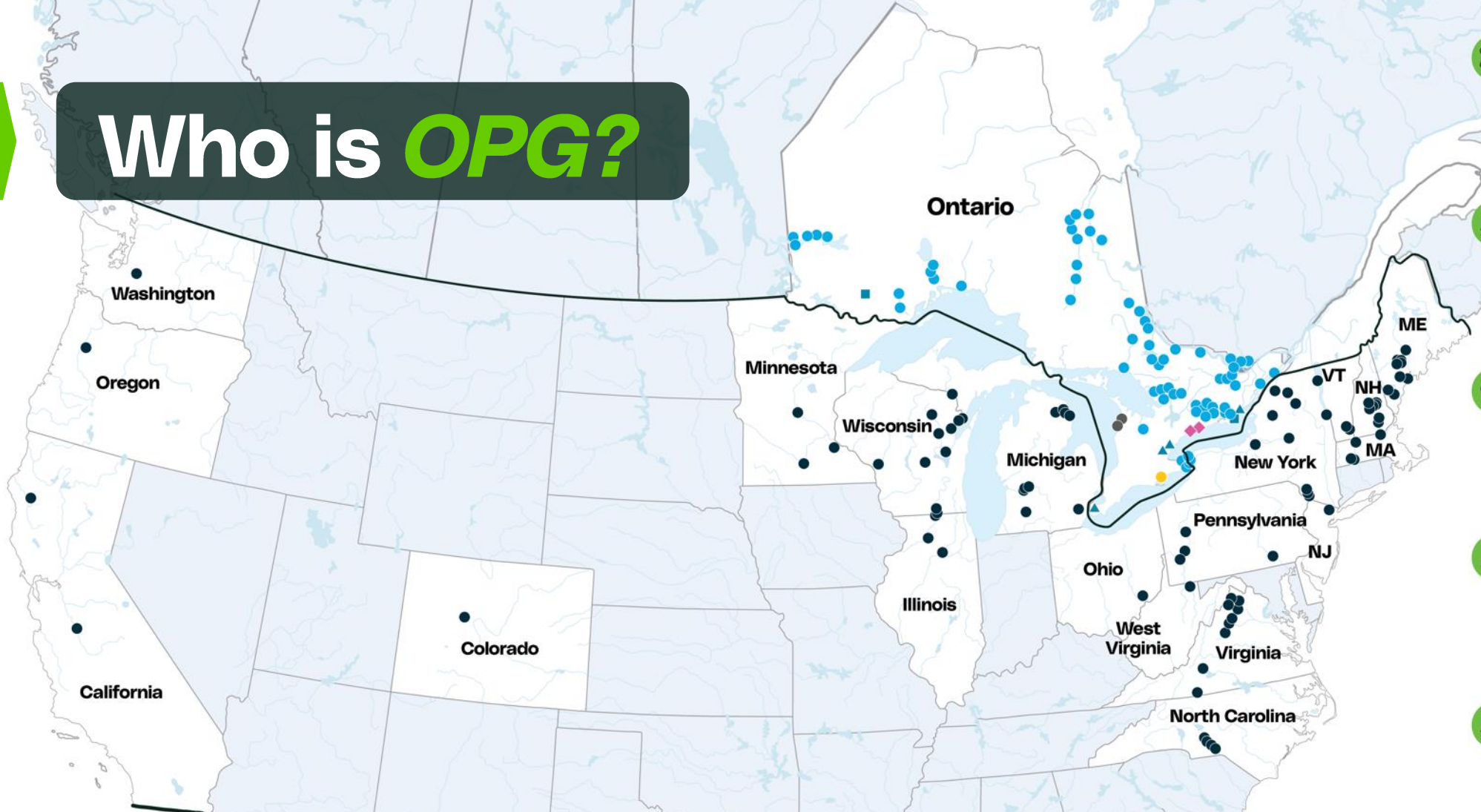
Our power is *changing the world*

Ken Hartwick, President and CEO

Ontario Power Generation

Tuesday, June 25

Who is **OPG**?



18,255 megawatts (MW) generating capacity

\$62.3 billion in assets

\$1.7 billion in net income for 2023

- Legend**
- ◆ Nuclear Stations
 - Leased Nuclear Stations
 - Thermal Stations
 - Solar Facility
 - Canada Hydroelectric Stations
 - US Hydroelectric Stations
 - ▲ Atura Power Combined Cycle Stations



2 Nuclear Generating Stations

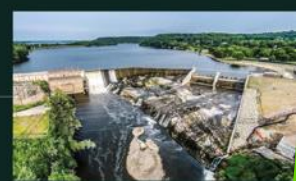
66 Hydroelectric Generating Stations in Canada

2 Thermal Stations

1 Solar Facility

85 Hydroelectric Generating Stations in the U.S.

4 Atura Power Combined-Cycle Generating Stations



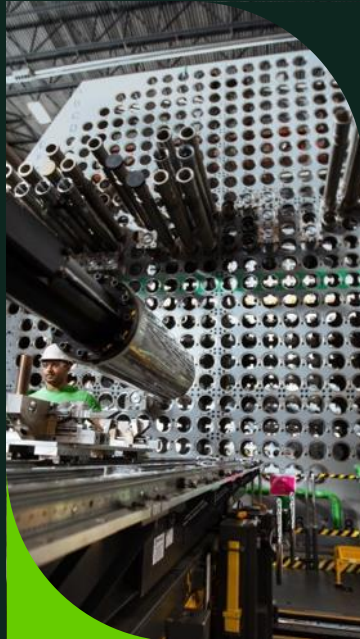
OPG's key *climate change actions*

Net -zero company by **2040**...

Enabling a net-zero economy by **2050**



SMR development



Nuclear
Refurbishment



Investing in new
and existing hydro



Energy storage



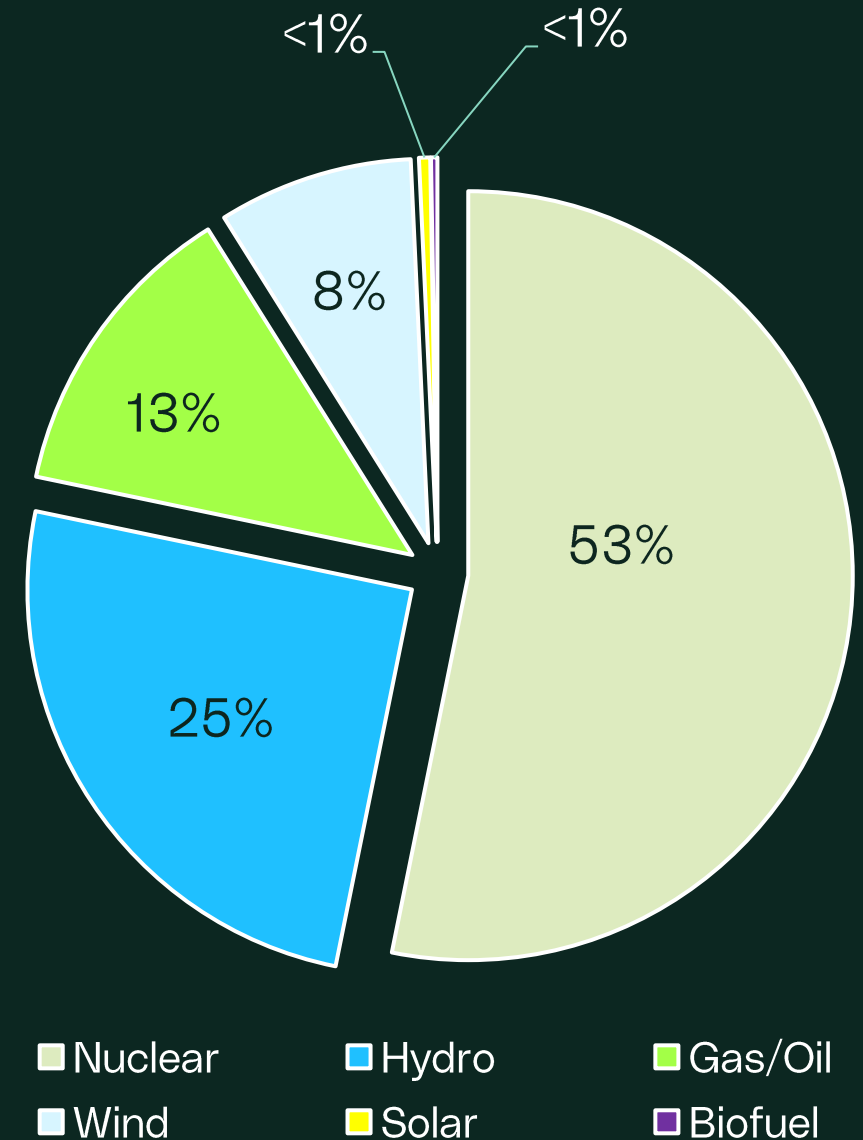
Low-carbon
hydrogen



Electrification
initiatives

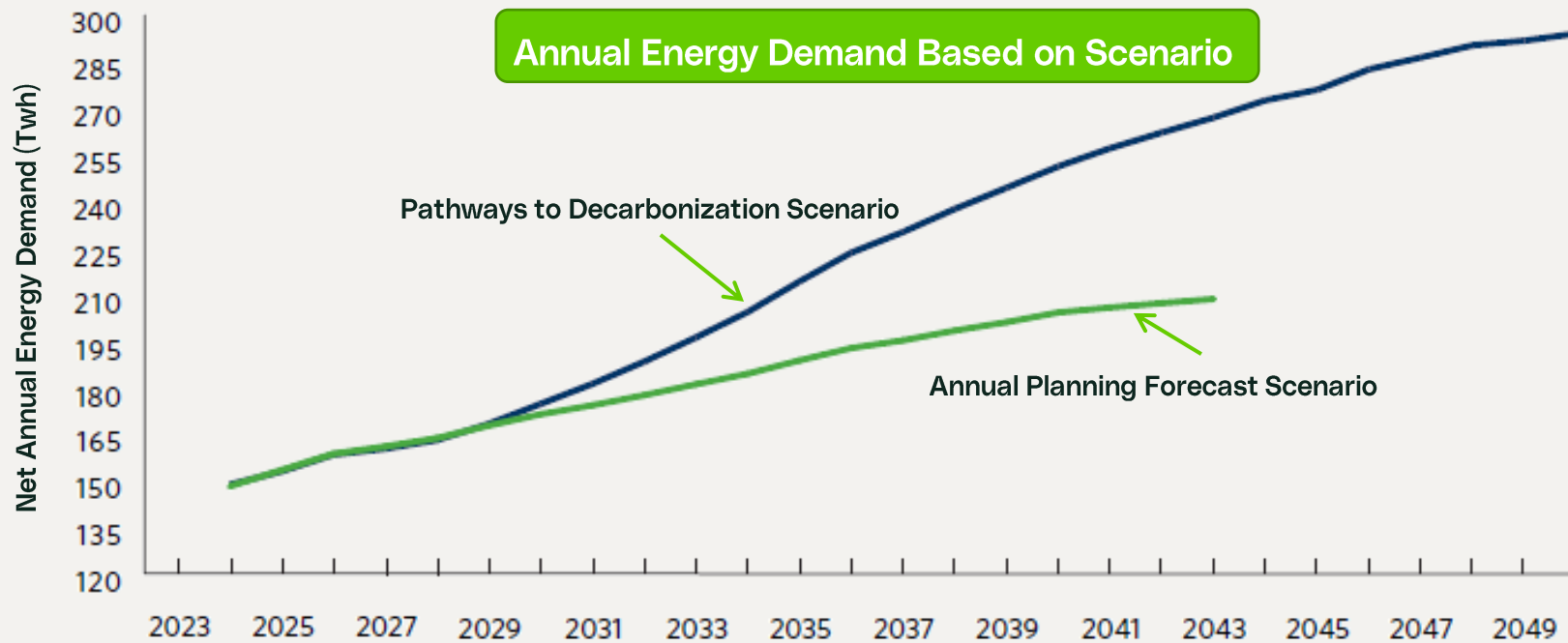
Ontario's Electricity Production - 2023

Nuclear	79.3 TWh
Hydro	37.4 TWh
Gas/Oil	19.1 TWh
Wind	12.2 TWh
Solar	0.7 TWh
Biofuel	0.4 TWh



IESO's Pathways to *Decarbonization*

Decarbonizing Ontario's electricity system and achieving a **net-zero** economy by 2050.



88,000 MW
capacity needed by 2050



~38,700 MW
installed capacity
(as of Dec. 2023)

OPPG

is a global leader in nuclear operations, development & deployment

**Small
Modular
Reactor**

Technology selection & deployment leader

**Project
Excellence**

On the Darlington Refurbishment Project

10,000+

Highly skilled employees

**Trusted
Partner**

Our strong performance has earned the trust of our Shareholder

2,000

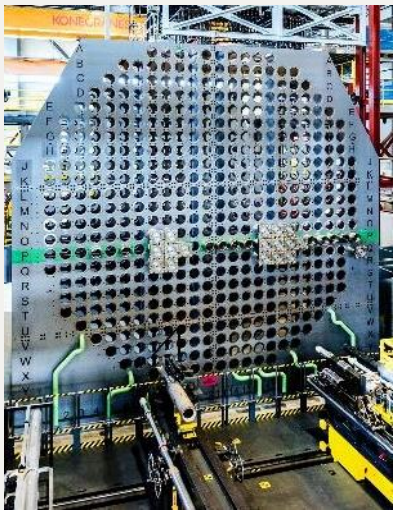
Different suppliers to OPG (and growing)

50+ years

Excellence in nuclear operations & safety

New Nuclear Market *Segments*

Large Nuclear



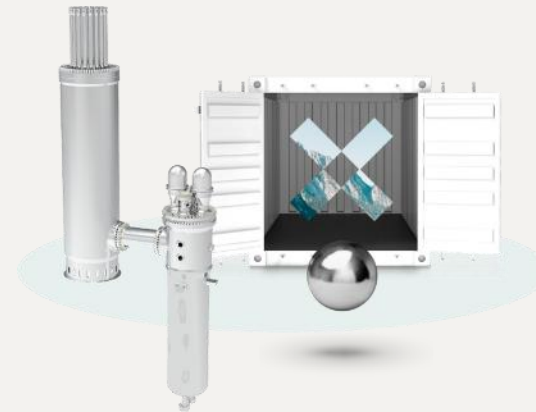
- >600 Mwe
- Large scale, baseload energy
- Established supply chain

On-grid SMRs



- 150 to 300 Mwe
- Baseload power
- Displace carbon emitting generation
- Deployment in 2020s

Advanced Reactors

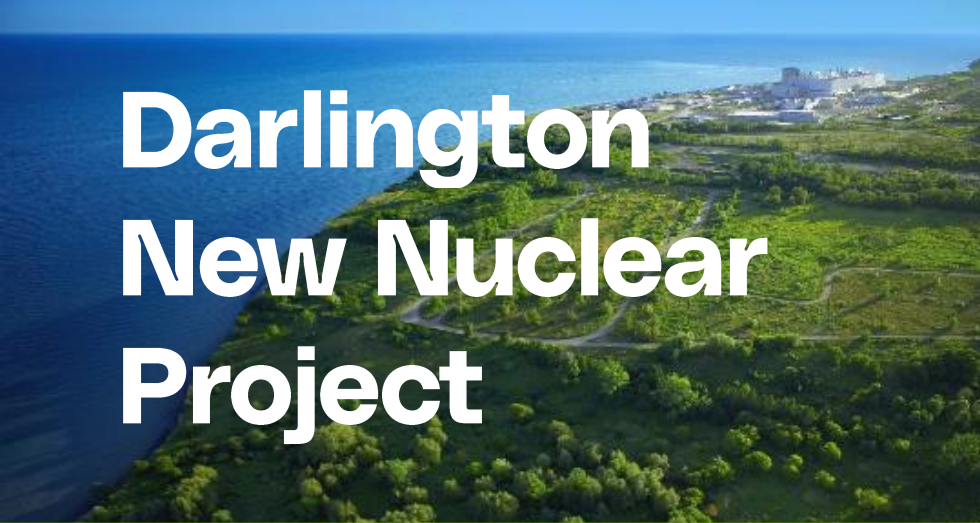


- 10 to 150 Mwe
- Heavy industrial applications (e.g., mining, oilsands)
- Deployment mid-2030s

Off-grid SMRs



- 1 to 10 MWe
- Remote industrial and off-grid communities
- Demonstration in the 2020s



Darlington New Nuclear Project

As of April 8, 2024



BIG things start small.

Building a BWRX-300 at the Darlington Site



Darlington is the only site in Canada **licensed** for new nuclear build with an **accepted environmental assessment**.



OPG selected **GE-Hitachi Nuclear Energy's BWRX-300** Small Modular Reactor Technology in Dec. 2021.



Project partners announced: OPG, GE-Hitachi, AtkinsRéalis and Aecon.



Site preparation activities **are underway** at Darlington with **main construction activities** scheduled to begin in 2025, pending regulatory approvals.

SMRs are not the thing of the future, but the thing of the present

Darlington New Nuclear Roadmap

BIG things start **small**.



2024

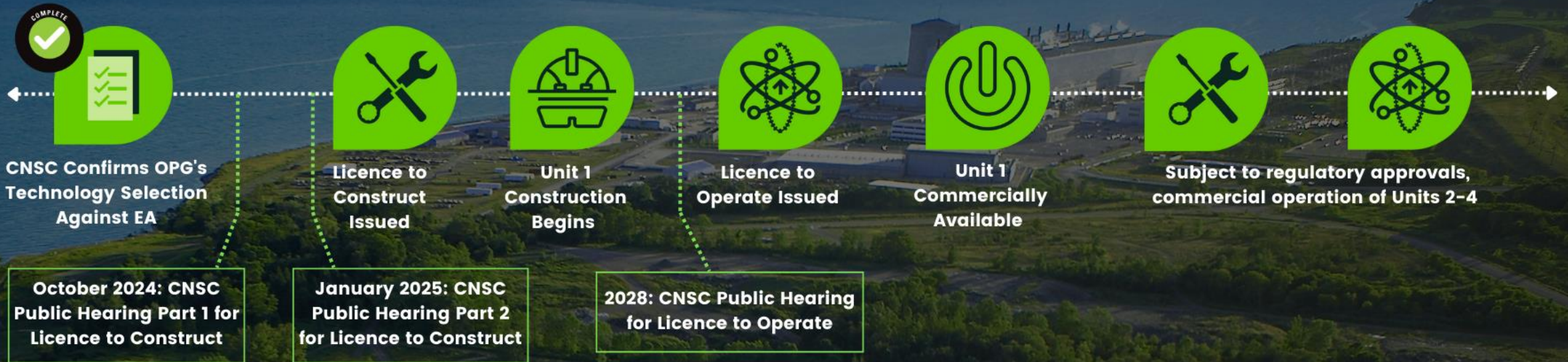
2025

2028

2029

2034

2036



All dates are estimated based on current project schedules



A Fleet *Approach*

OPG is planning for **four SMRs** at the Darlington site.



Four units would produce a total 1,200 MW, equivalent to **powering 1.2 million homes**.



Multiple units will allow common infrastructure to be shared across units, further **reducing cost**.



Pending regulatory approvals by CNSC, additional SMRs could come **online between 2034 and 2036**.



Ontario's **robust nuclear supply chain** is uniquely positioned to support SMR development and deployment in Ontario, Canada and globally.

Financial Support for New Nuclear

Federal gov't **Investment Tax Credits** for clean electricity technologies: SMRs, large nuclear, and refurbishments.

Canada Infrastructure Bank (CIB), a federal government program, committed **\$970 million towards our first SMR**.

Both Federal and Provincial gov'ts now include nuclear in definition for **Green Bonds**.

All developers will look for cost insurance to build nuclear due to long lead times.

North American Partnerships

OPG and X-Energy agreement to pursue opportunities to deploy Xe-100 in Canada

Capital Power & OPG have signed an agreement to assess feasibility of SMRs for Alberta's Grid

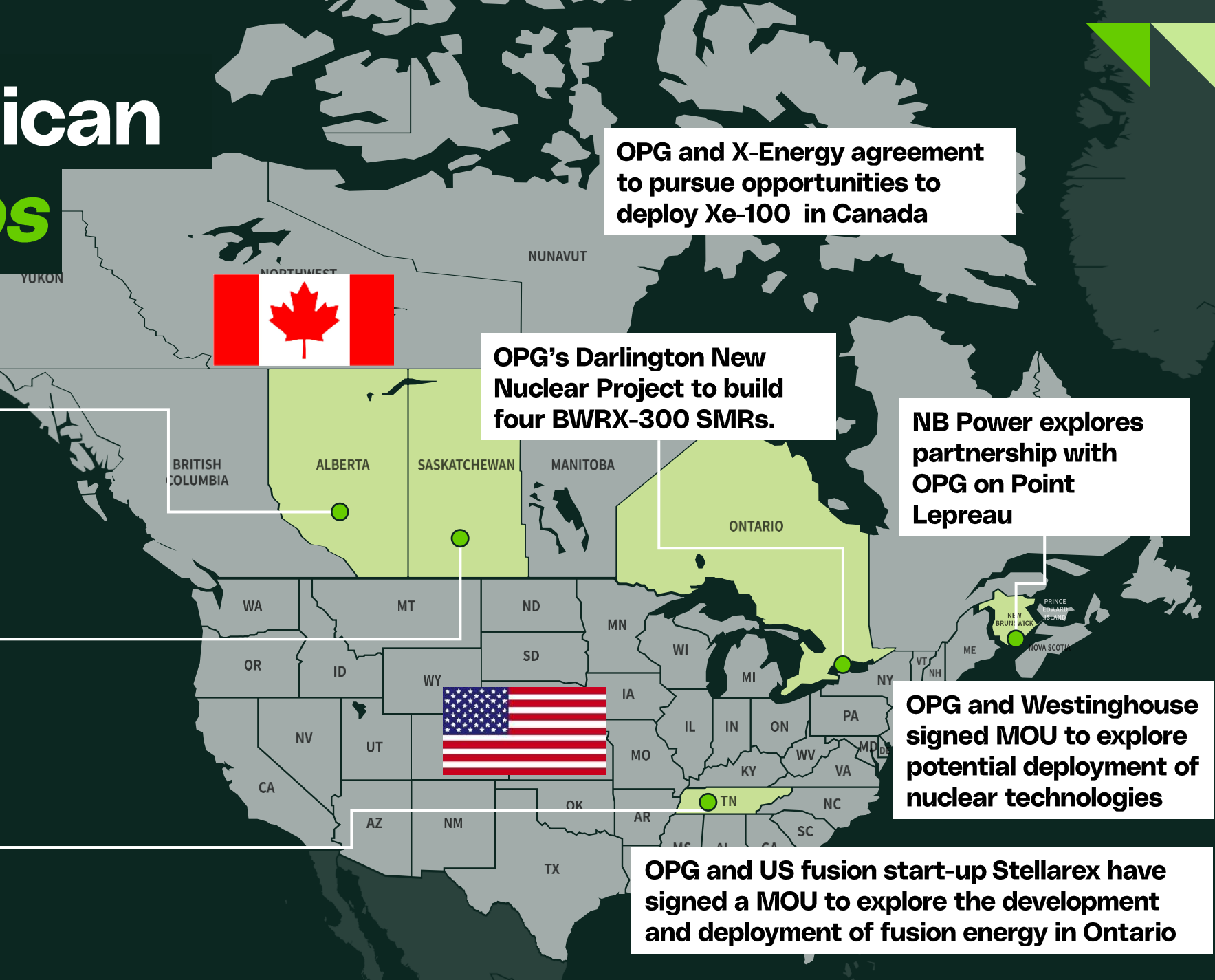
OPG's Darlington New Nuclear Project to build four BWRX-300 SMRs.

NB Power explores partnership with OPG on Point Lepreau

SaskPower, OPG, and LEP will collaborate to advance Saskatchewan's SMR development project

OPG & Tennessee Valley Authority Collaboration Agreement

OPG and US fusion start-up Stellarex have signed a MOU to explore the development and deployment of fusion energy in Ontario



Beyond North America

OPG & and Electricité de France (EDF) collaboration on feasibility of deploying EDF's large nuclear reactor technology in Canada

OPG partnering with companies from Canada, the U.S., and France to ensure fuel supply for first BWRX-300

Agreements with GEH for potential BWRX-300 deployment

Synthos Energy advancing global deployment of the BWRX-300.

OPG and ČEZ signed MOU to collaborate on deployment of SMRs

LEP supporting refurb of Romania's nuclear station in Cernavoda

Thank you.

Questions?

The logo for OPG, consisting of the letters 'O', 'P', and 'G' in a bold, sans-serif font. The letter 'P' is stylized with a horizontal bar that ends in an arrow pointing to the right.

OPG



Ontario's Nuclear Supply Chain

The Future of Nuclear Starts in Ontario

ONTARIOPOWER
GENERATION

OPG's Nuclear Supply Chain

