



*Electrifying  
life*

# Ontario Power Generation

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# Decarbonizing Ontario's electricity System

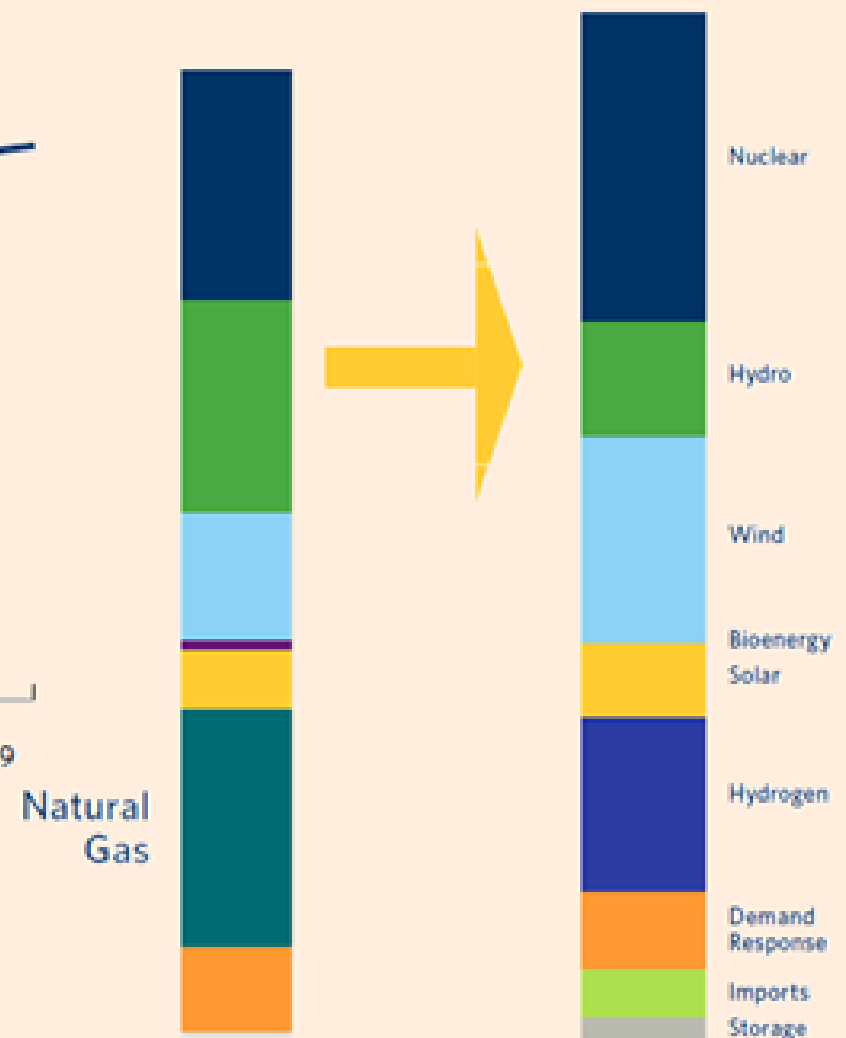
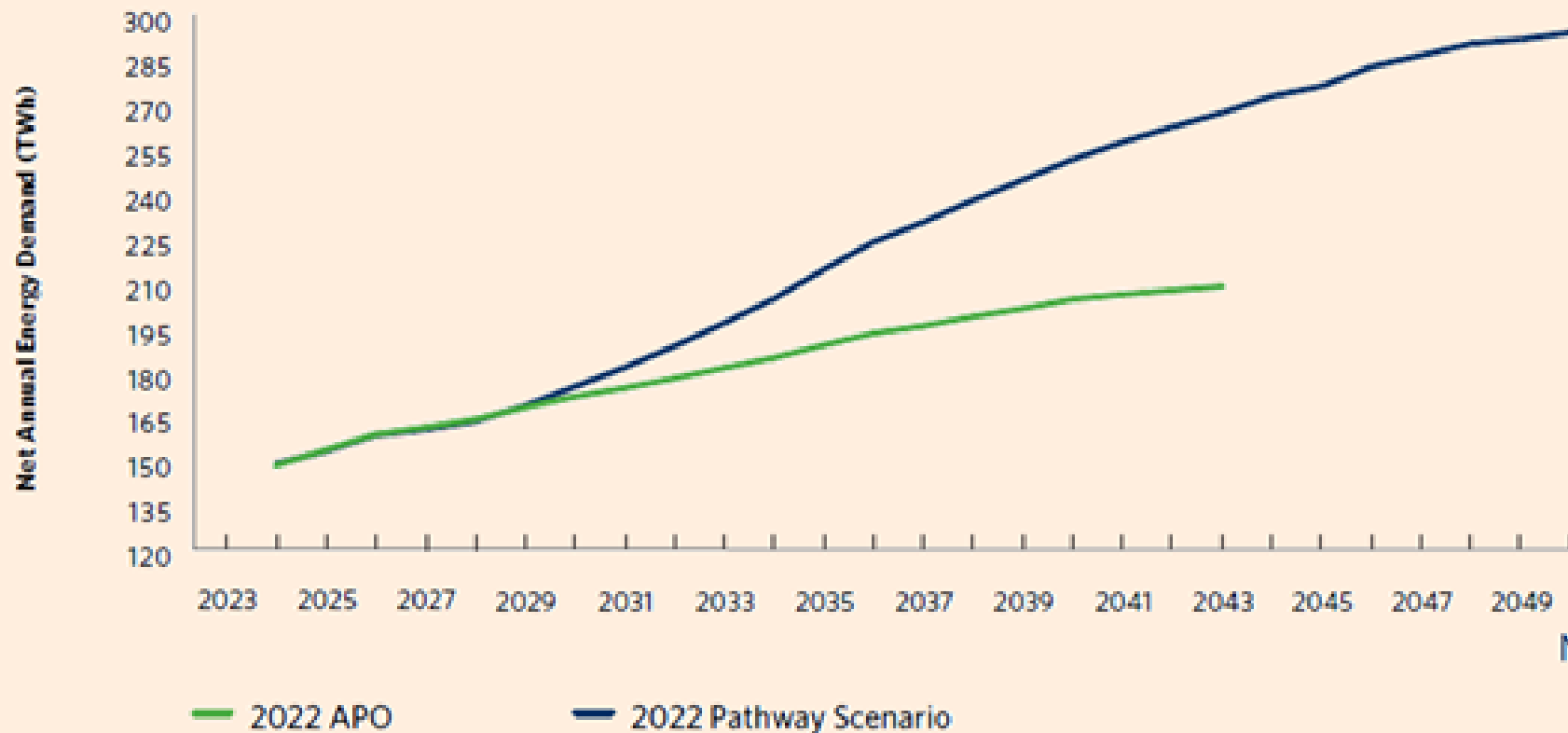
System Capacity Today

**42,000**  
MW

Pathways to Decarbonization  
2050 Scenario

**88,000**  
MW

Decarbonizing Energy Demand Forecast



Source: IESOPathways to Decarbonization Report (December 2022)

# Darlington Nuclear

- One of the world's top-performing nuclear stations.
- Four-unit station generates 3,512 megawatts.
- 20% of Ontario's electricity or enough power for about 2 million homes.
- Gold Level certification from the Wildlife Habitat Council (WHC).
- Recognized for performing to exceptionally high levels of safety, operational performance and equipment reliability by the World Association of Nuclear Operators (WANO).
- Only site in Canada licensed for new nuclear build with completed and accepted environmental assessment.

## Isotope Production

The unique design of Darlington's CANDU reactors allow isotopes to be removed while the reactor is still online.

- Co-60
- Molybdenum-99 (Mo-99)
- Helium-3 (He-3)



# Darlington Refurbishment Economic Impact



**\$12.8B investment**



**20-year project: 10 years of planning, 10 years of work. 35-44 months per unit.**



**14,200 jobs per year.**



**\$89.9B dollars into Ontario's GDP.**



**96% of expenditures spent within Ontario.**

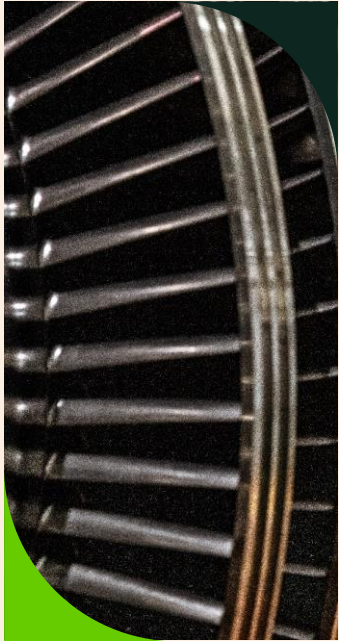
With support from across Durham Region, local suppliers are helping to ensure the success of the 12.8B Darlington Refurbishment; Canada's largest clean energy project:

Durham-based companies include:

- Acklands Grainger Inc.
- Badger Daylighting Inc.
- B&D Tractor Services
- Black & McDonald
- Crosby Dewar Inc
- Dewar Industrial Services
- Worley Parsons Canada Services Inc.
- A&C Tool Inc
- Coco Paving Ltd.
- Detox Environmental Services Ltd.
- Dufferin Construction Co.
- Peacock Lumber Ltd
- Hertz Equipment Rental Ltd



# Darlington New Nuclear Project



Based on  
existing  
technology



Provides safe,  
reliable, low  
carbon power



Flexible,  
scalable and  
modular



Strong  
economic  
benefits

## Building four 300MW SMRs in Ontario:

Create and  
sustain  
**+2,600 jobs**

**\$13.7 billion to  
Ontario's GDP**

Reliable power to  
**1.2 million  
homes**

One SMR will offset  
**~160,000 cars  
worth of carbon  
emissions**



# Darlington New Nuclear Roadmap

**BIG** things start **small**.



2024

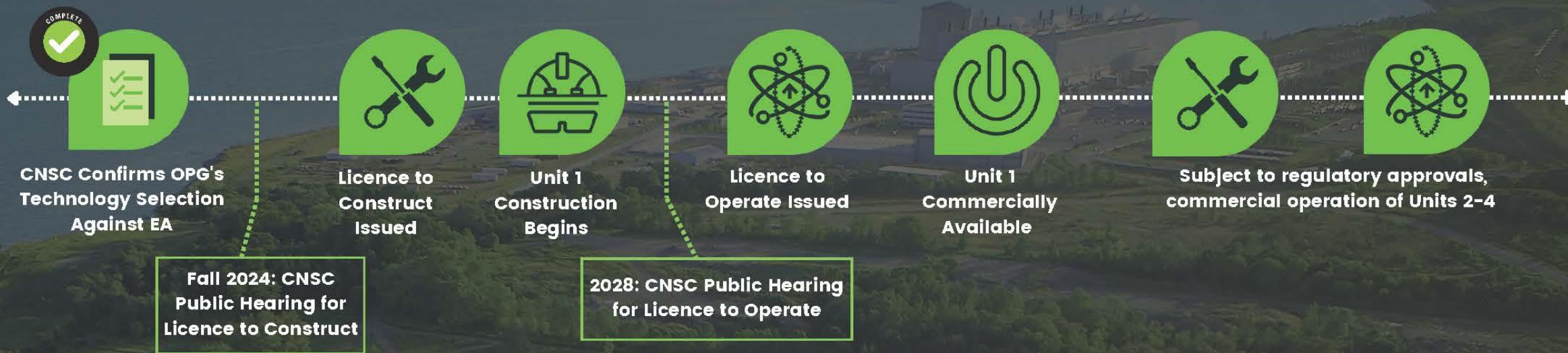
2025

2028

2029

2034

2036

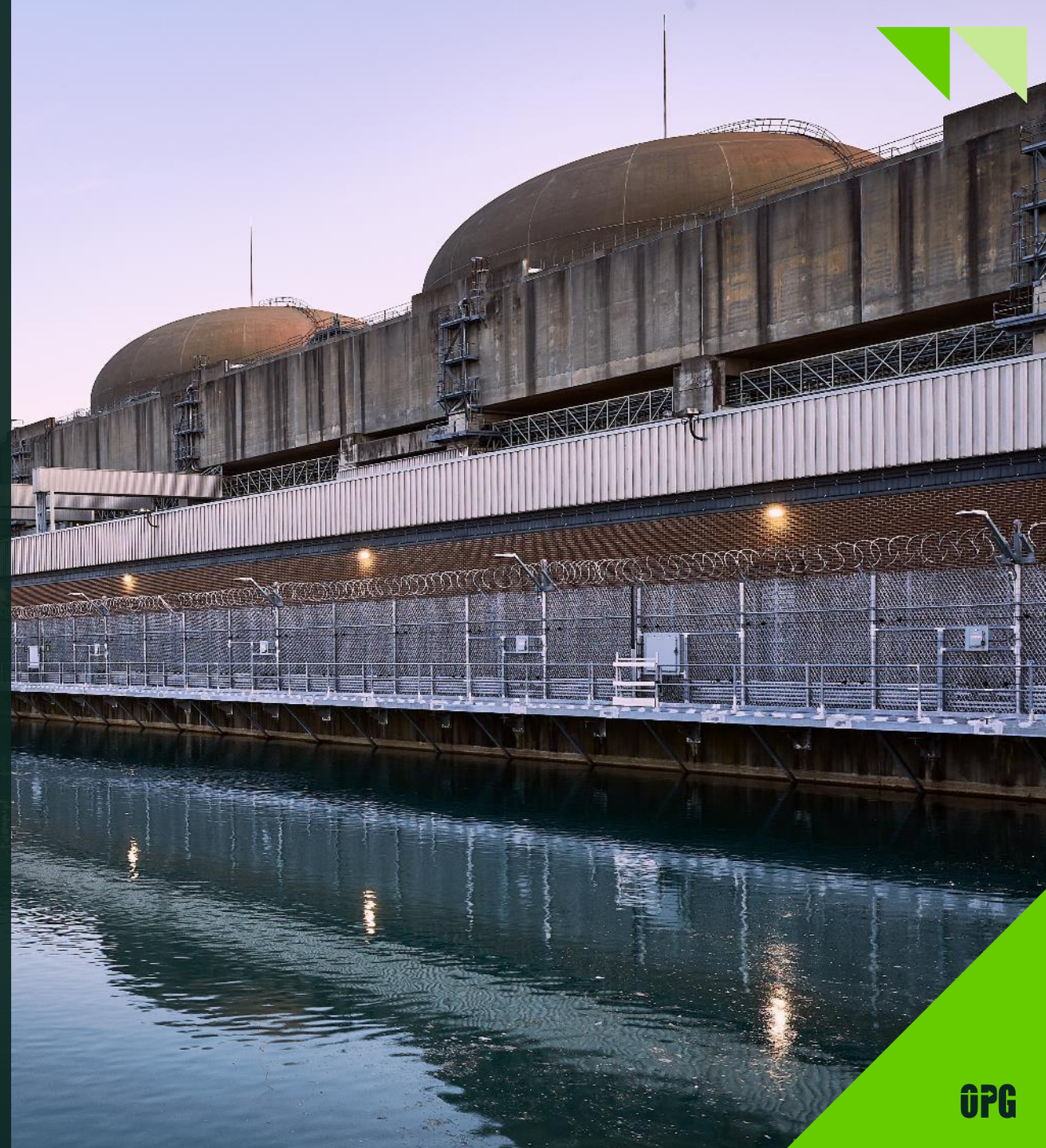


\*All dates are estimated based on current project schedules\*



# Pickering *Operations*

- Pickering Nuclear is one of the world's largest nuclear stations
- Six operating units provide 3,100 MW
- It meets 14% of Ontario's electricity needs
- Supports 4,500 jobs across Durham Region
- Units 1 and 4 will retire at the end of 2024 as planned
- Unit 2 and 3 in safe storage
- Licence Amendment Public Hearing in June 2024 to operate Units 5 – 8 to 2026





# Pickering *Refurbishment*

- **On Jan. 31, 2024, the Ontario government announced their support** for OPG to proceed with the next steps toward refurbishing Pickering Nuclear Generating Station's "B" units (units 5 – 8)
- **OPG will now proceed with the Project Initiation Phase of refurbishment**
- **With the support of the Province of Ontario, OPG is planning for the refurbishment of Pickering Nuclear's Units 5 to 8 starting 2028**, which will provide many benefits to customers, the economy, and the environment.





# Working with our Community



Autofest 2023



Parasport Games 2023

**Tripled** our donations to **six** local shelters

**6,500** Trees and shrubs planted through community planting initiatives

Supported **149** non-profit organizations in **Durham Region** through the **Corporate Citizenship Program**

**Donated** life-saving equipment to local hospitals

**Released 579** Atlantic Salmon into local streams through the **Bring Back the Salmon** initiative

**3,000** meals donated by employees for **Feed the Need Durham**

**Donated \$11,000** to the **Royal Canadian Legion Poppy Campaign**

**370** local families attended **"Tuesdays on the Trail"** programming

**2,400+** people attended **OPG's Community Open House**

Generously supported the **Durham Regional Police Service Food and Toy Drive**

**Assembled** **Holiday care packages** for **local seniors**

More than **\$248,000** donated to **369** local charities through the employee **Charity Campaign**

**Donated over 100** meals and winter warmth kits to local Indigenous organizations

**63k** students registered for **Virtual Power Kids**

**Thank you.**

**Questions?**

The logo for OPG (Ontario Power Generation) is centered in the bottom half of the slide. It consists of the letters 'OPG' in a bold, dark blue, sans-serif font. The letter 'O' is a simple vertical bar. The letter 'P' has a horizontal bar that ends in an arrow pointing to the right. The letter 'G' is a simple vertical bar with a small hook at the bottom.

**OPG**