

Our power is changing the world



A look at Ontario's largest clean power generator

July 31, 2024 • Chad Davis

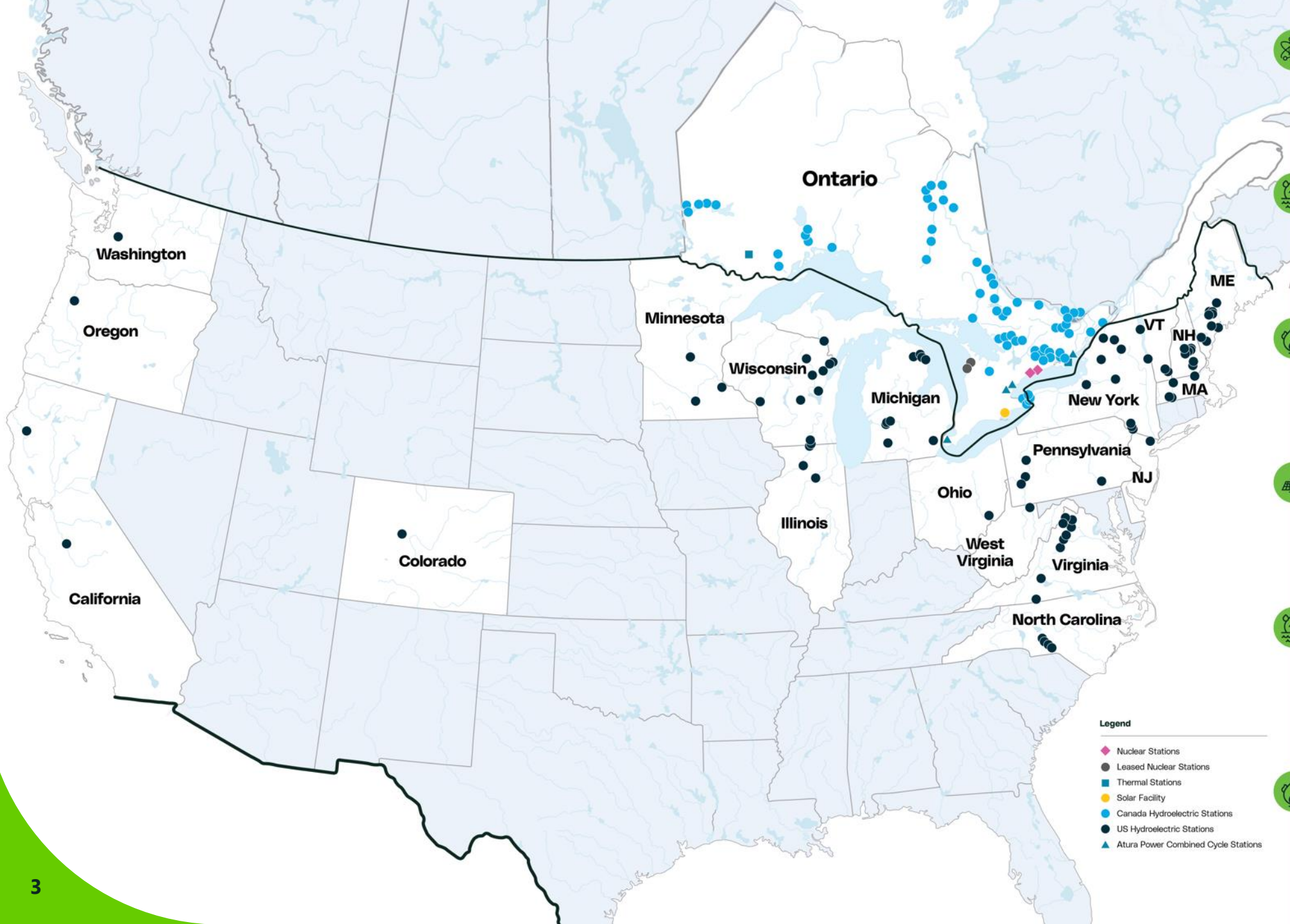
OPG Proprietary

18,225

megawatts

Ours diverse fleet includes nuclear, hydroelectric, thermal, natural gas, and solar generation.





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.



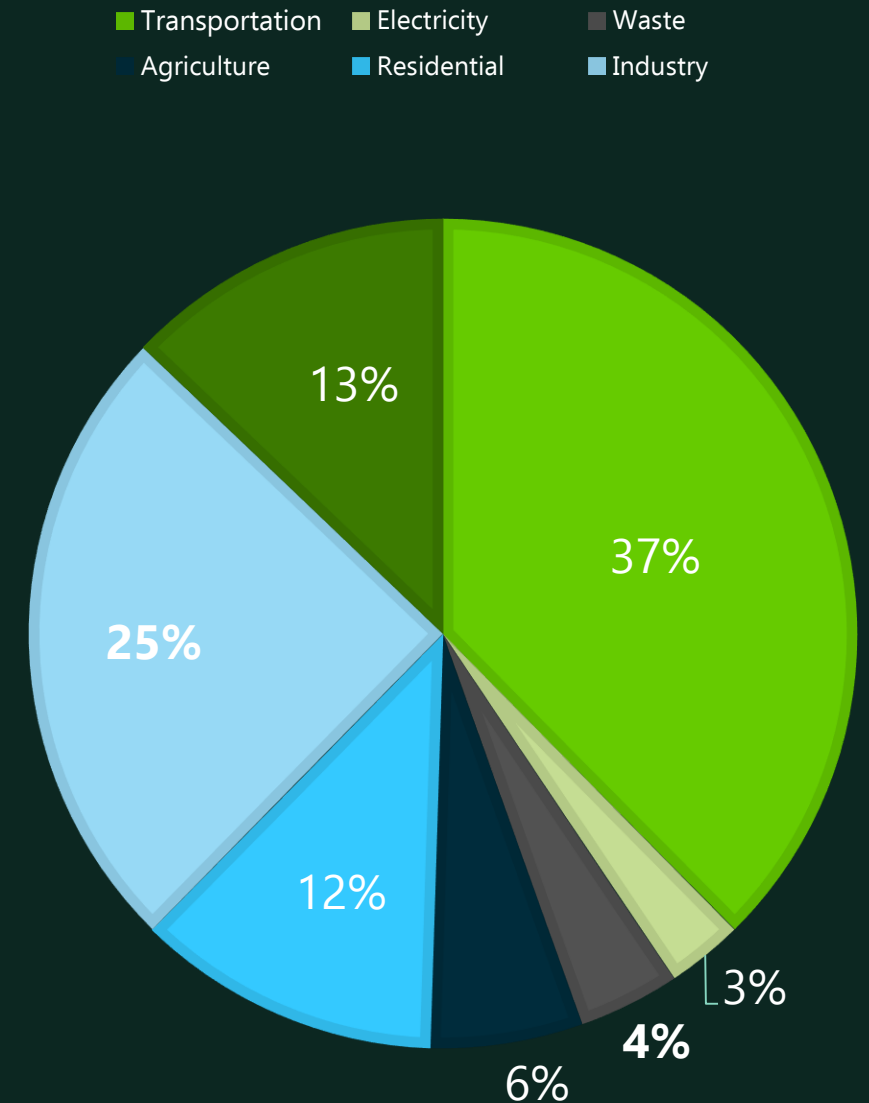
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Atura Power
Combined-Cycle
Generating Stations



Clean power leadership

- Ontario has one of the cleanest electricity grids in the world
- The electricity sector now accounts for just 3% of the province's carbon emissions



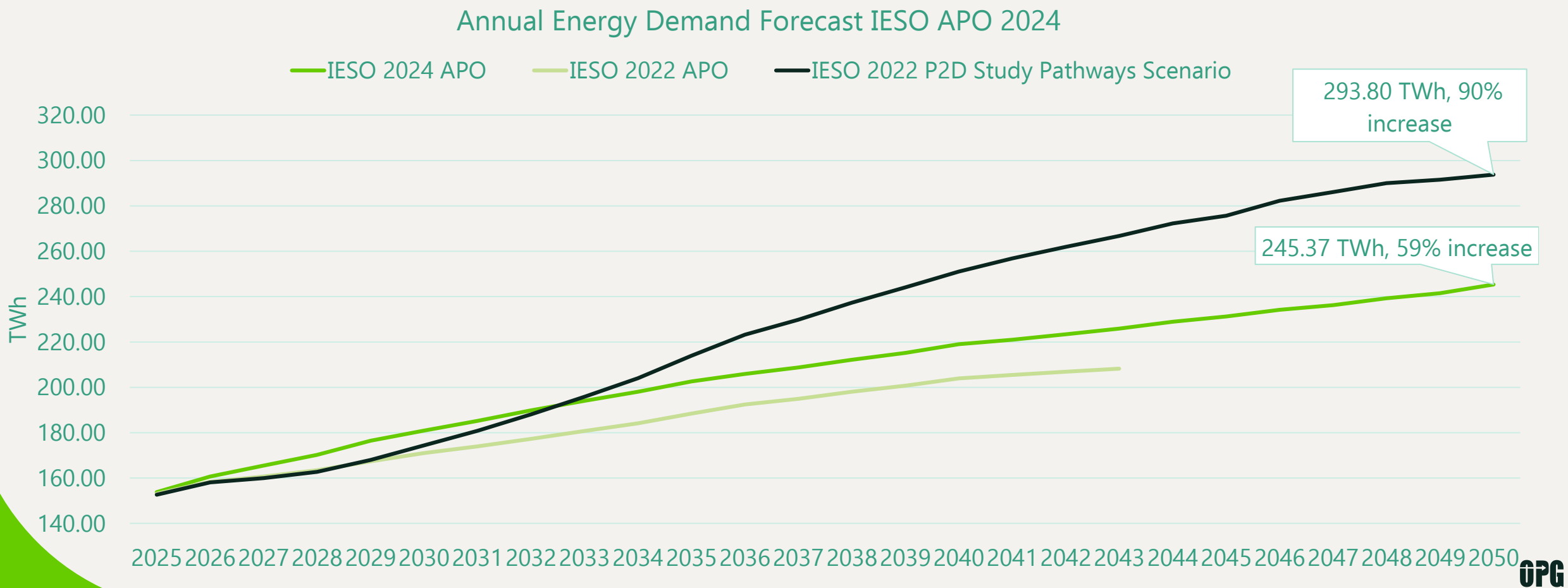
Electrifying life in one generation

To support future electricity growth, OPG is acting now.
We are:

- Investing in Small Modular Reactors (SMRs), low-carbon hydrogen, and energy storage
- Upgrading and refurbishing our diverse generating fleet
- Exploring new hydroelectric development
- Supporting electrification of transportation, Ontario's largest contributor of carbon emissions

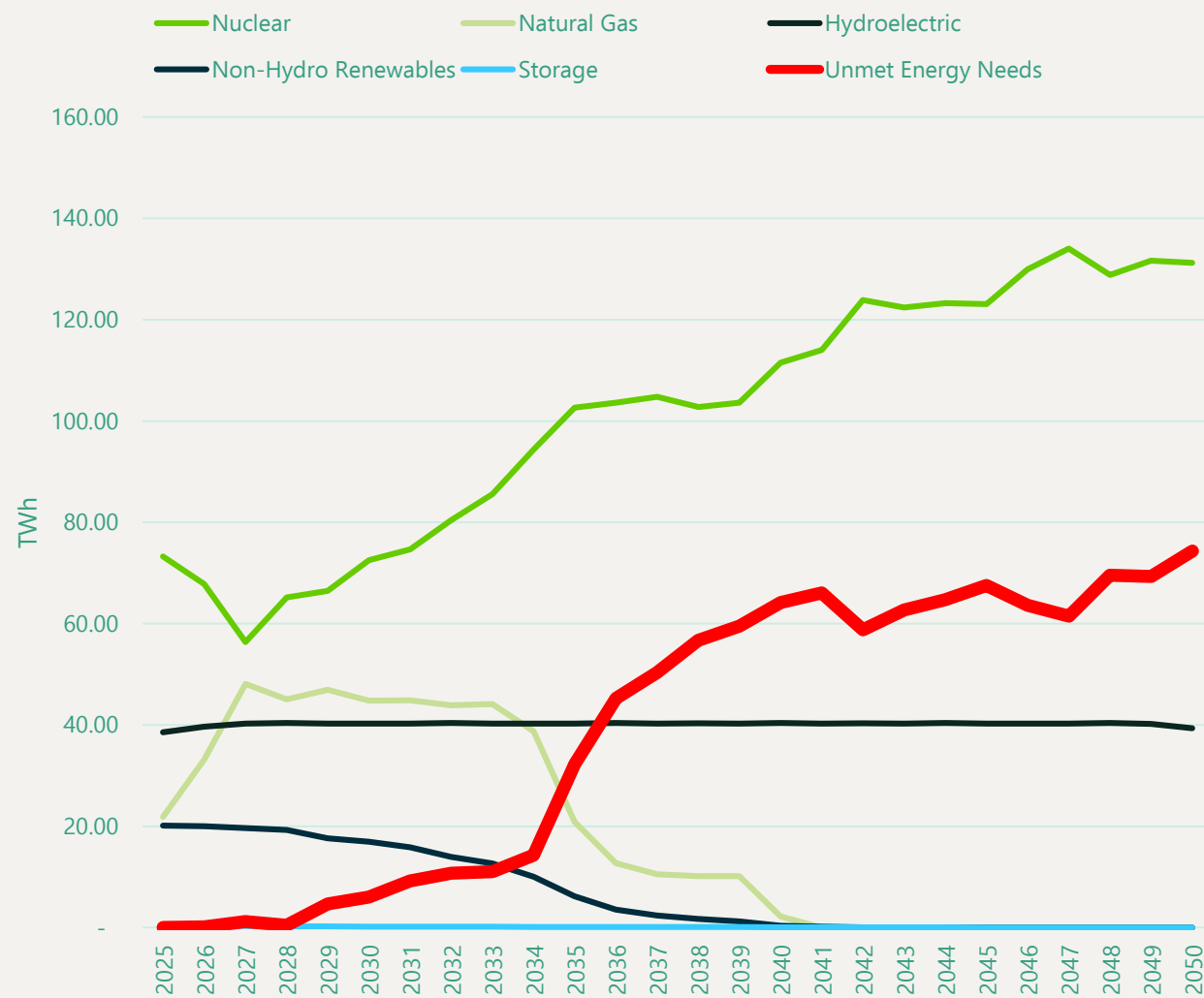


Ontario's Energy Demand Forecasts

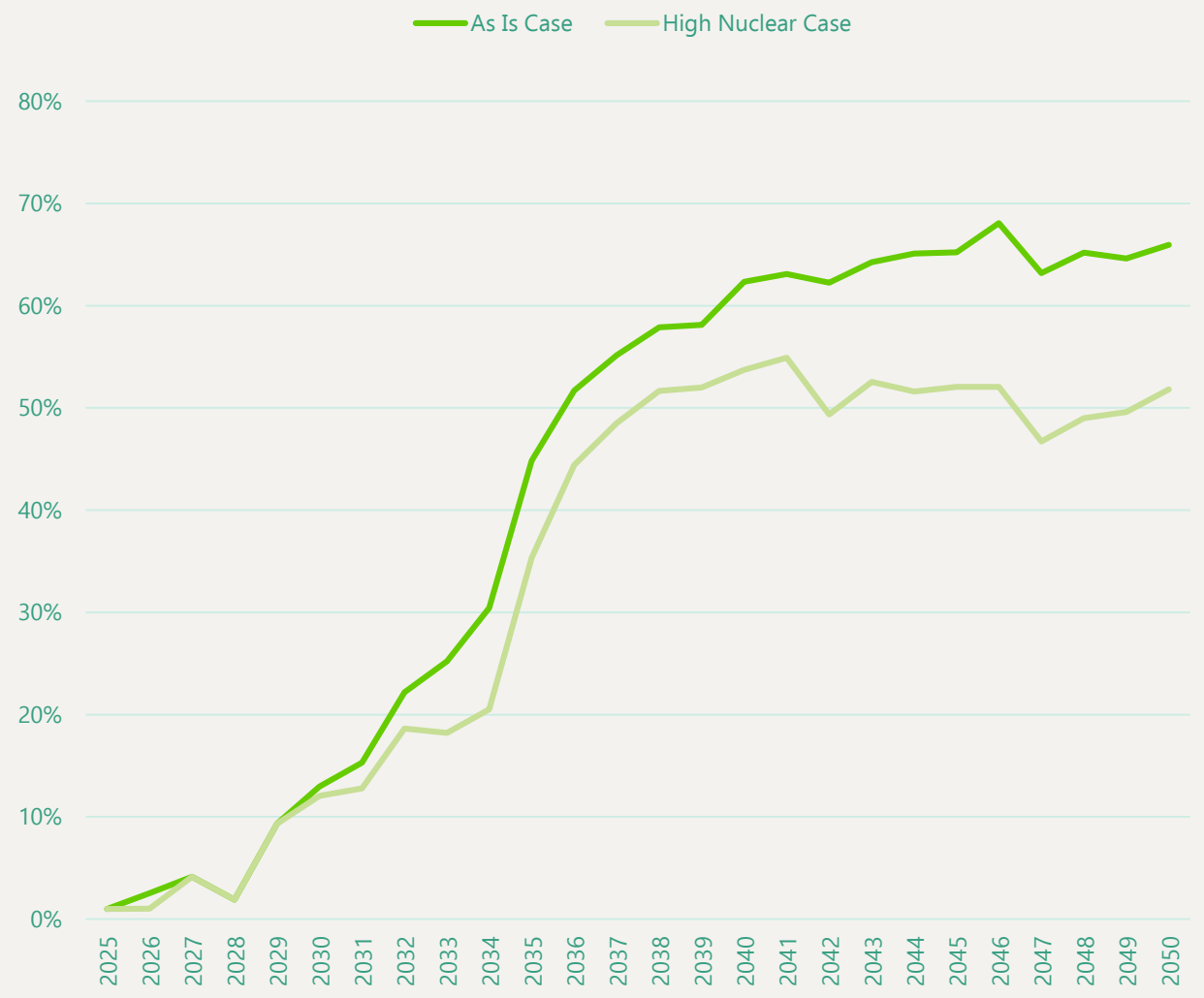


The Need for Future Resources

Committed Resources 2024 APO

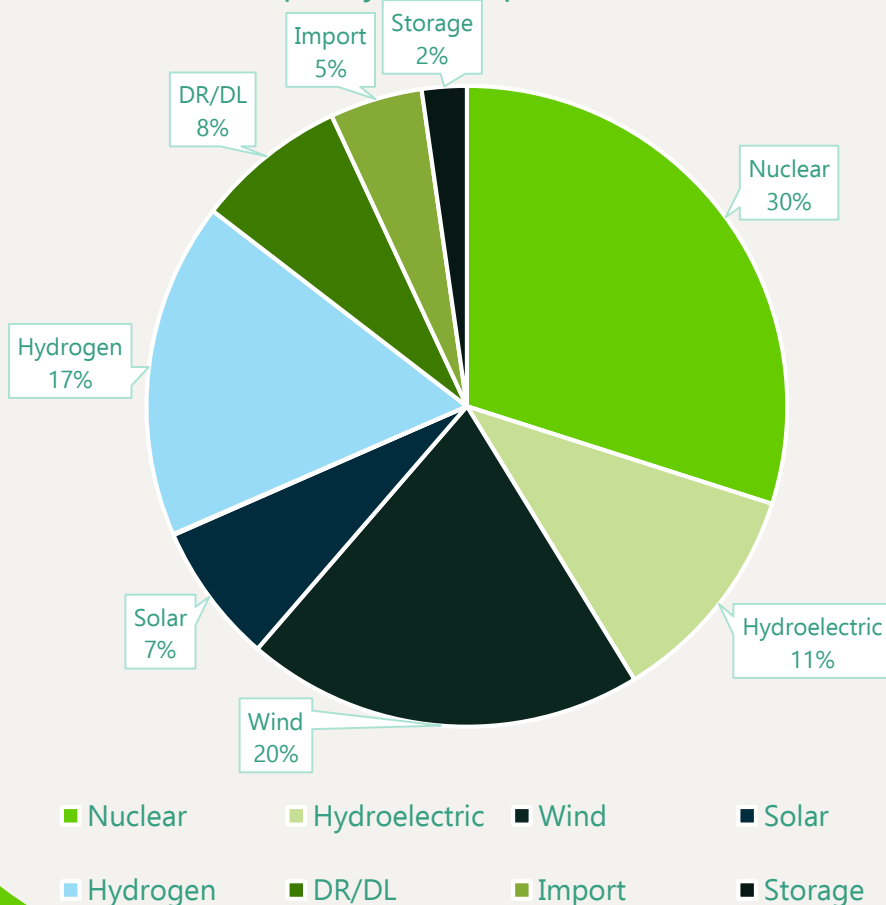


Need Factor of Resources 2024 APO

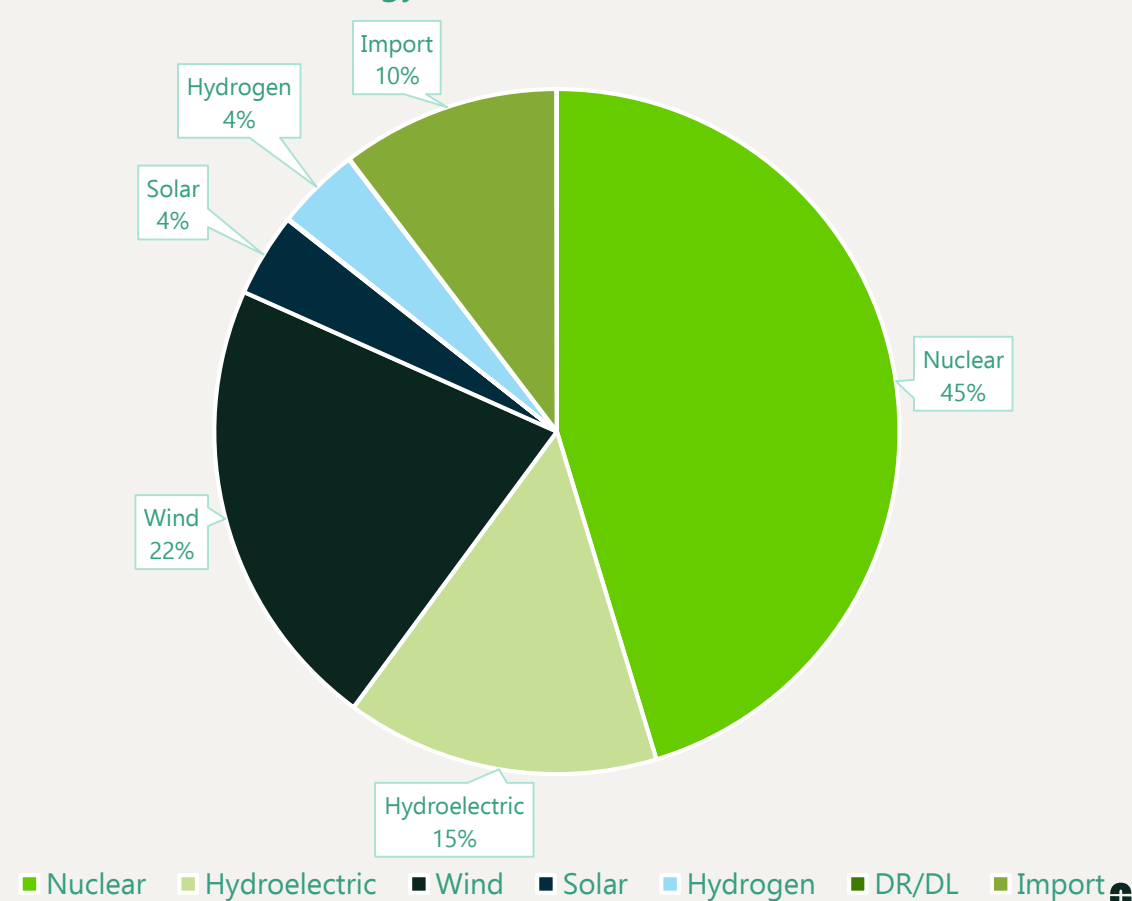


A Proposed Supply Mix (IESO) P2D

Capacity Makeup 2050 P2D



Energy Contribution 2050 P2D



LDES Customer Requirements

Daily Storage

- Commercial readiness – commercial demonstration
 - De risked construction
 - High reliability
 - Demonstrated performance
- Cheaper than Li-Ion or other battery technologies
- High RTE for 8-12 hour duration assets (regular cycling)
- Small footprint

Seasonal Storage

- Low standby losses
- Low costs for marginal energy expansion
- A proxy for natural gas storage resources
- High energy density

Electrifying
life

OPG