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**Presentation from the
Independent Electricity System
Operator (IESO)**

**Présentation de la Société
indépendante d'exploitation du
réseau électrique (SIERE)**

**Role and duties of the IESO in
Ontario, with focus on the supply
gap identified in the IESO's 2017
Long Term Energy Plan and the
impact on nuclear power plants.**

**Rôle et les obligations du SIERE en
Ontario, l'écart de l'offre énoncé
dans son plan énergétique de 2017 et
l'impact sur les centrales nucléaires.**

Commission Meeting

Réunion de la Commission

June 18, 2020

Le 18 juin 2020

JUNE 18, 2020

The role of nuclear power in meeting Ontario's energy needs

A presentation to the Canadian Nuclear Safety Commission

Peter Gregg
President & CEO

Leonard Kula
VP, Planning, Acquisition
and Operations & COO

Balancing supply and demand



We operate Ontario's power system 24/7

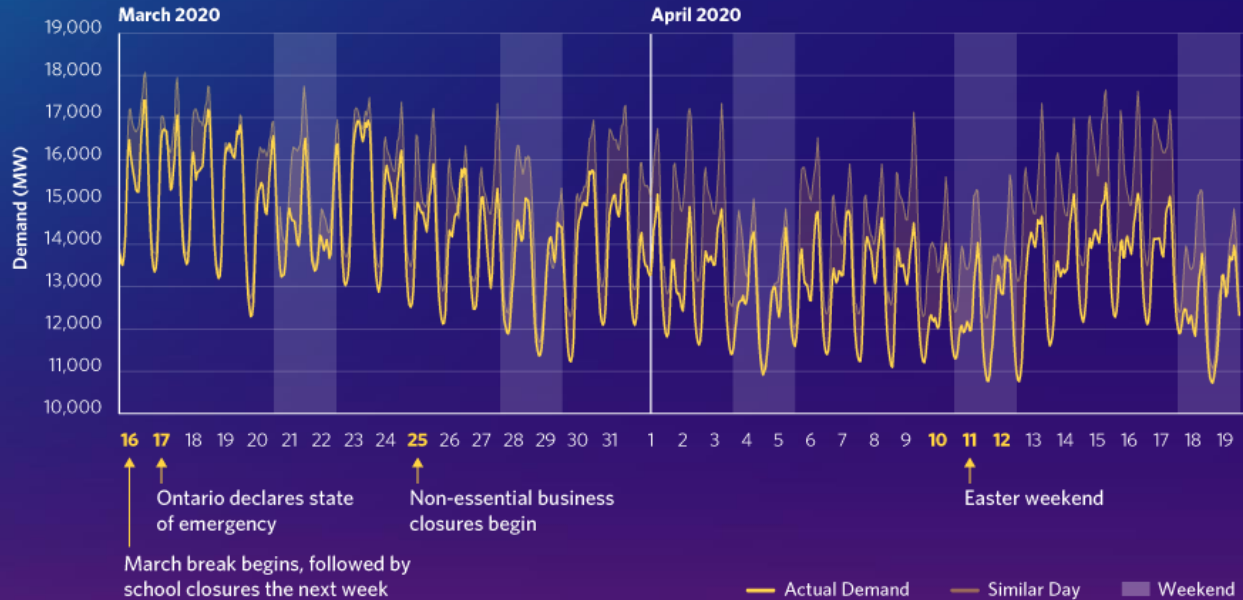
- Forecasting and monitoring demand and coordinating resources and services to meet that demand
- Operating electricity markets to achieve a reliable power system in an efficient manner



We prepare for a reliable electricity future

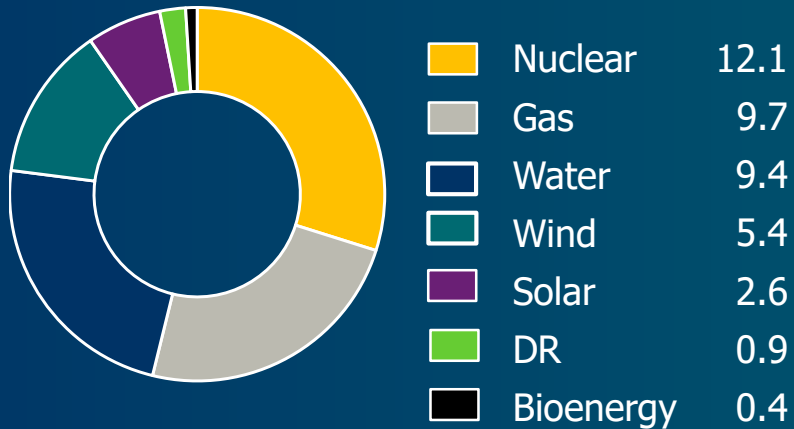
- Conducting integrated planning that identifies both province-wide and regional electricity needs
- Integrating supply and demand information into a coherent plan that drives and delivers the best cost outcomes for ratepayers

The impacts of COVID-19

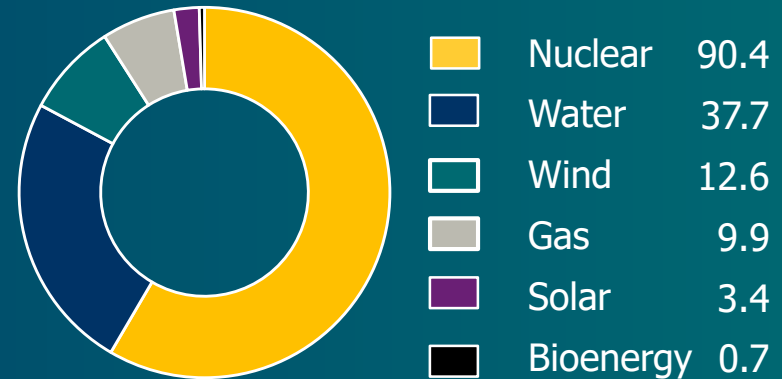


Capacity & production by fuel type

Installed Capacity (GW)*



Energy Production (GWh)*



*Figures reflect transmission-connected and embedded resources

Working with nuclear asset owners

Formal Coordination

- Emphasis on safe operations
- IESO-Nuclear Interface Committees
- NERC reliability standards
- Operating objectives and training

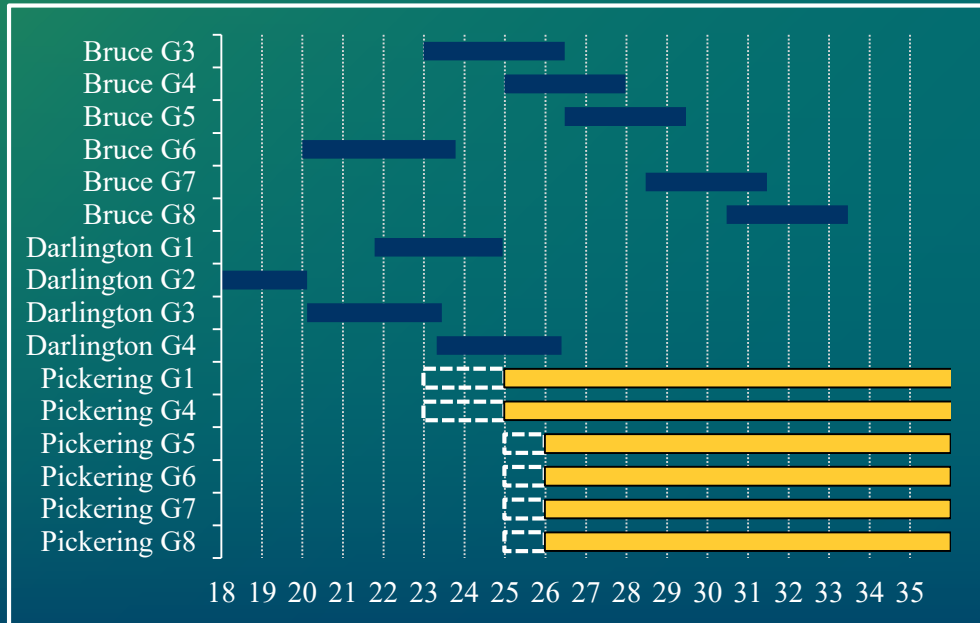
Planning & Operations

- Long-term role of nuclear power in Ontario
- Support with development of operating plans
- Outage scheduling

Real-time Operations

- Economic dispatch
- Information-sharing on system conditions
- Value in responding to changing grid conditions, including surplus baseload generation

Refurbishments and retirements



- Refurbishment outage
- Pickering retirement
- Pickering life extension

Source: 2019 Annual Planning Outlook



2019 Annual Planning Outlook

- 20-year forecast for Ontario's power system
- Covers supply, demand, resource adequacy, transmission considerations, performance indicators and more
- Supply gap emerges in 2023/2024 – the IESO is actively exploring various options to ensure needs are met
- COVID-19 impacts have changed the outlook
- Interim update will be released in July 2020

Thank you



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