



**Meeting Date:** April 3, 2024

**Prepared By:** Michael Di Lullo, CAO

**Submitted by:**

**Report No:** CAO-12-2024

**Subject:** Annual Energy Planning Outlook

---

**Recommendation:**

THAT Report CAO-12-2024, re: Annual Energy Planning Outlook be received for information.

**Purpose:**

The purpose of this report is provide information from the Independent Electricity System Operator (IESO) regarding the Annual Planning Outlook (APO) which provides an overview of the Province's electricity demand needs and future growth forecasts.

**Background:**

The APO is intended to provide sector participants, governments, municipalities, Indigenous communities and electricity consumers, amongst others, with the data and analyses they need to make informed decisions, and to communicate valuable information to policy-makers and others interested in learning more about the developments shaping Ontario's electricity system.

A copy of the full report can be found on the IESO site at: [Annual Planning Outlook \(ieso.ca\)](https://www.ieso.ca)

## **Analysis:**

Some of the main takeaways from the report include the following highlights:

- There continues to be steady demand growth year over year, with total demand increasing 60 per cent over the next twenty years
- Our forecasts continue to show demand will, on average, increase two per cent a year over the coming decades, from 154 TWh in 2025 to 245 TWh by 2050
  - o This is driven primarily by economic and population growth, mining and steel industry electrification, and growth in electric vehicle industries
- The latest forecast shows Ontario transitioning from a summer-peaking region to a dual-peaking region beginning in 2030, with summer and winter electricity peaks being comparable at approximately 27,000 MW
- More consumers and businesses are expected to invest in energy management through increased energy-efficiency standards for buildings and equipment, and participation in conservation and demand management programs, including those providing real-time demand flexibility to the grid
  - o The IESO's Conservation Demand Management programs delivered to consumers under the Save on Energy brand are expected to contribute savings of between 14 TWh to 17 TWh from 2025 to 2050.
- The supply outlook for Ontario has improved and the IESO has addressed capacity shortfalls that had previously been forecasted for the mid-2020s due to nuclear refurbishments and retirements as well as expiring contracts
- The report also provides a detailed approach to the Long-Term RFP process to secure future energy needs
- Decarbonizing the Grid is part of the supply solution long-term as Ontario faces a dual challenge to meet increasing electricity demand while reducing reliance on natural gas supply, which is currently critical to maintaining the reliability of the grid with partial phase-out by the late 2030s

Attached to this report is a general update titled Spring 2024 Update that touches upon some of the key highlights from above that stem from the comprehensive APO.

## **Financial Implications:**

N/A

**Strategic Plan:**

This matter aligns with following strategic priorities:

- Sustainable Infrastructure and Services

Ontario's energy landscape is changing as continued demand is increasing with more supply required as the population continues to grow and competing needs are placed upon the energy system.

**Attachments:**

Attachment – IESO 2024 Spring Update