

# 2022 Annual Planning Outlook

## Backgrounder

The IESO's Annual Planning Outlook provides a long-term assessment of the many factors that impact future system reliability, setting the stage for the IESO's planning activities to prepare for a reliable, affordable and sustainable electricity future in Ontario.

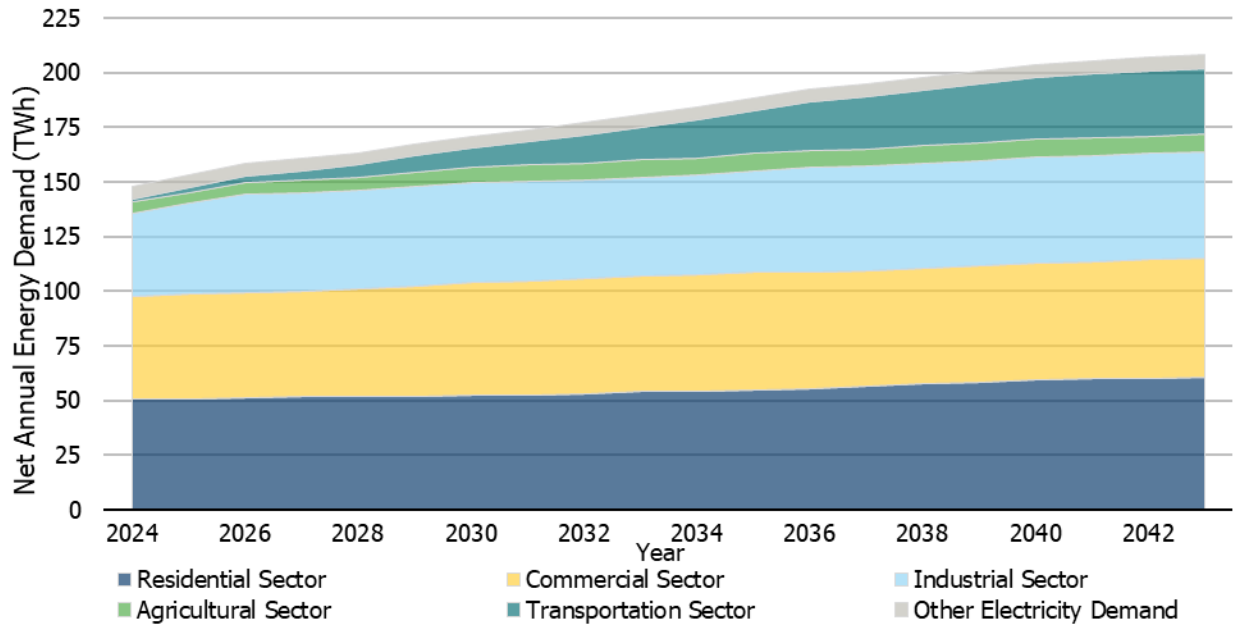
As the system planner, the IESO develops various projections to serve different purposes. Annual Planning Outlook projections are based on known policies and information that help drive investment decisions about new supply and transmission infrastructure. By contrast, scenarios from the IESO's Pathways to Decarbonization report are speculative and illustrate the potential factors that would influence the development of a decarbonized grid.

### Key Takeaways in 2022

- Economic growth and electrification are driving electricity use in Ontario higher over the next 20 years.
- The IESO forecasts an annual demand increase of almost two per cent. This is up slightly from last year's projection.
- Increase in demand, coupled with less available supply, underscores the importance of securing new generation and storage capacity by the mid-2020s.
- More overall energy production will be needed by the end of the decade. This requires a broader range of supply options as well as supporting the development of new transmission infrastructure.

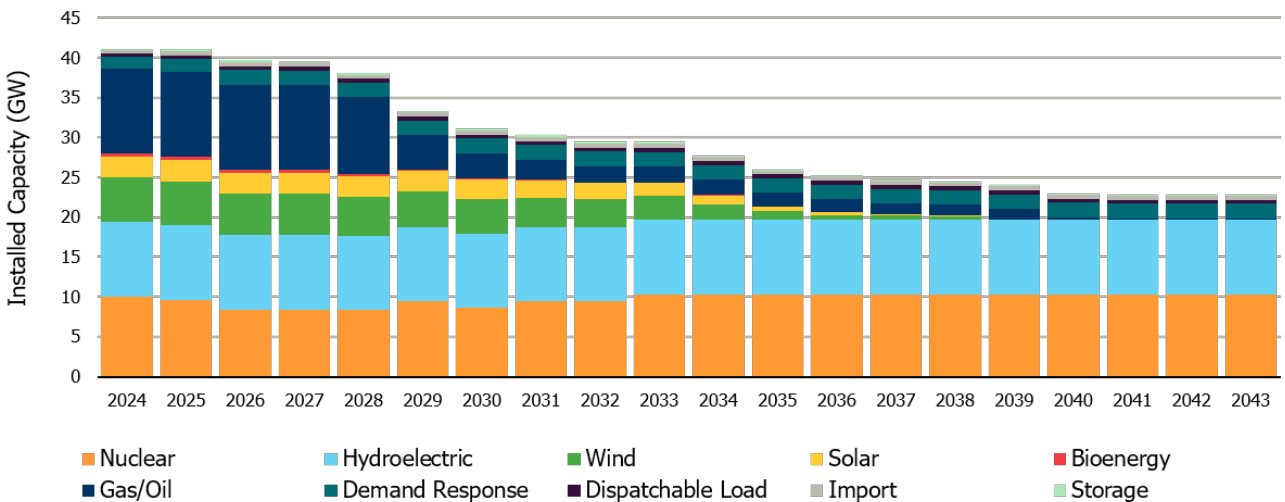
### Demand for Electricity is Trending Up

The Annual Planning Outlook forecast exhibits strong and steady growth through the end of the 2030s. This will be fueled primarily by industrial sector development in the mid-2020s in mining, steel, electric vehicle battery and hydrogen production, agricultural sector greenhouse construction, and transportation sector electrification. Although the exact magnitude and timing of these demands are uncertain, it is clear that Ontario has entered a period of demand growth after years of declining demand.



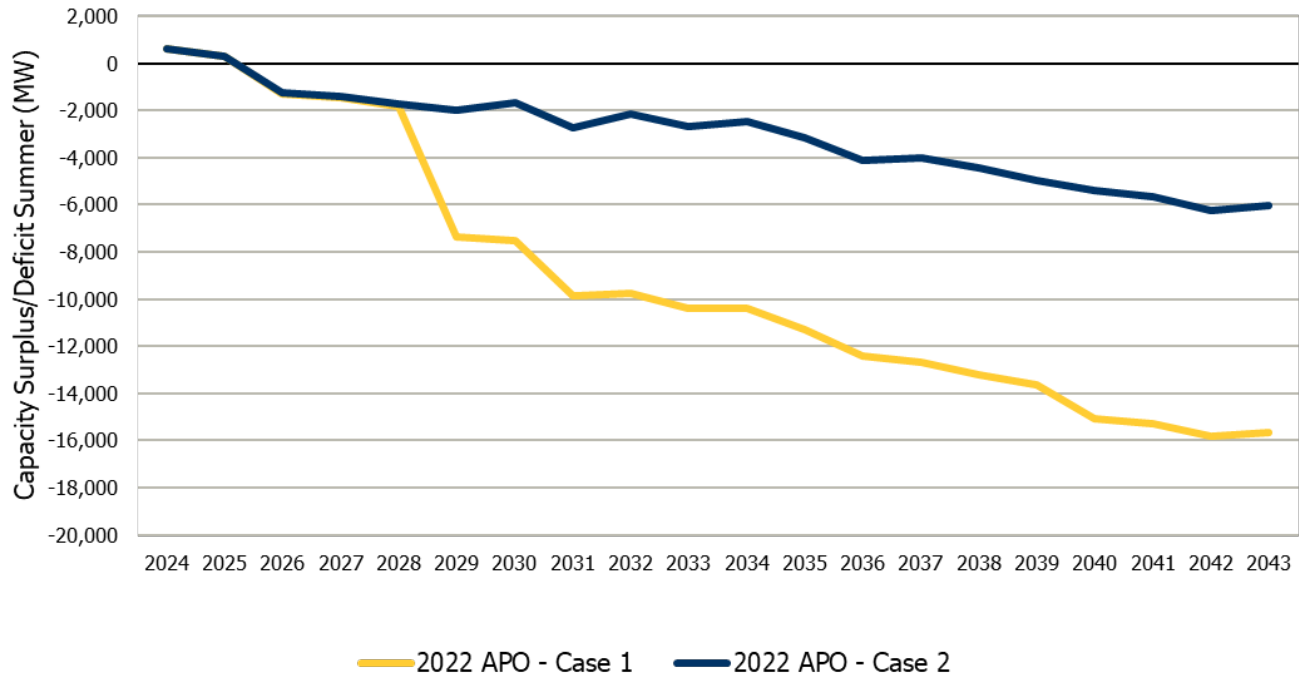
## Available Resources to Meet System Needs

Ontario’s supply mix will undergo significant change over the next two decades as generation contracts expire and the Pickering Nuclear Generating Station retires mid-decade. Many existing generators are expected to continue operating and will compete for new commitments through ongoing competitive procurements.



## Resource Adequacy Picture

Ontario demand and supply forecasts come together to form the resource adequacy outlook, which describes the need for new supply. Growing supply needs present an opportunity for more non-emitting supply, including from emerging technologies, to become a part of Ontario's electricity supply mix. The IESO's current long-term procurement will address capacity needs that emerge in 2026, with additional procurements planned in the coming years. Conservation and demand management are also important resources to meet future needs.



\* Case 1 reflects resources until their contract/commitment ends. Case 2 assumes continued availability of these resources post-contract/commitment.

## Transmission Overview

A robust and reliable transmission system will play an increasingly important role in meeting Ontario's growing electricity needs. There are currently many large transmission projects under development or planned that will allow more electricity to flow to areas of the province where it's needed. For example, several new transmission lines will be completed this decade to help increase capacity in Southwestern Ontario, where agriculture demand is growing fast, while others are being completed in Northern Ontario to support economic growth in that region.