POLICY PRIMER:

Addressing Ontario's Growing Electricity Needs

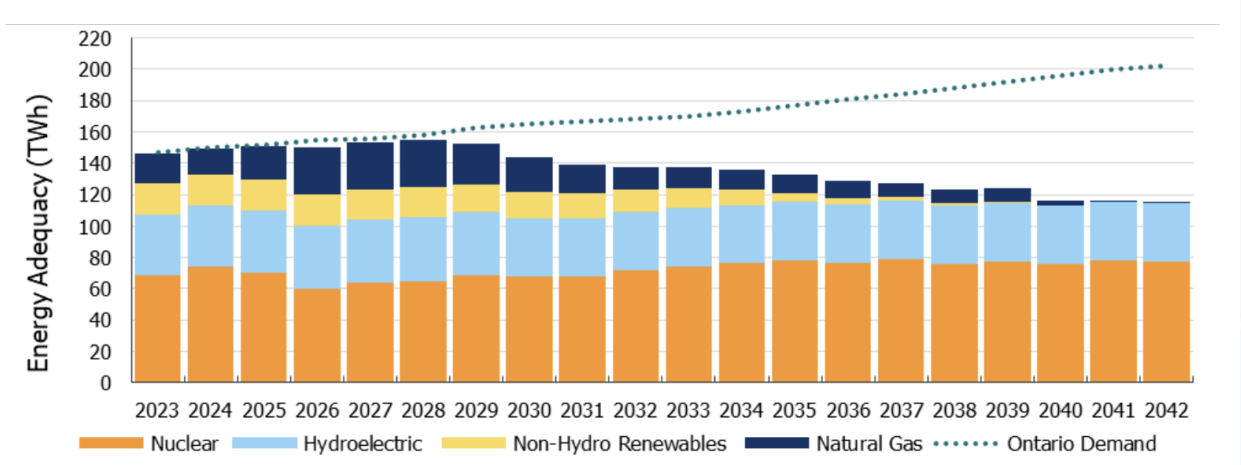
February 2022

The Issue

Demand for electricity is rising rapidly in Ontario, driven both by economic growth and electrification. On the supply side, resource availability will be constrained by the retirement of the Pickering Nuclear Station, nuclear refurbishments, and contract expirations for other resources. As a result, after over a decade of strong supply, **Ontario is entering a period of widening electricity shortfalls. Having a plan to address those shortfalls is essential to ensure businesses can continue investing and growing in Ontario with confidence.**

In its latest Annual Planning Outlook, the Independent Electricity System Operator (IESO) forecasts capacity needs emerging in the mid-2020s and continuing to increase thereafter, eventually leading to potential shortages. All told, the province will need to procure over 12 gigawatts (GWs) of power within the next 20 years to meet forecasted demand.[1] Regardless of the supply mix, it will take several years to plan and develop the requisite generation, transmission, and distribution infrastructure.

Figure 1: Ontario's Energy Adequacy Outlook, without Continued Availability of Existing Resources



Source: IESO's 2021 Annual Planning Outlook

[1] Analysis by Sussex Strategy Group.

Recent Policy Developments

Energy planning in Ontario is undertaken by the Ministry of Energy (MoE), the IESO, and the Ontario Energy Board (OEB). Currently, the IESO is leading bulk system planning, regional planning, and long-term changes to procurement through its Resource Adequacy engagement. Above and beyond those efforts, several steps have been taken over the past 12 months to address emerging shortfalls, including:

- January 2021 – The MoE revoked O. Reg. 355/17, which required a new Long-Term Energy Plan to be released every three years and opened a consultation to improve the effectiveness, transparency, and accountability of energy planning in Ontario.
- July 2021 – The IESO released its first Annual Acquisition Report, outlining a series of procurement and market activities based on its resource forecasts and plans.
- October 2021 – The IESO released its gas phase-out report, which found that phasing out natural gas generation by 2030 would lead to blackouts and a 60 percent (or $100 per month) increase in average residential electricity bills.
- October 2021 – The MoE instructed the IESO to develop an achievable pathway to phase-out natural gas generation and achieve zero emissions in the electricity system. The report is due November 2022.
- November 2021 – The MoE instructed the IESO to report back on several resource adequacy initiatives: competitive procurement mechanisms; approach for re-contracting biomass and small hydroelectric facilities; an updated energy storage study; multiple pumped storage projects; and contract negotiations on the Oneida Energy Storage Project and Lake Erie Connector.
- November 2021 – The MoE instructed the OEB to facilitate the integration of electric vehicles into the electricity system, design a dynamic pricing plan for non-RPP Class B customers, and advance conservation and demand-side management programs.
- December 2021 – The IESO released its 2021 Annual Planning Outlook, forecasting a higher rate of demand growth than previously anticipated.
- January 2022 – The MoE asked Ontario Power Generation to examine opportunities for new hydroelectric development in northern Ontario.
- January 2022 – The MoE issued a directive supporting the IESO's multi-pronged procurement approach. This includes complementary competitive procurement mechanisms, including the Capacity Auction, the Medium-Term Request for Proposals (MT RFP), and the Long-Term Request for Proposals (LT RFP). The IESO was also instructed to enter into a procurement contract for the Calstock Biomass Generating Station and the Oneida Energy Storage Project, and design a program to provide new contracts to existing small hydroelectric facilities.

The Road Ahead

Despite the progress noted above, stakeholders are concerned about the province's ability to meet demand growth. **Given the time it takes to operationalize electricity infrastructure, it is imperative that Ontario continue taking steps today to secure reliable, affordable, and sustainable resources for future generations.**

Relying entirely on imports is not a viable option as existing transmission lines will not provide sufficient capacity and other regions are also forecasting supply gaps of their own. Historically, investments in supply have been supported by long-term contracts or regulated rates of return. These mechanisms help reduce uncertainty for investors, which could otherwise lead to underinvestment and/or higher costs that are ultimately borne by ratepayers. Ontario should continue consulting with industry to ensure there is a competitive and transparent process for contracts that leverages existing assets where possible. The historic need for clean energy in Ontario presents a major opportunity to attract competitive investments in new supply.

Transmission and distribution infrastructure are also critical. The IESO forecasts the majority of regional needs will be in Toronto and areas east of the city beginning in the mid-2020s. However, greenhouse growth and the electrification of mining and heavy industry are creating additional pockets of demand in other areas of the province as well. Meanwhile, severe weather events caused by climate change will have a growing impact on the costs of adapting and maintaining these systems. Paying for transmission and distribution infrastructure through the rate base can be a cost-effective pathway to accelerate investments where there is a clear economic benefit.

More broadly, investors are looking for clarity from the Government of Ontario around its objectives, how the different planning initiatives will fit together, and how it sees its role in the process moving forward. Communication and coordination with agencies will be essential to reduce uncertainty for the business community and attract low-cost capital.

The OCC's Energy Policy Council continues to engage with government, agencies, and the business community on this important issue.

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