

Memorandum

To: Strategic Advisory Committee

From: Elinor D’Cunha, Senior Director Market Operations
Shawn Cronkwright, Director Reliability Assurance

Date: June 26, 2024

Re: IESO Business Update – Summer Operations Update

There are forecasted adequate reserves for summer 2024 and no forecasted reliability concerns under both normal and extreme conditions.

Summer 2024 Preparation and Outlook

The IESO facilitated a significant number of generation and transmission outages during the winter and spring to complete planned work prior to summer 2024 and have the generation and transmission available for summer operations. Some examples include the Bruce B vacuum building outage from 22 April – 10 May 2024 and several gas generator uprates and capital projects. Freshet was initially muted by the limited Northern Ontario snow cover and melt, but hydroelectric production has since been bolstered by higher levels of precipitation to near seasonal levels. Although above normal temperatures are predicted for summer 2024, precipitation is expected to be normal and that translates into no elevated forecast fire risks for Ontario and Quebec.

The 2023 Capacity Auction procured 1,867 MW of capacity for summer 2024, exceeding targets by over 400 MW. In comparison to summer 2023, an additional 2000 MW of capacity is available from nuclear and gas generation going into summer 2024.

The March Reliability Outlook had the following Forecasted Seasonal Peaks for Summer 2024:

- Normal Weather Peak: 22,753 MW
- Extreme Weather Peak: 24,669 MW

While the newly released Reliability Outlook on June 20 has some higher demands in specific weeks, the overall normal and extreme peaks are the same for the summer. The IESO expects to be adequate for Summer 2024 under both the normal and extreme weather conditions. Under extreme weather conditions, up to 2,000 MW of imports from neighbouring jurisdictions or other operating actions may be required to ensure reliability.

Managing First Heat Wave

Ontario saw its first heat wave start on June 17 and span over the following 3 days. Going into the week, peak demand was forecasted to be 24,300 MW on June 19. The actual demand hit 23,800 MW on June 19 and an EEA1 (Emergency Alert Level 1) was declared that day to indicate that all available resources were being utilized. The March Reliability Outlook had an extreme demand forecast for this week of 23,100 MW which put the system in a good spot from an advance planning perspective. However, with the actual demand coming in higher, some generation becoming unavailable or not returning on time, and the entire Eastern interconnection being strained by the heat and high demands putting uncertainty on imports, additional actions were required. Generation and transmission outages leading into the week were either deferred or recalled. Appropriate timely advisories, alerts and operating state notifications were sent out to market participants. There was additional coordination and communication with market participants and counterparts in neighbouring jurisdictions. Actions also included firming capacity imports and activating Hourly Demand Response, Interruptible Rate Pilot and Peak Perks. The Industrial Conservation Initiative would have responded as well given the high demand. In real time, imports around 2000 MW did materialize and on June 19 the system also saw a good amount of wind generation.

Next Steps

As the Ontario system continues to get tighter with increasing demands there will be greater reliance on all types of resources including demand response to help meet system needs and maintain system reliability. The performance of these resources will be important to understand how much can be relied on as we go through upcoming periods of stress on the system. Results from the recent activations will be assessed once the data becomes available.