

IESO Resource Adequacy Update – June 27, 2023

Resource Adequacy Update

As the need for new electricity resources in the near and long term in Ontario grows, the IESO is continuing to make significant strides towards meeting those needs. The most recent procurement for long-term supply has now concluded, while complementary processes are also securing resources to respond to upcoming system needs.

Capacity Auction Targets

This year's Capacity Auction, which will take place in November, will target 1,400 MW for summer 2024 and 850 MW for the winter of 2024/25. The auction is a key mechanism to help meet seasonal peaks. These targets have been increased by 200 MW for summer and 100 MW for winter compared to those for the 2022 auction.

The auction is expected to continue to attract a more diverse set of resources, including growing participation from demand response and imports, reflecting the ongoing evolution of Ontario's electricity sector.

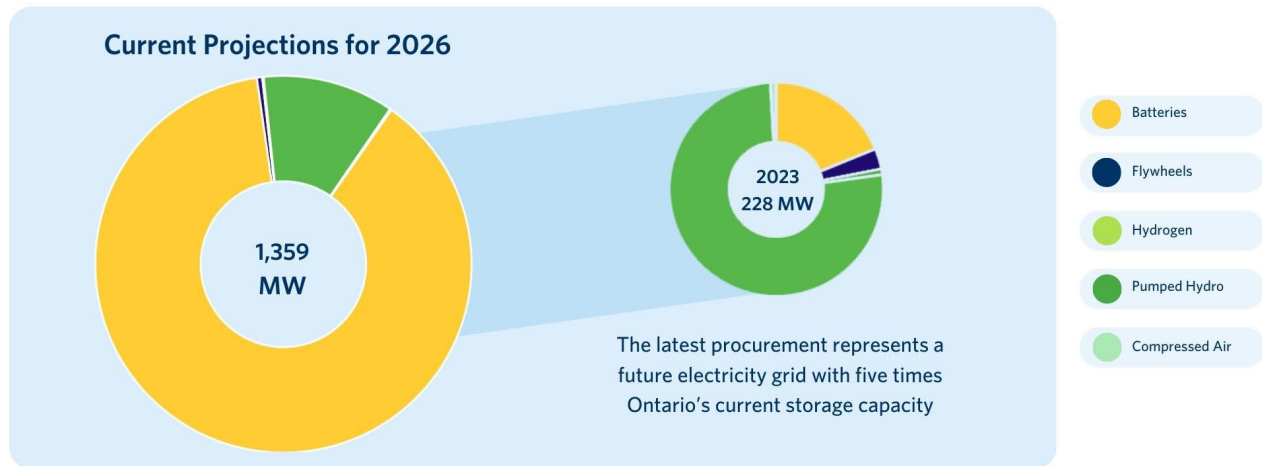
In keeping with the adaptation of its planning processes, the IESO will also introduce an enhancement to the auction to reflect a more accurate representation of available supply. It will now target unforced capacity instead of installed capacity, which takes into account real-world factors and past performance that can affect how much a resource can contribute under various conditions.

The auction acts as a flexible balancing mechanism and will continue to be relied upon to help meet Ontario's short-term electricity needs. Both summer and winter target capacities are expected to see continuing growth as the transformation of the province's electricity grid progresses, with peak demand expected to increase by an annual average of 1.2 and 1.8 per cent in summer and winter respectively.

Acquiring new supply

The IESO has now concluded the competitive expedited procurement for electricity storage, which has added another [eight facilities](#) and 142 MW to the province's planned storage fleet. Combined with the first tranche of storage projects announced in the [May 2023 Resource Adequacy Update](#), these new projects will result in a total of 882 MW of storage capacity overall from the procurement.

All are scheduled to be in service no later than 2026, and represent a battery storage fleet five times that of Ontario's current capacity. As with last month's announcement of storage projects, all have received municipal support.



Energy storage will be a key enabler in meeting Ontario's future needs, and the Long-Term RFP, launching this fall, will build on these results, completing Ontario's overall procurement of approximately 2,500 MW of storage that will be online toward the end of the decade.

Contract Prices

The expedited long-term process has provided Ontario ratepayers with a highly cost-effective approach to securing the flexibility needed to manage peak demands and changes in system conditions.

As the IESO continues to adapt its practices to meet evolving market and system needs, it will provide individual contracted capacity prices when all agreements are finalized, encouraging transparency and helping to ensure our market is robust and competitive. Contract capacity prices for the expedited procurement reflect competitive market value, as 44 proposals competed to offer a total of 3,500 MW to the system. These positive results set the stage for the next stage in the procurement process which is launching this fall.

The weighted average price for the 15 successful storage proposals is \$881.09/MW Business Day, with contracts extending to 2047 (20+ year contracts). The weighted average price for two natural gas expansion projects is \$1,093.22/MW Business Day, recouped over contracts out to 2040 (13 year contracts). These natural gas contracts have built in provisions to provide reliability over the near term and comply with federal regulations once they come into force.

Like batteries, natural gas provides flexibility to the system by quickly ramping up and down to meet changes in demand and augmenting the availability of other forms of generation. Batteries, however, can generally only provide energy for about four hours at a time before recharging. Natural gas generation is able to provide peak power for longer and more sustained periods of time, and can run for 12 hours or longer when necessary, for example through enduring weather events. Natural gas can also provide operability services that help stabilize voltages and frequencies on the transmission

grid. As such, the LT RFP will continue to procure natural gas resources balancing its use as a transitional resource to help maintain reliability as Ontario develops and grows its storage fleet.

In general, contract prices vary as different resources perform different functions in supporting system reliability and therefore cannot be easily compared. And in the case of storage and other emerging technologies, pricing structures are evolving rapidly.

Note that these prices cover only the fixed capital and operating costs, which are in addition to expected revenues for actual electricity production that facilities receive from offering into the wholesale electricity market. More detailed pricing information about each project in the expedited procurement will be available upon completion of all contracts.

Same Technology Upgrades

Agreements for efficiency upgrades at existing natural gas facilities continue to be finalized through the Same Technology Upgrades solicitation, which is securing up to 291 MW of capacity through enhancements to existing equipment. Upgrades and contract extensions have been secured for the St. Clair Energy Centre and York Energy Centre, both of which are now included in the [current list](#) of projects.

Through contract upgrades and extensions, significantly lower rates have been secured for a number of these generators, reflecting the cost-effective nature of leveraging existing facilities and providing effective ratepayer value over the course of their contract lives. Aggregate pricing for these agreements will be released once all agreements are finalized.