

IESO Selects New Energy Storage Projects

Ontario's Independent Electricity System Operator (IESO) has offered contracts to five companies for nine separate energy storage projects totalling 16.75 megawatts (MW). These projects mark the completion of the IESO's plan to secure a total of 50 MW of energy storage in Ontario. Once the projects are in service, they will demonstrate their ability to support reliability by responding to changing grid conditions.

The IESO followed a competitive Request for Proposal process to select the five successful companies, which are Ameresco Canada Inc., SunEdison Canada Origination LP., NextEra Canada Development & Acquisitions Inc., NRStor Inc., and Baseload Power Corp.

The approved projects include four solid batteries, representing eight MW; four flow batteries, representing seven MW; and one compressed air system, representing 1.75 MW. The 10-year contracts cover projects that range in capacity from one to two MW each.

A backgrounder with additional information about the projects is available at <http://www.ieso.ca/Documents/media/Backgrounder-Energy-Storage-Procurement-PhaseII.pdf>.

"Storage technology remains one of the most innovative and exciting aspects of our energy policy, particularly because of the incredible potential it presents. It will help strengthen our system and improve service to electricity consumers," said Bob Chiarelli, Minister of Energy. "Our government is proud to see the leadership of these five Ontario companies as they move forward to create good jobs and invest in their local economies."

"The energy storage market is maturing," said Bruce Campbell, President and CEO of the IESO. "Now that we have completed our two-phase procurement process for a total of 50 MW of new energy storage in Ontario, we look forward to having these facilities up and running. These projects will help us better understand how energy storage technologies can support the operation of the grid by providing much needed quick response and operational flexibility."

"I'm proud to have an innovative energy company like Baseload Power Corporation here in Halton," said Indira Naidoo-Harris, MPP, Halton. "Successful projects like this one have the potential to improve efficiency and reliability for the province's electricity consumers. This is an important initiative for our community and our province."

"We are very pleased to be working together in a dynamic public-private partnership with the IESO and Milton Hydro Distribution Inc. to build a leading edge flow battery in Milton," said Jonathan Sandler, President and CEO of Baseload Power Corp. "Our project and technology will support the grid and use electricity more efficiently."

Through its Alternative Technologies for Regulation initiative, launched in 2012, the IESO is already using storage technologies as a source of regulation, a specialized service that maintains second-by-second balance on the grid. This latest set of contracts, by contrast, is focused on the capacity value – the ability to be available to store energy and provide it back when called upon – and the arbitrage value – the ability to store energy during periods of lower prices and inject it back into the electricity system when prices rise – of energy storage.

Energy storage has the potential to transform how the IESO plans and operates the power system by providing a range of real-time grid balancing services and injecting or withdrawing energy on demand. Under some conditions, it can reduce local congestion in transmission and distribution networks, which will allow utilities to defer, or even avoid, expensive system upgrades; optimize the performance of renewable resources by smoothing out natural fluctuations in solar and wind production; and provide ramp support when demand for electricity rises (or falls) quickly.

The IESO manages the province's power system so that Ontarians receive power when and where they need it. It plans and prepares for future electricity needs and works with its partners to guide conservation efforts.

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