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Tapping into the Potential of Community Energy: IESO announces \$1.4 million investment in smart grid projects

Oakville, November 10, 2021 – With more than 5,000 megawatts of local energy supply available in Ontario, communities are playing an increasing role in providing for their own energy needs. The Independent Electricity System Operator is investing \$1.4 million to test smart grid platforms that more efficiently co-ordinate energy use and supply on a local level. Additional funding of \$2 million is being provided by project partners.

“Small-scale electricity supply in communities is growing rapidly with local generation, storage and demand response projects becoming increasingly cost-effective and reliable,” says IESO President and Chief Executive Officer Lesley Gallinger. “As grid operator, we see great potential for communities to help meet their own energy needs, but also help us in our work to ensure reliability across the province. These projects will help make that happen.”

Through its Grid Innovation Fund, the IESO is supporting three pilot projects that demonstrate how locally-based supply can operate in tandem with broader grid operations. Each focus on a different aspect of interoperability between local distribution networks and the provincial grid.

Co-ordinating Provincial and Local Electricity Networks:

This project will provide a platform that brings together real-time energy supply and consumption information at the local level – giving local hydro companies a more detailed view of local energy sources within their systems, and identifying where local suppliers can provide energy to meet local demand. It is a partnership with Survalent, Elexicon Energy, London Hydro, Waterloo North Hydro, and Oakville Hydro. The IESO is providing \$500,000 to the project with additional investments of \$500,000 from project partners.

Creating Local Energy Markets: This simulation project will model how local distribution companies can operate dynamic local electricity markets, similar to the IESO wholesale market operating at the provincial-level. Here, local energy resources will compete to provide supply to meet local demand on an ongoing basis. This project is a partnership with Powerconsumer Inc., Newmarket-Tay Power Distribution, Elexicon Energy and NODES-tech. The IESO is providing \$480,000 to the project with additional investments of \$1.1 million from project partners.

Enhancing Local Electricity Demand Forecasts: A new tool using real-time utility data and machine-learning techniques will be developed to create improved, hyper-local demand forecasts. More agile planning will help optimize the use of solar panels, energy storage and electric vehicles to meet local needs. This project is a partnership with Peak Power, Oshawa Power, and EnerFORGE. Funding amounts of \$425,000 will be provided by the IESO and an additional \$425,000 from project partners.

“Local energy supply is playing an important role as part of Ontario’s electricity grid, helping communities meet their own energy needs and supporting the grid as a whole,” said Todd Smith, Minister of Energy. “The IESO’s Grid Innovation Fund, and the projects it’s supporting, will test and demonstrate how we can improve the integration of distributed energy resources with the goal of improving reliability and affordability for customers.”

Smart grid technologies help reduce energy costs for customers, improve the reliability and resilience of the distribution system and lead to more sustainable outcomes in the communities they serve. By supporting the development of local energy supplies, smart grid technologies also reduce reliance on the provincial grid and the need to build large infrastructure such as transmission lines and large generators.

Since its inception in 2006, the IESO’s Grid Innovation Fund has supported 230 projects, taking innovative ideas from partners and turning them into knowledge that enables the reliability, effectiveness and resilience of the provincial electricity system.

For more information on local energy supply in Ontario, please see [Backgrounder](#).

Additional Quotes

“Local energy supply has the potential to promote more sustainable communities and reduce pressure on the provincial system as well as the need to build new large infrastructure. The three exciting projects announced today will each focus on a different aspect of interaction with local distribution networks and the provincial grid.”

- Stephen Crawford, Parliamentary Assistant to the Minister of Energy

“We are pleased to join the IESO on this historic initiative. It is exciting to be the technology partner creating the future path for the energy marketplace in Canada. We are committed to creating an information platform that is scalable and vendor-agnostic so that it can be easily applied across other jurisdictions in the future, with little-to-no technology risk.”

- Steve Mueller, President and CEO, Survalent

“The project is about working together to estimate the potential for local energy markets to deliver more affordable, reliable, resilient, and environmentally sustainable electricity systems in local communities.”

- Adam White, Founder and CEO, Powerconsumer

"The electric grid is going to become the new gas station. We have to make sure our grid infrastructure is ready for the high adoption of EVs. We are excited to team up with Oshawa Power and the IESO to build a grid that can support a cleaner energy future."

- Imran Noorani, Chief Strategy Officer, Peak Power

About the IESO

The IESO operates Ontario's power grid 24 hours a day, 365 days a year, ensuring Ontarians receive a reliable and cost-effective source of power when and where they need it. It works with sector partners and engages with communities across Ontario to plan and prepare for the province's electricity needs now and into the future.

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