

Backgrounder: GIF/Sandbox Announcement

Additional Project Information and Quotes

These pilot projects bring businesses and consumers together through competitive markets to reduce or manage electricity demand on the local and provincial electricity grid. These projects will test the effectiveness of co-ordinating multiple energy resources between the local and provincial grid, and demonstrate how local energy supply can support electricity needs and help defer electricity infrastructure upgrades.

Local Businesses Supporting Grid Needs – This project will demonstrate a streamlined approach to participate, measure, and verify the capability of a group of resources from 11 different businesses across the province to either reduce their electricity use and/or leverage on-site batteries to meet real-time energy needs of the grid. The outcomes from this project will support future discussions regarding enabling distributed energy resources in Ontario’s electricity markets, providing cost-effective and sustainable alternatives to help meet growing electricity needs. Partners include: Enel X North America and 11 host sites throughout Ontario.

Project Locations: Across Ontario

“Ontario can only meet its net-zero by 2050 ambitions if we unlock the value of energy storage, which is critical for a clean, electrified future. Across Enel X projects, we continue to see distributed energy resources reduce demand on the grid, lower energy costs, improve sustainability, and deliver economic value. Leveraging our technology, assets and global experience, we’re ready to help shape the future of Ontario’s energy marketplace.”

- Surya Panditi, Head of Enel X North America

A Local Electricity Market for Windsor-Essex – Designing and implementing a real-time, local electricity market for Essex Powerlines customers who can supply electricity or reduce electricity use on demand to provide services to the local and/or provincial grid. As electricity demand is growing fast in southwestern Ontario, the success of this pilot local market if operated on a broader scale could improve grid flexibility and resiliency, and help reduce or delay the need for infrastructure upgrades to meet higher peak demands.

Partners: Essex Powerlines, NODES, Essex Energy Corp., Utilismart Corp.

Project Location: Leamington

"I am very proud that Essex Powerlines and our partners, are collaborating with Ministry of Energy, IESO and OEB, leading the way to define the future of utilities not only in Ontario, but across North America. This initiative will enable power system flexibility, adaptive infrastructure and most importantly customer choice, which addresses the many challenges we face."

- John Avdoulos, President and CEO, Essex Power Corporation

"The ability to leverage existing energy resources and utilize data driven decisions will provide tremendous value to all stakeholders, rate payers, utilities, service providers, generators, system operators, regulators and Government. We appreciate the leadership from the Ministry of Energy, OEB and IESO... Grid Innovation Fund is game changing!"

- Steve Ray, Chief Operating Officer, Essex Power Corporation

"The Grid Innovation Fund allows Essex Powerlines to become one of the first Distribution System Operators in Canada. This is a very exciting time for the industry, and our company, as this project will address constraints and allow flexibility to our distribution system."

- Joe Barile, General Manager, Essex Powerlines

"The Essex Energy Team, along with our partners, are working together to break new ground in the energy sector. As we know, the industry is evolving at a rapid pace. This project looks at the bigger picture of going beyond the current needs, making best use of existing and emerging Distributed Energy Resources."

- Tim Sturgeon, General Manager, Essex Energy Corporation

"We are looking forward to working with Essex Powerlines (EPLC), the IESO, the Ontario Energy Board and partners to explore how a flexibility marketplace can create a more efficient energy system by digitalizing the whole value chain. The project will allow for new and existing Distributed Energy Resource (DER) owners to monetize their assets and greater price discovery around flexibility availability and scarcity in the grid. Our ambition is to contribute with market experience from Europe and provide a technology and design to help create a more efficient network where EPLC can make more informed decisions on where to invest or defer investment. Eventually, creating greater social welfare for consumers."

- Svein Jørgen, Head of Technology, NODES

"Utilismart is proud to partner with this group of forward thinking industry leaders on this pivotal project. Assisting customers with analytics and showing how to turn data into decisions, has been the company's expertise for 20 years. This project will allow Utilismart to help utility customers truly understand their ability to connect energy resources like electric vehicles, charging stations and generators."

- Jayna Sweeney, Vice President, Operations and Corporate Services, Utilismart Corporation

Demonstrating the Benefits of Simultaneously Providing Local and Provincial Capacity –

Determining how a local distribution company can run a local demand response program while simultaneously providing capacity to the provincial grid from the same resources. The participants of this dual 9 MW demand response program include consumers who can reduce their electricity use during times of high demand. Participating customers will have access to new revenue stream for

services to both the local distribution system and the provincial grid. This project will explore the coordination activities between local and provincial grids and quantify customer benefits.

Partners: Toronto Hydro, Power Advisory LLC, Ryerson Centre for Urban Energy

Project Location: Toronto

"Bold action is required by the sector to unlock new ways of enabling the flow of electricity. We are proud to be working collaboratively with the IESO, OEB, our partners, and Torontonians to power transformation as we build the local interactive grid and utility of the future."

- Anthony Haines, President and CEO, Toronto Hydro

A Campus Demonstration of Energy Resources – Demonstrating the capabilities of a group of various distributed energy resources such as eight electric vehicle chargers, two 500 kW battery storage systems, a 2.4 MW combined heat and power generator and solar array at Ontario Tech University to provide local and provincial grid services. This project will explore the co-ordination of these resources to provide services that improve electricity reliability, and reduce or delay the need for infrastructure upgrades to meet higher peak demands.

Partners: Peak Power Inc., Oshawa Power and Utilities Corp., Ontario Tech University

Project Location: Oshawa

"The adoption of building-sited batteries and electric vehicles is only going to keep growing. On their own, they help make businesses and transportation greener. When operated together, they can make the whole electricity system cleaner. And drive down energy costs for everyone. Cross-stakeholder collaboration is critical to enable this future, which is why we're very excited about working with the IESO, OEB, and Oshawa Power."

- Derek Lim Soo, CEO and Co-Founder of Peak Power