



Enersource Simplifies Operations Center with Smart Grid Technology

Enersource Hydro Mississauga Canada

Enersource is the second-largest electricity supplier in Ontario, Canada, serving more than 185,000 customers with an electrical system that spans more than 5,000 kilometers. Enersource delivers service reliability to its customers, and the total duration of service interruption per customer is consistently below the Canadian utility average.

To continue to meet customer expectations for reliable service, Enersource needed a more efficient method to control the electric grid, which includes 65 municipal substations and 24,000 distribution transformers. The utility used various software and computer consoles to manage operations. Operators used different applications for geographic information systems (GIS), supervisory control and data acquisition (SCADA), internal work processing, and many other systems for day-to-day electric grid management. This required operators to switch among multiple systems in the control room, which increased the complexity and time required to monitor and analyze data.

Enersource also wanted to leverage its GIS data so all users could have easy digital access to information. This would speed the elimination of paper wall boards, maps, and other processes and streamline the flow of information across the utility.

Overcoming Challenges

- Provide a consolidated user environment for system operators

- Eliminate paper processes and wall maps
- Leverage existing GIS data

Realizing Results

Enersource decided to implement a fully integrated smart grid system to improve operational efficiency. The utility worked with Hexagon's Safety & Infrastructure division and Siemens to integrate and automate the various assets and functions of its power grid with an integrated operating model (IOM). The IOM combines Hexagon's utility applications with Siemens' Distribution System Power Flow (DSPF) application to create an integrated command-and-control environment.

Enersource divided the project into two phases because of its complexity. During the first phase, Enersource implemented Hexagon's outage management system (OMS). It allows the utility to use existing GIS information regarding 917,000 assets, including transformers, utility poles, meters, conductors, and others, with Hexagon's OMS software to enhance functionality for trouble analysis, call-taking, receiving SCADA alarms, and dispatch, work, and network management. Enersource successfully launched the first phase in September 2008.

The project's second phase involved the integration of load flow analysis with power distribution software from Siemens, two-way SCADA interfaces, and additional OMS

software functionality to allow operators to manage the network. The Hexagon solution gives operators a single user interface to monitor, analyze, and control network data. The unified command-and-control environment provides easily visualized, actionable intelligence in the form of alarms, events, work orders, and other activities, allowing for quick detection and remediation of outages and other potential issues.

The IOM helps Enersource work more efficiently under both normal and storm conditions, as well as ensure it has the most up-to-date and accurate information. In addition, the IOM results in more reliable power for Enersource customers.

Moving Forward

Enersource will continue to leverage its smart grid technology and provide more users with geospatial data. It plans to implement Hexagon technology that allows additional users throughout the enterprise to access the solution software. Enersource also wants to use the Hexagon solution for mobile workforce management, and expand the system with additional geospatial technology.

Enersource purchased its first Hexagon system in 1989 and uses it throughout the organization today. The utility credits Hexagon software for helping it deliver safe and reliable power across its service area and will continue to rely on it in the future.



Utilizing Hexagon solutions allows us to keep building on a quality product that provides Enersource with the confidence to deliver reliable electricity for customers now and well into the future.”

Raymond Rauber
Vice President of Engineering & Operations
Enersource

“The IOM implementation is providing a good foundational basis to help Enersource meet the growing energy demands of tomorrow without sacrificing the excellent service and safety it has delivered for the past 90 years,” says Raymond Rauber, vice president of engineering and operations for Enersource. “Utilizing Hexagon solutions allows us to keep building on a quality product that provides Enersource with the confidence to deliver reliable electricity for customers now and well into the future.”

Hexagon is a global leader in sensor, software and autonomous solutions. We are putting data to work to boost efficiency, productivity and quality across industrial, manufacturing, infrastructure, safety and mobility applications. Our technologies are shaping urban and production ecosystems to become increasingly connected and autonomous — ensuring a scalable, sustainable future.

Hexagon's Safety & Infrastructure division provides software for smart and safe cities, improving the performance, efficiency and resilience of vital services.

Hexagon (Nasdaq Stockholm: HEXA B) has approximately 20,000 employees in 50 countries and net sales of approximately 3.8bn EUR. Learn more at hexagon.com and follow us @HexagonAB.