IVARA
WORK SMART

Case Study

EPCOR IMPROVES OPERATIONAL EFFECTIVENESS USING IVARA SOLUTION

EPCOR Utilities Inc. *is one of Canada's top providers of energy and energy-related services and products. Drawing on over 100 years of experience, EPCOR owns and operates power plants, electrical transmission and distribution networks, as well as builds and operate water and wastewater treatment facilities and infrastructure. With over $4 billion in assets, EPCOR provides power and water solutions to customers in Alberta, British Columbia, Ontario and the U.S. Pacific Northwest. EPCOR is headquartered in Edmonton, Alberta.*

The Situation

EPCOR Utilities is an industry leader providing a comprehensive combination of utility services through a number of subsidiary companies.

EPCOR Water Services Inc. (EWSI) provides water to one million people in Edmonton and 45 surrounding communities in Alberta's Capital Region. The company maintains a 3,100 km water distribution network, 15,000 fire hydrants and 41,000 valves. In 2004, EPCOR treated over 121 billion litres of water at its Rossdale and EL Smith Water treatment plants. EPCOR also provides water and waste water services to communities throughout Western Canada.

EPCOR Distribution Inc. (EDI) provides electrical distribution services to customers in the City of Edmonton through 4,187 km of aerial and underground distribution lines. EDI's 500 employees have a tremendous record of safety and reliability. EDI is regulated by the Alberta Energy and Utilities Board.

EPCOR realized that improving asset and operational effectiveness would not only enable the company to better manage costs, but also improve customer service. The specific objectives of the project were to increase maintenance workforce efficiency, reduce asset lifecycle costs, improve asset management as well as asset reporting and accounting procedures.

EPCOR determined that a proactive asset management process was required to achieve their business goals.

The Challenge

Before launching a reliability initiative, EPCOR needed to first develop an overall strategy for improvement that would work for four different departments within EDI and EWSI, each with different requirements.

EPCOR already had other work management systems in place. Yet, the existing systems lacked the functionality and scalability required to meet EPCOR's increasingly sophisticated needs. After careful analysis, EPCOR determined that a new asset management system could provide the company with significant benefits.

EPCOR required a solution that was highly robust flexible and capable of reporting to a high level of detail when necessary. In addition, the solution had to be easy to use as some business units had little experience with an asset management system. For these units, the new system would mean a significant change in the maintenance culture.

Equally important, they needed a solution that would not become obsolete in the foreseeable future but would grow actively with the utility and its changing needs. Specifically the Water Plants and Power Substations groups were looking for a solution that would support the development of a reliability centered maintenance process.

Furthermore, as the system would be implemented across four departments, EPCOR needed to achieve a broad consensus on the new solution.

The Solution

After a detailed examination of its own short- and long-term needs, and an evaluation of competitive offerings, EPCOR selected Ivara's reliability solution.

Implementation of the Ivara solution is enabling EPCOR to transition from a reactive maintenance mode to a reliability-focused approach to maintenance. EPCOR has laid the foundation for improving the reliability of the key assets – those that pose the highest risk to business performance.

With Ivara, EPCOR immediately put an effective asset management program into place improving work management, enhancing parts storage and distribution as well as improving cost control and financial reporting.

EPCOR found that Ivara's total solution had some other key advantages:

Flexibility: Ivara's flexible software and processes allowed EPCOR to implement a single, effective system across multiple business units, yet allow each to tailor the solution to meet its own unique needs without compromising supportability.

Ease of Integration: Ivara's solution leveraged existing software, allowing for seamless integration. This capability was especially valuable to EPCOR as it ensured the financial accuracy and referential integrity of data.

Knowledge transfer: Rather than simply training customers, Ivara provided coaching and mentoring services to ensure that EPCOR developed the required skills to become fully competent in all required areas. Ivara worked with EPCOR to ensure they had all the expertise necessary to sustain and grow improvement initiatives without being dependant on external support.

The Result

Since the implementation of the Ivara reliability solution, EPCOR has achieved significant benefits.

EPCOR has been able to improve service and avoid cost increases. The solution has allowed for improved efficiency and reallocation of staff across the business units.

EPCOR has recorded an efficiency improvement for the Stores/Warehouse staff due to improved access to information. In particular, the Ivara reliability solution allows operations and maintenance staff to access spare parts information directly. The solution's ease of use allows a broad range of employees, with varied levels of technical experience, to access inventory information seamlessly. This significantly increased productivity and greatly reduced the amount of time warehouse personnel were required to spend answering queries.

EPCOR repositioned Data Capture staff into higher value roles. In addition, with the increased efficiencies made possible by the Ivara reliability solution, the power distribution business unit was able to use existing staff to support a much more detailed level of asset accounting as required by provincial regulators.

EPCOR Water Services has improved maintenance scheduling and cost reporting functions. In addition, a newly-developed asset structure hierarchy makes it easier to locate assets, and a consolidated Maintenance Work Standards Library simplifies work order creation and improves consistency. These benefits also help EPCOR address safety and environmental concerns as well as improve repair efficiencies.

Equally important, Ivara's reliability solution supports faster management decisions. Repair vs. replace evaluations, for example, now take place almost instantaneously because the information is always up-to-date and readily available. This improved data visibility also has had a positive impact on long range planning.

Conclusion

As the implementation progresses, EPCOR is poised to take the next step in maintenance effectiveness – increased condition-based maintenance inspections, and a technically-based work identification process.

EPCOR's maintenance activities are now better aligned with the business goals of the company. With Ivara's reliability solution, EPCOR is moving toward their vision of providing competitively priced, safe, reliable and environmentally responsible water and power.