Schneider Electric's energy management system enables nickel mine to maximize energy efficiency, reduce environmental footprint

Canada

"PowerLogic® ION Enterprise is a complete power management solution. It enables mines to reduce energy-related costs, avoid downtime and optimize equipment utilization."
- Eric Langford, President, Langford & Associates Inc.

One of the most significant costs for any mining operation is energy. Mining is a very machine-intensive operation and all machines require power to operate.

When a mining company began planning its Ontario-based nickel mine, it wanted to ensure it kept its energy costs under control, while minimizing its environmental footprint.

After looking at solutions from several vendors, the mining company and its engineering partner Hatch chose to install Schneider Electric's PowerLogic® ION Enterprise Energy Management System and PowerLogic® ION power meters to manage the mine's energy consumption.

"Mines consume a huge amount of power and there's no way to manage what you can't monitor," says Josh Lilley, a senior electrical engineer with Hatch. "We wanted to know exactly how power was being used in the mine, where it was being used and when it was being used, so we could be as efficient in our power consumption as possible."

Schneider Electric™

PowerLogic® ION Enterprise allows customers to:

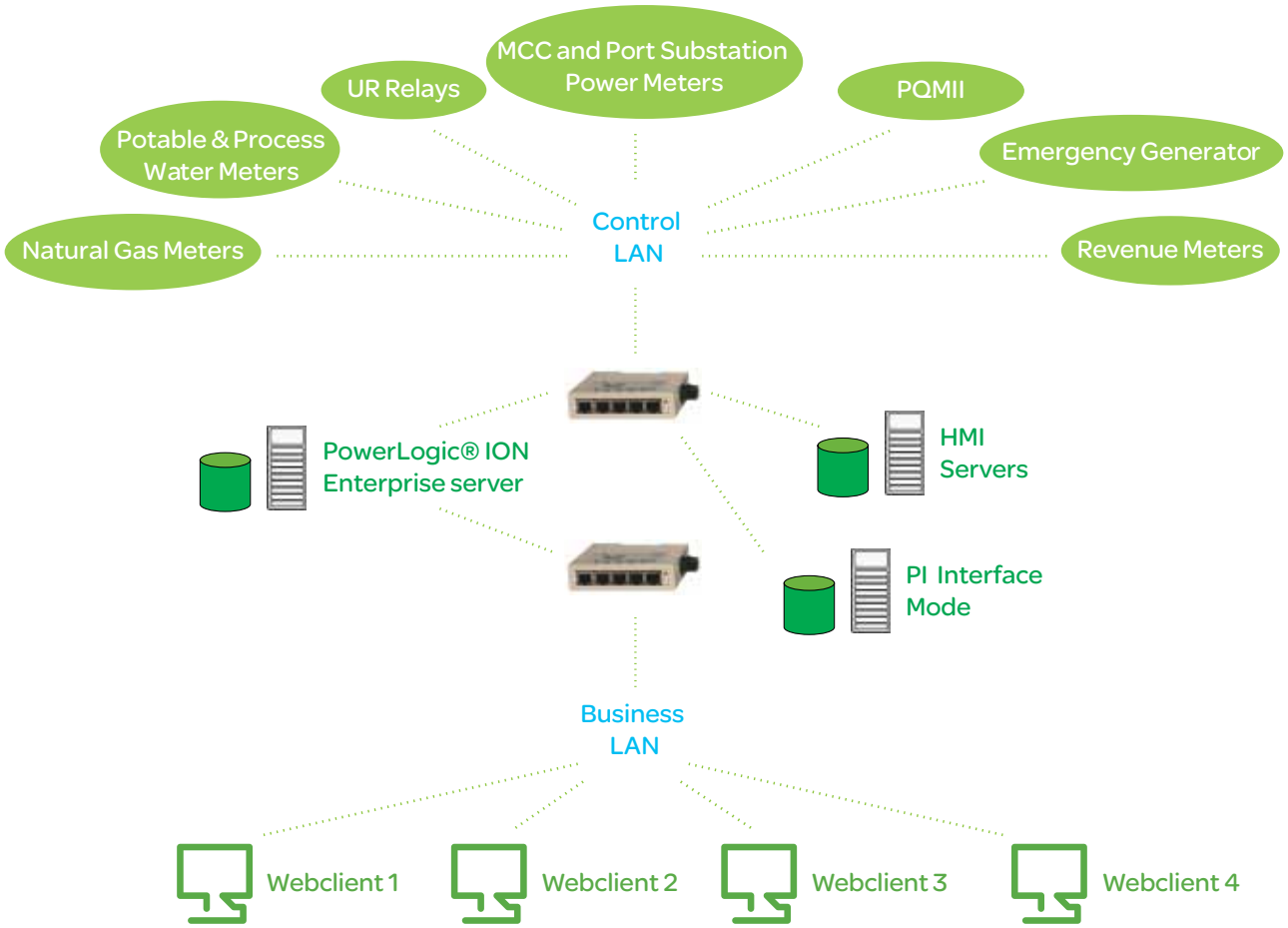
> Track real-time power conditions

> Analyze power quality and reliability

> Respond quickly to alarms to avoid critical situations

> Analyze historical trends to reveal energy waste and verify efficiency improvements

> Share data will all departments and other business automation systems



PowerLogic® ION Enterprise: A Complete Power Management Solution

The mining company and Hatch chose PowerLogic® ION Enterprise because it is one of the the most cost-effective solutions on the market, Lilley says. Also, the client had used PowerLogic® ION Enterprise at other mining sites for years and their personnel were very familiar with the system.

PowerLogic® ION Enterprise allows customers to track real-time power conditions, analyze power quality and reliability and respond quickly to alarms to avoid critical situations. The software allows users to analyze historical trends to reveal energy waste and verify efficiency improvements. Customized information can easily be shared with all departments and stakeholders and with other business automation systems.

PowerLogic® ION Enterprise can scale to collect data from hundreds of power meters. Statistics and customized graphics can be viewed by multiple users through a Web portal. Customers can configure PowerLogic® ION Enterprise to produce preconfigured or custom reports and the solution includes support for Microsoft Excel and a range of third-party reporting tools.

“PowerLogic® ION Enterprise is a complete power management solution,” says Eric Langford, president of Langford & Associates Inc., a provider of electrical equipment to industrial customers, which works with Hatch and their mining customers. “It enables mines to reduce energy-related costs, avoid downtime and optimize equipment utilization.”

The PowerLogic® ION Enterprise software collects data from power meters installed throughout the mine. Over 100 PowerLogic® ION7530 meters track energy and gas used on the surface and below ground; four PowerLogic® ION8500 meters monitor compliance with energy supply contracts, so it can confirm its bills; and three PowerLogic® ION6200 meters monitor the power generators.

Data from the meters flows into the PowerLogic® ION Enterprise server over an Ethernet network. Data is then pulled from the PowerLogic® ION Enterprise server to create reports. The data can also be pulled out by Web-based clients so statistics can be monitored in real-time.

“Our mandate was to monitor all the mine’s permanent infrastructure to enable the collection of baseline data,” Lilley says. “Once we established the baseline we were able to track changes to gauge their effect on our power usage. The Web clients allow personnel to track usage and make real-time decisions based on what they see.”

The mine consists of two shafts sunk 50 metres apart, with the main shaft extending over 1,700 metres underground and the vent shaft over 1,600 metres. Lateral underground developments off the shaft extend for approximately 21 kilometres.

“It’s a large project, but one of our mandates was to make the mine’s environmental footprint as small as possible,” Lilley says. “We’re confident the PowerLogic® ION Enterprise system will allow us to minimize our power consumption and maximize the efficiency of our power use, while keeping our utility costs as low as possible.”

Contact Us

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