

BC Hydro Implements Smart Metering Program to Modernize Grid

BC Hydro, one of North America's leading providers of clean, renewable energy, has partnered with Capgemini to deliver a smart metering solution. As part of modernizing BC Hydro's delivery infrastructure, the program will focus on attaining operating efficiencies, improving reliability, increasing customer service, and reducing pressure on utility rates.

The Situation

With a customer base of over 1.8 million on the west coast of Canada, BC Hydro, the country's third largest electricity utility, manages approximately 18,000 kilometres of transmission lines, 56,000 kilometres of distribution lines and 260 substations in British Columbia. However, like many utilities, much of BC Hydro's infrastructure is more than 50 years old and has not kept pace with the rapid growth of technology and other demands on the system. By upgrading the grid, BC Hydro aims to improve their distribution operations and deliver significant benefits to their customers.

The Solution

In order to achieve this, BC Hydro has initiated the Smart Metering Program, and as a first step towards modernizing BC's electricity grid, the utility will replace over 1.8 million conventional meters with smart meters by the end of 2012. By improving safety, reliability and customer service, reducing electricity theft and wasted electricity, and enabling conservation tools, BC Hydro is anticipating the program will deliver overall benefits of over \$1.6 billion CAD (approximately €1.22 billion), with

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BCH SMI Program, BC Hydro.



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at least \$500 million in net benefits to help reduce rate pressures for BC Hydro customers.

BC Hydro has partnered with Capgemini's Smart Energy Services (SES) to deliver the system integration; solution architecture; program management; deployment support; and operations support services in designing and delivering a program that will replace more than 1.8 million meters with smart meters.

"We chose Capgemini because they had an excellent track record and demonstrable experience of delivering large complex projects of this type," says **Gary Murphy**, Chief Project Officer for the BC Hydro Smart Metering Program. "This is a transformative program and our partnerships are an integral part of our success."

The Result

The Smart Metering Program will deliver the following benefits:

- **Keeping rates low.** BC Hydro can operate more efficiently with smart meters by reducing power loss, which will benefit BC Hydro's customers by helping to keep rates among the lowest in North America. Smart meters will save BC Hydro customers about \$70 million over the next three years alone.
- **New customer tools to manage energy use and save money.** Customers and businesses will have access to new smart meter enabled tools that they can use to manage and conserve their energy use, helping them save money.
- **Get the lights back on faster and more safely during power outages.** Right now, when the power is out, BC Hydro requires customers to call in to let them know. Smart meters will automatically send an alert to BC Hydro when the power goes out, so that crews can get to the outage and restore power faster.

- **Support innovative new uses of clean electricity.** Smart meters will create new opportunities in the green energy field by enabling small, local generation sources – such as wind, solar, biomass and geothermal – to connect to the grid, ensuring that energy remains clean and renewable.

"The investment that we're making in smart meters is the first step, and the fundamental backbone, that we need for a modern grid going forward," says **Greg Reimer**, Executive Vice President of Transmission and Distribution at BC Hydro. "The ability to measure and manage the flow of electricity through the grid will help to ensure that BC Hydro can continue to build on our conservation culture and deliver clean, green power in our province."

If you would like to find out more about this project, please contact: success.story@capgemini.com



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About BC Hydro



BC Hydro is a commercial Crown corporation owned by the Province of British Columbia. BC Hydro is one of North America's leading providers of clean, renewable energy, and the largest electric utility in British Columbia, serving

approximately 95 per cent of the Province's population and approximately 1.8 million customers. BC Hydro is responsible for reliably generating between 42,000 and 52,000 gigawatt hours (GWh) of electricity.

More information is available at www.bchydro.com.