

# MAKING THE MOVE TO SMARTER TECHNOLOGIES

By Cathy Tough

Canadian utilities are undergoing a fundamental change. Similar to what telephone companies went through in the 1980s and 1990s, they need to deal with a shrinking workforce while looking to optimize costs, reduce environmental impact, and deliver more and differentiated products and services to an educated and sophisticated customer base.

At the same time, the “consumerization” of energy is becoming a growing trend in utilities with the increased concern for the environment. Consumers are becoming more active participants in the energy delivery network by engaging in energy efficiency programs and deploying renewable distributed energy resources, sometimes regardless of the financial incentives to do so. In fact, Gartner estimates that 35 per cent of new and 15 per cent of existing residences in North America will participate in energy efficiency programs by 2015.

Utilities also need to contend with aging infrastructure, which has increased the demand on information technology (IT) to better monitor, diagnose and report on the performance and reliability of existing assets.

With the current volatile economy, it is important for utilities to incorporate smarter technologies – such as advanced metering infrastructure (AMI), mobile workforce management, customer self-services and intelligent network management – into their corporate and operational infrastructures and better manage increasing regulatory demands from a variety of sources. These technologies help deliver cost reductions that may be passed back to consumers and also help utilities enhance environmental stewardship.

Take AMI as an example. AMI solutions are expected to bring the utility industry one step closer to one of the most important technological challenges it faces over the next decade – implementing and integrating smart meter technology to provide energy more intelligently and efficiently.

AMI automates the transfer of energy and event data and enables bi-directional communication between utility back-office systems and utility assets in the field. Utilities can read meters remotely on demand, eliminating incorrect readings and reducing travel time and costs.

AMI moves along the increased adoption of services-oriented architecture (SOA). Previously siloed business and operational applications can now be seamlessly integrated to deliver end-to-end business process enablement. This move towards a process-centric organization can help utilities improve efficiency and lower the total cost of IT by eliminating costs associated with maintaining disparate and often redundant applications to perform similar functions.

As the economic turmoil continues, utilities will have to learn to do more with less.

In addition to the operational efficiencies AMI presents, AMI enables utilities to provide improved and flexible self-service customer service options, such as pay-as-you-go and time-of-use rate tariffs, by delivering greater transparency to the consumers’ energy usage and price of that usage.

Ultimately, the reduction of IT costs and increased efficiencies and flexibility AMI delivers can help utilities to increase bottom-line revenues while improving customer service.

To take advantage of smart technologies such as AMI and meet the increased demands in customer billing processes, Canadian utilities need to look into another important technology – the customer information system (CIS). A CIS is a very large and integral enterprise application for utilities that primarily supports customer-facing functions, including account maintenance, order

processing, billing, credit and collections, and accounts receivable. Sophisticated and extensible CISs support integrated business processes that span across various enterprise systems, including work and field service management, outage management, and asset management systems.

While cost is a major consideration for utilities in moving forward with infrastructure projects, and CIS represents a significant chunk of a utility’s IT investment, Canadian utilities are increasingly looking to invest in CISs to strengthen their operations and deliver improved services. A recent poll by U.S.-based UtiliPoint International revealed that 60 per cent of the Canadian utilities surveyed plan to replace their current CIS in the next four years, with 34 per cent planning no replacement before 2013. Many said they needed to make the switch to simplify their IT, better manage risk or because their current system was reaching end of support life. Almost half (49 per cent) noted their principal reason to switch to a new CIS was to support new product and service offerings. The study polled 40 Canadian utilities of all sizes, both private and publicly-owned and providing one or more commodity – electricity, water and/or natural gas.

In addition to pursuing CIS projects, Canadian utilities will be putting their efforts into renewing other legacy business systems such as enterprise resource planning, workforce management, enterprise asset management and geographic information systems over the next few years. Utilities will also focus on integrating customers’ AMI assets with back-office systems and improving enterprise and operational data consolidation and reporting.

As the economic turmoil continues, Canadian utilities will have to learn to do more with less. While Canadian utilities have always been conservative in their spending due to the public regulatory

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## Smarter Technologies

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review process in place in most provinces, capital spending towards modernizing aging energy infrastructures will undergo even greater scrutiny by the utility management boards and public utility review boards. To justify any new capital spending on technology or business applications, the technology will need to be leveraged across the enterprise to achieve the expected rate of return. Leading utility vendors recognize this shift in decision-making and are focusing their efforts on solutions that address the business needs of various business groups within the utility – creating greater integration and lowering total cost of ownership across utility processes and systems.

Adopting new-generation solutions may seem to require a lot of resources, but these systems deliver long-term benefits that justify the investment. These systems can help utilities achieve end-to-end process transparency, integration across the enterprise and enable easy, cost-effective adoption of new technologies such as AMI. With the significant cost reductions and improvements in customer service expected from these smart technologies, utilities can increase their responsiveness to customers' changing needs and become successful utilities of the future.

*Cathy Tough is National Director, Utilities, at Toronto-based SAP Canada Inc., which provides business software, consulting and educational services for utilities of all sizes in Canada and worldwide. For more information on the SAP® for Utilities solution portfolio, visit [www.sap.com/canada/industries/utilities](http://www.sap.com/canada/industries/utilities).*

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