By GARY MICHOR

Cooperation and Standardization

SINCE THE ONTARIO ELECTRICITY market opened on May 1, 2002, there has been an industry-wide sigh of relief that the technical mechanics of the market are working. In less than three months, more than 20% of Ontario's four million plus customers have switched to a competitive supplier, and the full business cycle of transactions has been completed. There were initial issues like interoperability among hubs, and technical hiccups, but none were beyond the expected.

The Ontario Energy Board (OEB) mandated the use of electronic business transactions (EBT) standards for communications between retail participants. The OEB, which regulates Ontario energy markets, implemented electricity deregulation by developing codes and standards through stakeholder consultation; this process took more than two years. One standard was EBTs to automate information exchange between players—local distribution companies who deliver electricity, and retailers who sell it. All players had to work together, at all levels, to

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ensure that information technology systems were compatible, and to provide mechanisms to validate messages, store data, and enable information to be audited and backed up. The market also had to cope with multiple versions of standards, new technologies in the marketplace, and the potential for growth.

EBT standards are based on XML (eXtensible Markup Language), a set of standards to transmit structured data that is flexible, secure and cost-effective. Although the use of electronic data interchange (EDI) for business-to-business communications is entrenched in the utilities industries, there are advantages to using XML. XML is a standard for which tools are used to define vocabularies that can be expressed in data-exchange specifications and are readily available.

XML can transmit data over the Internet, making it more affordable and interchangeable. EDI often requires a large initial investment in software and, until recently, special value-added networks with high ongoing costs to pass data. The EBT system implements important business processes such as enrollments, usages, invoices, customer billing and settlements. Participants send secure

messages in XML to an EBT hub over the Internet. Trading partners pick up messages from the hub, perform required actions, and send response messages back to the hub.

Ontario's retail electricity market actually opened in March to cope with the large number of customers who switched to a retailer before the market opened, and to ensure stability when the market officially opened. Market implementation had to deal with a high switch rate, provide a system that was cost effective for even the smallest user, and train more than 100 participants. For a full year before March 2002, systems were tested; scenarios were designed, service agreements developed where needed, and technical issues resolved through open communication among stakeholders.

Linking from the customer back-office systems to the hub had to be consistent, and workflow processes had to be amenable to automation; data consistency and workflow has been greatly improved, and continues to be enhanced with the participants' cooperation. Systems had to accommodate peaks and valleys of data volumes and interpretation of standards were resolved through working groups. In some markets it can take a month or more for an enrollment to be completed, but the same process can happen virtually overnight in Ontario, making the market efficient and viable.

We foresee an increased need to standardize data exchange in the energy marketplace and developing standards through participant consultation seems key to success. As a result of recent problems in North American energy markets, the industry is rethinking business practices— placing increased importance on data, monitoring and the ability to audit. The market is expanding not only within distinct market settings, but also across deregulated markets. To get the data exchange to work efficiently and cost effectively requires developing global standards. We expect XML standards to play an increasingly important role in all energy market sectors, such as the natural gas market.

The Ontario market is vibrant and viable, with many active retailers and vendors. The development and implementation of EBT standards through a consultative process was key to this success. There are still wrinkles but the market is operating well. Other energy markets are now observing Ontario as a potential model. ■

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