

AMR / AMI / e-Billing Strategies

June 2009

As of June 2009, the ITRON AMR metering infrastructure has been integrated into the MDM functionality of ZYNXX. Lakeland REA was our first ZYNXX client to install AMR; with 1000 meters already deployed. Compliance with ITRON's software has also been implemented in cooperation with UTILITYnet's software development team at no additional cost to the REA. Automated Meters have been installed in all sites and the back office systems are running smoothly. The cost for the ITRON system (priced at \$105,000) gives a 1.6 year recovery of capital investment.

The AMR technology is promoted as a way of reducing the costs of meter reading, but there are a number of other business factors which should be considered when going down this path.

As you know, technology has advanced to collect and read the meter without a visual inspection through the use of radio, power line, and wireless-based communications – with two-way communications capability this is collectively known as Advanced Metering Infrastructure (AMI). AMI produces cost savings for the Wires Operators due to a reduction in labour costs and increased meter reading accuracy, making it easier to process billing data. With more advanced meters or smart meters, Retailers in theory are able to provide customers with price signals and more detailed usage data, giving them the ability to manage their usage in response to such information. With features such as outage reporting and restoration verification, advanced metering also provides Wires Operators with more capabilities to manage their distribution systems and operations more efficiently and reliably. But the cost of upgrading the back office infrastructure is significant and we are willing to work with the REAs if they opt to go down this path.

On a broader scale, what is missing in Alberta is the automated messaging systems necessary to notify customers, particularly regarding outages and pricing spikes. Additionally, with unbundling the business functions of the old utilities, the old relationship and line of communication between Wires, Retail and Consumer is broken. However, REAs are in a unique advantageous position whereas they have the benefits of a deregulated market – yet still the REA controls the wires operational plus retail side of the relationship with its members.

If you contemplate going down the path of true AMI, the risk that you need to address and the discussion you should have pertains to the cost and willingness of the LSA and AESO in handling the increase in data transactions. A possible consideration which should be evaluated is 'on-peak' and 'off-peak' pricing and as such, reducing LSA time-of-use data from 24 reads a day to just 2 reads. This would significantly reduce the cost of data processing and allow your members to take advantage of the concept of TOU pricing, giving your members the potential of significantly reducing power costs.

Further to the above, on an aggregated retail basis it will be possible to streamline the reconciliation of load settlement data, manage load and set in place recommended hedging strategies. It will also be possible to prepare real time margin analysis based on analysis of the RRO and competitive pricing points, and accordingly mitigate the REA's financial risk by collecting the payment from the consumer prior to paying AESO for the wholesale power consumed.

Entering the mainstream of electronic data and electronic bill payment processing (which is premised on a vision of working towards a paperless solution for REAs), not only requires individuals to move away from ingrained and comfort habits related to manual processes and generating paper bills, but also requires a significant investment. UNET is working towards this goal in terms of an integrated product development solution and a rock-solid secure infrastructure upon which the data is stored and from which it is delivered.

But why are we investing in pushing the concept of 'paperless billing' and what are the key business drivers? While the degree of internet penetration within the REA membership sector may lag other customer markets, notwithstanding we believe that in the future (and over the long term) by digitizing billing there are a number of valued benefits of which the REAs can take advantage. These include enhancing member satisfaction, customer retention, the potential for cost savings and improved cash flow management that will benefit all members of the REA itself. It is also the natural next extension in pushing the concept of AMR and eventually AMI to the logical final conclusion of a totally integrated seamless service which will eventually include pricing signals being delivered by the Retailer that will drive the concept of Demand Response (DR).

Members that are using online banking will be ideal customers who are more likely to convert to e-Billing customers as a consolidated way of making payments. Ideally, our ultimate goal will be to integrate the payment process directly with the members' banking institution so that they can view and pay their bill online directly through the bank account. Convenience and trust will be the driving factors that will push up the adoption curve. We believe that the issues of time saving, offering payment reminders, improved access to information, clutter reduction and environmentalism; all of which will become of increasing importance in the eyes of the average consumer (e-Billing delivers on all of these criteria).

Finally, at the heart of our operation is automated processing of detailed transactions thus mitigating the potential for human error in data manipulation. As I am sure you are aware, the key to the success of every business is access to data and turning raw data into useful information. We are producing scores of operational reports, some of which today are on the UNETgrid while others are within ZYNXX itself. These are intended for use by both operational staff, management and directors as it pertains to the stewardship of the business.

