



# Case Study: Horizon Power

Horizon Power Selects Itron to Deploy Multi-Application Advanced Metering Network Supporting Prepayment

## OVERVIEW

Itron's multi-application, IPv6 network platform is connecting Horizon Power's customers for an Advanced Metering Infrastructure (AMI) program, making it the first distribution utility in Australia to pursue a non-mandated AMI deployment and a customer pre-payment program.

Horizon Power is a vertically integrated government-owned utility serving 100,000 residents and 10,000 businesses in regional and remote parts of Western Australia. The utility has 47,000 customer connections spread across a vast service territory that spans 2.3 million square kilometres (approximately 888,000 square miles).

## THE CHALLENGE

Horizon Power had been using traditional card-based prepayment meters to assist customers in remote communities to manage their electricity costs and avoid accumulating debts. The solution worked well until the prepayment meters that had been installed stopped being manufactured.

Horizon Power also had to respond to a revised regulatory code of conduct for the supply of electricity to residential customers, which made significant changes to the provision of prepayment. The major changes included restrictions on disconnection hours as well as a requirement to be able to supply customers with data on their total energy consumption, as well as their average daily consumption and charges for the previous two years.





## THE SOLUTION

It became clear that Horizon Power would need an advanced metering solution. They chose Itron for the wireless communications network that would provide connectivity between the meters and the back office.

Horizon Power also chose SmartGridCIS, a US-based company specializing in smart prepaid billing solutions, to deploy alongside Horizon's existing CIS in order to provide all the functionality needed to manage the prepayment customers' accounts.

While many residential customers communicate with the utility through web payment portals, in home displays and mobile applications, those in remote, rural communities have fewer channels for customer communications, which creates challenges to gaining the full advantages of advanced metering and prepayment. As a result, Horizon Power has enabled prepayment customers to check prepayment balances from the display on the meter, which is updated every half hour.

Customers can also register their mobile phone number with Horizon Power to allow SMS texts to be automatically sent out based on triggers, such as low credit warnings.

Horizon Power also worked closely with the meter supplier Landis+Gyr to develop new meter firmware to provide the required prepayment functionality. The functionality allows Horizon Power to send commands to the meter to display the customer's balance, and several other messages such as a low credit warnings and disconnection.

The firmware provides the capability for Horizon Power to convert the meter from prepayment to post-payment billing over the Itron meter network. This means that Horizon Power no longer has to physically visit the premises to reprogram the meter if a customer requests to move between prepayment and post-payment billing, as they are entitled to do.

Since community engagement was critical to customer acceptance, Horizon Power selected a small community to pilot the solution before commencing a broader rollout. Horizon Power rolled out the new prepayment solution in mid-2014, starting with a pilot in 45 houses in one community, then seven communities in one area. After great success in the pilot communities, Horizon Power has now deployed approximately 1,000 advanced prepayment meters to over thirty Aboriginal communities across Western Australia.

## NEXT STEPS

Horizon Power is now in the process of replacing all the old prepayment meters in its service area as it deploys the AMI solution. The new meters enable customers to choose prepayment or credit metering and to switch between the two solutions as they desire. The prepayment solution has proven to be highly desirable, being selected by more than 90 percent of customers in the communities where it's available. In addition, this program is helping Horizon Power manage customer debt and keep customers connected.

Given the debt management and cash flow benefits of prepayment, Horizon Power is exploring ways of providing the option of prepayment billing to other customer segments in the future. This would need to include provision of additional payment channels such as direct debit and online payment through mobile applications. This will not be looked at in earnest until the advanced metering project being rolled out across Horizon Power's service area is complete.

*"Itron's multi-application advanced metering platform will help us deliver benefits to our customers and set up a platform for future benefits to allow customers to better manage their energy use. The technology should also allow us to reduce the cost of providing electricity to our customers by removing the need to manually read our meters as well as automating the reconnect and disconnect process when customers move, which now can take our crews a number of days given the vastness of our service area."*

**Frank Tudor, Managing Director,  
Horizon Power**



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