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Customer Satisfaction and Protecting the Environment
Salt River Project in Phoenix, Arizona delivers more than power



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CUSTOMER SATISFACTION AND PROTECTING THE ENVIRONMENT

SALT RIVER PROJECT IN PHOENIX, ARIZONA DELIVERS MORE THAN POWER

By Michael Lowe



In our nation today, a person walks into a dark room and instinctively knows to reach for a light switch to turn on the lights. We take it for granted that we have energy readily available at our fingertips. With a flick of the switch we can light a darkened room. One hundred years ago electric energy was just becoming a viable commodity that could be delivered and sold to consumers.

The availability of electric energy over a century ago quickly spawned an ever growing market of electrical products and devices that continually improve and become more sophisticated year by year. Without question, the availability of electric energy improves our quality of life. It has become a necessity. Energy consumers expect electricity to be always available, reliable, and affordable, and the demand for energy continues to increase.

To survive, remain competitive, and profitable in the energy business, utilities must work to add value to the services offered to customers, strive to get the most out of available resources, and optimise business operations. Salt River Project (SRP) takes pride in its efforts to do all three. For the last five years, SRP has been honoured as the highest-ranked power company in customer satisfaction in the Western United States by J.D. Powers and Associates. There is no secret formula to winning the award. The people at SRP know what it takes to deliver excellent service and they execute on business. Use of renewable energy is growing and SRP is involved with the



community to promote renewable energy programs. SRP also utilises state-of-the-art advanced metering infrastructure (AMI) technology to streamline business operations and reduce operating costs.

THE HISTORY OF SRP

More than a century ago, scarce water resources and a harsh desert environment challenged the early Arizona settlers to survive. In 1903, the local citizens and landowners who would become leaders in the Phoenix area formed the Salt River Valley Water Users' Association. They pledged more than 200,000 acres of their land as collateral for a government loan to build a massive water storage and delivery system. That loan was made possible by the National Reclamation Act of 1902. It provided funding for the construction of water storage dams and canals, bringing new hope to those who had struggled to develop the area.

The Association created the Salt River Project Agricultural Improvement and Power District in 1937. This organisation was a political subdivision of the state of Arizona to operate the power generation and distribution system. Together the Association and Power District later became known as Salt River Project.

GROWTH DRIVES THE DEMAND FOR POWER

SRP's electricity was first created by a hydroelectric generator at the Theodore Roosevelt Dam. The dam was built from funds received under the National Reclamation Act of 1902. The electricity produced by the dam initially supported SRP's first 13 customers at construction facilities, and in the growing agriculture and mining businesses.

In those early years, SRP's residential customer base began rapidly increasing each year. Growth was as much as 30% and demand began exceeding supply. In the late 1940s, SRP committed to system expansion, purchasing new equipment, using new technology and building new substations – essentially creating a new power system. Today SRP provides electricity to more than 900,000 retail customers over a 7,500 km² area in the Phoenix metropolitan area.

THINKING GREEN

SRP is the nation's oldest multipurpose reclamation project. From the beginning in 1903, the company's philosophy has been grounded in being good stewards of natural resources. The company strives to maintain a balance between serving growing customer needs and protecting natural resources. It does this by executing on well founded business principles that embrace environmental stewardship.

SRP regularly expands its energy portfolio to include a diverse mix of renewable energy technologies. The Board of Directors approved a management proposal in the spring of 2006 that directs SRP's future use of renewable energy resources and energy conservation measures. The approved portfolio sets a target of 15% of SRP retail sales to be met through sustainable resources by fiscal year 2025.

SRP's total current capacity from renewable sources is approximately 80,275 kW. It includes renewable resources such as:



- Wind
- Geothermal
- Landfill gas
- Hydro
- Solar (including solar plants and other photovoltaic projects).

SRP customers can voluntarily participate in the EarthWise Energy™ programme. Participants pay an additional fee each month to purchase renewable energy. The proceeds are used by SRP to build more solar projects in the community. For example,

the Phoenix Zoo and SRP are working as part of a joint effort to install solar powered interactive signage on 20 exhibits at the zoo. SRP also gives its customers incentives to install photovoltaic and solar water heating equipment.

UTILISING TECHNOLOGY TO THE FULLEST

With AMI technology, SRP will be able to offer time-of-use (TOU) metering to all of its customers. Customers who enrol can conserve energy and lower their energy bills by reducing energy consumption during peak rate hours. Before SRP began utilising an AMI system for residential service, only eligible customers could participate in the programme. To participate, a customer needed to provide easy access to meters because SRP personnel needed to perform several manual functions at the meter each month. People who had fences with locked gates or fenced yards with aggressive dogs were not eligible to participate.

SRP began testing Elster Electricity's EnergyAxis® System in September 2003. The EnergyAxis System is an AMI system that utilises a 900 MHz controlled mesh network. The communication network provides a dynamic and robust infrastructure for Elster's residential electronic REX® meters, A3 ALPHA® meter collectors, and A3 ALPHA meter nodes. EnergyAxis is a two-way wireless controlled mesh network that enables SRP to automate its meter reading and field service activities. It allows SRP to collect TOU data and monthly billing data from apartments, townhouses and residential homes. All REX meters are read daily for TOU data. Daily reads are done from a remote location and are fully automated by the metering automation server (MAS) in the office. SRP does not send out trucks or personnel to read EnergyAxis meters.

When SRP started testing in 2003, it was expecting to see significant improvements in productivity and customer services. After a successful test pilot, SRP began installing additional REX meters. Since then, the company has been expanding the system at a rate of about 10,000 REX meters per month. Some of the REX meters have an optional remote service control switch. The service control switch allows SRP to remotely connect and disconnect service at the meter. When this phase of the expansion is complete in May 2007, the system will have 175,000 REX meters and 45,000 of those meters will have the service control switch.

In January 2007, SRP had over 130,000 REX meters installed and the data gathered in January on operational improvements was impressive. SRP reads all the REX

meters in the system daily. Since deploying the EnergyAxis System, SRP has seen a savings of 137,000 km in vehicle expenses and has remotely completed over 85,000 field orders. In the past 12 months alone, SRP has completed over 9,000 remote connects and disconnects.

Every REX meter in SRP's EnergyAxis System is programmed to collect TOU data. SRP compiles the TOU data and uses it to educate customers on the potential savings that could be seen if they elected to participate in the TOU plan. The REX meters can be programmed and read from a remote location, therefore a meter reader does not have to visit a REX meter to programme it for TOU metering. This allows SRP to offer TOU rates to customers who normally would not have this option available because of access restrictions (locked gates, vicious dogs, etc.). For customers electing TOU rates, the switch to TOU billing can be made almost immediately and without the typical field visit.

The savings SRP has seen from automated daily reads and being able to remotely handle service calls from the office makes the system fully pay for itself. Operational expenses keep going lower as the number of meters in the field grows. But the savings and operational benefits SRP is receiving from the EnergyAxis System do not stop with service only. Other value SRP receives from the EnergyAxis System is the ability to install the system with its own field crews. No consulting companies or contractors are necessary. The EnergyAxis System is scalable and can be surgically deployed without any extensive infrastructure planning. The philosophy behind SRP's deployment strategy was to target the highest traffic areas first, i.e. areas that have the most field orders, and begin reaping the anticipated cost savings to finance the additional system expansion.

SRP began with 13 customers 70 years ago. Today, SRP serves over 900,000 customers and is the third largest publicly owned utility in the US. SRP is proud of its heritage and it continues to fulfil the vision and legacy of the pioneers who started the company in 1903. SRP delivers clean value added electric energy to its customers and is committed to sustaining the quality of life in the community by protecting the environment and vital resources. To accomplish this, SRP plans to continue leveraging state-of-the-art smart metering technology to lower costs, protect the environment and further empower the people at SRP with the tools to continue delivering award winning customer service. **MI**



ABOUT THE AUTHOR: Michael Lowe is the Customer Services Executive for SRP, with responsibilities for marketing, new product development, customer service, and revenue cycle services. In his role as change agent, he has implemented numerous initiatives that have helped SRP to win ten J.D. Powers Awards for customer satisfaction.

ABOUT THE COMPANY: Salt River Project is the nation's third-largest public power utility, serving 920,000 electric customers in metropolitan Phoenix, Arizona. SRP is also one of Arizona's largest water suppliers.

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