South Hadley Goes Solid-State

Itron electricity meters provide immediate return on investment

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background

Background

South Hadley Electric Light Department (SHELD), South Hadley, Massachusetts, has all but completed 100% deployment of a "Drive-By" AMR system for its residential, commercial, and industrial customers using the Itron MV-RS System and Itron electricity meters. This system upgrade has resulted in significant savings in meter reading operation and maintenance. South Hadley installed 6,700 residential meters, 720 commercial meters and 15 meters for large industrial customers.

The effort to complete AMR meter uses came as a result of SHELD's need to upgrade its existing electromechanical meters and the increased difficulty to manually read meters due to weather and customers' locked premises.

Several years ago, SHELD realized that the current electromechanical system was not getting the job done. Dave Koerber from Avcom, Itron's local sales representative, met with SHELD to discuss an Itron solution using VECTRON®, SENTINEL®, and CENTRON® meters. South Hadley Electric Department's ten largest industrial customers were changed over to the VECTRON meter with modem and EnergyTrac™ software, allowing the power supplier to interrogate the meters and industrial customers to see and analyze energy usage. In early 2003, SHELD began using SENTINEL meters to replace the VECTRON. Both the SENTINEL meter with mass memory and load profile and the SENTINEL R300 radio frequency meters have been deployed. Residential customers were upgraded to the Itron CENTRON C1SR and CENTRON CN1SR radio frequency meters.

South Hadley has been able to bring in Itron meters with the ERT® technology and continue to use the Itron drive-by reading system already in place with ease. South Hadley was using the Itron Handheld Meter Reading Device. These were used to hand input readings as well as radio reads during the conversion process. As the number of radio read meters increased, the handheld devices became overburdened. South Hadley replaced the Handheld units with the Itron Mobile Collection System.

deployment

Deployment

South Hadley Electric Light Department made a conscious decision to implement a quick installation of these new meters realizing that it was not simply purchasing electronic meters, but that it was investing in a newer technology. This meant getting the most from the new technology before it became obsolete. Meters were installed route by route and SHELD began recognizing an immediate return on its investment.

The project was completed in less than three years and was done without the use of outside contracting. The project was engineered and managed by SHELD's engineer, Andy Orr. The installations were completed by SHELD's electricians, Bob Blasko and Bill Gross. As part of the new meter installation, SHELD's electricians had the opportunity to inspect each meter socket and make any necessary repairs. In addition, each new AMR meter was locked with a special locking device at the meter socket. All the employees involved did an excellent job and were very efficient in their installation. Customer inconveniences were held to a minimum.

results

Results

SHELD realized immediate benefits from this project by reading its customers' meters on specific dates to better manage cash flow. In addition, system losses were reduced because the electronic meters have a much lower light load burden, thereby capturing more kWh's sold. As a final point, these electronic meters are very accurate and have eliminated many callbacks for re-reads.

Thirty-six routes were reduced to four routes that are read on the 1st, 8th 15th, and 22nd of the month. SHELD was able to reduce all of its meter reading into eight hours. With this improved use of resources, there is time to explore other projects to enhance revenues.

conclusion

Conclusion

Because this system works so efficiently, we have been able to redirect resources to other functions and are now exploring other means of employing the expertise developed during the project into other areas of revenue. SHELD is beginning to read meters for other utilities, assisting them in remote locations, and actively discussing the possibility of invoicing for others as well. Itron has provided excellent support and service throughout the project. They were there any time there was a problem. South Hadley wishes to thank Dave Koerber from Avcom, the Itron Sales Representative for this area, and Lowell Rust from Itron who made a visit to assist with the implementation.

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