

Siemens recommended by vendor for the city of Rosenberg

Located approximately 35 miles southwest of Houston, the City of Rosenberg is experiencing rapid growth in commercial and residential development. Its growing population of more than 30,000 residents has roots in oil and sulphur discoveries and continues to prosper with access to railways and highways. The City boasts the motto "The city that works", and encourages new business opportunities by offering access to skilled labor, transportation infrastructure, available land, and a business-friendly government.

Client background

The city officials understood the imminent need to replace their water meter system. As a traditional water meter ages, it becomes inaccurate and unable to record all of the water flowing through it. Essentially, the city ends up paying for much of its citizens' water usage because it prepays the utility company for the water usage or water it pumps from wells and does not recuperate the cost via utility billing.

Client objectives

John Maresh, Assistant City Manager for the City of Rosenberg, knew he wanted to take advantage of the latest and greatest technology when

it came to replacing the water meters. He found Neptune Technologies, a manufacturer that offers the ARBTM RS450 Fixed based Advanced Metering Infrastructure that uses radio waves to provide automatic meter readings. However, financing presented a major obstacle. Having worked with Siemens on several other previous meter projects, Neptune recommended Siemens Industry, Inc., to the City.

Siemens solutions

Maresh and Mindi Snyder, Finance Director for the City of Rosenberg, began a relationship with Chad Nobles, Account Executive for the Siemens Houston branch. Although Snyder has worked with another vendor on a performance contract opportunity, it was Nobles who presented a complete financing opportunity and technical solution to the committee and city council. Snyder offers, "He was well-prepared. Although everyone at the staff level was well aware of the technology, Chad did a good job explaining the basics of performance contracting and how we could achieve our goals." Nobles explained that performance contracting would make several utility and infrastructure upgrades available while allowing the energy savings and increased revenue to pay for the capital improvements. He assisted the City in utilizing LoanSTAR funding from the



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State Energy Conservation Office to fund not only the water meter installations, but he encouraged the City to take advantage of various other energy and operational saving projects throughout the City.

The total contract for \$6.5 million covers a multitude of conservation projects developed by Siemens lead Energy Engineer Kevin Liu, which include:

- Replaced incandescent lamps with LED lamps in traffic signals at all city-owned intersection
- Retrofitted all T12 lamps and magnetic ballast with T8 & T5 lamps and electronic ballast and installed occupancy sensors and controls, where appropriate
- Retrofitted high flow water fixture devices with low flow devices at all city facilities
- Replaced a variety of aged and inefficient HVAC units with new high efficiency replacements
- Installed high efficiency aeration system at the Waste Water Treatment Plant (WWTP) which included new controls, new fine bubble diffusers, new high efficiency Turblex™ blower, renovations to plant infrastructure, new automatic chlorination system and new bar screen to remove debris from the downstream treatment process
- Installed new building automation system in various city facilities
- Installed controls at a WWTP to off load electrical demand during peak periods from the local utility in return for financial incentives
- Replaced and retrofitted more than 8,500 residential and business water meters that use radio waves to provide automatic readings.

Each water meter is equipped with a radio antenna that emits a signal every day to transmit meter readings and other data to several data collectors located on the city water towers. This system utilizes the most advanced technology to reduce manpower requirements and improve efficiencies. The technology allows real-time data on meters, including the ability to detect leaks, which permits the city to be proactive before leaks cost them, or their residents, extra money.

Client results

The new system captures accurate figures on water usage so that the City can ensure that customers are billed appropriately for their water usage and they can provide daily information to their residents to provide better customer service. Additionally, the cost of replacing the water meters will be paid for in operational savings and revenues from lost water over the next thirteen years as part of the performance contract. In total, the performance contract will produce about \$620,000 per year in energy savings, operational savings, and increased revenue.

Maresh is particularly pleased with Siemens' project management led by Rich Graff, especially the implementation of the Automatic Meter Reading system. These tasks included ensuring the correct meters were ordered and arrived, installing meters, and verifying the correct software works as intended with the data. Maresh offers, "Siemens has been a good facilitator and allowed the process to keep moving forward."

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