

A photograph of a modern conference room. In the background, a large wooden conference table is surrounded by black leather chairs. On the wall behind the table, the words "HEWITT TEXAS" are displayed in a large, serif font. To the right, a Texas state flag is visible on a stand. In the foreground, there are several smaller white tables with black legs and black leather chairs, arranged for a meeting. The room has a grey carpet and white walls.

SIEMENS

City of Hewitt, Texas

Advanced Metering Infrastructure (AMI) to create operational savings and increased revenue

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The City of Hewitt, Texas is home to approximately 13,500 residents. This small town, encompassing just under seven square miles in McLennan County, is proud of its big-city amenities, as well as its great schools and neighborhoods.

In 2012, the City engaged Siemens Industry, Inc., in an energy performance contract under Texas Local Government Code 302. The contract is designed to help make infrastructure improvements while improving energy and operational efficiency, as well as protecting the City's capital budget.

Client Objectives

Although the City of Hewitt needed and wanted to make a variety of infrastructure improvements, City operating budgets were tight and staff resources were limited. The City set out with goals to require that the projects be funded through the energy and operational savings generated by the improvements. In addition to this requirement, the City of Hewitt also sought ways to improve revenue generation, reduce water loss, and provide excellent services to its citizens.

Siemens Solution

Siemens proposed a ten-year energy performance contract (PC) to the City of Hewitt as a solution to their objectives. PC is a procurement methodology that allows the City to retain its capital funds; utilize energy and operational savings, as well as increased revenue, to fund facility improvements; and benefit from guaranteed energy savings through a relationship with a dedicated energy services partner.

To identify the facility improvement measures that would generate energy and operational savings for the City, Siemens conducted an energy audit of six City facilities along with the City's water distribution infrastructure. This audit not only identified projects, but it also established a baseline for performance measurement.

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The City of Hewitt will realize over \$215,000 in energy savings, operational savings, and increased revenue in the first year

Through this audit, Siemens and the City of Hewitt arrived at three facility improvement measures for this performance contract. Siemens is implementing:

- Water meter system upgrade – for the City’s more than 5400 water meters, Siemens is installing new radio-frequency capable water meters, which will allow for more accurate readings and automatic data transfer to the new fixed based Advanced Metering Infrastructure (AMI).
 - This new automatic system will eliminate manual meter readings thus reducing operational costs and improving accuracy of readings. Combined with new and accurate meters, all residents will be billed more accurately for actual water use. Without raising water rates, the City will generate increased water revenues by decreasing apparent water losses and unbilled water usage.
- Lighting renovations – in six City buildings, Siemens will retrofit existing lamps with new LED or compact fluorescent (CFL) lamps to reduce both energy consumption as well as relamping and maintenance costs. Additionally, exit signs will be converted to high-efficiency LED signs, and strategically selected locations will benefit from occupancy sensors.
- Power factor and surge suppression - one of the City’s water wells suffers from an average power factor of 84% and recurring power failures that result from faulty equipment and lighting strikes. Siemens will install a new capacitor bank and high-voltage surge protection equipment to improve power quality, reliability and protect and preserve the operation of the deep well pump motor.

These improvements will not only help the City achieve its energy and cost savings objectives while protecting the capital budget, the upgraded equipment will also have longer lifecycles to further reduce operational and maintenance costs.

Client Results

Once the facility improvement measures are complete, Siemens expects that the City of Hewitt will realize new water revenues of approximately \$103,000 in the first year following implementation. Additionally, Siemens estimates the following:

- Annual utility savings of \$7500 in the first twelve months, attributable to lighting, surge, and power factor improvements
- Annual operational savings of over \$106,000, due in large part to labor and material savings associated with the surge protection project and AMI installation.

As the ten-year guarantee period progresses, Siemens and the City of Hewitt expect approximately \$1.7 million in incremental water revenue and approximately \$1.3 million in additional utility and operational savings which will be used to fund the entire project.



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