



SIEMENS

Bay City, Texas

Siemens helps the City of Bay City make needed improvements at the Wastewater Treatment Plant and improve water billing accuracy and customer service with water meter system upgrade

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About 90 miles southwest of Houston, Bay City, Texas is home to approximately 17,000 residents. With a community history dating back to the late 19th century, Bay City is proud of the cultural, natural, and educational opportunities available to its residents.

In 2012, the City engaged Siemens Industry, Inc., in an energy performance contract to help provide Bay City citizens with more sustainable, energy-efficient, and cost-efficient infrastructure improvements.

Client Objectives

Bay City needed to find cost-effective ways of improving key elements of the City's infrastructure—without having a negative impact on the community's existing capital and operational budgets. City officials knew that facilities like the wastewater and potable water supply systems, water meter, and municipal lighting systems needed to be upgraded or replaced.

Siemens Solution

To help Bay City meet its infrastructure, energy efficiency, and budget goals, Siemens proposed a 15-year energy performance contract (PC). 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.

Siemens audited the City's facilities to identify the facility improvement measures that will make up this PC. The audit found five key elements for Bay City:

- Water meter system upgrade – Siemens will implement a new automatic meter reading (AMR) system with new water meters throughout Bay City's residences and businesses—approximately 8100 meters. The new AMR system will eliminate the need for Bay City employees to manually read each individual water meter; instead, the meters will communicate with the central system via a radio system. In addition to reducing operating costs and increasing employee safety, the new system will improve water billing accuracy and customer service.

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Bay City will realize \$700,000 in equivalent energy and operational expense reductions every year for 15 years

- Wastewater treatment plant upgrades – Bay City will realize significant energy savings along with improved wastewater treatment plant performance and reduced repair costs as a result of these upgrades. These improvements include blower and aeration upgrades, bar screen replacement, drying bed upgrades, and the installation of a new SCADA system to improve lift station monitoring.
- Lighting efficiency upgrades – light fixtures in 20 City facilities will be upgraded to new, energy-efficient technologies like LED and compact fluorescent (CFL). Select locations will benefit from occupancy sensors, and Siemens will also retrofit decorative street lights with energy-efficient lamps.
- Domestic water upgrades – to help improve water conservation efforts, Siemens will implement low-flow plumbing fixtures for City facilities.
- SportsComplex irrigation system – the City's softball facility will benefit from a new irrigation system that will properly irrigate the space for improved field safety and reduced water usage. This system is also capable of being controlled remotely, saving the city valuable staff resources from hand watering each week.

Because these infrastructure and energy efficiency improvements are being implemented as part of a PC, Bay City can use the energy and operational cost savings to fund the project.

Client Results

Once the facility improvement measures are complete, Siemens expects that Bay City will realize \$700,000 in equivalent energy and operational expense reductions every year for the duration of the 15-year contract. These savings are guaranteed by Siemens through the terms of the performance contract, further helping Bay City sustain its financial health into the future.



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