



Rebuild America Success Stories highlight partnerships working to improve communities by practicing energy awareness and investing in energy-saving measures.

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success story

WEATHERIZATION AND INTERGOVERNMENTAL PROGRAM

City of Fort Worth

Pushing Energy Efficiency, as the State Pushes, Too

Fort Worth, TX, has upgraded the energy efficiency of buildings over the years as part of normal maintenance. State legislation has required the city to do more than that, and the city has picked up the pace. The city's electricity consumption in 2003 was 16 percent below its 2001 level. Many more efficiency upgrades are to come.

The Challenge

In 2001, the Texas Legislature passed Senate Bill 5 (SB5), also known as the Texas Emissions Reduction Plan. It required Fort Worth and many other Texas cities and counties – in fact, all political subdivisions in 41 counties – to implement all energy efficiency measures that are cost-effective. It required them to set a goal of 5 percent annual reductions in electricity consumption from government operations over the 2002-06 time frame.

Because SB5 does not allow for such variables as hotter-than-normal summers, it may demand more than the cities and counties can realistically accomplish in some years. Even pulling the statistics together can be difficult. Many officials have never before needed to measure and report electricity consumption and the changes in that consumption in a comprehensive way.

The Solution

Fort Worth already was making improvements, before SB5, and those upgrades have been bearing fruit, as its latest consumption data show. The city also has launched a retrofit of its municipal complex, including city hall, through a \$3 million performance contract. It has planned to issue a request for proposals on a retrofit of traffic lights. The city will examine all of its buildings and equipment to find energy savings, including in such energy-hungry sectors as its water and wastewater facilities. And the city hired an energy conservation specialist.

Equipment installation for the \$3 million performance contract went well, with the schedule calling for completion during the summer of 2004. The projected savings on electricity are more than 4 million kilowatt hours a year (kWhr/year). The work affects about 500,000 square feet of space. It includes such things as better lighting, heating, cooling and plumbing.

A performance contract recovers the cost of the project through savings generated on utility bills, typically with contract periods ranging from eight to 12 years. Such contracts usually come with savings guarantees. In Fort Worth's case, the guarantee is for savings of \$259,000 a year. The city also should receive a utility incentive rebate of about \$300,000. Johnson Controls, a Rebuild America Business Partner, is the contractor.

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Partnership Facts:

Name of partnership:

City of Fort Worth

Targeted buildings:

Local government

Space completed:

500,000 square feet

Annual cost savings:

\$259,000

Amount invested:

\$3 million

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For more information about energy-saving technologies, visit the Business Partners section of the Rebuild America Web site: www.rebuild.gov or contact Rebuild America at: 252-459-4664.

Rebuild America has been helping Fort Worth through workshops, analyses and advice, often via teamwork with the Texas State Energy Conservation Office. When various technologies are proposed for city facilities, Fort Worth can turn to Rebuild America program coordinator Michael Myers, who can rely on the supporting expertise of the national energy laboratories to review the proposed technologies. "It definitely has been something that has been useful to us," says Greg Simmons, Fort Worth facilities manager, speaking of the city's Rebuild America partnership.

Fort Worth also hired an energy conservation specialist in May 2004. The specialist not only identifies energy conservation opportunities but monitors utility bills, researches technologies and educates city employees on conservation. "It really helps a lot to have someone dedicated to that," Simmons says.

In 2003, electricity consumption by Fort Worth facilities was down more than 16 percent from its 2001 level. That greatly exceeded the goal of the state's energy efficiency law, although Simmons cautions that some variables are not easily controllable. A very hot summer, for example, could drive electricity consumption up for cooling.

What the Future Holds

Fort Worth decided to issue a request for proposals for change of traffic lights to energy-efficient light-emitting diodes (LEDs). That project was anticipated to begin in late 2004 or early 2005 and to save more than 5 million kWhr/year.

The energy specialist is to take the lead on drawing up a master plan for review and improvement of all city buildings. The city will put together a program of walk-through surveys to identify energy-saving opportunities in lighting, HVAC (heating, ventilation and air conditioning), roofing, etc. A review of financial options will be part of the master plan. The city also will consider a role for the Leadership in Energy and Environmental Design (LEED) Green Building Rating System of the U.S. Green Building Council.

To learn more visit: www.eere.energy.gov

A Strong Energy Portfolio for a Strong America

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Rebuild America is a U.S. Department of Energy program that focuses on improving communities through energy-saving solutions.



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