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CitySmart Energy Efficiency Program

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As the current economic climate has caused businesses and local governments alike to rearrange priorities, investment in new initiatives often ends up far from the top of the list. However, a number of Texas cities have discovered that investing in energy efficiency projects can pay immediate dividends through reduced energy use and cash incentives available through utility programs. CitySmartSM is such a program.

CitySmart was created to help city and county governments identify and implement energy efficiency upgrades. Started as a pilot program in 2007, CitySmart is currently offered by eight of the nine investor-owned utilities in Texas, including AEP-Texas Central, AEP-Texas North, AEP-SWEPCO, CenterPoint Energy, El Paso Electric, Entergy Texas, Oncor, and Texas-New Mexico Power. The program implementer for the utilities is Austin-based CLEAResult Consulting.

Participation in CitySmart is free and voluntary. Cities and counties join CitySmart by signing a memorandum of understanding that outlines their commitment to supply energy data, participate in energy master planning, and make good faith efforts to improve the energy efficiency of their facilities.

An additional benefit of CitySmart is the ability to more easily comply with regulatory mandates to track and reduce energy usage. Enacted in 2007 to assist the state in complying with the Federal Clean Air Act, Senate Bill 12 requires city and county governments to make a concerted effort to reduce energy usage by five percent per year over a six-year period. In addition to helping cities and counties achieve this goal, energy efficiency programs such as CitySmart enable utilities to delay or eliminate the need to generate additional electricity through new power plants.

How CitySmart Works

CitySmart uses a five-step process to help local governments improve efficiency: benchmarking current facility performance, helping governments develop their own Energy

Master Plan, identifying cost-effective projects and funding sources, providing financial incentives to help offset the cost of the higher efficiency equipment that is installed, and providing public relations support to help governments inform their communities of their money-saving efforts.

The first step in the CitySmart program is to benchmark current energy performance. Using the Environmental Protection Agency's (EPA) Portfolio Manager tool and other metrics developed by CLEAResult, program staff compares the efficiency of the participant's buildings to those of similar size in similar climates. The buildings' performance is ranked on a percentile basis, which helps identify the lowest-performing buildings that are most in need of improvement.

Once a program participant's energy performance has been benchmarked, the city or county participates in an Energy Master Planning Workshop. At the workshop, a CitySmart representative presents benchmarking findings and reviews best management practices regarding financing and implementing high-return energy efficiency projects. "This is a key step in the process," said CLEAResult Executive Vice President Jim Stimmel, who has led many such workshops. "It's often the first time that city officials from separate departments have met to discuss energy efficiency strategies."

The City of Killeen recently completed its workshop. "The energy master planning process was a real eye-opener for us," said Connie Green, Killeen city manager. "We knew that we could improve the efficiency of the equipment in our buildings, but we had no idea how much money we could save. As a result, we submitted our Energy Master Plan to our city council." The council approved the plan on February 10, 2009. City officials are considering large-scale improvements to lighting and air conditioning systems, and CitySmart program engineers are currently reviewing several of Killeen's new construction plans to ensure they maximize efficiency in all areas.

The program also provides tools to help participants quantify the financial benefits that can be gained from their proposed projects. Many projects, such as lighting upgrades, can produce returns greater than 30 percent and pay for themselves within three years.

Overcoming Financial Barriers

Even when the long-term financial benefit of efficiency is understood, the initial cost to purchase and install equipment is often a major barrier to moving projects forward. In addition to offering incentives, CitySmart also provides guidance on the numerous financing options available to program partners, such as municipal leasing, grants, and loan programs like the State Energy Conservation Office's LoanSTAR program and the Texas Maintenance and Improvement Fund. Many of these mechanisms allow a city to pay for equipment by using the savings from energy bills over time, enabling a city to implement upgrades on an accelerated timeframe with little or no up-front investment on the city's part.

"Now more than ever, managing operating costs is a key component to successful budgetary planning," said Ed King, a senior advisor with Government Capital, a firm specializing in energy efficiency financing. "The right financing structure can enable an agency to move forward with its energy efficiency program in less than 30 days without disturbing fund balances or funding for other capital projects, thereby realizing energy savings sooner."

Another popular way to finance energy efficiency upgrades is through a performance contract. In a performance contract, the company that performs the upgrades effectively guarantees that the improvements made will result in significant energy savings. While each is structured differently according to the types of projects included, performance contracts are designed to allow the participating organization to pay for the work over time using the savings that the improvement projects generate.

The City of Abilene recently installed a wide range of improvements using a performance contract. In 2008, the city upgraded traffic lights and pedestrian signals to incorporate LED technology and replaced lighting systems in the public library and Law Enforcement Center with more efficient equipment. The projects will result in nearly 889,000 kilowatt-hours of reduced energy use, equivalent to the carbon dioxide emissions of more than 72,000 gallons of gasoline, according to EPA calculations. In addition, the city received \$19,500 in CitySmart incentives from AEP-Texas North.

"For us, the combination of AEP incentives and no upfront costs made the decision to undertake these projects very easy," said Odis Dolton, assistant director of finance for the City of Abilene. "We're already realizing significant

savings on our energy bills, and we're just getting started." The city will complete the first phase of its performance contract in 2009 and is now considering additional projects.

CitySmart provides engineering support to help guide program participants through the process of selecting the most efficient equipment for their facilities. Common improvements include lighting retrofits and heating, ventilation, and air conditioning (HVAC) retrofits, but the program has also seen a growing trend of sustainable energy projects such as solar installations and geothermal systems.

Program incentives are available for new construction projects as well. "It's often assumed that high efficiency buildings carry a higher initial cost," said Dale Stanton-Hoyle, CLEAResult vice president of engineering. "While high efficiency equipment can cost more compared to standard equipment of equal size, incorporating high efficiency design into all aspects of a project allows smaller individual units to provide the same result as larger, less efficient ones. For example, high efficiency windows and lighting help reduce the size of the air conditioning system necessary to keep the building comfortable."

CitySmart isn't the only utility program available to cities. As part of its "Take a Load Off, Texas" energy efficiency portfolio, Oncor also offers the City Matching Grant Program, which is ideal for cities that have already identified viable projects. It provides matching grants of up to \$50,000 for the implementation of energy efficiency projects.

Communicating Success

Recognizing the importance of public support to fund efficiency projects, CitySmart also provides public relations and communications assistance. This ranges from press releases announcing significant achievements to the coordination and arrangement of television news coverage. CitySmart partners have been featured in a number of print publications, and News 8 Austin recently ran a story on the City of Temple's library upgrades.

It is a difficult time for cities across the state, and citizens are increasingly concerned about how their tax dollars are spent. Energy efficiency offers a proven, low-risk method of alleviating budget stress, while promoting and demonstrating environmental awareness. With the combination of reduced energy bills, attractive financing options, and utility incentives, many cities have discovered that the most expensive option is doing nothing at all. ★

CLEAResult is an energy efficiency consulting firm based in Austin. The company develops and implements utility energy efficiency and renewable energy programs nationwide. For more information, please visit www.clearesult.com.