

EL PASO, TX: EMPLOYEE BEHAVIORAL CHANGE

SOLUTION OVERVIEW

The City of El Paso, Texas strives to be a model of sustainability and smart growth by building on its roots as an international hub, promoting sustainable enterprises, and wisely using its energy resources as an economic driver. The City adopted an aggressive Sustainability Plan in 2009 and is currently implementing a new smart growth comprehensive growth plan that was recognized for its excellence by the U.S. Environmental Protection Agency (EPA)'s 2011 National Smart Growth Award.

El Paso has a robust energy efficiency program that includes retrofits of municipal buildings, an ordinance requiring all new City buildings meet LEED Silver standards, and one of the largest green building grant programs in the nation. These efforts have led to a 23 percent reduction in City energy use since 2007. In 2012, the City launched the El Paso Green Business Challenge, encouraging local businesses to conserve energy, reduce waste, save water, and consider alternative means of transportation. The City's Sustainability Plan also included a 30 percent energy reduction of municipal operations goal below 2007 levels by 2014.

To further help achieve these ambitious energy goals, the City launched the Library Energy Challenge to engage City employees and residents in energy conservation.

COMMUNITY SIZE

Large Urban, Population 672,500

GOAL

To achieve a 30 percent reduction in energy consumption by 2014 from a 2007 baseline and a 20 percent reduction from a 2009 baseline by 2020

BARRIERS

Lack of full organizational buy-in

SOLUTION

To advance energy efficiency by encouraging employee behavioral changes involving energy awareness and conservation: a 2012 six-month Library Energy Challenge (LEC) achieved a ten percent energy use reduction in the City's 12 libraries by engaging City employees and library users in behavioral conservation measures

OUTCOMES

Libraries reduced energy consumption and saved more than \$21,000 in total during the challenge, which was such a success that the City launched a similar Fire Station Energy Challenge (FSEC)

INITIATIVE LAUNCHED

2012

POLICIES

The LEC required each library to submit a plan on how they would conserve energy during the challenge. Libraries were asked to conduct a visual walkthrough and acknowledge areas for potential improvement. The plans submitted were meant to address only behavior changes and other no- or low- cost measures. The City chose one library plan, Ysleta Branch's plan, to recognize as the best example winner based on the plan's focus on staff collaboration and thorough understanding of the challenge.

Tools:

- [Winning Ysleta Branch Energy Reduction Plan](#)
- [Plan Winner Announcement](#)

PROCESS

The City conducts energy management through a three-tiered approach. The first and largest piece is no-cost behavioral energy conservation; second is building retrofits and system upgrades; and third and most expensive are renewable energy sources.

After realizing lower energy performance than expected in the City's first LEED Gold certified library, the City decided to focus on behavioral energy conservation approaches by launching an energy challenge across all the libraries.

After doing energy efficiency retrofits, adding solar photovoltaic to the main library, and building the City's first LEED Gold library, the City decided to focus on behavioral energy conservation approaches by launching an energy challenge across all the libraries.

Once the Office of Sustainability had buy-in from the Director of Libraries, the challenge was announced at the monthly management staff meeting. The concept was initially met with hesitation from the library branch managers because they felt that the public library visitors may not be supportive. For example, although the libraries had a policy in place that required a study room to have three or more people to be used, library staff wouldn't always enforce the policy and would sometimes open the study rooms with lights on for one or two people until the rest of the group showed up. The staff felt that enforcing this policy after years of not doing so may upset the visitors. Additionally, staff of the only LEED certified library expressed concern that they did not have as much savings potential because of the library's green building design.

The City energy management staff took the branch managers' concerns into consideration and discussed options to overcome these challenges. As part of this response, the City created a poster to place in various locations across the libraries indicating that the facility was participating in the challenge, asking the public for their support, and indicating how users could help.

Each month throughout the challenge, the library with the most savings that month was recognized via an email announcement and the staff was provided lunch as a reward. Additionally, to keep the LEC top-of-mind, all library employees City-wide were given a water tumbler with the challenge logo to use.

The LEC was managed by the City's Office of Sustainability with the help of an ESPC consultant responsible for providing energy data for the facilities' participating in the challenge. Each month the consultant provided the City a spreadsheet with the energy use and cost per month compared to the use and cost in the same month of the previous year.

LEC winners were identified based on the percentage of decreased energy use from the baseline period covering the same six months in the prior year. The first place winner was given \$500 toward library improvements, and the second place winner was given \$150. Winning libraries were given a framed certificate to post in their library and recognition at a public community event.

Tools:

- Library Poster, 2012
- Overall 1st Place Winner Final
- 3rd Monthly Winner Announcement

TOOLS AND RESOURCES

The LEC had a budget of \$10,000 allocated from the City's Office of Sustainability budget and one staff person dedicated approximately 25 percent of her time to the coordination of the challenge throughout the six-month period. The funds were used to pay for the tumblers given to library staff and other prizes including monthly lunches and framed certificates.

MEASURING SUCCESS

The City's energy bills are paid by the General Services Department. As a result, the libraries had never been particularly concerned or aware of their buildings' energy consumption, because the

bills are not part of their budgets.

Collecting energy use data from the buildings was historically difficult and time intensive, because the utility companies only provided the data in paper bills. With the assistance of the City's ESPC consultant, the City was able to get the data in a user-friendly spreadsheet comparing every use and cost to the previous year's consumption.

OUTCOMES

Throughout the six-month challenge period, each of the libraries reduced energy consumption and saved more than \$21,000 in aggregate. The libraries collectively reduced their energy consumption by 9.7%, and a year after the challenge, the libraries were able to reduce their energy an additional 3.5%. The first place winner was Irving Schwartz Library with an overall energy reduction of 19%. The LEED Gold certified library came in second place with reduced energy use of 48 percent in the first month and 18 percent overall during the six-month challenge. The impressive savings results of the LEED Gold branch demonstrated the significant contribution that occupant behavior makes to energy performance.

The LEC was such a success that the City launched a similar Fire Station Energy Challenge (FSEC) to engage the City's fire stations, aiming for a 10-15 percent reduction in energy. The LEC consisted of 12 facilities with just more than 200 staff. The FSEC involved 35 stations and more than 800 firefighters with half of the implementation budget the LEC had the year before. Because of the reduction in funding, the City was not able to provide the same rewards as with the LEC. Instead, the City relied on email newsletters to keep employees motivated to continue saving energy. Overall, the FSEC saved more than \$8,000 over five months with 87 percent of the Fire Stations reducing their consumption.

As a result of the two successful challenges, El Paso will continue to plan annual challenges among buildings to recognize even more energy cost savings. In March 2014, the City will be kicking off the El Paso Police Department Energy Challenge.

Tools:

- [Library Energy challenge Winners \(Press Release\)](#)
- [Station 29- Larry Hernandez \(Station Energy Plan\)](#)
- [Fire Station Challenge April Newsletter](#)
- [Newsletter September 2013](#)

