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April 29, 2009

Ms. Katherine A. Mears, P.E.
TPWA Awards Chairperson
Klotz Associates
1160 Dairy Ashford, Suite 500
Houston, Texas 77079

Re: City of El Paso – 2009 TPWA Award Nomination

Dear Ms. Mears:

On behalf of the City of El Paso, I am pleased to submit the attached nomination for the 2009 Texas Public Works Association (TPWA) awards program. The nomination is as follows:

- Public Works Project of the Year – City of El Paso City Wide Energy Operational Savings Program

As requested, we have enclosed four copies of the submittal package for the nomination. Should you have any questions, I may be reached at (915) 541-4853. Your consideration of this nomination is greatly appreciated.

Sincerely,

Patricia D. Adauto
Deputy City Manager

Mayor
John F. Cook

City Council

District 1
Ann Morgan Lilly

District 2
Susannah M. Byrd

District 3
Emma Acosta

District 4
Melina Castro

District 5
Rachel Quintana

District 6
Eddie Holguin Jr.

District 7
Steve Ortega

District 8
Beto O'Rourke

City Manager
Joyce A. Wilson

OFFICE OF THE CITY MANAGER – DEVELOPMENT & INFRASTRUCTURE SERVICES

2 Civic Center Plaza, 9th Floor, El Paso, Texas 79901-1196 • (915) 541-4853

Working Together, Building for the Future



Texas Chapter Public Works Project of the Year

2009 TPWA Awards Program Supporting Data Form

Please address each of the following areas in your supporting documentation, adhering to the below sequence when possible.

- Completion date contained in contract. Any time extensions granted should be addressed in the submittal.
- Construction schedule, management, and control techniques used.
- Safety performance including number of loss-time injuries per 1,000 man-hours worked and overall safety program employed during the construction phase.
- Environmental considerations including special steps taken to preserve and protect the environment, endangered species, etc., during the construction phase.
- Community relations – a summary of the efforts by the agency, consultant and contractor to protect public lives and property, minimize public inconvenience, and improve relations.
- Unusual accomplishments under adverse conditions, including but not limited to, adverse weather, soil or site conditions, or other occurrences over which there was no control.
- Additional considerations you would like to bring to the attention of the project review panel such as innovations in technology and/or management applications during the project.

NOTE: Supporting documentation is limited to twenty (20) pages, exclusive of photographs and nomination form. This submittal will not be returned. When possible, please provide original photographs (black and white or color), as photographs (black and white or color), as photographs will be used for promotional purposes by TPWA. Original submittal and all copies should include nomination form and supporting documentation. Four copies of submittal are required.

Nominated By	Patricia D. Aduato	Deputy City Manager
	Name	Title
	City of El Paso - Development and Infrastructure Services	
	Agency/Organization	
	2 Civic Center Plaza - 10th Floor	
	Address (if post office box, include street address)	
	El Paso	Texas 79901-1196
	City	State Zip-Postal Code
	915-541-4855	915-541-4866 adautopd@elpasotexas.gov
	Phone	Fax E-mail

**Texas Public Works Association (TPWA)
2009 Public Works Project of the Year Nomination**

The City of El Paso is pleased to nominate the City Wide Energy Operational Savings Program for the 2009 TPWA Public Works Project of the Year. The City of El Paso recognized that it needed to address two major issues: escalating utility costs and aging infrastructure. It was also one of the municipalities faced with a Texas state mandate to improve air quality by lowering electricity usage. The City partnered with Johnson Controls, a global leader in energy conservation services, to revitalize the infrastructure in 53 City facilities (2.1 million sq. ft.) and 6,600 traffic signals while lowering energy consumption. The entire self-funded \$14.7 million project is paid through guaranteed energy savings. Improvements will be implemented at facilities throughout the City, including:

Lighting Improvements

This will include new lighting retrofits at all facilities and new occupancy sensors at most facilities. Scope of work at some facilities also includes new light fixtures.

GOALS:

- Improved light levels
- Improved indoor environments
- Improved reliability of lighting systems
- Utility savings
- Operation & maintenance savings
- New light levels will meet IES standards.
- Facility Lighting O&M Cost Avoidance

The proposed changes in the lighting system will cause a reduction in lamp and ballast replacement costs. The proposed lamps and ballasts have longer service lives than the existing equipment. The savings are based on the difference in service lives and average industry equipment prices.

Mechanical Improvements

This will include mechanical replacements and upgrades at the following locations:

- Main Library
- El Paso Museum of Art
- Marcos B. Armijo Recreation Center
- Hawkins Indoor Pool
- Police Headquarters & Bldg Maintenance
- Pebble Hills Station
- City Hall
- Convention Center
- Chamber Building

GOALS:

- Improved indoor temperatures
- Improved reliability of existing HVAC systems
- Upgrade of outdated HVAC equipment
- Utility savings
- Operation & maintenance savings
- Capital project savings

HVAC Control System Upgrades

This will include HVAC control system improvements at most facility complexes.

GOALS:

- Improved indoor temperatures
- Improved reliability of existing HVAC systems
- Upgrade of outdated HVAC controls
- Reduced runtime of HVAC equipment
- Utility savings
- Operation & maintenance savings
- Capital project savings

New Facility Management System will reduce the control system maintenance costs and extend HVAC equipment life. With the extensive mechanical work including the replacement of chillers, cooling towers, pumps, and DX units, maintenance cost will be reduced.

Indoor Pool Solar Heating

This will provide solar pool water heating supplementary to the existing gas-fired boilers at all indoor pools:

GOALS:

- Energy efficient pool water heating
- Utility savings
- Promote City renewable energy projects

Traffic, Pedestrian & Flasher Signal Upgrades

This will include the conversion of existing incandescent traffic, pedestrian and flasher signals to LED technology. Work at some locations will also include replacement of entire signal housings.

GOALS:

- Improved traffic safety
- Improved reliability of traffic flow signals
- Utility savings

- Operation & maintenance savings
- Capital project savings

The proposed LED conversion of incandescent signal lights will cause a reduction in lamp replacement costs. The proposed lamps have longer service lives than the existing equipment. The savings are based on the difference in service lives and average industry equipment prices.

Who, What, Where

The City partnered with Johnson Controls, a global leader in energy conservation services, to revitalize the infrastructure in 53 City facilities (2.1 million sq. ft.) and 6,600 traffic signals while lowering energy consumption. Improvements will be implemented at facilities throughout the City, including libraries, recreation centers, pools, senior citizen centers, police stations, museums, City Hall, theatres and the convention center. The project includes the following key elements:

- Performing a \$14.7 million in infrastructure improvements, including new HVAC equipment, lighting upgrades, building management systems, solar heating systems and traffic signal upgrades
- Partnering with the State Energy Conservation Office (SECO) to utilize the Texas LoanSTAR program to validate and assist in financing the project.
- Projecting \$20.3 million reduction in operating costs over the 10-year contract term.
- Eliminating nearly 11,300 tons of pollutants from the air annually, which equates to removing about 1,950 cars from the road each year.
- Reducing electric consumption by 30 percent at 53 facilities.
- Reducing electric consumption by 84 percent for 6,600 traffic signals.
- Promoting City Renewable Energy Program by installing new solar heating systems at eight (8) indoor pool facilities.
- Utility bill analysis has identified corrections that will save the City \$134,000 per year.
- City is receiving approximately \$300,000 in available rebate money from El Paso Electric that will be utilized for additional energy conservation programs.

Getting the Word Out

Education and outreach have been a hallmark of the Energy Savings program. Increasing energy costs and inefficient use of available resources result in increases in energy usage and larger utility bills that can be a significant problem to the City. This project includes annual energy efficiency training for City personnel. There have also been several press releases and workshops to promote energy efficiency and renewable energy, such as the Press Conference held on December 8, 2008, at the Armijo Aquatic Center in South El Paso (see the attached *El Paso Times* article entitled, "\$15 million collaborative to help city save energy"). In addition, the project will be highlighted in an Engineering & Technology education course at the upcoming TPWA 2009 Conference.

Supporting Documentation

In support of the information provided above, we have attached copies of articles published in magazines and local newspapers that highlight the City Wide Energy Operational Savings Program.

• Completion date contained in contract. Any time extensions granted should be addressed in the submittal.

The completion date provided in the contract with Johnson Controls is February 8, 2010. Johnson Controls is currently ahead of schedule and will meet the deadline without any extra extensions. To date, 60% of the project has been completed. This completed project will result in a net decrease in energy costs of \$1,700,000 annually.

• Construction schedule, management, and control techniques used.

The construction management for the retrofit is performed through Johnson Controls and the City of El Paso. However, the City Energy Manager is involved in overseeing the progress of the project full-time. Johnson Controls provides the City Energy Manager a weekly schedule outlining the planned work for the upcoming week. Monthly completion schedules are also submitted. The construction of the project is currently on-time and energy savings have already been achieved.

• Safety performance including number of loss-time injuries per 1,000 man-hours worked and overall safety program employed during the construction phase.

There are currently no loss-time injuries associated with the City Wide Energy Savings Program.

• Environmental considerations including special steps taken to preserve and protect the environment, endangered species, etc., during the construction phase.

All materials that are removed from the construction site are recycled and disposed of properly. All new equipment cardboard packaging is also recycled. Final implementation of the project resulted in the following milestones:

- Projecting \$20.3 million reduction in operating costs over the 10-year contract term.
- Eliminating nearly 11,300 tons of pollutants from the air annually, which equates to removing about 1,950 cars from the road each year.
- Reducing electric consumption by 30 percent at 53 facilities.
- Reducing electric consumption by 84 percent for 6,600 traffic signals.
- Promoting City Renewable Energy Program by installing new solar heating systems at eight (8) indoor pool facilities.
- All new solar panels will be installed on existing roofs to conserve greenbelt areas.
- Installing new heat pumps at the Hawkins Indoor Pool improved the indoor environment while utilizing waste heat for pool heating.

• *Community relations – a summary of the efforts by the agency, consultant and contractor to protect public lives and property, minimize public inconvenience, and improve relations.*

This project has created hundreds of new green jobs and has helped to revitalize the economy. The project has set an example of promoting energy independence and has helped reduce greenhouse gas emissions. All traffic signals have been installed at night to minimize traffic inconvenience. Also, all new LED pedestrian crossing signals include countdowns to improve public safety.

• *Unusual accomplishments under adverse conditions, including but not limited to, adverse weather, soil or site conditions, or other occurrences over which there was no control.*

The City was faced with a number of days of seasonal high winds during this timeframe; however, all 6,600 traffic signals were installed and completed ahead of schedule.

• *Additional considerations you would like to bring to the attention of the project review panel such as innovations in technology and/or management applications during the project.*

- This project has been a significant success for the City of El Paso to reduce utility costs.
- Complied with Texas State Senate Bill 12 requirements to reduce electricity consumption by 5 percent annually from 2007 to 2013.
- Modernized the infrastructure of the City's largest energy consuming buildings without spending capital dollars.
- Performed \$14.7 million in infrastructure improvements, including new HVAC equipment, lighting upgrades, building management systems, solar heating systems and traffic signal upgrades
- Partnered with the State Energy Conservation Office (SECO) to utilize the Texas LoanSTAR program to validate and assist in financing the project.
- Utilized the performance contracting financing method, where costs of the project will be offset over time through the energy and operational savings generated by the improvements.
- Secured approximately \$300,000 in available rebate money from El Paso Electric.
- Promoted renewable energy by installing solar panels & heat pumps for pool heating at nine (9) indoor pool facilities.
- Revitalized the infrastructure in 53 City facilities (2.1 million sq. ft.) and 6,600 traffic signals while lowering energy consumption. Improvements will be implemented at facilities throughout the City, including libraries, recreation centers, pools, senior citizen centers, police stations, museums, City Hall, theatres and the convention center.



CITY USES UTILITY SAVINGS TO UPGRADE INFRASTRUCTURE

The City of El Paso recognized that it needed to address two major issues: escalating utility costs and aging infrastructure. It also was one of the municipalities faced with a Texas state mandate to improve air quality by lowering electricity usage. The City partnered with Johnson Controls, a global leader in energy conservation services, to revitalize the infrastructure in 53 City facilities (2.1 million sq. ft.) and 6,600 traffic signals while lowering energy consumption. Improvements will be implemented at facilities throughout the City, including libraries, recreation centers, pools, senior citizen centers, police stations, museums, city hall, theatres and convention center.

CITY OF EL PASO

Johnson Controls Phase I Energy Savings Performance Contract

CHALLENGES

- Reduce utility costs.
- Comply with Texas State Senate Bill 12 requirements to reduce electricity consumption by 5 percent annually from 2007 to 2013.
- Modernize the infrastructure of the city's largest energy consuming buildings without spending capital dollars.

JOHNSON CONTROLS SOLUTIONS

- Perform \$14.7 million in infrastructure improvements, including new HVAC equipment, lighting upgrades, building management systems, solar heating systems and traffic signal upgrades.
- Partner with the State Energy Conservation Office (SECO) to utilize the Texas LoanSTAR program to validate and assist in financing the project.
- Utilize the performance contracting financing method, where costs of the project will be offset over time through the energy and operational savings generated by the improvements.
- Secure approximately \$300,000 in available rebate money from El Paso Electric.

RESULTS

- Projecting \$20.3 million reduction in operating costs over the 10-year contract term.
- Annual electric savings - 18.6 million kWh.
- Creating 110 new jobs.
- Supporting City Sustainability Program.
- Eliminating nearly 11,300 tons of pollutants from the air annually, which equates to removing about 1,950 cars from the road each year.
- Reducing electric consumption by 29 percent at 53 facilities.
- Reducing electric consumption by 84 percent for 6,600 traffic signals.
- Promoting City renewable energy projects by installing new solar heating systems at eight (8) indoor pool facilities.
- Utility bill analysis has identified corrections that will save the City \$134,000 per year.



JOHN COOK
MAYOR



JOYCE WILSON
CITY MANAGER

CITY COUNCIL
ANN MORGAN LILLY, DISTRICT 1
SUSANNAH M. BYRD, DISTRICT 2
EMMA ACOSTA, DISTRICT 3
MELINA CASTRO, DISTRICT 4
RACHEL QUINTANA, DISTRICT 5
EDDIE HOLGUIN JR., DISTRICT 6
STEVE ORTEGA, DISTRICT 7
BETO O'ROURKE, DISTRICT 8

COMMUNICATIONS & PUBLIC AFFAIRS OFFICE

For Immediate Release

Contact: Tammy Fonce-Olivas, 621-6754 office, 873-1974 cell.

City of El Paso Leading the Way in Saving Energy, Money

El Paso, Texas –Mayor John Cook, El Paso Electric Co. Vice President David Carpenter and Johnsons Control representatives gathered today at Armijo Indoor Pool to showcase a new City of El Paso initiative expected to save the city millions of dollars in energy costs.

The project calls for implementing energy retrofits at 53 city facilities and more than 600 intersections. The changes are projected to reduce the city's energy consumption by more than 18 million kilowatts per year. The \$15 million project should produce an annual energy-cost savings of \$1.743 million.

The City, through its collaboration with Johnsons Control and El Paso Electric Co., will invest in energy saving street lights and energy efficient heating, cooling, lighting for city facilities. As part of this project, the Armijo pool will be equipped with a system allowing the pool to be heated using solar energy. In addition to a significant cost savings for the City, the project should reduce greenhouse gas emissions by 11,300 tons annually. The reduction in air pollutants would equate to removing about 1,950 cars from the road each year.

At today's gathering, Mayor Cook also announced that he will ask the City Council on Tuesday to adopt a resolution calling on President-elect Obama and the incoming Congress to invest stimulus dollars in local conservation projects as a quick and effective way to create new green jobs, revitalize the economy and promote energy independence.

"We were pleased that during his campaign, President-elect Obama indicated support for investment in energy-saving projects to help create jobs and spur economic recovery," said Mayor John Cook. "We want President-elect Obama and Congress to know that with federal assistance, we are ready to put El Paso citizens to work in jobs that will reduce our dependence on foreign oil and cut greenhouse gas emissions."

Increasingly, economists are promoting green jobs as key to the country's economic recovery and long-term growth. Mayor Cook said the City could implement more energy-efficient measures if federal funds are made available.

If the City Council adopts the resolution, El Paso would become one of many communities nationwide joining with Climate Communities and ICLEI USA this week to endorse Empowering Local Government Climate Action: Blueprint for President Obama and 111th Congress.

"Climate Communities and ICLEI USA are organizing city and county leaders from across America to make sure that federal decision makers understand the essential role of local

governments in reducing energy use and addressing climate change,” said Roger Dickinson, Sacramento County Supervisor and a co-chair of Climate Communities. “We look forward to working with President-elect Obama and Congress to ensure that federal policies empower local communities with the tools and resources we need to get the job done.”

Local government actions have the potential to dramatically reduce energy consumption and greenhouse gas emissions. According to the Energy Information Administration, more than 40 percent of energy consumption and carbon emissions come from residential and commercial buildings, and one-third is generated by the transportation sector.

“Local governments have laid the foundation for this country’s response to global warming, providing the leadership, solutions and innovation that city by city by town have helped curb greenhouse gas emissions and reduce energy use and costs,” said Michelle Wyman, Executive Director of ICLEI USA.

Currently there are no federal programs to support local climate and energy initiatives. The Local Government Climate Action Blueprint calls for stimulus legislation to include \$10 billion for the Energy Efficiency and Conservation Block Grant program and \$18 billion for public transit and green vehicles infrastructure. The Blueprint outlines many other opportunities for the federal government to invest in local government innovation, including:

- Enactment of a national GHG cap-and-trade program with a portion of the estimated \$150 billion carbon trading revenues invested in local government climate action and green jobs initiatives;
- Investment in public transit, green vehicles and vehicle miles traveled (VMT) reduction through reauthorization of \$400 billion federal transportation legislation; and
- \$250 million for EPA Local Climate Demonstration Grants that empower local governments to continue creating new solutions to the climate challenge.

Download the Blueprint at www.climatecommunities.us/endorseblueprint.html or www.icleiusa.org/blueprint.

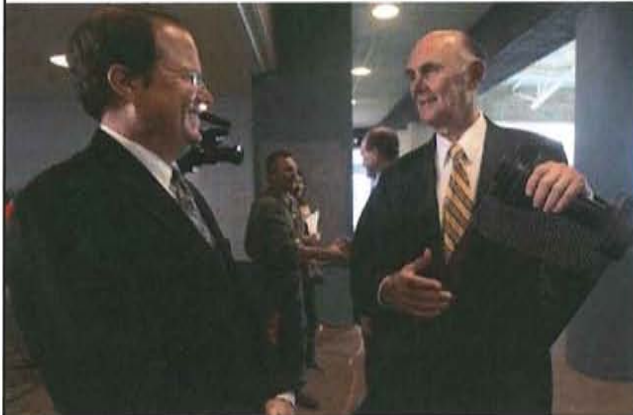
** Climate Communities is a national coalition of cities and counties that is educating federal policymakers about the essential role of local governments in addressing climate change and promoting a strong local-federal partnership to reduce greenhouse gas emissions. For more information about Climate Communities or ICLEI Local Governments for Sustainability visit www.icleiusa.org and www.icleiusa.org.*

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\$15 million collaborative to help city save energy

Diana Washington Valdez / El Paso Times

Posted: 12/09/2008 12:00:00 AM MST



El Paso Mayor John Cook held a model of a solar panel that will be used to heat the swimming pools in the Armijo Aquatic Center as he spoke Monday with engineer Harry Romine of Johnson Controls. The city announced a \$15 million collaborative energy-saving initiative Monday at

EL PASO -- The city of El Paso has a head start on the green revolution President-elect Barack Obama envisions will save energy and create new clean jobs, Mayor John Cook says.

On Monday, Cook and other dignitaries stood next to the Armijo Aquatic Center in South El Paso to announce a \$15 million collaboration between Johnson Controls and El Paso Electric Co. intended to reduce the city's energy use and save taxpayers \$1.7 million each year.

The project includes installing a solar energy

system to heat the Armijo pool and seven other pools in El Paso, and investing in retrofits for street lights and for heating, cooling and lighting at city facilities.

"(Armijo) is but a snapshot of the city's sustainability efforts at 53 facilities and at more than 600 intersections," said Marty Howell, the city's sustainability manager.

Cook said the project will help reduce the city's energy consumption by 18 million kilowatt hours per year, plus "create 110 new jobs and eliminate 11,300 tons of air pollutants (annually), which is equivalent to removing 1,950 cars from the road each year."

On Tuesday, the city will consider a resolution asking Obama and the incoming Congress to invest stimulus money in local energy-conservation programs as a quick way to create jobs, revitalize the economy and promote energy independence.

Cook said El Paso's project provides a blueprint for a green economy led by local governments.

Roger Dickinson, co-chairman of Climate Communities and Sacramento County, Calif., supervisor, said "Climate Communities and ICLEI (Local Governments for Sustainability) USA are organizing city and county leaders from across America to make sure federal decision makers understand the essential role of local governments in reducing energy use and addressing climate change."

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[Here's the text from the newspaper tree \(press release\)](#)

City of El Paso Leading the Way in Saving Energy, Money

by Communications and Public Affairs, City of El Paso



At the gathering Mayor Cook also announced that the City Council was considering a resolution calling on the incoming President and Congress to invest stimulus dollars in local conservation projects as a quick and effective way to create new green jobs, revitalize the economy and promote energy independence.

Posted on January 29, 2009

Mayor John Cook, El Paso Electric Co. Vice President David Carpenter and Johnson Controls representatives came together at the Armijo Indoor Pool recently to showcase a new City of El Paso initiative expected to save the City millions of dollars in energy costs.

The project calls for implementing energy retrofits at 53 City facilities and more than 600 intersections. The changes are projected to reduce the City's energy consumption by more than 18.6 million kilowatt hours per year. The \$15 million project should produce an annual energy-cost savings of about \$1.7 million.

The effort shows the City is committed to investing in energy saving street lights and energy efficient heating, cooling, lighting for city facilities. As part of this project, the Armijo pool will be equipped with a system allowing the pool to be heated using solar energy.

In addition to producing a significant cost savings for the City, the project should reduce greenhouse gas emissions by 11,300 tons annually. The reduction in air pollutants would equate to removing about 1,950 cars from the road each year.

At the gathering Mayor Cook also announced that the City Council was considering a resolution calling on the incoming President and Congress to invest stimulus dollars in local conservation projects as a quick and effective way to create new green jobs, revitalize the economy and promote energy independence.

"We were pleased that during his campaign, (then) President-elect Obama indicated support for investment in energy-saving projects to help create jobs and spur economic recovery," said Mayor John Cook. "We want (our federal leaders) to know that with

federal assistance, we are ready to put El Pasoans to work in jobs that will reduce our dependence on foreign oil and cut greenhouse gas emissions.”

Mayor Cook said the City could implement more energy-efficient measures if federal funds are made available. The Council adopted the resolution in December, making El Paso one of many communities nationwide joining with Climate Communities and ICLEI USA to endorse Empowering Local Government Climate Action: Blueprint for President Obama and 111th Congress.

“Climate Communities and ICLEI USA are organizing city and county leaders from across America to make sure that federal decision makers understand the essential role of local governments in reducing energy use and addressing climate change,” said Roger Dickinson, Sacramento County Supervisor and a co-chair of Climate Communities.

Local government actions have the potential to dramatically reduce energy consumption and greenhouse gas emissions. According to the Energy Information Administration, more than 40 percent of energy consumption and carbon emissions come from residential and commercial buildings, and one-third is generated by the transportation sector.

Currently there are no federal programs to support local climate and energy initiatives. The Local Government Climate Action Blueprint calls for stimulus legislation to include \$10 billion for the Energy Efficiency and Conservation Block Grant program and \$18 billion for public transit and green vehicles infrastructure. The Blueprint outlines many other opportunities for the federal government to invest in local government innovation, including:

- **Enactment of a national GHG cap-and-trade program with a portion of the estimated \$150 billion carbon trading revenues invested in local government climate action and green jobs initiatives;**
- **Investment in public transit, green vehicles and vehicle miles traveled (VMT) reduction through reauthorization of \$400 billion federal transportation legislation; and**
- **\$250 million for EPA Local Climate Demonstration Grants that empower local governments to continue creating new solutions to the climate challenge.**

This content was written and produced by Communications and Public Affairs, City of El Paso. This article was originally published in the February 2009 issue of El Paso Magazine.

City goes green: Lower Valley centers among first to see improvements

By Darren Meritz / El Paso Times

Posted: 02/16/2009 06:22:45 PM MST

EL PASO -- The city is pursuing a variety of improvements at its various buildings designed to reduce energy usage and in turn save millions of dollars for at least the next decade.

Through the Energy Savings Performance program, city officials expect to retrofit and install modern electric and solar infrastructure designed to reduce natural resource usage and save money.

"Any time that you can be more efficient with energy, do less harm to the environment and save money, there's an obligation to explore those avenues," said Eastridge/Mid-Valley city Rep. Steve Ortega.

With loans from Bank of America and from the State Energy Conservation Office, the city will spend about \$14.7 million in infrastructure improvements that include new



City of El Paso Energy Manager Gerardo Velazquez stands at one of the lifeguard stations with some of the newly installed lighting at the pool. The lights were installed to save energy consumption as part of the city's Energy Savings Performance program.

heating and cooling equipment, lighting upgrades, building management systems, solar heating systems and traffic signal upgrades.

The improvements, scheduled to be complete at 53 city buildings by December, are expected to save \$1.8 million per year in energy costs and are projected to yield a \$20.3 million reduction in operating costs during the next 10 years.

Savings will be used to repay the money borrowed from Bank of America and the State Energy Conservation Office. The project's contractor, Johnson Controls Inc., will pay the balance if savings are less than expected.

The city estimates that it can reduce electric consumption at its buildings by 30 percent and reduce electric consumption at traffic lights by 84 percent.

In the Lower Valley, as is happening in other city-operated buildings, the city is in the process of retrofitting lighting and the Pavo Real and Carolina recreation centers and adding solar heating panels for pool water at the William W. Cowan aquatic center.

Improvements also include light motion sensors that determine whether the lights need to be turned on automatically if someone is inside a building, and an electrical management system that allows city officials to manage buildings by remote at



Solar Solutions President Gad A. Ronat holds up one of the solar panels that will be installed later this month at William W. Cowan aquatic center in the Lower Valley. It is one of nine pools that will have solar panels installed to heat the pools with solar power and reduce the city's electric bill. (Photos by Ruben R. Ramirez / El Paso Times)
City Hall.

Gerardo Velazquez, energy manager for the city of El Paso, described the project as a far more efficient means of operating city buildings, which will save money and use far fewer natural resources.

Solar Solutions has been contracted to install solar heating systems at eight of the city's aquatic centers that use sunlight to heat pool water using the same technology at Olympic pools in Atlanta and Athens.

Gad A. Ronat, president of Solar Solutions, said it should take the city about five years to recoup its investment in the solar panels. For homeowners with pools, the cost is usually about \$3,500 and takes about three years to make up the expense.

"The essence of the solar panel is it absorbs heat from the sun. The water, before it goes back to the pool, it passes through the solar panels," he said. "It's crazy. El Paso has 330 days of sun, so it's just crazy not to have a solar system."

Darren Meritz may be reached at dmeritz@elpasotimes.com; 546-6127.

By the numbers

Some figures on the costs and savings of city's Energy Savings Performance program:

- \$14.7 million: Cost of improvements, including new heating and cooling equipment, lighting upgrades, building management systems, solar heating systems and traffic signal upgrades.
 - \$20.3 million: Estimated cut in operating costs for 10 years.
 - 30 percent: Amount of cuts in electricity usage at 53 city centers or buildings.
 - 84 percent: Cut in electricity usage for 6,600 traffic signals.
 - December: Planned completion date.
- Source: City of El Paso.

El Paso 'green': Solar retrofitting good move

El Paso Times Staff

Posted: 02/18/2009 12:00:00 AM MST

Where better to be cost-efficient than at the source that spends much of our money, City Hall. In this case, it's using a freebie, the sun, to heat, cool and light more than 50 city-owned facilities.

The city has figured it will reduce electric consumption at its buildings by 30 percent and electric consumption at its traffic lights by 84 percent.

Some \$14.7 million in loans from Bank of America and the State Energy Conservation Office will go to retrofit city-owned facilities at a savings of \$20.3 million in the first 10 years. The loans will be paid back by the savings on energy bills.

For a long time, El Pasoans have harked and heralded the daily beating down of the sun's rays. Let's get into the solar-energy business, many have said. Let the sun create electricity.

That's because solar energy, as is wind, are two of the growing number of catalysts to free power.

Now City Hall is taking a lead role in El Paso. It is using Solar Solutions as its contractor, and the company is expected to have the needed solar panels in place by the end of this year.

Included in the retrofitting are recreation centers, aquatic centers and other buildings.

This is a big, positive step in what the U.S. calls "going green."

This is a big, positive step for what's known as "The Sun City."