

The City of West Covina

The Road to Platinum

The San Gabriel Valley Energy Wise Partnership is proud to recognize the City of West Covina as the first city in Southern California Edison's (SCE) territory to reach Platinum-level status in the Energy Leader Model.

The Energy Leader Model is an innovative program designed to recognize cities' leadership in energy efficiency, demand response, and energy planning. There are four levels in the Energy Leader Model: Value, Silver, Gold, and Platinum. In order for cities to progress in the Energy Leader Model, they must demonstrate leadership through energy efficiency in municipal facilities, community-wide energy efficiency, and the planning, development, and implementation of Energy Action Plans.

To reach the Platinum level, the City of West Covina had to meet the following criteria, which can be seen at right.

Implementation of Energy Action Plan

Energy Efficiency Criteria

Target 100% of city facilities to complete specified EE upgrades

Target 20% kWh reduction for city facilities

Co-sponsor marketing and outreach to the community on EE programs

Demand Response Criteria

Enroll at least one (1) eligible facility in SCE's Auto Demand Response program

Have at least 50% of eligible facilities participate in an SCE Demand Response program and develop a Demand Reduction Action Plan for the participating facilities

Organize a local outreach event during the Spring/Summer season to promote Demand Response/iDSM

Implementation of Energy Action Plan

In September 2011, the City of West Covina adopted its Energy Action Plan (EAP), identifying goals to guide the City towards the implementation of policies, strategies, and actions that are both cost-effective and environmentally sound.

The goals of the EAP include the following:

- ◇ 5% of local businesses participating in SCE energy efficiency programs by 2014
- ◇ 15% of local homeowners participate in SCE energy efficiency programs by 2013
- ◇ Energy use at City facilities reduced by at least 30% by 2013

To reach these goals, the City plans to complete several municipal projects, including kitchen retrofits in several buildings and a lighting project at the Senior Center. The City will also promote energy savings community-wide through by developing an ordinance to encourage energy efficiency upgrades in existing buildings.

WEST COVINA'S ENERGY USE: MUNICIPAL USE

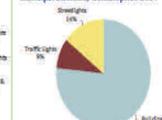
STATION 4

TRENDS IN MUNICIPAL ELECTRICITY USE (BY SECTOR)

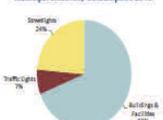
Municipal Electricity Use Trends 2004 - 2010



Municipal Electricity Consumption 2004



Municipal Electricity Consumption 2010



Summary of the Data

- City buildings used 12% less electricity in 2010 than in 2004
- Electricity used to power traffic lights and street lights decreased 20% from 2004 to 2010
- Buildings & Facilities represent the largest sector of municipal electricity consumption, and therefore represent the greatest opportunity for reductions in energy use
- The decrease in nearly all sectors of electricity use is in part from the City's participation in energy efficiency and conservation programs

TRENDS IN MUNICIPAL GREENHOUSE GAS (GHG) EMISSIONS (BY SECTOR)

Community Greenhouse Gas Emissions Trends 2004 - 2010

	2004 MTCO2e	2010 MTCO2e
Buildings & Facilities	1,550	1,260
Traffic Lights	110	120
Streetlights	290	430
Total	1,950	1,810

MTCO2e is metric tons of carbon dioxide equivalent. It includes three GHGs: carbon dioxide, methane and nitrous oxide.

* The City achieved these reductions while adding more than 20,000 sq. ft. of new facilities to its energy mix (including the Community Park Center, the City of West Covina Center for the Arts, and the City of West Covina Center for the Arts).

Municipal Projects

The City of West Covina has long been a leader in energy reduction and energy planning in Southern California. Since West Covina began its energy conservation program in 1993, the City has consistently and systematically identified and completed projects at its municipal facilities. Since 2005, the City has reduced its energy usage in municipal facilities by 1.5 million kWh, representing a reduction of more than 22% from 2004 levels. This represents a bill savings of more than \$230,000. Even during these challenging economic times, the City has remained committed to improving the energy efficiency of its facilities. In 2011, the City completed an outdoor street lighting project that saved more than 500,000 kWh. For its municipal efforts, the City was awarded the Partnership's Energy Savings Impact Award in 2010 and 2011. The following projects represent just a few of the energy-saving activities that have helped West Covina reach this milestone.

LED Traffic Lamps Retrofit (2001 and 2011)

The City of West Covina replaced traffic signals at approximately 68 traffic intersections. In 2001, the existing red and green colored "incandescent" style lamps were replaced with higher-efficiency LED units. Then, in 2011, the amber colored and pedestrian-crossing incandescent lamps were replaced with the higher-efficiency LED units.



LED Traffic Signals

**Annual
Energy Savings**
478,000 kWh

**Annual
Cost Savings**
\$71,700



Turbocor Chiller

City Hall/Police Station HVAC Retrofits (2007)

In 2007, the City of West Covina installed a new shared Heating Venting and Air Conditioning (HVAC) system in the City Hall/Police Station. The system was rebuilt to provide adjustment capability and load reduction during non-business hours, resulting in significant energy reductions.

**Annual
Energy Savings**
1,012,424 kWh

**Annual
Cost Savings**
\$151,863

Municipal Projects

Senior Center Annex Cool Roof Project (2006)

The City of West Covina replaced a 9,000 square foot existing built-up style roof with a more efficient cool-roof system. A cool roof reflects more sunlight and absorbs less heat, resulting in reduced energy consumption and reduced energy costs.



Senior Center Annex

**Annual
Energy Savings**
27,000 kWh

**Annual
Cost Savings**
\$4,050



West Covina City Council Chambers

City Hall Solar Window Film (2010)

The City of West Covina installed Solar Film onto approximately 4,800 square feet of existing single pane windows. Solar Film is a protective heat-reflective coating that prevents solar heat from entering a window, reducing energy consumption.

**Annual
Energy Savings**
105,000 kWh

**Annual
Cost Savings**
\$15,750

Public Lighting Upgrades (2011)

In 2011, the City of West Covina replaced approximately 1,200 interior and exterior lamps and lights in parks, parking lots, and on pedestrian walkways with high-efficiency units. These high-efficiency units are projected to produce an annual energy savings of more than 500,000 kWh and dramatic annual cost savings.



Parking Structure
Lighting—Old



Parking Structure
Lighting—New

**Annual
Energy Savings**
637,412 kWh

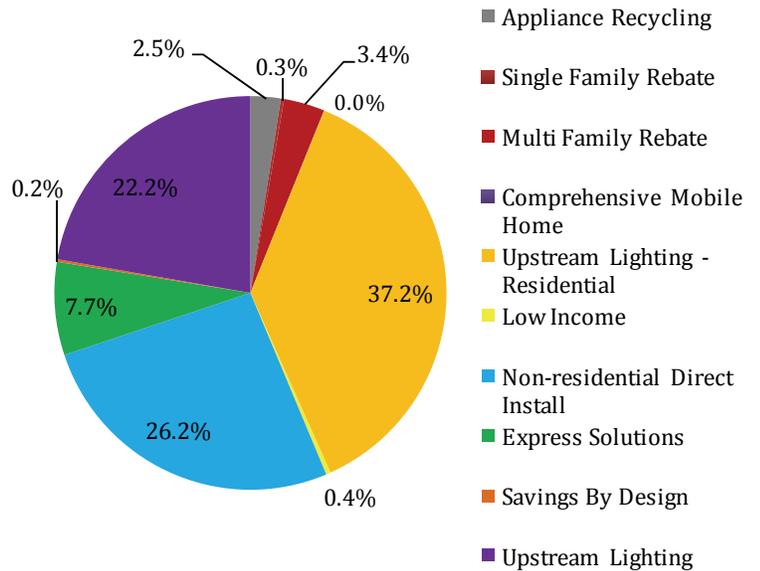
**Annual
Cost Savings**
\$95,612



Community Energy Savings

The City of West Covina recognizes that they are only part of the energy solution. Through its strong example and promotion of energy efficiency programs to businesses and residents and its strong example, West Covina has had dramatic community energy savings. In 2011, the City's residents and businesses saved 91.1 million kWh. This represents an annual utility bill savings of over \$13 million.

West Covina residents and businesses also participated in many of SCE's residential and business programs, which produced additional savings for the city. The chart at right shows the participation in SCE programs, which include installing more energy efficient lighting in homes (upstream lighting), identifying ways for small businesses to save money (non-residential direct install), and making mobile homes more energy efficient (comprehensive mobile home).



Demand Response

The City of West Covina has been a participant in SCE's Demand Response programs for more than 12 years. Rather than focusing on installing efficient equipment and systems, Demand Response programs instead encourage customers to reduce their energy usage during periods when statewide energy demand is at its peak. This avoids adding costly generation to the system.

Currently, the City of West Covina has 33 facilities enrolled in the Summer Discount Program. In this program, the central air conditioner compressors are temporarily turned off, based on comfort level and operational needs, during periods of summer peak demand. The City has also participated in SCE's Base Interruptible Program at its Civic Center for many years.

Through participation in these programs, the City of West Covina has received more than \$10,000 in incentives for reducing its energy usage during these peak demand periods. The City was also awarded the first "Excellence in Demand Response Award" at the 2011 San Gabriel Valley Energy Wise Partnership Awards.

Base Interruptible Program

The City of West Covina has long been a leader in SCE's Demand Response programs. The West Covina Civic Center has been enrolled in SCE's Base Interruptible Program for many years. In this program, participating customers are asked to reduce their electrical usage to a predetermined amount with just 15 minutes or 30 minutes of notice, depending on the program in which the participant is enrolled. Participating customers select a baseline that is at least 15% of their maximum demand and that is required to meet their operational needs. When an energy event is called, a participant must reduce their electrical usage to their designated level within the designated amount of time.

The West Covina Civic Center also recently installed Auto-DR, which automatically cycles off equipment when there is an energy event.



San Gabriel Valley Council of Governments

