

City of Chico, California

Using Solar to Save the Environment

In this City, the largest in Butte County, over 86,000 people live within the City limits and over 105,000 people reside in the Greater Chico Area. In October 2006, the Chico City Council authorized the Mayor to sign the U.S. Conference of Mayors Climate Protection Agreement.

In spring of 2008, the City of Chico completed a Greenhouse Gas and Criteria Air Pollutant Emissions Inventory for the City government and the community. The inventory established a greenhouse gas (GHG) baseline year. In 2005 the community's emissions totaled 610,951 metric tons of CO₂E. The largest emissions were produced by the transportation sector, followed by the commercial and residential sectors.

In September 2008, the City Council approved establishing a GHG reduction target of 25% below 2005 levels by the year 2020. The City is in the process of developing its Climate Action Plan to achieve the 25%, or 152,738 metric tons of CO₂E, reduction in GHG emissions by 2020.

Photo Credit: Quené Hansen



The solar system at the City of Chico Water Pollution Control Plant (pictured above) is described by the City as “the world’s largest ground-mounted solar tracking facility at a wastewater treatment plant.” The system was installed in 2005.

Green Actions Snapshot

- Converted all traffic signal bulbs to LED lights
- Installed a 1,107 kilowatt photovoltaic (PV) power tracking system at the Water Pollution Control Plant
- Composts over 18,000 tons of green waste annually at the City compost facility
- Purchased 13 Hybrid vehicles since 2005, and conducted a fleet optimization study to reduce the City’s fleet and equipment
- Incorporates “cold-foam in-place” asphalt recycling process in large road projects

Environmental Benefits

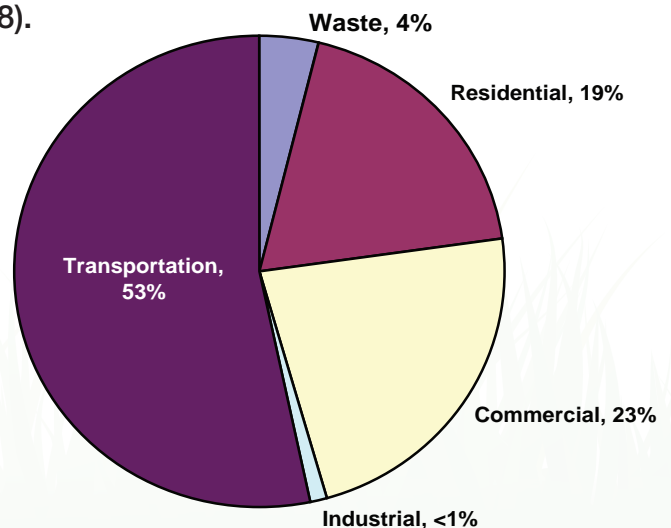
- In 2005, the City of Chico diverted 1,296 metric tons of CO₂E by composting 7,084 tons of plant debris at the Cohasset Compost Facility

Estimated Greenhouse Gas Emission Reductions

- 19,300 tons of CO₂ from Water Pollution Control Plant and downtown parking lot solar facilities
- 200 residential solar projects help save approximately 450 metric tons of CO₂E annually

Greenhouse Gas Emissions Profile

In Chico 54% of greenhouse gas (GHG) emissions are produced by the transportation sector. The commercial sector is the second largest contributor, accounting for 23%, followed by the residential sector (19%), the waste sector (4%), and the industrial sector producing less than 1% (2008).



What Actions Did Chico Take to Use Solar Energy?

In 2005 the City installed a 1,107 kilowatt photovoltaic (PV) power tracking system at the Water Pollution Control Plant. The PV system is able to supply approximately 40% of the plant's energy needs. The City anticipates an average annual savings of \$250,000 in avoided electricity purchases with a total net savings of \$4 million over the next 30 years. It is estimated that the system will pay for itself in 15 years. The system cost \$7.6 million but the City was able to obtain a \$3.7 million rebate.

"After learning about a rebate available from Pacific Gas and Electric Company (PG&E; San Francisco), the city installed a 91 kilowatt pilot solar project on a downtown parking structure in July 2004," said Quené Hansen, projects manager for the City of Chico. The solar parking array is made of 480 PV panels, which deliver electricity directly into the City's electrical grid.

What Actions Did Chico Take to Save Energy?

As part of Chico's effort to reduce energy use, the City replaced traffic signal bulbs with more energy efficient LED lights. A city can easily save one million dollars a year by replacing bulbs with LED units.

The City has also purchased 13 Hybrid vehicles since 2005. Generally, hybrid cars produce 80% less harmful pollutants and greenhouse gases than comparable gasoline cars. This translates to less airborne pollutants and a cleaner earth.

What Action Did Chico Take to Compost Green Waste?

Thanks to the City's compost facility, Chico annually collects and composts 18,000 tons of green waste from commercial, residential, and City-owned properties. 1/3 of the average household trash can contains green waste.

The City of Chico continues its mission to reduce greenhouse gas emissions by 25% in 2020 by using more solar energy and reducing energy use throughout the City.

PROUD PARTNERS INCLUDE:



STATE OF CALIFORNIA
PUBLIC UTILITIES COMMISSION

"The [solar system] has been a cost savings for us, it benefits the environment, which has been a great public relations opportunity for us, and it has stabilized our utility costs."

-Quené Hansen
Projects Manager for the City of Chico

Photo Credit: Chico City Website



The solar electric parking system installed at Chico's downtown parking structure (pictured above) generates power for the facility.

Photo Credit: Chico City Website



"Together we can sustain Chico's values and create a lasting vision for a livable community."

-Ann Schwab
Mayor of Chico

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