

### City of Redding, California

#### City Programs Energize Sustainability

Redding is California's largest city north of Sacramento. It's the northernmost designated metropolitan area with a population of over 100,000 people. The City's goal is to reduce greenhouse gas emissions by 7% below 1990 levels by 2012.

Many of the sustainable energy efforts are headed by the Redding Electric Utility (REU). REU is locally owned and governed by the Redding City Council. It provides electric service to more than 86,000 residential and business customers. REU has contracted renewable energy for more than 31% of its customers' needs. Including large hydroelectric sources, more than 61% of its contracted energy is non-CO<sub>2</sub> emitting.

Redding's efforts to reduce greenhouse gas emissions focus on: recycling programs; use of renewable energy; a green building program; solid waste diversion; water efficiency and conservation; energy efficiency and conservation; and the availability of City documents online to reduce paper use. In addition to these efforts, the City's Public Benefits Programs give rebates to customers for the purchase of energy-efficient clothes washers, dishwashers, refrigerators, windows and more. Over 7,500 metric tons of CO<sub>2</sub> are prevented each year from these rebate programs.



Photo Credit: [www.ci.redding.ca.us](http://www.ci.redding.ca.us)

The 55,000-square-foot Redding Municipal Library (shown above) was built in 2007 with a photovoltaic (PV) array.

#### Green Actions Snapshot

- Installed 56 photovoltaic (PV) panels
- Replaced all traffic signals with LED lights
- Increased Redding Electric Utility's renewable energy mix
- Provided rebates for energy efficient appliances and systems
- Adopted Earth Advantage green building program

#### Environmental Benefits

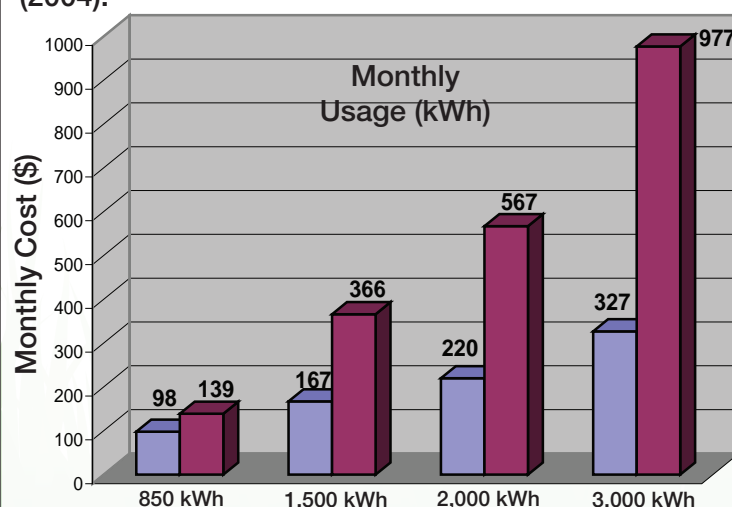
- Redding Fire Department Station No. 8 utilizes a solar array that produces 14.4 kilowatts of energy, 20% of the station's electricity demand
- Redding gave out 17,000 CFLs to low-income households that save 750,000-1,000,000 kWh/yr
- Rebate programs save 18.8 million kWh a year

#### Estimated Yearly

- Greenhouse Gas Emission Reductions:  
5.8 metric tons of CO<sub>2</sub> from Library solar array  
7,500 metric tons of CO<sub>2</sub> from rebate program  
83 metric tons of CO<sub>2</sub>E from 56 PV panels
- Cost Savings:  
\$35,000 from net metering cost avoidance  
\$2.6 million from energy efficiency Public Benefits Programs

#### Redding Electric Utility vs PG&E Monthly Cost

REU is able to provide lower cost energy because it is governed by the City Council. REU uses a significant amount of renewable sources. A household using 2,000 kWh of energy a month pays \$220 through REU (light shade) vs. \$567 through PG&E (dark shade), (2004).



### What Actions Did Redding Take to Save Energy?

Through REU's Public Benefits Program rebates, the City saves 18.8 million kilowatt hours (kWh) of energy a year. The City performed more than 1,100 insulation upgrades and installed 5,113 high-efficiency air conditioners, saving 15.2 million kWh of energy. To date more than 8,000 energy efficient refrigerators were purchased, saving the City an annual 3 million kWh of energy. In 2008, the City gave out 17,000 CFLs to low-income households, saving an additional 750,000- 1,000,000 kWh/yr of energy. REU also provided rebates to retrofit more than 200 lighting systems, saving the City more than 590,000 kWh of energy. All of these energy actions save the City \$2.6 million in energy costs per year.

### What Actions Did Redding Take to Use Solar Energy?

REU has helped install over 50 solar (PV) photovoltaic systems (including direct installations) that will reduce 83 metric tons of CO<sub>2</sub>E annually. This is equivalent to planting 70 acres of trees or emissions from 34,544 gallons of gasoline. The City has 56 solar PV systems installed, 48 are residential and 8 commercial, totaling 143.8 kilowatts of energy. The total cost of the system was \$1,412,235 and REU's rebate share was \$651,821, or 46% of the installed cost.

### What Actions Did Redding Take to Build Green?

In 2005, the City launched the Earth Advantage green building program, which requires builders to exceed the energy-efficiency standards by 20% compared to typical new home requirements. The City plans to require new construction to exceed the 2008 Title 24 Energy standards in August 2009. The program's recycling and waste management requirements have seen waste stream reductions by some builders of as much as 40%. The City also helped construct the Earth Advantage Green Resource Center to provide important information on green building practices.

The City of Redding and REU continue to look for ways to reduce greenhouse gas emissions and reach their reduction goal of 7% below 1990 levels by 2012.

Photo Credit: [www.reupower.com](http://www.reupower.com)



REU owns and operates a small hydro plant at Whiskeytown Dam (shown above). It provides 3.5 megawatts of environmentally responsible energy around the clock.

"REU has worked hard to help its customers reduce energy use and, in turn, to be more environmentally conscious."

-Rick Bosetti  
Mayor of Redding

Photo Credit:  
[www.iberdrolarenewables.us](http://www.iberdrolarenewables.us)



The wind component of REU's portfolio comes from the Big Horn Wind Power Project (shown above) located in eastern Washington State.

### Contact Information

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[www.ci.redding.ca.us](http://www.ci.redding.ca.us)  
[www.ci.redding.ca.us/pdf/City\\_green\\_practices.pdf](http://www.ci.redding.ca.us/pdf/City_green_practices.pdf)  
REU Phone: (530) 339-7300  
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