

City of Berkeley, California

Building an Eco-Friendly Community

In November 2006, Berkeley voters issued a bold call to action on global warming— reduce the entire community’s year 2000 greenhouse gas emissions by 80% by 2050.

Since then, Mayor Tom Bates has worked with the City to make environmentally sound changes. First Berkeley completed energy retrofits to most city-owned buildings. Through this effort, they save 2.1 million kilowatt hours of electricity, 37,520 therms of natural gas and \$370,000 of taxpayer’s money annually. Completing energy retrofits to city buildings is expected to save about 1,088 metric tons of CO₂ annually.

Berkeley’s Climate Action Plan identifies several strategies to green the city energy supply including development of more decentralized renewable energy generation, greening the energy mix, and community choice aggregation. The City offers employees a free bus pass and the City auto fleet is being retired and replaced with CityCarShare hybrids. The number of watering days at each park is being reduced and the efficiency of the irrigation systems increased.



Photo Credit: BerkeleyClimateAction.org

The City created and funded the Berkeley Climate Action Team to work with the community on the development of a greenhouse gas reduction plan.

Green Actions Snapshot

- Retrofitted all City-owned buildings with energy efficient lighting and appliances
- Uses renewable energy sources
- Replaced traffic light bulbs with LED lights at 126 intersections
- Created Berkeley Financing Initiative for Renewable and Solar Technology (FIRST) program

Environmental Benefits

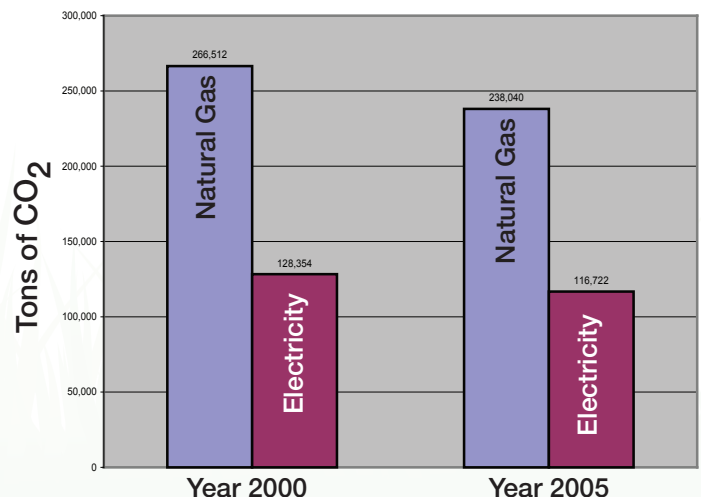
- Building retrofits save 2.1 million kilowatt hours of electricity and 37,520 therms of heat (natural gas) annually
- Between 2000-2005, Berkeley reduced greenhouse gas emissions by 8.9%

Estimated Yearly

- Greenhouse Gas Emission Reductions:
 - 1,088 tons of CO₂ from energy retrofits
 - 227 tons of CO₂ from LED traffic signals
 - 13,608 tons of CO₂ from renewable energy mix
- Cost Savings:
 - \$370,000 of taxpayer’s money is saved from energy retrofits to buildings
 - \$143,000 from LED traffic signals

Greenhouse Gas Emissions

This chart shows the change in use of natural gas (lavendar) and electricity (purple) between 2000 and 2005 in Berkeley. Residential customers achieved a 13% drop in energy use. This data is from the NYC Climate Summit (2007).



What Actions Did Berkeley Take to Save Energy?

Retrofits to City-owned buildings included removing incandescent lamps and installing new compact fluorescent lamps, replacing old inefficient T-12 fluorescent lamps with new T-8 lamps and adding electronic ballasts, installing occupancy sensors to turn off lights, upgrading heating and ventilation systems and improving building control systems. The City replaced red and green traffic light bulbs and orange pedestrian "hand" bulbs at all 126 intersections from inefficient incandescent bulbs to LEDs. These LEDs save more than \$143,000 annually and 227 metric tons of CO₂.

What Actions Did Berkeley Take to Support Renewable Energy?

Berkeley anticipates that by the year 2020, at least 25% of the grid-available energy mix will be from renewable resources. City staff estimates that this energy mix could reduce 13,608 metric tons of CO₂ per year. In order to encourage residential and commercial building owners to install renewable and solar technology, Berkeley has launched a program called Berkeley FIRST—Financing Initiative for Renewable and Solar Technology. The City of Berkeley allows residential and commercial property owners to pay for energy efficiency improvements and solar system installation as a voluntary long-term assessment on their individual property tax bill.

What Actions Did Berkeley Take to Support Green Building?

New City buildings must achieve LEED silver certification and the city regularly audits energy and water use in City buildings. Berkeley has a 1.8 kilowatt wind turbine at one building site, and two solar electric and two solar thermal installations on other buildings, with plans to add additional systems in the near future.

Berkeley has reduced 8.9% of their GHG emissions between 2000 and 2005. If the City continues on this path, they should achieve their goal of an 80% GHG reduction by 2050.

PROUD PARTNERS INCLUDE:



STATE OF CALIFORNIA
PUBLIC UTILITIES COMMISSION

"To green our economy and reduce greenhouse gas emissions in and around our community, I co-founded the East Bay Green Corridor Partnership with the mayors of Oakland, Emeryville and Richmond, the Chancellor of the University of California, Berkeley, and the Director of the Lawrence Berkeley National Laboratory."

-Tom Bates
City of Berkeley Mayor

Photo Credit: www.browercenter.org



The David Brower Center (above) is set to open in May 2009 and will feature the greenest of green architecture. The Center will be over 50,000 square feet. It will incorporate non-toxic materials, natural daylighting and ventilation, a high-performance building envelope and solar panels.

Contact Information

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