

A Zero Waste Future

The city of Irvine has found its calling and become an innovative urban metropolis focused on reducing the carbon footprint of both its residents and its municipal operations. The city plans to achieve significant carbon reductions through a few key strategies: green building standards, energy efficiency retrofits, and a zero waste future.

In order to reduce the city's building energy use 30 percent by 2015, the city of Irvine concluded that all new construction of municipal buildings must receive a LEED certification of Gold, and will exceed state energy codes by 20 percent through the use of day lighting-- eliminating the need for artificial light. New facilities in the city will also have on-site renewable energy systems to help produce the electricity necessary for operation.

Energy awareness programs are offered to educate workers on simple ideas around the office to reduce wasteful energy consumption, like fully shutting off computers at the end of the day or turning off lights when leaving a room. These efforts and more will ease municipal energy use by 50 percent.

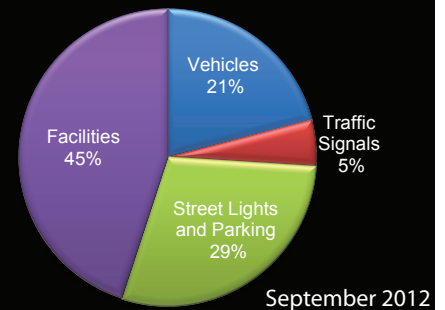
A zero waste ordinance was adopted by Irvine in 2007, mandating the most efficient use of resources to reduce waste as much as possible. This involves eliminating the production of potentially wasteful products, like excess packaging. Currently, the city has a 56 percent diversion rate of waste generated within the city. The city is also working to divert the 20 percent of food waste in landfills that could be composted. One of the strategies is to strongly encourage residents to compost food scraps for use as fertilizer in gardens.



Photo Credit: www.IUSD.org

The Irvine Unified School District is installing solar panels on the carports of nine campuses. The panels are expected to save approximately \$85,000 a year.

Energy Use by Municipal Operations



The City of Irvine has implemented new policies to reduce unnecessary energy consumption from facilities and street lights, as those two sectors are the biggest consumers.

City of Irvine

Green Actions:

- Irvine currently has 27 LEED certified buildings
- The city vehicle fleet has converted a portion of the cars to use alternative fuels, including hybrid and natural gas technology
- Timers on indoor and outdoor lighting control the hours of operation and minimize electricity use
- Street lights have been retrofitted to use high-pressure sodium bulbs, which produce twice as much light using a comparable amount of energy

Community Focused Efforts:

- City issues free permits to install home solar panels, encouraging residents to invest in alternative energy
- New bike trails have been added totaling 282 miles of bike lanes, and 44.5 miles of trail riding, all open to the public
- Irvine dedicated over 5,200 acres to the local nature reserve, aiming at restoring open space and creating a vast and sustainable wilderness for residents and visitors to enjoy
- Over 60,000 CFL bulbs were also distributed to residents as a way to encourage the community to reduce greenhouse gases

What is Irvine doing to reduce energy use?

The city of Irvine's Green Team works to connect residents with sustainable ideas and programs like the aggressive recycling program. Residents are encouraged to install low-flow shower heads, computer controlled thermostats and insulation on water heaters. In addition, incentives and rebates are offered for larger projects like purchasing solar panels.

The city's Transportation Center is also home to a photovoltaic system providing clean energy for the city to use.

How is Irvine encouraging alternative modes of transportation?

Irvine has many policies to encourage bicycling rather than driving. For city employees, a flexible work schedule is offered to cut down on time spent idling in traffic. Employees also have access to car and vanpools, as well as ride sharing resources.

The city is also working to improve bicycle transit. At bike trip destinations, like community and transit facilities along with commercial centers, bike storage and showers are provided to riders. The city has improved traffic signals to include allowances for bikers to turn, cross streets, and move through traffic. Off-street bike paths with minimum cross traffic have been created to further protect cyclists. In addition, the city supports programs to increase public and rider awareness of safe habits when sharing the road.

Irvine is improving its own vehicle fleet as well as implementing land use requirements to reduce transit related GHG emissions. New construction must have a plan for public transportation access and be carried out. The city vehicle fleet is being converted to use alternative fuels and GPS units are being installed to monitor smog emissions. Irvine is creating a haven filled with unpolluted nature preserves through city and residential cooperation. The public transportation system attracts many commuters and is a model approach to balancing green ideas and mass transit.



Photo Credit: www.UCI.edu

The student center at UC Irvine has achieved a LEED certification of Gold through new plumbing standards that use 42 percent less water, a reflective roof to reduce cooling costs, and ease of access to school and public transportation.



Photo Credit: www.OCRegister.com

The Irvine bike trail not only allows for exercise, it also permits cyclists to commute without fighting vehicle traffic.

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