



Boulder and Boulder County Leading the Way in Green

- Renewable Energy -

- Renewables
 - Wind
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- Hybrids/Electric Vehicles
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Renewables

In a visionary move to create the nation's first fully-integrated digital electricity system, Boulder and Xcel Energy will partner to bring to life a *Smart Grid* in the city of Boulder. In keeping with the city's reputation as a high-tech hub and capitalizing on its environmental awareness, Boulder will become a proving ground for innovations that will enable residents and businesses to optimize the use of renewable energy sources, increase energy conservation options and minimize its collective environmental footprint. *Smart Grid* also promises to deliver more reliable energy, and businesses and residents in Boulder will experience fewer power outages and enhanced response times.

Expert: [Kara Mertz](#), City of Boulder, 303-441-3153
www.xcelenergy.com/smartgrid

[The Kitchen](#), a nationally-celebrated restaurant on Pearl Street, is powered with wind. Plus, it was named one of the Top 10 Greenest restaurants in the country by Bon Appétit magazine.
www.thekitchencafe.com

Boulder County is the place where thousands of [ConocoPhillips](#) employees will be trained to learn about renewable and alternative energy. The company's hub for research and development of renewable and alternative energy and high-tech carbon fuels recovery will be located in Louisville, Colorado. It is scheduled to open in 2012.

We celebrate the wind with a Wind Parade! In conjunction with [EcoArts](#) – a super cool event that brings together scientists and artists to talk about climate change – the Wind Parade is where you'll see families celebrating the wind with streamers, flags and pinwheels.

Expert: [Kim Farin](#) Boulder Convention and Visitors Bureau 303-938-2066
www.ecoartsonline.org

Boulder City Council approved a [solar rebate ordinance](#) that went into effect in December 2006. This solar rebate ordinance created a renewable energy fund. A portion of the renewable fund, 35 percent, is dedicated to rebates on sales tax on solar systems installed in the city of Boulder.

Expert: [Jonathan Koehn](#), city of Boulder Environmental Affairs Division, 303-441-1915
[FAQ's about the solar rebate](#)

Most of the shops along Pearl Street Mall are powered by wind energy. You won't see windmills but 85% of the shops in historic downtown Boulder have signed up with a local utility company to use wind power.

Boulder County has installed a 46-panel solar power system at its historic downtown courthouse and is currently in the engineering phase of planning the addition of solar power systems to numerous county-owned buildings. The completed 10kW Solar

Photovoltaic (PV) panel system was installed to provide the electrical power required to charge four Plug-in Hybrid cars, which will be purchased in 2008 and will get about 100 miles per gallon. Electricity produced by the PV system feeds directly into the county's downtown electrical system and is providing power for everyday operations until the cars come on line in 2008.

Expert: [Ann Livingston](#), Boulder County Sustainability Coordinator, 303-441-3517
www.bouldercounty.org/sustain/energy/renewable.htm

[Green Building Resources](#)
[Boulder Solar Week](#)

Read a [NY Times](#) article about a Boulder energy efficient home

[Colorado Center for Biorefining and Biofuels](#)
[Colorado Renewable Energy Collaboratory](#)

Since 1985, the city of Boulder has run a hydroelectric program to turn water power into electricity, generate revenue, and provide sustainable, non-polluting electricity. Boulder's eight hydroelectric power plants convert the energy in flowing water into electricity.

Expert: [Jonathan Koehn](#), city of Boulder's Office of Env. Affairs, 303-441-1915
[Hydroelectricity use at the city](#)

Hybrids/Electric Vehicles

Hybrids can park in the front row at Boulder's newest shopping district. At Twenty Ninth Street there are parking spots specifically for "Alternative Fueled Vehicles." Right on!

Expert: [Kim Farin](#) Boulder Convention and Visitors Bureau 303-938-2066
www.twentyninthstreet.com

The city fleet currently has 193 alternate fuel vehicles and equipment. The city continues to actively pursue the acquisition of alternatively fueled vehicles and the use of alternative fuels in support of the City Council's environmental sustainability goal. Following a successful pilot project that evaluated the use of B20 (20 percent biodiesel and 80 percent diesel fuel), the city installed a 6,000 gallon tank at the City Yards for city vehicles.

Expert: Drew Bascue, city of Boulder's Office of Environmental Affairs, 303-441-1847
[City's use of alternative fuel and hybrid vehicles](#)

Boulder County has implemented a number of changes to achieve fuel efficiency and pollution reduction. For example, the County's diesel trucks run on bio-diesel and are equipped with systems that limit air pollution.

Boulder County began purchasing hybrid vehicles in 2001 and has since converted a total of 17 vehicles in its fleet to hybrid power. Boulder County will purchase three electric hybrids in 2008 and will convert them to plug-in so that they can charge their batteries using electricity harnessed through the County's solar power system installed at the downtown courthouse. These vehicles will utilize a 10-kilowatt solar array and electricity stored in the electric grid to charge their batteries.

Expert: [Ted Plank](#), Fleet Services Division, 303-682-6702
www.bouldercounty.org/sustain/transportation/fleet.htm

Scientific Research

The National Renewable Energy Laboratory (NREL) is the United States' primary laboratory for renewable energy and energy efficiency research and development. It is part of the US Department of Energy. Its areas of expertise are renewable electricity, renewable fuels, integrated energy systems and strategic energy analysis. It is located in Golden, Colorado, 25 miles south of Boulder.

The National Wind Technology Center, a division of NREL, is located about 6 miles from Boulder. Wind energy is one of the fastest-growing forms of electricity generation in the world. Industry experts predict that, with proper development, wind energy could provide 20% of this nation's energy needs. Much of the wind industry's success can be attributed to the research conducted at this facility.

Expert: [George Douglas](#), (303) 275-4096
www.nrel.gov
www.nrel.gov/wind

Tours

Tours of the [National Wind Technology Center](#) are available by prior arrangement and NREL's Visitors' Center is open Monday-Friday, 9 am – 4 pm. If you can't get to Boulder or Golden, check out this [website](#). It's full of info including a [virtual tour](#). The National Wind Technology Center, one of three national research centers at NREL, is located about 6 miles from Boulder. Wind energy is one of the fastest-growing forms of electricity generation in the world. Industry experts predict that, with proper development, wind energy could provide 20% of this nation's energy needs. Much of the wind industry's success can be attributed to the research conducted at this facility.

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[George Douglas](#), (303) 275-4096

www.nrel.gov

<http://www.nrel.gov/wind/>

Visit real homes of real people who use the sun to heat, cool, and power their homes. Discover that solar homes are comfortable, practical, reliable and affordable.

Expert: [Kim Farin](#) Boulder Convention and Visitors Bureau 303-938-2066

[Boulder Solar Week](#)

Photo Credits:

- City of Boulder
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