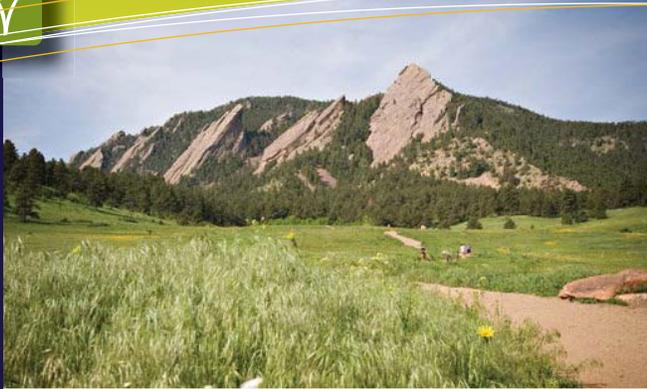




# Boulder's

# Energy Future *Today*



May/June 2012

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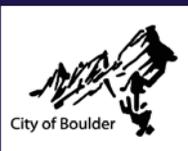
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### Did you know?

If the energy efficiency of commercial and industrial buildings in the U.S. improved by 10%, it would equal a reduction in greenhouse gas emissions equal to taking 30 million cars off the road.

\$20 billion - That's the amount of money saved if the energy efficiency of commercial and industrial buildings in the U.S. improved by 10%.



## Council likely to place carbon tax renewal on November ballot

When Boulder voters go to the polls on Nov. 6, they are likely to face an important decision about whether to renew the carbon tax that has helped our community curb its greenhouse gas emissions. The tax – the first of its kind when it was adopted in 2006 – funds demand-side energy efficiency programs. It is set to expire at the end of March 2013. Without it and related efforts to reduce greenhouse gas emissions, many of the programs that have given residents and businesses the tools they need to reduce their energy use could be in jeopardy.

At a May 22 Study Session, City Council unanimously voiced support for asking voters to extend the tax, as it is currently structured, so these types of programs can continue. Several council members said that even though the city will not reach the Kyoto Protocol goal it set for lowering emissions by 2012, the progress that has been made is impressive. According to the EPA, Boulder is in a region with one of the most carbon-intensive electricity supplies in the country. Nonetheless, we are among a small number of U.S. cities that has been able to level off an upward trend in greenhouse gas emissions and begin achieving reductions.

Council isn't alone in its enthusiasm for the continuation of the city's efficiency programs. Consultants who recently completed a third-party review of Boulder's programs concluded that CAP-funded initiatives are both cost-effective and likely to result in significant emissions reductions over time.

Rocky Mountain Institute (RMI) examined 19 residential and commercial energy programs currently in use to determine their efficiency and effectiveness not from

year to year, as the city has typically done, but over the course of the programs' lifetimes. Many of the programs launched by the city and partner organizations are designed to have positive impacts for years. For example, replacing incandescent bulbs with CFLs can result in savings that last for six to nine years before that bulb needs to be switched out again. RMI's report (available in its entirety on the Energy Future website) found that "Boulder has attained impressive energy savings and emission reductions, and is well positioned to achieve further emission reduction targets."

Other report highlights include:

- Several programs, particularly EnergySmart and those that focus on lighting, meet or surpass programs of comparable cities in terms of achieving meaningful climate change results at a reasonable cost.
- A few of the more recent programs, such as residential and commercial EnergySmart, had start-up costs that make them seem less cost-effective than others but have been particularly successful at encouraging individuals and businesses to make significant changes. Extending and expanding these programs will greatly improve the return on investment.
- Finding programs that work – and sticking with them – is critical to achieving effective, long-term emissions reductions.

Council asked staff to bring potential ballot language related to the CAP tax back to them for first reading at their June 5 meeting. The language is not expected to be finalized until sometime in August.

*Continued on page 2*

## How Can I Make a Difference?



### Use renewable energy

Use renewable energy sources at home and at work and increase its availability in our regional energy supply:

- Receive a sales and use tax rebate for setting up your own solar photovoltaic or solar thermal systems.
- Participate in Xcel Energy's SolarRewards or Windsource programs.

Visit [www.BoulderColorado.gov/ClimateAction/RampUpRenewables](http://www.BoulderColorado.gov/ClimateAction/RampUpRenewables).



### Grow Green

Plant more of the right trees for Boulder's climate, protect the urban forest and help reduce the amount of carbon dioxide in the air:

- Learn about tree resources and the best trees to plant in Colorado from the city's Urban Forestry Division.
- Help the Mile High Million program plant one million trees in Colorado.

Visit [www.BoulderColorado.gov/ClimateAction/GrowGreen](http://www.BoulderColorado.gov/ClimateAction/GrowGreen) to learn more.

## New solar array at Betasso Water Treatment Facility - the city is doing its part to use renewable sources

The new 71 kilowatt solar photovoltaic system at the Betasso Water Treatment Facility is just one of the ways the city is doing its part to bring more renewable energy into the community, and it's just one of many projects that will take place thanks to the city's Energy Performance Contract (EPC) with the Colorado Energy Office.

The array is being installed by McKinstry and Namaste Solar and consists of 331 panels. It has the capability of producing 104 kilowatt hours of electricity per year, or approximately seven percent of the facility's electrical needs. Funding for the \$478,000 project came from the EPC's lease-purchase program with \$162,000 in utility rebates and \$3,500 of annual renewable energy credit payments. The EPC project is a good example of the city implementing projects that are both environmentally and fiscally responsible.



Additional work that will take place during phase two of the EPC include:

- Solar thermal pool heating systems at East Boulder Community Center and South Boulder Recreation Center
- Lighting upgrades and water conservation

In June 2009, the city partnered with the Governor's Energy Office (GEO) on an EPC for energy saving upgrades to 66 city facilities. The partnership allows the city to enter into a lease agreement with a contractor to implement the energy efficient facility upgrades that are paid for over time with savings from the decreased utility bills. Essentially, the savings from the reduced energy bills, which the city would have had to pay if not for the upgrades, are used to pay off the lease agreement. As a result, the upgrades don't cost the taxpayer any additional money, and in the long run, the city reaps the benefits of reduced energy use, energy bills and maintenance costs.

measures throughout many city facilities

- Solar photovoltaic systems at the 63rd Street Water Treatment Facility, the Municipal Services Center, OSMP's Cherryvale Road offices and the Facilities and Asset Maintenance (FAM) facility.
- Various HVAC upgrades and controls at many city facilities.

All items in phase two will be financed through a \$6.46 million lease agreement that includes \$146,499 from an Energy Efficiency and Conservation Block Grant, \$50,000 from the Colorado Carbon Fund and \$398,337 in city capital.

### *Carbon tax renewal continued from page 1*

In addition to providing feedback about the tax, council responded to several questions from staff about other parts of the Energy Future project currently under discussion. These include:

- A revised, integrated framework for climate action in the community as a whole, including a long-term climate commitment that would include shorter-term goals and targets as well as transparent tracking and reporting tools.
- A staff recommendation that the city pursue a three-phase strategy for energy efficiency improvements in existing commercial buildings.

These topics are expected to be the focus of a community workshop on June 13 (see upcoming events for more details) as well as a follow-up City Council Study Session on July 24.

## 10 for Change Challenge helps local businesses save

### *Ocean First Divers shares its story, experiences with program*

In 2008, the City of Boulder, Hogan Lovells, and Cleantech Solutions started the 10 for Change Challenge to help local businesses set achievable energy, waste, water and transportation emission reduction goals that would result in a cumulative reduction in community greenhouse gas emissions. Four years later, the challenge is going strong. More than 110 Boulder area businesses collectively lowered their energy consumption by over 8 percent in 2011 alone.

In the City of Boulder, commercial buildings are responsible for the majority of the community's greenhouse gas emissions. 10 for Change helps businesses reduce those emissions by:

- Teaching best practices in sustainability
- Providing access to EnergySmart advisors who will complete a free building energy assessment and help find eligible rebates for energy upgrade projects
- Providing tours of member businesses to see what they've done and celebrate their success

In addition, the program sets up networking events and provides recognition for its members. One company that has successfully conserved energy with 10 for Change is Ocean First Divers, located at 3015 Bluff St. Ocean First Divers was founded in 2005 to be an advocate for ocean ecosystems in the dive industry by stressing education, conservation and sustainability.

The organization works closely with the dive industry, environmentalists, non-profit organizations and local communities to help educate and empower a generation to recognize the importance of maintaining oceans. Boulder's Energy Future Today spoke with Sacha Greene to learn more about the business' 10 for Change efforts.

**EFT** – How has the program helped Ocean First Divers save energy?

**OFD** - 10 for Change has helped us save energy and money both by bringing awareness to our energy usage and by educating us through their events on various projects, large and small, that

other business have undertaken which we can apply to our facility and work practices. They have helped us establish our baseline, quantify our progress, find rebates applicable to our project and connected us with other businesses that share our priorities.

**EFT** – What do you like most about the program?

**OFD** - That's hard to narrow down! The staff is so helpful and dedicated; the program is so easy to participate in; the way they combine education and recognition with networking is fun and efficient. The comprehensive reports we receive are so helpful. Combining our electricity and gas as well as our greenhouse gas emissions is a great tool for our business.

**EFT** – Would you recommend 10 for Change to other businesses?

**OFD** - Absolutely. I would and I have! It's a great resource, requires no investment on the part of the business, helps track your progress and facilitates connections with like-minded businesses. It's a very supportive community that's inspiring to be a part of.

**EFT** – How did you learn about the challenge and why did you decide to participate?

**OFD** - We learned about it through both word of mouth and emails from the City of Boulder. We were in the process of preparing for a major green building retrofit, as well as small scale greening of our facility, and thought 10 for Change would be a great tool to help us track our progress and make the most of the rebates available to us.

10 for Change is funded by the City of Boulder's Climate Action Plan (CAP) tax and is supported by EnergySmart, the Boulder Chamber, Downtown Boulder Inc. and the Boulder Independent Business Alliance (BIBA). Learn more about the program and register by visiting [www.10forChange.net](http://www.10forChange.net). Learn more about Ocean First Divers by visiting [www.oceanfirstdivers.com](http://www.oceanfirstdivers.com) or call 303-444-7234.



## 10 for Change Success Stories

2009 - Collective energy savings figure not available for 2009

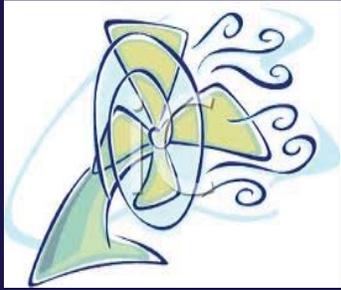
- Rocky Mountain Peace and Justice Center - 37% reduction in energy use
- The Watershed School - 31% reduction in energy use
- Leanin' Tree - 346 tons of CO2 avoided
- St. Julien Hotel & Spa - 224 tons of CO2 avoided

2010 - 4% collective energy savings by all businesses:

- fuentesdesign architecture - 30% reduction in energy use
- Laudio - 18% reduction in energy use
- Polycom - 397 tons of CO2 avoided
- Boulder Beer 105 tons of CO2 avoided

2011 - 8% collective energy savings by all businesses:

- Grubb & Ellis - 912 tons of total greenhouse gas emissions avoided
- Ecoscape Environmental Design – 50 percent electricity use reduction
- KGNU Community Radio – 31 percent natural gas use reduction
- Whiterock Building/Stephan Sparr Architects – 43 percent reduction in combined natural gas and electricity



## Tips for cooling your home in the summer

Buying a bigger room air conditioner won't necessarily make you feel more comfortable during the hot summer months. In fact, a room air conditioner that's too big for the area it is supposed to cool will perform less efficiently and less effectively than a smaller, properly sized unit. Central air-conditioning systems need to be sized by professionals.

If you have a central air system in your home, set the fan to shut off at the same time as the compressor, which is usually done by setting the "auto" mode on the fan setting. In other words, don't use the system's central fan to provide air circulation—use circulating fans in individual rooms.

Instead of air-conditioning, consider installing a whole-house fan. Whole-house fans work in many climates and help cool your home by pulling cool air through the house and exhausting warm air through the attic. Use the fan most effectively to cool down your house during cooler times of the day: your home will stay cooler through the hotter times of the day without using the fan.

Learn more at:  
[www.energysavers.gov/tips](http://www.energysavers.gov/tips).

# Climate Action Open House: Planning for Our Energy Future

Reducing greenhouse gas emissions and addressing climate change is a community priority – and needs to be a community effort. We are asking for your help as we look back on what we've done so far and chart an approach that will be successful in the future. Everyone is welcome to attend:

**Wednesday, June 13**

**6 to 8 p.m.**

**(LOCATION CHANGE) - West Boulder Senior Center - 909 Arapahoe Ave.**

- Find out why climate action is imperative and what our community's efforts and roles have been to date, including more about services funded by your Climate Action Plan (CAP) tax dollars to reduce energy use in homes and businesses.
- Bring your ideas for future city-supported climate action services that could continue and enhance the progress we have made.
- Weigh in on a newly proposed climate action framework that could define Boulder's climate commitment, plus short-term goals and annual targets, for years to come.
- Help us shape an Energy Action Plan that will spell out a range of strategies by which the city and the community, working together, can achieve shared environmental and economic objectives.

Climate change in Boulder started as a community effort. We want it to stay that way. Your feedback is important to us!

## Additional Upcoming Events

### Environmental Advisory Board (EAB) Public Meetings on Climate Action Framework

Thursday, June 21, and Thursday, July 12

6 p.m.

City Council Chambers - 1777 Broadway

Feedback from the public will be heard during the public comment portion of each meeting. Future EAB meetings, agendas and memos will be listed on the Energy Future website.

### Energy at the Market

City staff will be at the Farmer's Market on the fourth Saturday of each month to answer questions and listen to feedback.

Saturday, June 23, from 8 a.m. to 2 p.m., on 13th Street between Arapahoe Avenue and Canyon Boulevard

### Upcoming meetings with City Council

### Study Session

Tuesday, July 24, at 6 p.m. in City Council Chambers – 1777 Broadway



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