



SMART REGULATION  
FOR SUSTAINABLE PLACES

CITY OF BOULDER  
DEPARTMENTS OF PUBLIC WORKS AND  
COMMUNITY PLANNING & SUSTAINABILITY  
1739 BROADWAY, BOULDER, CO 80302  
303-441-1880  
[WWW.BOULDERCOLORADO.GOV/SMARTREGS](http://WWW.BOULDERCOLORADO.GOV/SMARTREGS)

## **SmartRegs Update: Energy Efficiency in Rental Housing Properties**

### **Why is this being proposed?**

- ***The City of Boulder has adopted a Climate Action Plan*** to reduce our greenhouse gas emissions by 23 percent (to 7 percent below 1990 levels) by 2012. This local goal is part of a global effort in response to increasingly serious forecasts regarding the long-term effects of increased greenhouse gases in our atmosphere. Much of the research on what is happening to our climate is happening right here in Boulder. For more information, visit <http://www.ncar.ucar.edu/research/climate>.
- ***The long-term impact of greenhouse gas emissions is a public health and safety issue.*** Federal case law defines greenhouse gas emissions as a public health hazard—a 2007 Supreme Court ruling authorizes the Environmental Protection Agency to regulate greenhouse gases as a significant threat to human health. Additionally, there is agreement in the scientific community that continuation of current energy consumption patterns and reliance on fossil fuels will have profound and potentially devastating effects, such as increased risk of extreme weather events, increased flood severity, increased risk and intensity of catastrophic wildfire, increased risk of drought, and changing rainfall and crop productivity patterns.
- ***Increasing the energy efficiency of our housing stock will help reduce greenhouse gas emissions.*** Individual behavior relating to energy and vehicle use affects *absolute* energy consumption. Creating efficient buildings and transportation infrastructure is critical to affect *relative* energy consumption—people can't use buses unless they are available; residents can't conserve energy unless their homes are efficient.

### **Why focus on rental housing and not other types of housing?**

- ***This is not the city's only focus.*** While this particular project is focused on existing rental housing, other projects are addressing other building types, including owner-occupied housing and commercial and industrial buildings. From 2007 through the first quarter of 2009, the city implemented strict energy efficiency requirements for new construction, remodels and additions for all types of buildings in Boulder.
  - √ Commercial construction must document a level of energy efficiency 30 percent higher than the 2006 International Energy Conservation Code (IECC).
  - √ Residential construction must be 30 to 75 percent more efficient than the 2006 IECC, with larger houses having higher efficiency requirements.

- ***Rental housing poses a particular challenge*** because the person investing in the improvements (the property owner or landlord) is often not the same as the person who pays for utilities (the tenant). While homeowners who pay their own utility bills have a financial incentive to make investments, many rental property owners do not. *We are working with both property owners and renters to come up with a workable program that improves energy efficiency and reduces greenhouse gas emissions.*

### **Doesn't the behavior of renters play a role?**

Absolutely! A programmable thermostat doesn't do much good if it's set at 75 degrees, and an air-tight building doesn't matter much if the windows are left open. However, consistent conservation behaviors don't matter much if the building is leaky and its heating system is highly inefficient. *Both landlords and renters have a role to play.*

Energy conservation education and occupant behavior are being addressed, not through regulation, but through other city and collaborative community efforts. The city is committed to investing in education and outreach programs that influence occupant behavior. For a full description of these programs, please see [Education and Assistance Programs](#) handout.

### **So what's the goal?**

The residential sector target is to reduce greenhouse gas emissions by approximately 94,000 metric tons CO<sub>2</sub> by 2012. This projection is based on analysis by WSP<sup>1</sup> (formerly Eenergy) which analyzes the business-as-usual trend of greenhouse gas emissions. This target is the difference between where the residential sector is projected to be in 2012 and the Kyoto target (7% below 1990 levels). Rental units account for about 57 percent of our residential units. Based on these figures, ***our goal is to reduce annual GHG emissions from our rental housing stock by approximately 53,500 metric tons CO<sub>2</sub> by 2012.***

### **How much can we achieve through change in behavior vs. change in the energy efficiency of the building?**

This is a difficult question to answer, because every building is so different. Turning down the thermostat a few degrees and turning off lights when not in use certainly helps reduce energy consumption. But much of our current energy use is attributable to inefficient appliances, leaky buildings, and out-dated lighting. The city estimates that 25 percent of the goal in rental housing could be achieved through changes in renter behavior, leaving 75 percent of the goal to be achieved through changes in the energy efficiency of the building. Therefore, ***the GHG reduction goal from energy efficiency upgrades in rental housing should be approximately 40,000 metric tons CO<sub>2</sub> by 2012.***

---

<sup>1</sup> Full WSP report can be found at [www.environmentalaffairs.com](http://www.environmentalaffairs.com)