



## How does user behavior make a difference in my home's efficiency?

When trying to save energy, many people focus on the building envelope – the amount of insulation in the roof, the R-value of the walls, the efficiency of the windows. Others think first of appliances – is the refrigerator ENERGY STAR? What is the efficiency of the boiler and the hot water heater? Are the lights LEDs or CFLs?

Certainly all of these things have a role in making buildings energy efficient. However, there is an even more important factor that is often overlooked—the **behavior of occupants**. There's a common saying in the building industry: There is no such thing as a zero-energy home, just zero-energy homeowners. Even efficient buildings can't reach their full potential if residents have energy-intensive habits. On the other hand, inefficient buildings can see large performance improvements just by changes in residents' habits.

There are two parts to energy efficient behavior: the types of appliances you buy and the way you use them. For example, do you own a large-screen plasma TV or a modest one? For example, if you buy a 15-watt CFL floodlight and keep it on all the time, you may still actually use less than a 75-watt lamp that you turn off when not in use.

When it comes to your habits, remember what your parents used to say: Turn off the lights when you leave a room; don't leave the faucet running when you brush your teeth; take shorter showers; and put on a sweater instead of cranking up the thermostat.

As breaking habits can be hard, there are also ways to address user behavior with technology:

- If you constantly forget to turn out the lights, or find yourself leaving on an outdoor light for hours while waiting for a spouse to come home at night, consider installing lighting controls. Motion sensors that can turn on and off lights are available for as little as \$30 at home improvement stores.
- Programmable thermostats can be used to turn down the set temperature automatically while you're at work or asleep. They can be programmed in 5 minutes and offer savings on heating bills throughout the winter with no extra work.
- Do you have a number of devices plugged into the wall (phone chargers, TV, computer)? These devices draw a small baseline amount of current, called a phantom electrical load, as long as they are plugged in – even when turned off. Remembering to unplug everything can be difficult, but there are solutions. Plugging everything into a power strip means you only need to turn off one switch. Also, a smart power strip will shut off the current to peripheral devices such as a monitor and speakers when a central device, like a computer, is turned off.
- Do you have an electronic calendar on your phone or attached to your email? Use it to add automatic reminders for maintenance tasks, such as the yearly check-up on your heating appliance, or changing filters on a forced air distribution system. Remembering basic maintenance tasks improves the efficiency of equipment and prevents breakdowns.
- If you need to replace an appliance anyway, consider purchasing an Energy Star-rated one.



Cold Climate Housing Research Center  
**CCHRC**

# Ask a Builder



How else can you make your home more energy efficient? Visit [www.cchrc.org](http://www.cchrc.org) or Golden Valley Electric Association (<http://www.gvea.com/resources/save>) for more ideas.

Other Resources on Saving Energy:

<http://www.akenergyefficiency.org/>

<http://www.uaf.edu/ces/>

<http://www.energyhog.org/>

Ask a Builder articles promote home awareness for the Cold Climate Housing Research Center. If you have a question, contact CCHRC at [info@cchrc.org](mailto:info@cchrc.org) or 907-457-3454.