

GREENWorks

Ideas for a Cleaner Environment

A publication of the New Hampshire Department of Environmental Services, Concord, NH (603) 271-3710

January, 2008

We're in Hot Water

Surprise! It's winter again in New Hampshire and most of us are paying more this year to keep warm. We not only pay with money, but we pay through impacts on the environment and health costs. Energy consumption for heat and electricity increases pollution and greenhouse gas emissions that contribute to climate change. In addition to looking at how we heat our homes and use electricity, we can also lower our home energy costs and impacts by using and wasting less hot water. According to the US Department of Energy, water-heating can account for 14 percent to 25 percent of the energy consumed in our homes.

Whether reducing hot or cold water use, the environment receives a double energy reduction. Although most people understand that heating water requires energy, they don't always consider the energy it takes to pump, treat, and deliver the water they use. In 2005, the nation's municipal water infrastructure consumed about 56 billion kilowatt hours of electricity—that's enough energy to power more than five-million homes for an entire year.

The first step to reducing energy costs associated with hot water use is to look at the temperature setting for your hot water heater. Lowering the thermostat from 140° F to 120° F can reduce your water heating energy bill by over 10 percent. It's hot enough for most needs – including dishwashers, which are generally made with booster heaters – and it cuts down on energy needed to keep water hot in the tank. If you plan to be away from home for at least three days, turn the thermostat down to the lowest setting or completely turn off the water heater. Consult your owner's manual or heating technician for instructions on how to operate the thermostat.

Consider a few of the following additional steps to save even more hot (and cold) water.

- Take showers instead of baths and limit time in the shower to five minutes. Do only full loads when using the clothes washer or dishwasher. Use cold water for laundry and save up to \$63 a year.
- Repair leaks in faucets, showerheads and pipes.
- Purchase WaterSense labeled products when purchasing water fixtures. Reducing the flow from showerheads and faucets will reduce hot water use and get the added benefit of conserving water and energy year round. For more about water efficient products visit www.epa.gov/watersense/.
- Install a timer that turns off your electric water heater at night when you don't use hot water and/or during your utility's peak demand times. You can save an additional 5 percent to 12 percent on your bill. The water in the tank remains hot for up to eight hours or more while the water heater is not in operation, depending on the insulation and age of the unit.

- Insulate your water heater and hot water pipes. A water tank insulation wrap costs about \$20. Add pre-cut pipe insulation to exposed pipes going into your water heater – it is cheap and easy to install. If you're starting with an uninsulated tank, the energy savings should pay for the improvements in just a few months.
- When it's time to replace your hot water tank, buy the most efficient one possible. Consider a tankless, on-demand system or even a solar water heater (talk to your installer about what would work in your home).
- Purchase Energy Star labeled products when you purchase a dishwasher or clothes washer. The biggest cost of washing dishes and clothes comes from the energy required to heat the water. For more about energy efficient products, visit Energy Star Web site at www.energystar.gov/.

For more energy saving tips, visit the NH Office of Energy and Planning's [Stay Warm NH Web site](#) or call (603) 271-2155. For more information on how to implement any of these suggestions, visit the [US Department of Energy Consumer's Guide to Energy Efficiency and Renewable Energy Web site](#). For more information on water efficiency, visit the NH Department of Environmental Services' [Water Conservation Web site](#) or call (603) 271-6685.