

energy saving TIPS

from your
West Virginia
Division of
Energy

Home energy audit detects savings opportunities

A home energy audit can reveal where your house is losing energy. Improving energy efficiency can reduce energy consumption and save money. You can hire a professional energy auditor or, if you know what to look for, conduct a simple walk-through audit yourself.



Common trouble spots include:

- **Air leaks.** Outside the house, inspect areas where two different materials intersect, such as siding and chimneys. Common sites for interior air leaks include baseboards, fireplace dampers, attic hatches, windows and doors. A door or window that rattles or seeps daylight around the frame probably leaks. Often these leaks can be sealed with weather stripping or caulking.

- **Insulation.** Check insulation levels in attic, exterior walls, ceilings, floors and crawl spaces. Insulation recommended when older homes were built may not be adequate today.

- **Heating/cooling equipment.** Inspect heating and cooling equipment annually. Replace filters as needed.

- **Lighting.** Replace traditional incandescent light bulbs with compact fluorescent lamps (CFLs). According to the U.S. Department of Energy, CFLs can replace incandescents that are roughly 3–4 times their wattage, saving up to 75 percent of the initial lighting energy. Although CFLs cost more than comparable incandescent bulbs, they last 6–15 times as long (6,000–15,000 hours).

For more information on home audits, visit www.energywv.org and click on Energy Saving Tips.



Coal power

West Virginia ranks second in coal production, at 148 million tons per year. The state's coal provides the major source of energy for 32 states.

"LIGHT"er side of energy - Change a Light campaign

ENERGY STAR Change a Light Campaign is a national challenge to encourage every American to help change the world, one light bulb -- one energy-saving step -- at a time. You can show your commitment by pledging to replace at least one light bulb in your home with one that has earned the ENERGY STAR. www.energystar.gov

More than 3,300 West Virginians have taken the pledge and changed more than 7,500 light bulbs at an energy cost saving of over \$200,000.

What is a compact fluorescent light bulb?

A modern compact fluorescent lamp or CFL is similar to the standard fluorescent light seen in many offices. They require less electrical power than an incandescent bulb, thus providing a savings to users. A 15-watt CFL can replace a 60-watt bulb and a 20-watt CFL can replace a 75-watt bulb while providing similar light levels.

A CFL uses one-third the energy of a traditional bulb and can last up to 20 times longer, saving \$30 or more in energy costs over its lifetime. If every American traded just one light bulb for an ENERGY STAR CFL, it could save more than \$8 billion.

When should I turn off a light?

Remember to always turn off your lights when leaving a room. Turning off just one 60-watt incandescent bulb that would otherwise burn eight hours a day can save about \$15 per year!

Incandescent lights (or bulbs) should be turned off whenever they are not needed. Nearly all types of incandescent light bulbs are fairly inexpensive to produce and are relatively inefficient. Only about 10 – 15 percent of the electricity that incandescent lights consume results in light -- the rest is turned into heat. Turning the light(s) off will keep a room cooler, an extra benefit in the summer. Therefore, the value of the energy saved by not having the lights on will be far greater than the cost of having to replace the bulb.

For more information about lights in your home visit: www.energywv.org



Division of Energy charged with keeping the power on and running clean

How does a state keep its energy up and "green"?

Answering that question is part of the mission of the West Virginia Division of Energy. The agency was created in July 2007 as part of the state Department of Commerce and includes the Energy Efficiency Program and the Coalfield Community Development Program with the Public Energy Authority as an advisory council.

The new Division of Energy's mission is to initiate policies that will help lead the state and the nation toward energy independence. In that role, the division promotes traditional fossil fuels, renewable energy resources and energy efficiency. West Virginia Division of Energy advances programs such as Ride Share, ENERGY STAR, alternative fuels, recycling, and more.

For more information, visit www.energywv.org or call (800) 982-3386 or (304) 558-2234.



Affordable energy

West Virginia has the lowest overall electricity rates, the lowest residential rates and the third lowest industrial rates in the nation. — U.S. Energy Information Administration data, 2007

Hybrid cars drive down fuel emissions

Hybrids – also known as hybrid electric vehicles – typically combine the internal combustion engine of a conventional vehicle with the battery and electric motor of an electric vehicle. Increased fuel economy (some get as much as 60 miles per gallon) means hybrids help reduce the nation's dependence on foreign oil. Reduced use of fossil fuels means hybrids emit fewer pollutants.

Ford, General Motors, Honda, Nissan and Toyota offer several models of hybrid vehicles, including cars, trucks, sport utility vehicles and even buses. The latest list of hybrids is available from the U.S. Department of Energy's Alternative Fuels Data Center Web site

www.eere.energy.gov/afdc

Typically, hybrids cost more than their gasoline-only powered counterparts. The reduced fuel costs and a federal tax incentive help offset that incremental cost. You can read more about the tax incentive at www.eere.energy.gov/cleancities/hev/



U.S. Department of Energy

For more information, visit Clean Cities at

www.eere.energy.gov/cleancities

ENERGY STAR shines on efficient household appliances

ENERGY STAR is a joint program of the U.S. Environmental Protection Agency and the U.S. Department of Energy, helping us all save money and protect the environment through energy-efficient products and practices.

Results are already adding up. Americans, with the help of ENERGY STAR, saved enough energy last year to avoid greenhouse gas emissions equivalent to those from 25 million cars – all the while saving \$14 billion on their utility bills.

The blue and white ENERGY STAR labels appear on appliances and home electronics that meet strict energy efficiency criteria established by these regulatory agencies. The ENERGY STAR labeling program includes most home electronics and appliances except for water heaters, stove ranges and ovens. The ENERGY STAR logo helps you, as a home owner, make energy efficient choices without sacrificing features, style or comfort.



Remember:

If looking for new household products, look for the ones that have earned the ENERGY STAR.

If looking for a new home, look for one that has earned the ENERGY STAR.

If looking to make larger improvements to your home, tools and resources are available to help you plan and undertake projects to reduce your energy bills and improve home comfort.

For more information about ENERGY STAR in West Virginia, visit online at www.energywv.org



Green light

If all the households in West Virginia changed just one incandescent light bulb to an ENERGY STAR qualified bulb, the combined individual efforts would prevent over 58 million pounds of greenhouse gas emissions each year — the equivalent to removing the annual emissions of more than 5,000 cars from West Virginia's roads.

Help your school and industry become more energy efficient

Forty-two of West Virginia's 55 county school systems have been trained to use ENERGY STAR benchmarking tools to save energy in their schools. Schools in the state are developing systematic approaches to reduce energy use. It is the goal of the Center for Building Energy Use program to reduce energy use in the state's schools by 15 percent. West Virginia University and West Virginia University Institute of Technology, in partnership with the West Virginia Department of Education and the West Virginia Division of Energy, will help individual school systems identify energy savings.

West Virginia industries participate in a similar program, Industries of the Future - West Virginia, which will provide them with assessments that examine energy cost opportunities in lighting, motors, energy consumption, boilers, steam systems and other process areas.

For more information on these programs offered by the West Virginia Division of Energy, visit online at www.energywv.org

What are some steps I can take to save energy and reduce pollution?

- **Change five lights.** Replace your five most frequently used lights or the bulbs in them with ones that have earned the ENERGY STAR.
- **Look for products that have earned the ENERGY STAR.** They are available in more than 40 product categories, including lighting and home appliances.
- **Heat and cool intelligently.** Have your heating and cooling equipment serviced annually and remember to replace air filters regularly. Use a programmable thermostat, and when it's time to replace old equipment, choose an ENERGY STAR qualified model.
- **Seal up your home.** Seal air leaks, add insulation and choose ENERGY STAR qualified windows.
- **Tell family and friends.** We're asking you to help spread the word that energy efficiency is good for your home and good for our environment.



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