



# A Guide to Energy-Efficient Living

*Produced by Sustainable NREL,  
a National Renewable Energy Laboratory Program*



Water

Environmental  
Management

Energy Use

Transportation

Materials

Outreach

## ***Sustainable NREL: Walking the Talk***

The vision of Sustainable NREL is to establish a formal change in laboratory culture, ensuring that every decision we make fully considers all resource implications. When sustainability is a part of everything we do at the lab, we will know that we have achieved our objective.



# Electricity

Lighting accounts for about 20% of the electricity used in the United States. More than a billion tons of coal, 200 million barrels of oil, and 5 trillion cubic feet of natural gas were extracted for electricity generation in the United States in 2003. (Resulting emissions exceeded 2 billion tons of carbon dioxide and 15 million tons of sulfur dioxide and nitrogen oxides.)



- **Turn off lights and appliances** when they're not in use
- **Use compact fluorescent bulbs (CFLs)**  
CFLs use about a quarter of the energy that incandescent bulbs use—and they last 10–13 times longer!
- **Enable sleep mode on your computer monitor**

# Home and Building

From architecture to appliances, there are many opportunities to conserve energy and money in the home and workplace.



- **Buy appliances that display the Energy Star logo.**  
Learn more at [www.energystar.gov](http://www.energystar.gov).
- **Shop for insulation with a high R-value.**
- **Take advantage of natural light and temperature control.** Visit [www.usgbc.org](http://www.usgbc.org) for green-building ideas.
- **Try xeriscaping**—the use of native, drought-resistant plants—**for your yard.** For tips and information, access [www.the-landscape-design-site.com/xeriscaping.html](http://www.the-landscape-design-site.com/xeriscaping.html)
- **Put a solar array on the roof.** It doesn't have to take up new space, and it will often provide you enough energy to sell back to the power grid for a profit.

# Transportation

The transportation industry comprises a large portion of our energy use. In the United States, transportation accounts for 27% of energy consumption and 67% of petroleum consumption. More than half of that is used by passenger vehicles.



## *What you can do:*

- **Walk, ride a bike, carpool, or take the bus.**
- **If you buy a new car, purchase a fuel-efficient and low-emission vehicle.**

Visit [www.greencars.com](http://www.greencars.com) to check the fuel efficiency of the car you're considering purchasing.

- **Consider vehicles that use alternative fuels.**

There are many alternative-fuel vehicles—electric, gas and electric hybrid, fuel cell, air, natural gas, propane, ethanol, methanol, etc.—that are inherently cleaner than gasoline.

## Reuse, Recycle, RENEW!

- **Reuse common items such as plastic utensils, grocery bags, and scratch paper before they land in the landfill.**
- **Recycle your cans, paper, and anything else a local recycling service will accept.** Recycling a ton of materials in a typical curbside recycling program yields a net energy savings of **\$187**. The energy saved from recycling just one glass bottle can operate a 100-watt lightbulb for four hours!

### *And don't forget: buy recycled, too!*

- **Ask your local utility provider about offsetting your energy needs with wind power purchases, or "green tags."**
- **Support new technologies and policies that reduce our dependence on fossil fuels altogether.**

# ***CLOSE THE LOOP!***

NREL is working to bring renewable energy, energy efficiency, and related technologies to the global market to address the nation's energy and environmental goals.

## ***Stay informed and get involved!***

Money-saving and energy-wise strategies that you can employ include:

- Solar panels
- Wind power purchases
- Building insulation
- Efficient appliances
- Natural lighting
- Xeriscaping
- Recycling
- Public and alternate transportation

Visit ***www.nrel.gov*** to learn about NREL.

Visit ***http://www.nrel.gov/sustainable\_nrel/*** to learn more about the lab's sustainability efforts and how they can help you live more energy efficiently.

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