

Energy Efficiency and Lighting, Appliances, and Water Heaters

Up to 39% of a typical single-family home's energy can be consumed by water heating (14%), lighting and appliances (25%). Clearly, energy efficiency in this category is an important part of a high-performance home.

Domestic Hot Water

There are [multiple types of water heaters](#) to choose from and selection criteria may include fuel type availability and cost, size, energy efficiency, and operating costs. In addition, multiple techniques can be employed to achieve more [energy efficient water heating](#) including tank and pipe insulation, timers, and lowering the water temperature. The Energy Star program also has energy efficiency ratings which appear on the [EnergyGuide Label](#) on the appliance to guide consumers into purchasing energy efficient systems.

In a high-performance home the need for hot water should first be reduced by installing low-flow showerheads and faucets and by choosing efficient clothes washers and dishwashers. The object is to make sure that as little energy as possible is wasted for water heating by choosing an efficient appliance and reducing consumption.

Lighting

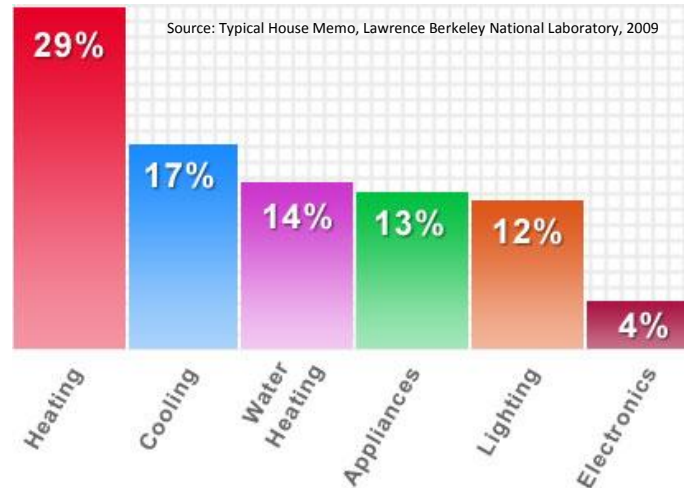
Use of new lighting technologies can reduce lighting energy use in homes by 50%–75%. Lighting energy use can be reduced by selecting lighting and sources that use energy more efficiently, and by installing lighting controls. Use of [compact fluorescent lighting](#) (CFLs) is a good basic step to an energy-efficient home. Additional information on [approaches to energy efficient lighting](#) is available to provide guidance for high-performance homes.

Appliances & Electronics

Appliances in this category include:

- Refrigerator and freezers
- Clothes washers and dryers
- Computers
- Dishwashers
- Home audio equipment
- Room air conditioners
- Televisions, DVD players, and VCRs

Buying [EnergyStar appliances](#) and simply reducing the size and number of appliances (one refrigerator, not two) are good strategies for trimming power use. Beyond the initial purchase price, energy-efficient appliances will paid out month by month in the form of utility bills for the life of the device. Buying the most energy-efficient model available is a good long-term strategy even if the initial cost is somewhat higher.



Additional Resources on the Internet

Domestic Hot Water

[U.S. Department of Energy Energy Efficiency & Renewable Energy Program: Water Heating](#)

[Green Building Advisor.com: Water Heating](#)

Lighting

[U.S. Department of Energy Energy Efficiency & Renewable Energy Program: Lighting](#)

[GreenBuildingAdvisor.com: Lighting](#)

Appliances & Electronics

[Green BuildingAdvisor.com: Appliances](#)

[U.S. Department of Energy Energy Efficiency & Renewable Energy Program: Appliances & Electronics](#)