Importance of Energy Savings

Saving energy is important for several reasons. Not only does energy efficiency save the homeowner money on utility bills, it reduces the carbon output by using less energy created from gas, coal, and nuclear power.

CFL vs Incandescent Bulbs

Potential Cost Savings: $30 over the bulb's lifetime

Compact fluorescent bulbs pay for themselves in less than 6 months and have a longer life-span than typical incandescent bulbs.

Energy Star Refrigerator

Potential Cost Savings: 1980s: $100/yr
1990s: $50/yr

Appliances lose efficiency over time, causing higher operational costs over their lifetime. Energy Star Certified refrigerators are at least 20% more efficient than the minimum federal standard.

Weatherization

Potential Cost Savings: $300/yr

All that caulk, foam, weatherstripping, and insulation can add up to big savings!

Responsible Water Use

Potential Cost Savings: up to $150/yr

Excessive occupant use can waste gallons of water a day; turn the faucet off when not in use, such as when brushing teeth. Leaky toilets and faucets are literally money going down the drain!

Additional Resources

City of Raleigh Office of Sustainability
www.raleighnc.gov/sustainableraleigh
City of Raleigh Community Development
www.raleighnc.gov/communitydevelopment
Weatherization Assistance Program
www.resourcesforseniors.com/weather.php
Rebuilding Together
www.rebuildingtogethertriangle.org
Downtown Housing Improvement Corporation
www.dhic.org
NC State University - Home Gardening
www.cals.ncsu.edu/hort-sci/
Local Utility
www.progress-energy.com
www.duke-energy.com
NC Sustainable Energy Association
www.energync.org
***NC Commerce Energy Division**
www.energync.net
DSIRE - State Incentives
www.dsireusa.org
***Department of Energy**
www.energy.gov
Energy Efficiency & Renewable Energy
www.energysavers.gov
Environmental Protection Agency
www.epa.gov
Energy Star
www.energystar.gov
Building Performance Institute
www.bpi.org
Conservation Gaming Application
www.joulebug.com

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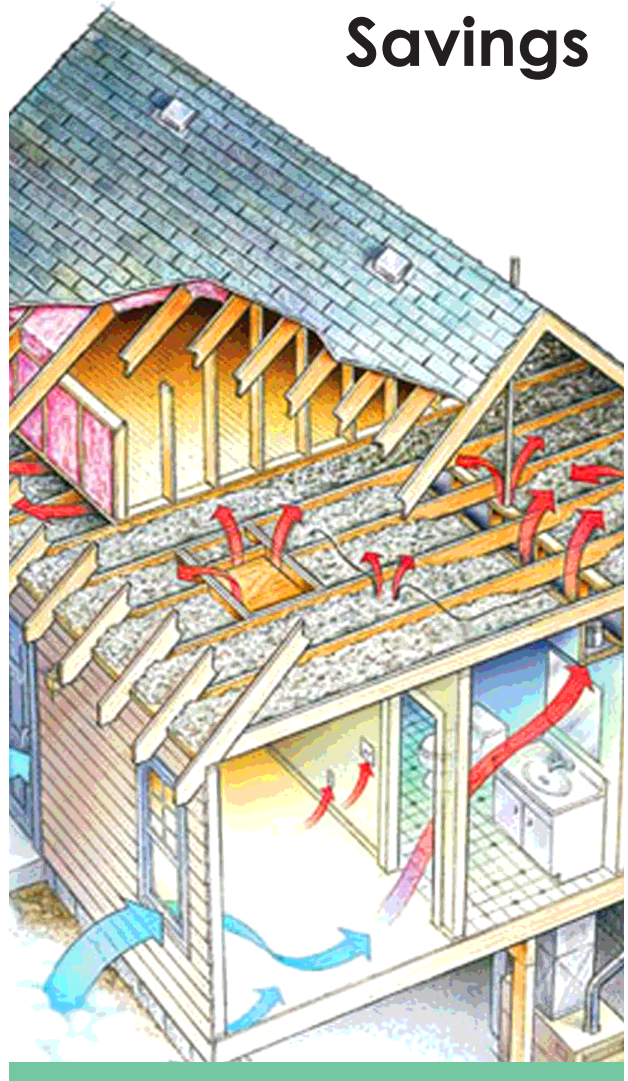
Sustainable Raleigh

Home Energy Savings



Sustainable Home Raleigh

City of Raleigh
Office of Sustainability

Energy Savings

Weatherization is the process of sealing your home to the outdoor elements. Sealing cracks and leaks throughout the house reduces heating and cooling use and lowers utility bills.

The guidelines suggested in this brochure can be easily completed by do-it-yourselfers. However, if you prefer, hire a professional contractor or Building Performance Institute Energy Professional.

- **Weatherstrip**
  Weatherstripping reduces air leakage from the home. It is commonly found in a foam or rubber tape and is applied to the perimeter of the door or window sash.
- **Caulk, Spray Foam, and Glaze**
  Use caulk and spray foam to fill cracks and gaps in walls as well as penetrations from wires and pipes. Caulk is also great for spaces in molding and wallboard. Foam can be used to fill larger areas. Old window glazing that is cracked or peeling can be reglazed around the glass to prevent air leakage.
- **Insulate Pipes**
  Insulate hot water pipes to prevent heat loss and supply hot water more quickly. Pipe insulation comes in sleeves and is sized to match pipe diameters for easy installation.
- **Electrical Outlets**
  Switch and outlet sealers stop drafts and insulate. These foam inserts fit between the outlet plate and wall.

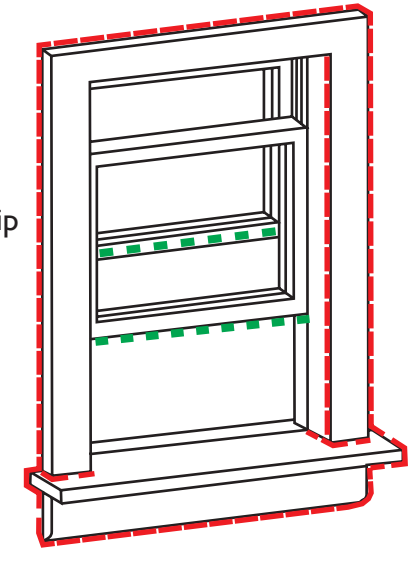
Key Weatherization Areas

Doors - Perimeter of door and door sweep
Windows - Window sash and glazing
Attic - Attic floor, pull down door
Baseboard - Gaps at top and bottom
Outlets - Electrical Outlets and Switches

- **Attic**
  Attic doors make up a large opening that is often un-insulated and very drafty. By adding insulation and an attic tent/cover to the hatch, these drafts can be significantly reduced. Attic floors should be air sealed and insulated.
- **Fireplace**
  To decrease drafts from the chimney, install glass doors and close the damper when not in use. If the fireplace is permanently not used, it can be sealed closed. Chimney balloons are reusable and can be inflated to fit in the chimney flue to block air leakage.
- **Window Film**
  Window insulation film can reduce drafts and make your home more comfortable. The film is ideal for unused windows and windows that do not open.
- **Refrigerator**
  Clean your refrigerator coils (located behind or underneath your unit) with a vacuum or coil brush to keep it running efficiently. Utilize energy saving control settings.

Caulk

Weatherstrip



Water Savings

Only 3% of the Earth's water is fresh water that is accessible by people; the rest is frozen or salt water. In addition to preserving this natural resource, homeowners can also save money by reducing water use and fixing leaks.

- **High Efficiency Fixtures**
  High efficiency fixtures reduce the water flow of sinks, showers and toilets.
- **Fix Leaks**
  Leaky faucets and toilets can increase water costs. Check for toilet leaks with dye tablets and fix leaks as they occur.
- **Watering Plants and Lawns**
  Early morning watering using drip irrigation reduces the evaporation rate of water. Use drought-tolerant and native plants that require less water. Proper mulching techniques should be used.

Additional Savings

- **Energy Star**
  Appliances marked with the Energy Star logo meet guidelines set by the EPA* and U.S. DOE*.
- **Compact Fluorescents**
  Energy-efficient lighting uses up to 75% less energy than traditional lighting and has a longer lifespan.
- **Thermostat Settings**
  A programmable thermostat adjusts home temperatures based on a schedule. Recommended settings are 78° in the summer and 70° in the winter.
- **Phantom Loads**
  Many electronics use energy even when turned off. Unplug electronics when not in use. Plug multiple items into a powerstrip to easily turn them all off when finished.