



Build Green

Glossary of Terms

Annual Fuel Utilization Efficiency (AFUE): A measurement used to calculate how efficiently a furnace or boiler converts fuel to energy (it tells you the amount of heating your furnace or boiler delivers for every dollar spent on fuel). A heating system with an 80% AFUE rating converts 80 percent of the fuel to heat, and the other 20 percent is lost out of the chimney. AFUE's for furnaces can range from 55% to 97%. To get the most heating for your fuel dollars, choose a furnace with the highest AFUE rating that your budget allows.

Building Envelope: It's what's known as the outside of a building or house and is everything that protects the indoors from outside. It includes the exterior walls, insulation, roofing, foundation and flooring, windows and doors. If your building or home envelope is not sealed, your heating and cooling dollars slip away.

Carbon Dioxide: Although carbon dioxide is what's created when we exhale, it comes from many other sources and is one of the factors of greenhouse gases that are making the earth warmer.

Carbon Footprint: Is an attempt to measure the overall impact of people, events and products on the environment. Homes and buildings also have carbon footprints, based on the materials and appliances used. Measure the [carbon footprint](#) of the appliances in your home to learn about your impact on the environment.

Condensing: With an efficiency rating of at least 90 percent, condensing heating equipment is the most energy-efficient heating system available. This includes condensing boilers, furnaces and water heaters. Condensing heating equipment captures the additional heat from combustion vapors that are lost through the vent in a conventional system.

Double Glazing: Often referred to as double- or dual-glazing, refers to windows constructed using two panes of glass with airspace between them. Double glazing keeps warm air inside, cold air outside and more money in your wallet.

Energy Guide Label: Indicates how much energy the appliance uses, compares energy use of similar products, and lists the estimated annual operating costs. Your exact costs depend on your local utility rates and the type and source of energy. To learn more, go to [energystar.gov](#).

ENERGY STAR®: Is a program devised by the U.S. Environmental Protection Agency and the U.S. Department of Energy in 1992 that identified products and practices that use less energy and water, which also protects the environment by creating fewer greenhouse gas emissions. When buying new appliances, including electronics, for your home or business, purchase those that carry the EnergyGuide label (see above). The EnergyGuide labels often indicate whether the product is ENERGY STAR qualified. For more information, go to [energystar.gov](#).

Geothermal: Power generated from heat energy derived from hot rock, not water, or steam below the earth's surface.

Hydronic heating systems (boilers): A heating system that pumps hot water through baseboard radiators placed around the perimeter of homes and buildings or through coils placed under the entire floor. Heat warms your feet and, as it rises, your entire body. Hydronic heating systems operate at lower temperatures than conventional heating systems and still produce the same heating effect because they have a larger surface.

Infiltration: Is the air that enters homes and buildings through a wall, crack, doors, and other known and unknown openings.

LEED (Leadership in Energy and Environmental Design): Is a rating system developed by the U.S. Green Building Council (USGBC) to rate both new and remodeled commercial and residential buildings. Buildings, including homes that are LEED-rated were inspected during construction by independent auditors who evaluate energy and water usage, building site chosen and building materials used. For more information, go to USGBC.org.

Load (or Demand): Refers to the amount of energy you, your family and household consume. Lighten your load by adding more energy-efficiency equipment and appliances to your home and maintaining old equipment to keep it in top working order until time to replace.

OEM: Stands for Original Equipment Manufacturer and means the equipment originally designed to be part of a product. New-home buyers are starting to see similar concepts as builders offer HVAC systems that will heat and cool homes as they designed them to be. Smaller, more efficient HVAC systems may be the best investment for an older home, since the builder may have originally installed the largest – but not necessarily the most efficient – system in the home.

R-Value: Is a measure or rating that easily tells you how efficient your insulation is at keeping warm or cool air inside (or out) of your home. You'll save money on your monthly energy bills by adding the highest R-value available from your builder on your new home; or, for an existing home, add the difference between what you currently have and what's needed to bring your insulation up to code.

Renewable Energy: Is an energy source that is continuously or cyclically renewed by nature, such as solar, wind, hydroelectric, geothermal, biomass or similar sources.

Seasonal Energy Efficiency Ratio (SEER): A rating that identifies the efficiency of central air conditioners. SEER indicates the relative amount of energy needed to provide a specific cooling output. The minimum SEER permitted today is 13. Look for the ENERGY STAR® label for central air conditioners with SEER rates of 13 or greater, but consider air conditioning equipment with the highest SEER rating that your budget will allow to achieve maximum energy savings.

U-Value: Is a rating that tells you how efficient windows are at keeping warm or cool air inside of your home. Choose windows with the lowest possible U-Value that your budget will allow to save money on your heating and cooling bills.