

Green Glossary



Annual Fuel Utilization Efficiency (AFUE) — The most common measure of a furnace's heating efficiency. Measures the amount of fuel converted to space heat in proportion to the amount of fuel entering the furnace. High-efficiency furnaces typically run between 82% and 90+% AFUE.

Alternative Energy — Energy from a source other than conventional fossil-fuels. For example, energy derived from wind, water and the sun.

Alternative Fuels — Substitutes for traditional liquid, oil-derived motor vehicle fuels like gasoline and diesel. Includes mixtures of alcohol-based fuels with gasoline, methanol, ethanol and compressed natural gas.

Biodegradable — A material or substance which, when left exposed to nature, will decompose without harmful effects to the environment.

Blackwater — Water that contains animal, human or food waste, such as wastewater generated by toilets, kitchen sinks and dishwashers. Must be drained properly to a sewer or septic system. (See also *Greywater*.)

Building Envelope — The entire perimeter of a building enclosed by its roof, walls and foundation. Properly designed, the envelope can minimize temperature gain or loss and moisture infiltration.

Building Science — The study of the interaction between occupants, building components and systems, and the surrounding environment in order to create buildings that are more efficient, comfortable, healthy and durable.

Carbon Footprint — The total amount of carbon dioxide and other greenhouse gases emitted over the full life cycle of a person, product or service.

Cradle to Cradle — A term used in life cycle analysis to describe products that are immediately reused or recycled when they no longer fulfill their original function. A product thus never ends up as waste but, as in nature, is endlessly reused.

Cradle to Grave — A term used in life cycle analysis to describe the entire life of a material or product up to the point of disposal.

CFCs (Chlorofluorocarbons) — A group of volatile gases believed to deplete the ozone layer of earth's stratosphere.

CFL (Compact Fluorescent Light Bulbs) — Small fluorescent light bulbs used as more efficient alternatives to incandescent lighting.

CFM (Cubic Feet per Minute) — The amount of air, in cubic feet, that flows through a given space in one minute. In regard to Indoor Air Quality (IAQ), the amount of air, in cubic feet, that is exchanged with outdoor air in a minute's time.

CO₂ (Carbon Dioxide) — A colorless, odorless gas that is a product of fossil fuel combustion. CO₂ is a greenhouse gas that contributes to the potential for global warming.

EEBA (Energy and Environmental Building Association™) — Provides education and resources to the residential design and construction industry on energy-efficient and environmentally responsible buildings and communities. Whirlpool Corporation is the exclusive appliance category national sponsor for EEBA Houses That Work,™ a series of one-day housing science seminars held nationwide. www.eeba.org.

EER (Energy Efficiency Ratio) — A measure of how efficiently a cooling system will operate when the outdoor temperature is at a specific level (95°F). The higher the EER, the more efficient the air conditioner. (See also *SEER*.)

Embodied Energy — The total amount of energy used to create a product, including energy used in extracting raw materials, processing materials, manufacturing and transportation.

Emissions — Particles or gases released into the air as byproducts. Often used in the context of global warming in reference to greenhouse gases and carbon dioxide productions resulting from human activity.

ENERGY STAR® — This voluntary labeling program from the U.S. Environmental Protection Agency (EPA) and U.S. Department of Energy (DOE) leads in identifying and promoting energy- and water-efficient products that help consumers save money and conserve resources. Whirlpool Corporation is an nine-time ENERGY STAR® Partner of the Year Award winner, including three Sustained Excellence Awards. www.energystar.gov.

Fly Ash — A waste product from coal-fired power stations which can be used in concrete structures as a substitute for cement. Fly ash can improve the properties of concrete, lower the cost to produce concrete and reduce the greenhouse emissions generated during the manufacture of cement.

Formaldehyde — A chemical used widely to manufacture building materials and numerous household products. Classified as a volatile organic compound (VOC) and listed by the U.S. Environmental Protection Agency (EPA) as a source of indoor air pollution that may cause short- and long-term adverse health effects.

Fossil Fuels — Finite, nonrenewable fuels such as petroleum, coal or natural gas that are derived from the living matter of a previous geologic time and extracted from the earth.

Green — The most commonly accepted and understood word to describe or label anything having to do with environmental consciousness; however, often limited in scope to one or a handful of aspects or actions, such as energy savings or recycling. (For comparison see *Sustainable*.)

Green Design — Design that addresses one or a handful of environmental actions, such as taking steps to be energy efficient or the use of recycled materials. (For comparison see *Sustainable Design*.)

Greenhouse Gas — Gases, such as carbon dioxide, methane and nitrous oxide, that trap heat in the atmosphere and are associated with global warming.

Green Home — A home constructed to address one or a handful of environmental actions, such as using energy efficient appliances, solar panels or recycled materials. (For comparison see *Sustainable Home*.)

Green Power — The production of electricity from sources that have the potential to help reduce carbon emissions, including photovoltaic, geothermal, hydroelectric, biomass, hydrogen fuel cells, ocean energy, solar, and wind power.

Graywater — Waste water from lavatories, showers, baths and laundry that can be collected and reused for lawns, gardens or groundwater recharge. (See also *Blackwater*.)

Greenwashing — Misleading information about the environmental practices of a company or the environmental benefits of a product or service.

IAQ (Indoor Air Quality) — The quality of indoor air as characterized by physical, mechanical and chemical factors, including temperature, humidity, ventilation and pollutants. Poor indoor air quality is associated with mold, allergens and volatile organic compounds (VOCs); it can not only negatively affect comfort, but cause a range of adverse short- and long-term health effects. (See also *Sick Building Syndrome*.)

Induction Cooktops — Cooktops that utilize electromagnetic energy to generate instant heat in cookware, resulting in much faster heating times and far less energy use compared to conventional cooktops.

Glossary, Continued.

LEED (Leadership in Energy and Environmental Design) — The LEED Green Building Rating System™ was developed by the U.S. Green Building Council (USGBC) and has become a nationally accepted benchmark for the design, construction and operation of high-performance buildings. LEED certification is available for all building types, including new construction and major renovation; existing buildings; commercial interiors; core and shell; schools; and homes. www.usgbc.org.

LED (Light Emitting Diode) — A tiny bulb device that emits light when an electric current passes through it. Used increasingly to replace incandescents or halogens as general sources of lights, LED light bulbs are considerably more energy efficient, can last up to 50,000 hours, are cool to the touch and contain no mercury.

Life Cycle / Life Cycle Analysis — A comprehensive view of the environmental and economic impact of a product throughout its lifetime, including raw materials, design, manufacturing, transportation, use, recycling and disposal.

Life Cycle Cost — The amortized annual cost of a product that includes first costs, but also extends to include installation, operating, maintenance and disposal costs over the product's lifetime.

Low-VOC — Building materials, products and finishes that offgas low levels of volatile organic compounds (VOCs) to help support good indoor air quality.

MEF (Modified Energy Factor) — The performance measure for ENERGY STAR® qualified clothes washers that takes into account: the amount of dryer energy used to remove remaining moisture in washed items; the machine energy; and water heating energy of the washer. The higher the MEF, the more efficient the clothes washer.

Nonrenewable — A finite resource (such as fossil fuels) or material that cannot be replaced in the environment because it forms at a rate far slower than its consumption.

Offgassing — The release of volatile organic compounds (VOCs) from a building material or product, which can have an impact on indoor air quality.

On-Demand Hot Water — Efficient tankless water heaters that provide on-demand hot water. Helps eliminate energy lost from the conventional method of keeping stored water hot in tanks, as well as conductive loss from hot water traveling through pipes.

Post-Consumer — Material or product that has served its intended use by consumers. May be diverted from the solid waste stream to be recycled or reused in new materials or products.

Post-Consumer Recycling — Use of materials generated from residential and consumer waste for new or similar purposes. For example, converting wastepaper from offices into corrugated boxes or newsprint.

Post-Industrial/Pre-Consumer — Waste material generated during manufacturing or converting processes that is reclaimed and used as raw materials in new products; otherwise, it would have been landfilled, incinerated or somehow disposed of as waste.

Photovoltaic (PV) Cell — An electronic device consisting of layers of semiconductor materials capable of converting solar energy directly into electricity. Used in ground- or roof-mounted panels, or even incorporated into roofing shingles.

Recyclable — A product or material able to be recovered or diverted from the solid waste stream for the purpose of recycling.



A product marked with this symbol means it can be recycled. Many variations of the symbol exist, but the "chasing arrows" design is the original and universally accepted symbol for recycling.



Plastic bottles, containers and packaging that can be recycled typically have this type of symbol bearing different number and letters to indicate the chemical formula of the plastic.

Recycled — Product or material that has been recovered and reused which might otherwise have been disposed of.



A product marked with this symbol (the chasing arrows on a darker background) means it was manufactured with at least some materials that have been recycled.



When a percentage is indicated within the symbol, that percentage of the product has been made from recycled materials.

Renewable Energy — Energy obtained from sources that are not depleted when used, such as the sun, wind or water, and typically with a much lower impact to the environment.

Renewable Resources — A resource that can be replenished at a rate equal to or greater than its rate of depletion. For example, solar, wind, geothermal and biomass resources.

SEER (Seasonal Energy Efficiency Ratio) — Commonly used measure of the efficiency of a central air conditioner. It measures how efficiently a cooling system will operate over an entire season. The higher the SEER rating, the better the efficiency. For example an ENERGY STAR® qualified central air conditioner must be 14 SEER or greater, which is 14% more efficient than standard models. (See also *EER*.)

Sick Building Syndrome (SBS) — A term describing situations where occupants experience acute health and comfort effects that appear to be linked to time spent in a building, but no specific illness or cause can be identified. SBS may be caused by conditions in the building, such as poor indoor air quality.

SmartWay Transport™ Partnership — A collaboration between the U.S. Environmental Protection Agency (EPA) and the freight industry to increase energy efficiency while significantly reducing greenhouse gases and air pollution. Whirlpool Corporation is a partner. www.epa.gov/smartway.

Sustainable — Able to meet the needs of the present without compromising the ability of future generations to do so; more holistic philosophy and approach to environmental stewardship.

Sustainable Design — Design that goes beyond addressing one or a few green actions and takes a more holistic approach to environment issues, including energy consumption, life cycle cost, reduced carbon footprint and quality of life. (For comparison see *Green Design*.)

Sustainable Home — A home constructed to go further than taking one or a few green actions, and instead takes a more whole-home building sciences approach to addressing environmental issues, including energy efficiency, life cycle cost, reduced carbon footprint and quality of life. (For comparison see *Green Home*.)

Tankless Water Heater — Water heaters that provide on-demand hot water. (See also *On-Demand Hot Water*.)

Thermal Envelope — A building's exterior shell, including the walls, foundation, floors, ceiling, windows, doors and roof. Properly designed and built, it will keep occupants comfortable, provide protection from the elements and create energy efficiency.

Tight Construction — Building techniques that minimize or eliminate air drafts and leaks, leading to improved energy efficiency, indoor air quality and comfort.

Triple Bottom Line — An expanded measure of organizational values and accounting beyond economics, taking social and environmental performance into account as well.

VOC (Volatile Organic Compound) — Compound that can become gas at room temperature and affect indoor air quality (IAQ). Common sources include housekeeping and maintenance products, building materials, finishes and furniture. (See also *Offgassing*.)

WF (Water Factor) — The number of gallons per cycle per cubic foot that a clothes washer uses. The lower the water factor, the more efficient the washer.

Zero Energy Home (ZEH) — Homes that have a net energy consumption of zero. Can even generate more power than it uses, which can be stored or returned to the power grid.

Frequently Encountered Acronyms

- AIA** — American Institute of Architects www.aia.org
- AIBD** — American Institute of Building Design www.aibd.org
- CARB** — Consortium for Advanced Residential Buildings www.carb-swa.com
- DOE** — U.S. Department of Energy www.doe.gov
- EERE** — U.S. Department of Energy Office of Renewable Energy Efficiency and Renewable Energy www.eere.energy.gov
- EPA** — U.S. Environmental Protection Agency www.epa.gov
- EVHA** — Energy Value Housing Award www.nahbrc.org/evha
- IBACOS** — Integrated Building and Construction Solutions www.ibacos.com
- MHI** — Manufactured Housing Institute www.manufacturedhousing.org
- NAECA** — National Appliance Energy Conservation Act
- NAHB** — National Association of Home Builders www.nahb.org
- PATH** — Partnership for Advancing Technology in Housing www.pathnet.org
- USGBC** — U.S. Green Building Council www.usgbc.org