

MRIS Eco-Friendly Glossary

Attic Fan

Attic temperatures can get up to 150°F without an attic fan. Attic fans create a positive air-flow through your attic that does not rely on wind or require excessive passive venting. (If poorly done, excessive passive venting can cause excessive moisture infiltration in the form of snow or rain.) The attic fan is normally mounted up on the roof of the home toward the back about two feet down from the peak. It goes on and off automatically with a thermostat, so it only runs when it is beneficial. The attic fan has a flashing that fits in with the shingles and is water-proof. Attic fans use less than 300 Watts, and offer these important advantages: 1. Lowers upstairs room temperatures by 10°. 2. Lengthens roof life by keeping shingles cooler. 3. With an optional humidistat, keep attics dry during winter months. 4. Saves up to 30% on air-conditioning costs. (Savings vary by region and roof characteristics.)

Dual-Flush Toilet

A toilet that has two different settings, usually 0.8 gallons for liquid removal and 1.6 gallons for full flush solid removal. Dual-flush toilets use about 2500 gallons of water per year, compared to a standard low-flow (1.6-gallon) single-flush, which uses about 4500 gallons per year. These toilets have two buttons for two flush options. Option one allows the user to flush with less water for liquid waste, while option two allows the user to flush with more water for solid waste. Generally the words "dual flush" will appear in the model name for that toilet.

Energy Star

ENERGY STAR is a government-backed program helping businesses and individuals protect the environment through superior energy efficiency. This is a program that sets standards for energy efficiency in a variety of products as well as in new home construction. In some areas, a "Home Performance with ENERGY STAR" label can be earned on the retrofit or improvement of an existing home to ENERGY STAR standards.

Energy Star Appliance(s)

See "Energy Star" above.

Energy Star is a program that evaluates the energy efficiency of appliances, house fixtures and other home utilities. Co-sponsored by the U.S. Environmental Protection Agency and the U.S. Department of Energy, the Energy Star program seeks to reduce greenhouse gas emissions by identifying energy efficient appliances, helping Americans save money on utility bills with more energy efficient homes.

Energy Star ratings can be applied to a variety of household appliances, fixtures, and materials, including refrigerators, washers, dryers, lighting fixtures, computers, home electronics, windows, and heating insulation. When replacing an appliance or fixture in your home, look for the Energy Star label on products that are energy efficient and help protect the environment.

Energy Star Certification

Designed to Earn the ENERGY STAR. This certification is awarded to the Architect of Record (AOR) for commercial building design projects (qualifying operating buildings are eligible for the ENERGY STAR label). The Designed to Earn the ENERGY STAR certification is a graphic that can be displayed on architectural drawings and project literature by both the building owner and the AOR. Designed to Earn the ENERGY STAR indicates that the design received a 75 or higher rating from Target Finder and meets EPA criteria for energy efficiency. It is not meant to be a guarantee of performance; rather, it demonstrates the intent to earn the ENERGY STAR once the building is constructed and operating.

Fiber Cement Siding

Fiber cement siding is a building material used to cover the exterior of a building in both commercial and domestic applications. This product is available from several manufacturers in a variety of textures that are said to provide the appearance of wood. Fiber-cement siding should be more durable than wood -- it is termite-resistant, water-resistant, non-combustible, and warranted to last 50 years. Fiber-cement siding is composed of cement, sand, and cellulose fiber that has been autoclaved (cured with pressurized steam) to increase its strength and dimensional stability. The fiber is added as reinforcement to prevent cracking. The planks come in 5¼" to 12" widths and 5/16" and 7/16" thickness.

Fireplace Gas Insert

Gas Inserts can be installed into an existing fireplace to provide high efficiency heat. Gas Fireplace Inserts are used to convert an existing wood burning fireplaces (both pre-fab and masonry) to a sealed gas appliance. They consist of a Gas Log set installed into a Steel or Cast-Iron Heat Exchanger and are usually sealed on the front with glass. Many of these units have fans to move the heat, and are also available with remote controls, wall switches or wall-mounted thermostats.

Forced Air

A forced-air system is one which uses air as its heat transfer medium. These systems relies on ductwork, vents, and plenums as a means of air distribution separate from the actual Heating and Air Conditioning systems. The return plenum carries the air from several large return grills (vents) to a central air handler for re-heating. The supply plenum directs air from the central unit to the rooms which the system is designed to heat. Regardless of type, all air handlers consist of an air filter, blower, heat exchanger/element/coil, and various controls. Like any other kind of central heating system, thermostats are used to control forced air heating systems.

Fresh Air Recovery System

Probably refers to mechanical ventilation as part of the HVAC that draws in fresh air rather than just recirculating and filtering the air inside the home. An energy recovery ventilator (ERV) is a type of mechanical equipment that features a heat exchanger combined with a ventilation system for providing controlled ventilation into a building. An energy recovery ventilator with

humidity regulation incorporates a method to remove excess humidity or add humidity to the ventilating air that is being brought into a house.

Geo Thermal

Geothermal heating and cooling systems transfer the warmth (or cold) from the ground below to the home or building above, providing a completely renewable, ecologically friendly source of home climate control.

Geo Thermal. Heat System

Geothermal heat pumps (GHPs) use the constant temperature of the earth to provide cooling and heating for a home. There are different types of geothermal heat pumps, but the principle on which they operate is similar. A loop of piping is buried in the ground and fluid circulates through the loop. In the summer, the fluid uses the cooler temperature of the ground to provide indoor cooling. During colder months, the geothermal heat pump uses the below-ground temperature, which is significantly warmer than the outside air, to warm the home.

Geo Thermal Heat Pump

A geothermal heat pump or ground source heat pump (GSHP) is a central heating and/or cooling system that pumps heat to or from the ground. It uses the earth as a heat source (in the winter) or a heat sink (in the summer).

High Efficiency Toilets

Under U.S. Federal law, new toilets must not use more than 1.6 gallons per flush (gpf). High-efficiency toilets (HETs) go beyond the standard and use 1.28 gpf, a 20% savings (6 liters v. 4.8 liters). A few of the new toilets use even less, only 1.1 gallons (4 liters). The WaterSense label can be applied to HETs that are certified by an independent testing laboratory to meet strict criteria for both performance and efficiency. HETs must complete the third-party certification process to earn the right to bear the WaterSense label.

Instant Hot Water (dispenser)

An instant hot water dispenser, or "boiling water tap," is an appliance that dispenses water at about 94 °C (201 °F) (near-boiling). There are hot-only and hot and cool water models, and the water may be filtered as well as heated.

Low Emittance Doors/Windows

Low emittance building materials include window glass manufactured with metal-oxide coatings as well as housewrap materials, reflective insulation's and other forms of radiant barriers. Can also be expressed by the Solar Heat Gain Coefficient (SHGC), a commonly measured characteristic of windows and some doors.

PaperStone Counters

Countertop material made by compressing post-consumer recycled paper and a water-based resin. Environmentally-friendly, PaperStone countertops are stain resistant, repairable and have extreme heat tolerance.

Modern Manufactured

A factory built structure built in 1995 or later that is manufactured under the authority of 42 United States Code Sec. 5401 and is to be used as a place for human habitation, but which is not constructed or equipped with a permanent hitch or other device allowing it to be moved other than for the purpose of moving to a permanent site, and which does not have permanently attached to its body or frame any wheels or axles. Manufactured housing must bear a label certifying that it is built in compliance with the Federal Manufactured Housing Construction and Safety Standards.

Third Party Certification

Third-Party Certifications are claims made by organizations with no direct or indirect ties to any party, such as the U.S. Green Building Council (USGBC), GreenGuard, Green Label and Green Seal.

Solar Attic Fan

Solar attic fans are the relatively new rivals of conventional powered attic fans. Basically they're installed to ventilate attics, therefore keeping them cooler in the summer months. Because the fans run off solar power, the sun will jumpstart the DC motor via a small solar panel. Generally, the fans will exhaust air at a rate of 800 to 1200 CFM and will be installed with intake vents to ventilate the attic properly

Solar

Solar power is energy that is derived from the sun and converted into heat or electricity. It is a versatile source of renewable energy that can be used in an amazing number of applications, providing power for everything from cars and boats to houses and spacecraft. Solar power is also clean and pollution-free.

Solar Off-Grid

A system not connected to a utility grid that utilizes batteries to store electricity.

Solar On-Grid

A system connected to the utility grid which utilizes the grid for backup energy.

Programmable Thermostat

A thermostat that allows the homeowner to set the temperature at different levels at different times of day. For example, in winter, it could be set to be colder while occupants sleep and warmer as occupants awaken, then colder again as occupants are away at work.

Radiant energy

Radiant energy is the energy of electromagnetic waves.

Rain Water Catchment (or Rain Water Harvesting)

These systems can help in times of drought by providing water harvested during periods of rain. Plants necessary for environmental stability can be watered and, in some setups, fresh drinking water can be created.

Rainwater Harvesting

Collecting water-from a roof, driveway, or other hard surface during a rainfall-and channeling it into a rain barrel or other container to be saved for use in landscaping or in the household. Harvested rainwater has the potential for huge freshwater savings: It's estimated that the average American uses 80 to 100 gallons of water a day. Depending on the setup and the typical rainfall in your region, most or all of your water can be harvested. Harvested rainwater is sometimes used as potable water, too, but it typically must be filtered and/or chemically treated first; local health departments can provide more information on those requirements

Recycling

The process by which materials that would otherwise become solid waste are collected, separated or processed and returned to the economic mainstream to be reused in the form of raw materials or finished goods

Recycled content

The content in a material or product derived from recycled materials versus virgin materials. Recycled content can be materials from recycling programs or waste materials from the production process.

SIP - Structured Insulated Panels

Often used in panelized construction, SIPs are panels made from a thick layer of foam (polystyrene or polyurethane) sandwiched between two layers of Oriented Strand Board (OSB), plywood or fiber-cement. As an alternative to the foam core, SIPs are available with a core of agriculture fibers (such as wheat straw) that provides similar thermal and structural performance. The result is an engineered panel that provides structural framing, insulation, and exterior sheathing in a solid, one-piece component.

Silestone Counters

Solid surface countertop made of quartz, resin for binding, and pigment (or color).

Solar Tubes

Same as a device called Light Tube which is placed into a roof and admits light to a focused area of the interior. These somewhat resemble recessed ceiling light fixtures. They do not allow as much heat transfer as skylights because they have less surface area.

Solar Rough-In

This basically means that the builder has put in plumbing and/or electrical systems that would allow a later addition of a solar photovoltaic or hot water system.

Tankless Water Heater

Tankless water heaters provide hot water at a preset temperature when needed without storage, thereby reducing or eliminating standby losses. Tankless water heaters can be used for supplementary heat, such as a booster to a solar hot water system, or to meet all hot water needs. Tankless water heaters have an electric, gas, or propane heating device that is activated by the flow of water.

Triple Pane Windows

Triple pane windows are windows with three layers of glass – outer, middle and inner. The middle layer is generally surrounded by an inert gas like argon or krypton (or sometimes a mixture), which is trapped by the outer and inner panes.

Trombe Wall

Also referred to as a "solar wall", a Trombe wall consists of an 8–16 inch-thick masonry wall on the south side of a house. A single or double layer of glass is mounted about 1 inch or less in front of the wall's surface. Solar heat is absorbed by the wall's dark-colored outside surface and stored in the wall's mass, where it radiates into the living space.