

Frequent Terms

AFM Safecoat – low toxicity paints and finishes.

Air infiltration – the rate of air that leaks through cracks around windows, doors, and other areas of a home.

Battery back-up – the storage of electricity generated by on site energy systems in large batteries, either for off-grid homes or as emergency power in case of a grid failure.

Boiler - a closed vessel in which water or other fluid is heated under pressure.

Cellulose – an insulating material made of recycled newspapers and boron.

Closed-loop – a sealed, pressurized (solar thermal) hydronic system, in which heated fluid remains in the collectors.

Daylighting – a design approach that maximizes natural light to reduce the need for electric lighting.

Deconstruction – reverse home construction at the end of a building's useful life.

Drain back system – an open, unsealed solar thermal system where collector fluids drain into the storage tank.

Drip irrigation – an efficient irrigation system that uses a series of pipes and emitters to deliver a precise amount of water to specific areas.

Energy-Star – a federal labeling program that identifies energy efficient appliances.

Engineered lumber – lumber that has been engineered for efficiency and is composed of fast growing trees.

Evacuated tube solar system – a solar collector in which the absorber surface is sealed inside a vacuum tube to prevent thermal loss.

Expanded polystyrene (EPS) – a type of expandable foam insulation.

Foam insulation – insulation made of polyurethane foam that is sprayed into a cavity, then expands and hardens to fill the available space.

Forest Stewardship Council (FSC) Certified – a certification that ensures that lumber is taken from sustainable and healthy forests.

Geo-exchange or Ground-source heat pump – uses a system of underground piping and the constant temperature of the earth to heat air in winter or cool air in summer, reducing energy loads required to achieve a comfortable indoor temperature.

Grid-tied – a home energy system that is connected to the power grid.

Heat Mirror - a type of window insulation film that is transparent to light, but highly reflective to heat.

Heat recovery ventilation (HRV) – a system designed to provide continuous or timed ventilation throughout a home, and recover the heat carried in the exhausted stale air.

Hydronic heating system – uses hot water circulated in radiators or convectors to heat a home.

ICF (Insulated Concrete Forms) – reinforced concrete walls that are cast-in-place and left permanently as insulation.

Icynene – a sprayed, foam insulation that expands and hardens to completely seal a building envelope

Low-e – “low emissive” glass is coated with a microscopic, virtually invisible, metallic oxide layer that improves thermal performance.

On-demand/tankless water heating – while traditional hot water heaters must keep a water storage tank consistently heated, tankless water heaters heat water only when it is needed.

OSMO Hardwax – a natural product that replaces some synthetic finishes.

Passive solar – a design approach in which solar energy is brought into a home through south facing windows and is absorbed and then slowly released by thermal mass to heat a building.

PET – “polyethylene terephthalate” - the material in soda bottles that is often used in recycled building materials.

Photovoltaic (PV) – solar collectors that convert light into DC voltage to provide electricity.

Radiant floor heat – distributes heat via hot water pumped through tubes under the floor.

R-Value – the measure of a material's resistance to heat flow. The higher the R-value, the more it insulates.

SIPs or structurally insulated panels – structural panels that use an insulating material like Styrofoam sandwiched between two sheets of OSB to create roofs and walls.

Solar Thermal – solar collectors that use direct heat from the sun to provide domestic hot water or home heating.

Strawbale construction - uses locally harvested strawbales to construct walls in a home.

Swamp cooler/evaporative cooler – cools and humidifies outdoor air by allowing it to pass through water-soaked pads; uses about 75% less energy than central air conditioners.

Thermal mass – a dense material, often concrete, that absorbs heat from the sun during the day and releases it throughout the evening.

Thermoplastic olefin (TPO) – a very durable, high-performance roof membrane constructed from rubber.

Volatile organic compounds (VOCs) – toxic chemicals, such as Benzene, Formaldehyde, and Chloride that are found in everything from paints and coatings to deodorant and cleaning fluids.

White/reflective roofs – use light colored roofing materials to reflect the sun's heat, reducing summer cooling loads.

Whole house ventilation - the process of supplying fresh air to a living space and exhausting stale air, either by natural or mechanical means in order to maintain air quality.

Xeriscape – a type of landscaping that utilizes plants with low-water needs.

Zoned heating – allows heat to be delivered to individual areas of the home when needed.