

Green Glossary

A

ACID RAIN

Rain that contains a high concentration of acids formed by the mixing of various pollutants – primarily sulfur dioxide and nitrogen oxides – in the atmosphere. It's harmful to plants and aquatic life.

ADAPTABLE BUILDING

A building that can be readily remodeled or reconfigured to meet an occupant's or community's evolving needs.

ADOBE

Unfired, sun-dried bricks made of earth, often stabilized with asphalt additives or cement; a building made of adobe bricks.

ADVANCED WOOD FRAMING

Design and construction techniques that significantly reduce the amount of wood used to frame a building. Includes strategies such as studs placed 24 inches on center rather than the traditional 16 inches on center; two stud corners; engineered wood products; and roof or floor trusses.

ALTERNATIVE CURRENT (AC)

Electric current that reverses its direction of flow at regular intervals. In most countries, the electricity provided by utilities is AC electricity.

AUTOCLAVED AERATED CONCRETE (AAC) BLOCK

A solid concrete block that insulates better and weighs much less than standard concrete blocks. Used for building construction in many parts of

the world, but relatively uncommon in the United States.

B

BAMBOO FLOORING

Flooring made from bamboo, a giant, fast-growing grass with a hollow stem. Bamboo is considered an environmentally friendly alternative to hardwood because it can be harvested every three to five years. Tongue-and-groove bamboo floor planks with a vertical or horizontal grain are available prefinished or unfinished.

BIODIVERSITY

A contraction of biological and diversity. The wide range of living things in a particular region.

BLACKWATER

Wastewater that contains sewage.

BORROWED SPACE

Views and daylight from a nearby space used to enliven and seemingly enlarge a room.

BUILDING ENVELOPE

A building's shell, including exterior walls, windows, doors, roof, and bottom floor.

C

CARBON NEUTRAL

A process of measuring carbon emissions to reduce them and offset the remaining emissions. Net calculated carbon emissions will equal zero.

CELLULOSE INSULATION

Insulation made from wood fiber, primarily recycled newspaper, treated with nontoxic chemicals to retard fire, mold, and insects. Loose-fill cellulose can be blown into attic spaces or packed into wall cavities before hang-

ing drywall.

CERTIFIED WOOD

Wood grown and harvested using environmentally responsible forestry practices and certified by an independent, third-party certification program.

CISTERN

A tank, often underground, used to collect and store rainwater for later use.

CLERESTORY

A window or row of windows laced high on a wall, often above a main floor line, used for introducing daylight into a room.

COB CONSTRUCTION

Earth, sand, straw, and water mixed into a thick mud and formed into loaves (cobs) that are stacked to build a thick wall.

COMPACT FLUORESCENT LIGHT BULB (CFL)

A fluorescent light bulb designed to replace regular incandescent bulbs. It is three to four times more energy efficient and lasts eight to ten times longer than an incandescent bulb.

CONDITIONED SPACE

An enclosed space supplied with conditioned air from a heating system, a cooling system, or both.

CONDUCTION (THERMAL)

The transfer of heat directly through a material.

COOL ROOF

A roofing material that is very reflective (usually white or very light colored) that has a high emissivity (releases heat very readily). In hot climates, these characteristics keep roof surface temperatures lower and



reduce the amount of energy needed to air condition a building.

CORK FLOORING

Flooring, often sold as tiles, made of cork that is harvested from the outer bark of cork oak trees without having to fall the trees. Cork oaks regenerate their bark and can be harvested in about ten years.

COTTON INSULATION

Insulation made from recycled cotton textile trimmings, and typically treated with a nontoxic fire retardant and sold in batts that fit between framing studs.

D

DAYLIGHTING

The controlled use of natural light (as opposed to electric light) to illuminate a space. The goal is to create a stimulating, appealing environment while reducing energy use from electric lighting.

DECONSTRUCTION

Disassembling rather than demolishing a building so that its components can be reused.

DEMAND WATER HEATER

A water heater that saves energy by heating water as it is needed rather than storing hot water in a tank. Also known as an instantaneous or tankless water heater.

DIRECT CURRENT (DC)

Electric current that flows in one direction. Photovoltaic systems convert sunlight into DC electricity. An inverter is then used to convert the DC electricity to alternating current (AC) electricity so that it can be used to power standard household equipment and appliances.

DOUBLE-GLAZING WINDOW

A window with two panes of glass separated by an air space. Compared to single-glazed windows, significantly reduce heat and sound transmission. Some double-glazing windows contain a gas such as argon or krypton in the air gap to provide additional insulation.

DOWNCYCLING

The process of recycling a relatively high-quality material into a lower-quality material. Often involves mixing additives with the recycled content to improve its performance. Rather than being infinitely recycled, these downcycled, hybrid materials often have to be disposed of in a landfill or incinerated at the end of their useful life.

E

EARTHBAG CONSTRUCTION

Buildings, retaining walls, or other structures constructed of sandbags filled with tamped earth.

EMISSION

The capacity of a surface to radiate energy.

ENERGY EFFICIENCY

Using less electricity or fuel than conventional technology to perform the same.

ENERGY STAR

A program sponsored jointly by the U.S. Environmental Protection Agency and the U.S. Department of Energy that promotes energy efficient products, homes, and technologies for consumers and businesses. ENERGY STAR qualified products and new homes are often 10 to 20 percent more efficient than their conventional counterparts.

ENERGYGUIDE LABEL

A yellow sticker required by U.S. law on certain new household appliances, including air conditioners, furnaces, clothes washers, dishwashers, refrigerators, and freezers. The label provides information on the amount of energy the appliance will use in one year.

ENGINEERED WOOD

Building products, including beams, framing studs, and floor and roof joints made from wood fibers bound with adhesives. The wood typically comes from plantation-grown trees. In general, engineered wood products result in less wood waste than solid sawn lumber products.

F

FIBER CEMENT SIDING

An exterior siding product made from a blend of Portland cement, sand, cellulose fiber, and additives. It is typically sold as planks or panels, with a smooth textured finish.

FLY ASH

A waste product from coal-fired electric power plants that can be used as substitute for Portland cement in some concrete.

FOOTPRINT

The area of land covered by a building.

FOREST STEWARDSHIP COUNCIL (FSC)

An international certification organization that has established voluntary environmental forest-management standards. FSC accredits independent third-party organizations that monitor and certify the compliance of forestry operations with FSC standards.

FSC PRODUCTS

Labeled wood products give consum-



ers assurance that the wood comes from trees grown and harvested in an environmentally responsible manner.

FORMALDEHYDE

A colorless, pungent gas used in many glues, adhesives, preservatives, and coatings. It also occurs naturally. Products and materials containing formaldehyde can release the chemical into the air. According to the U.S. Environmental Protection Agency, exposure to formaldehyde may cause allergic reactions, respiratory problems, and cancer in humans.

FOSSIL FUEL

A fuel such as natural gas, oil, or coal formed from the decomposition of animals and plants millions of years ago.

FSC

See Forest Stewardship Council

G

GLAZING

Transparent or translucent material such as glass or plastic that lets light into a building.

GLOBAL WARMING

The long-term warming of the planet caused by heat trapped in the lower atmosphere by greenhouse gases. These gases are emitted primarily as a result of human activities, including burning fossil fuels.

GLULAM

Abbreviation for glued laminated timber. An engineered wood product consisting of thin layers of wood, usually less than two inches thick, bound with an adhesive and formed into structured beams that can be used instead of solid sawn lumber.

GRAYWATER

Household water that does not contain sewage and can be reused for irrigation. Graywater typically comes from showers, dishwashers, and washing machines.

GREEN BUILDING

Building practices that use energy, water, and other resources wisely without needlessly damaging the environment so that present and future generations can live well.

GREEN ROOF

A roof that has soil and other growing media on top of a waterproofing membrane. Can be planted with sedum, grasses, wildflowers, or other groundcover. Also known as an “eco-roof” or “living roof.”

GREEN HOUSE GASES

Gases that trap heat in the atmosphere, contributing to global warming. Greenhouse gases, which are primarily the result of burning fossil fuels, include carbon dioxide, methane, nitrous oxide, and hydrofluorocarbons.

GREENWASHING

Falsely claiming that a product, service, or company is environmentally responsible.

H

HABITAT

The region where an animal or plant lives.

HALOGEN LIGHT BULB

A type of incandescent light bulb that is filled with halogen gas. It burns longer than a standard incandescent bulb and provides a crisp, white light, but gets very hot and is less energy efficient than a compact fluorescent

bulb.

HEAT EXCHANGER

An energy efficient device that takes wasted heat from one process and reuses it in another process. For example, an air to air exchanger captures heat from indoor air that is about to be vented from a home and transfers that heat to fresh air that is being drawn in from the outside.

HEAT GAIN

Heat from the sun, people, electric lights, or appliances that cause the temperature in a space to rise.

HEAT ISLAND EFFECT

The tendency of large areas of roofs, asphalt, concrete, and paved surfaces to absorb the sun’s heat, making urban areas considerably hotter than rural areas.

HEAT LOSS

The decrease of heat in a space as a result of heat escaping through a building’s walls, windows, roof, and other building envelope components.

HIGH PERFORMANCE

A building or building component designed to be more energy or resource efficient, healthier, and more comfortable than a conventional building or building component.

HYDRONIC RADIANT FLOOR HEATING SYSTEM

A heating system in which warm water is circulated through tubes embedded in concrete floor slabs or attached beneath the subflooring. The floor absorbs heat from the tubes and slowly releases it to the room, providing a comfortable, quiet, gentle warmth that doesn’t stir up dust or create draft.



I

IMPERVIOUS SURFACE

A surface that water cannot pass through.

INCANDESCENT LIGHT BULB

A light bulb that consists of a filament inside a glass bulb. Passing electric current through the filament causes it to heat up and produce light. Standard household bulbs are incandescent bulbs; they are very inefficient because up to 90 percent of the energy they consume results in wasted heat instead of useful light.

INDOOR AIR QUALITY

The nature of air inside a building. Indoor air pollution sources include tobacco and wood smoke; certain building materials and furnishings; certain cleaning; and personal care products; dust mites; pet dander; mold; radon; pesticides; and outdoor air pollution. Inadequate ventilation and high humidity levels can also contribute to indoor air quality problems.

INFILL DEVELOPMENT

Building on empty or underutilized lots in cities or older suburban areas instead of building in previously undeveloped areas.

INFILTRATION

The movement of outdoor air into a building through cracks and other defects around doors, windows, walls, roofs, and floors.

INSTANTANEOUS WATER HEATER

See demand water heater.

INSULATED CONCRETE FORM (ICF)

Plastic foam shaped into hollow blocks, panels, or planks and used as a form to create a concrete wall. After positioning the foam forms, rebar is typically inserted into the cavities to

reinforce the walls before concrete is poured in. Once the concrete cures, the foam remains in place to insulate the walls. Exterior siding and interior wall finishes are attached to ICFs.

INSULATION

A material that has a high resistance to heat flow. Used to keep a home comfortable and reduce the energy needed to heat and cool the home.

INTEGRATED BUILDING DESIGN

A design process that takes into account the interrelatedness of all parts of a building. It involves designing a building from the outset so that all its components, equipment, and systems work together to provide maximum comfort, healthfulness, energy and resource efficiency.

L

LIGHT STRAW-CLAY CONSTRUCTION

A building method in which loose straw coated with wet clay is tamped into formwork to create insulation, nonstructural walls. The straw-clay mixture can be used as infill between structural members of a framed building or can surround the framed structure.

LINOLEUM

A smooth floor covering. True linoleum is made from natural renewable resources, including pine resin, sawdust, linseed oil, natural pigment, and jute. Vinyl flooring, sometimes mistakenly called linoleum, is made from polyvinylchloride (PVC), which is derived from petrochemicals.

LOW-E (LOW-EMISSIVITY) WINDOW

A window with a special coating that allows daylight to enter a building but reduces the flow of heat. The appro-

priate type of low-e glazing for a home will depend on the climate and the window's orientation.

M

MIXED-USE DEVELOPMENT

A building or site that combines several types of commercial uses (retail, office, restaurants) with housing, rather than segregating commercial and residential uses into separated zones or neighborhoods.

N

NATIVE VEGETATION

Plants that are indigenous to a particular area.

NATURAL COOLING

Cooling a building through passive means rather than using mechanical systems such as air conditioning. Natural cooling strategies include shading, cross ventilation, and the use of thermal mass to moderate temperatures inside a space.

NATURAL VENTILATION

The process of supplying air to and removing air from the interior of a building by using passive means such as open windows and cross-ventilation, rather than using mechanical systems.

NET-ZERO ENERGY HOME

A home employing energy efficiency/conservation technologies and practices, resulting in annual contributions to the electricity grid that are equal to or greater than the amount of power used by the home from the grid.

NONRENEWABLE RESOURCES

A natural resource that does not replenish itself or is consumed at a faster rate than it is replaced in the



environment.

NONTOXIC

Not posing a significant risk to people or the environment.

O

OFF-GAS

The release of vapor from a material through the process of evaporation or chemical decomposition. Building products, furnishings, floors, wall coverings, and other products brought into homes can off-gas formaldehyde, volatile organic compounds (VOCs), or other potentially troublesome chemicals.

OLD-GROWTH TREE

A tree that had been growing for 200 years or longer.

ORGANIC GARDENING

Gardening without synthetic pesticides, herbicides, or fertilizers. Involves the use of environmentally responsible techniques and substances like compost, mulch, and manure to build healthy soils, manage pests, and encourage healthy plant growth.

ORIENTED STRAND BOARD

An engineered wood panel made from strands of wood arranged in crisscrossing layers and bound with an adhesive.

P

PARTICULATE

Very fine particles in the air, such as smoke, dust, soot, or pollen.

PASSIVE SOLAR DESIGN

A building specifically designed to collect and store the sun's heat, then release that heat into the interior spaces

to help warm rooms naturally.

PEDESTRIAN SCALE

A neighborhood design that encourages walking by providing safe streets, which are convenient, pleasant, and visually interesting, and that connect to the places people want to go.

PHANTOM LOAD

The small amounts of electricity consumed by many appliances and equipment such as TVs and stereos with remotes, ovens with digital clocks, cell phone chargers, and answering machines.

PHOTOCELL CONTROL

A device that automatically turns electric lights on and off with the sun.

PHOTOVOLTAIC (PV) CELL

A material that turns sunlight into electricity.

PROGRAMMABLE THERMOSTAT

A thermostat that controls a heating and/ or cooling system according to the resident's schedule.

PVC

See polyvinyl.

R

RADIANT BARRIER

A material installed in buildings to reduce summer heat gain.

RADIATION

The transfer of heat from a warm object to a cooler object by means of electromagnetic waves passing through air or space.

RADON

A radioactive gas derived from natural rock decay of uranium. It is emitted by some soils and rocks and can enter a home through cracks and holes in the

foundation or through well water.

RAINWATER HARVESTING

Collecting rainwater from a catchment area such as a roof and storing it in cisterns or containers to use for watering the yard or garden.

RAMMED EARTH CONSTRUCTION

Buildings, walls, or other structures made from a moist mix of earth, sand, and cement tamped or rammed into temporary forms.

RECLAIMED MATERIALS

A material that is put to a new beneficial use after it is no longer needed for its original use, such as wood removed from an abandoned building and used to construct a new building.

RENEWABLE ENERGY

Energy generated from renewable resources such as sunlight, wind, and agricultural products.

RENEWABLE RESOURCE

A material that can be replenished in relatively short periods of time.

R-VALUE

A measure of a material's resistance to the passage of heat through it. The higher the R-value, the more effective the material is as insulation.

S

SEALED COMBUSTION FIREPLACE

A gas-burning fireplace with a sealed combustion chamber. It reduces infiltration because fresh air is supplied directly through the combustion chamber from outside instead of being drawn from inside the room.

SEER

(Seasonal Energy Efficiency Ratio)
Indicates an air conditioner's energy



efficiency. The higher the SEER the more efficient the air conditioner.

SOLAR COLLECTOR

A device used to capture solar energy to heat water.

SOLAR HEAT GAIN COEFFICIENT (SHGC)

An indication of how much of the sun's heat will enter through a window. A SHGC of 0.40, for example, means that 40 percent of the sun's heat passes through the window.

SOLAR ELECTRICITY

Electricity generated from sunlight. Also called photovoltaic or PV electricity.

STEEL FRAMING

Constructing a building shell using steel studs, steel joints, and other steel components instead of wood.

STORM WATER RUNOFF

Water that flows off a building and paved surfaces and over land during a rain storm.

STRAW BALE CONSTRUCTION

A construction method that uses straw bales to form walls. The bales can be load-bearing, meaning that they carry some or all a roof's weight.

STRUCTURAL INSULATING PANELS (SIP)

An alternative to framing with wood studs and joists. SIPs can be used to build well-insulated floors, walls, and roofs. They are prefabricated panels that typically consist of rigid foam insulation sandwiched between two panels or oriented strand board or plywood.

SUSTAINABLE

Meeting the needs of today without compromising the ability of future

generations to meet their own needs.

SWALES

A shallow depression or hollow in the ground used to slow the flow of storm water off property.

T

TANKLESS WATER HEATER

See demand water heater.

THERMAL BRIDGE

A highly conductive material within a building envelope, such as a steel framing member, that allows heat to bypass the insulation.

THERMAL MASS

The ability of materials to absorb and retain heat. Materials with high thermal mass, such as rock, earth, and concrete, have capacity to absorb heat during the day and release it when the air temperature cools.

U

U-FACTOR

Indicates how easily heat will pass through a construction assembly, such as a window. The lower the U-factor, the lower the rate of heat flow.

UNCONDITIONED SPACE

The space within a structure that is not heated or cooled by the home's mechanical systems.

UNIVERSAL DESIGN

An approach to designing a structure that is easily usable by people of all ages and disabilities.

V

VENTILATION

The process of supplying air and

removing air from an indoor space by natural or mechanical means.

VINYL

See polyvinyl chloride.

VOLATILE ORGANIC COMPOUND (VOC)

A class of organic chemicals that readily release vapors at room temperature. VOCs occur naturally in many materials, and can also be manufactured and added to materials and products. VOCs are released (off-gassed) into a home by common furnishings and building materials, including many types of particleboard, paints, solvents, carpet, and synthetic materials. Effects range from short-term nausea, eye irritation, and headaches to more severe, long-lasting effects.

W

WHOLE HOUSE FAN

A powerful fan mounted in a ceiling opening used to pull air through the home and exhaust it through vents. It provides air circulation and cooling in climates where days are warm and nights are cooler and also introduces fresh air into a building while exhausting stale air.

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 an acceptable level of air quality.

