

A

Aerated Autoclaved Concrete (AAC) - Precast concrete that is cured by steam pressure inside a kiln called autoclave. The material is lighter weight than conventional concrete and has good insulation properties.

Aerogenerator - a wind turbine rotating machine which converts the kinetic energy in wind into mechanical energy that is then converted to electricity. The machine is also called a wind generator, wind turbine, wind power unit (WPU), or a wind energy converter (WEC).

Absorber - A component of a solar heater that soaks up heat from the sun and helps transmit it to the water or heating system.

Air Pollution - Addition of harmful substances to the atmosphere resulting in damage to the environment, human health, and quality of life. A by-product of the manufacturing process and transportation of goods. Buying eco-friendly products indirectly reduces air pollution.

Alternative Energy - Naturally generated energy source: any form of energy obtained from the sun, wind, waves, or another natural renewable source, in contrast to energy generated from fossil fuels.

ANSI Standards - American National Standards.

Aperture - An opening for the purpose of admitting light.

AS1 Standards - American National Standards Institute (ANSI), American Society of Heating, Refrigerating and Air-Conditioning Engineers Inc. (ASHRAE), Illuminating Engineering Society of North America (IESNA) Energy Standard for Buildings. A nationally-recognized energy standard for commercial buildings.

ASHRAE Standards - American Society of Heating, Refrigerating and Air-Conditioning Engineers Inc.

Atmosphere - the air surrounding the Earth, described as a series of shells or layers of different characteristics. The atmosphere is composed mainly of nitrogen and oxygen with traces of carbon dioxide, water vapor, and other gases, acts as a buffer between Earth and the sun. The layers, troposphere, stratosphere, mesosphere, thermosphere, and the exosphere, vary around the globe and in response to seasonal changes.

B

Balometer - An instrument, a capture hood, that measures airflow.

Bamboo - is the fastest growing woody plants in the world, and can grow up to 2 feet per day. Making them a great renewable resource and replacement for many wood products that would otherwise come from trees.

Biodegradable - a type of waste, typically originating from plant or animal sources, which may be broken down by other living organisms.

Bio-diesel - a diesel-equivalent, processed fuel derived from biological sources (such as vegetable oils), which can be used in unmodified diesel-engine vehicles

Biodiversity - the variety of biotic factors found within a specified geographic region, or (2). the combined differences of living things, generally classified in broad categories: Ecosystem Diversity: Variety of biomes and habitats occurring in the biosphere.

Biogas - A combustible gas created by decay of organic material, composed primarily of methane, carbon dioxide, and hydrogen sulfide.

Bioremediation - A process that uses biological organisms to clean up contaminated water or soil; often used in oil-spill cleanup.

Bio-diesel - A diesel-equivalent, processed fuel derived from biological sources (such as vegetable oils), which can be used in unmodified diesel-engine vehicles.

Bioswale - A landscape element, often a planted strip along a street or parking lot, for the purpose of capturing surface water runoff and filtering out silt and pollution before the storm water enters the drainage system or groundwater.

Blackwater - wastewater generated by toilets.

Blower Door - A test that measures the air tightness of a building.

Brownfields - A former industrial site, particularly one compromised by hazardous contaminants; examples are former dry cleaning establishments and gas stations.

Building Envelope - The separation between the interior and exterior environment of a building. Usually consisting of the roof, doors, windows, foundation, and walls.

C

Carbon Footprint - A calculation of the amount of greenhouse gases produced as a result of commercial, industrial, and individual activities. The negative impact that something (as a person or business) has on the environment; specifically: the amount of carbon emitted by something during a given period.

Carbon Dioxide (CO₂) - The most prevalent of the greenhouse gases. Emitted by burning fossil fuels. Naturally occurring from sources such as human and animal respiration, ocean-atmosphere exchange, and volcanic eruptions.

Carbon Offset - A system intended to equalize carbon production around the globe by trading greenhouse gas emissions—typically produced through fossil fuel consumption—for environmentally friendly actions, such as planting trees and using clean energy sources.

Climate Change - Also called climate destabilization or greenhouse effect, this term represents the adverse effects of greenhouse gasses on weather patterns and ecosystems.

Coheat Test - A test that measures the distribution of heating and cooling systems throughout a building. Measures the overall heat loss factor. The home is alternately heated with the furnace and a array of small heaters (co-heaters) to calculate heat-delivery efficiency.

Commissioning - A quality assurance process intended to confirm that all systems of a building—heat, air conditioning, electrical, plumbing, safety, security—are operating as intended by the building owner and designed by the architect and engineer.

Compact Fluorescent Lamp (CFL) - Small fluorescent light bulbs that can be used in place of incandescent light bulbs. CFLs consume significantly less electricity and last 8–10 times longer than incandescent bulbs.

Conservation - The conscious reduction of electricity consumption.

D

Daylighting - Designing a building to take advantage of natural sunlight illumination.

Deconstruction - Dismantlement of a building so that components can be reused and recycled.

Demand response - Mechanisms to manage the demand from customers in response to supply conditions.

Duct Blaster - A test that measures the air tightness of heating and cooling ducts.

E

Eco-Friendly - An alternative to goods usually bought in most stores. These products are made with ecology and the environment in mind.

Electricity demand - The peak hourly rate at which energy is delivered to loads and scheduling points by generation, transmission, and distribution facilities.

Emissions Trading - A system created by the Kyoto Protocol, which allows countries that are under-target on emissions to swap spare emissions with over-target countries with the goal of limiting carbon emissions worldwide.

Energy Assessment - A written report prepared by a qualified party evaluating energy usage, highlighting weak points in energy efficiency, and identifying cost-savings measures. A less rigorous process than an energy audit.

Energy Audit - A written report prepared by a qualified tester using methods and measurements that comply with industry standards. An audit typically involves collection of detailed data and an engineering analysis. The result is a report of detailed project costs and savings expected when an energy-efficient project is completed and operated as designed.

Energy Efficiency - Energy Efficiency occurs when you use less energy to accomplish the same task, for example heating your home or washing clothes. Using less energy means less air pollution and lower costs.

Energy Efficient Mortgage (EEM) - A mortgage that figures conserved energy into the loan in the form of credits as an energy-efficiency incentive, mostly for new homes already certified as energy efficient.

Energy Guide Label - An appliance label that provides an estimate of how much energy the appliance uses, compares energy use of similar products, and lists approximate annual operating costs. Required by the U.S. Department of Energy.

Energy Improvement Mortgage (EIM) - A mortgage intended for existing homes for the purpose of installing energy efficiency improvements.

ENERGYSTAR - A certification granted by the Environmental Protection Agency and the US Department of Energy for household appliances and buildings that perform at specified levels of energy efficiency.

Ethanol - An automotive fuel derived from grass, sugar cane or corn. Burning ethanol adds carbon dioxide to the atmosphere, but it is seen as a renewable fuel, like solar power, that does not deplete natural resources.

Evaporative Cooler - Also known as swamp cooler. A simple cooling system that operates by moving air across or through a wet pad.

Evapotranspiration - The natural atmospheric process of water entering the atmosphere after plants and soil have soaked up the moisture.

F

Fenestration - Design and construction of windows and doors.

Fluorinated Gas - A greenhouse gas typically associated with refrigerants and aerosols.

Fossil fuel - Hydrocarbons, primarily coal and petroleum (fuel oil or natural gas), formed from the fossilized remains of dead plants and animals.

FSC-Certified, Forest Stewardship Council Certified - Wood harvested from forests that meet standards for environmentally-responsible forestry management, such as replanting and maintaining of wildlife habitats.

Fuel Cell - A clean fuel source that converts chemical energy from hydrogen to electrical energy. Yields zero emissions.

G

Geothermal - Energy extracted from the natural heat of the earth's rocks and fluids.

GHG emissions - see Greenhouse Gas emissions

Global Warming - Global Warming is the rise in the earth's temperature resulting from an increase in heat-trapping gases (mainly carbon dioxide and methane) in the atmosphere. Fossil fuels used in the production of electricity contribute to two-thirds of these gases found in the atmosphere.

Going Green - A phrase referring to action that can be taken to consciously curb harmful effects on the environment through consumer habits, behavior, and lifestyle.

Green - a social and political movement that espouses global environmental protection, bioregionalism, social responsibility, and nonviolence.

Green-collar - relating to, or involving actions for protecting the natural environment.

Green Design - a design, usually architectural, which conforms to environmental sound principles of building, material and energy use.

Greenhouse Effect - The consequence that certain gases, chief amongst them carbon dioxide, have on the earth's climate. Though they constitute less than 1 percent of the atmosphere, they act like a blanket covering the earth. Without the greenhouse effect, the average global temperature would be around 0°F instead of the current toasty 59°F.

Greenhouse gas emissions - gases in the atmosphere that trap the sun's energy and thereby contribute to rising surface temperatures; include carbon dioxide (byproduct of burning fossil fuels), methane (from agricultural sources) and nitrous oxide (from industrial sources).

Green Power - As defined by Green-e, this term is synonymous with "eligible renewable resource product."

Green Guides - Guidelines published by the Federal Trade Commission (FTC) providing standards for advertising claims that a product is green.

Green Roof - Surfaces that reduce the temperature of buildings' rooftops by absorbing heat as well as trapping dust and adding sound and temperature insulation to buildings.

Greenfield - An undeveloped plot of land.

Greenhouse Gases - Emitted gases that are trapped in the atmosphere and contribute to atmospheric warming.

Green Seal - A certification for construction products, such as windows, paints, and adhesives, attesting that the products were manufactured and can be used with minimal impact on the environment.

Greenwashing - Claiming that you are "going green" but are not changing habits, behaviors and lifestyles that are harmful to the environment. Falsely promoting or exaggerating the greenness of a product or service.

Grey water - Water from laundry, bathing, and similar uses that can be reused for non potable activities.

Greyfields - A site, such as a mall or commercial facility, that has been abandoned leaving behind a large developed but empty area.

H

Heat Exchanger - Two-way air conditioner that heats and cools by exchanging heat with the ground through a buried loop.

HERS, Home Energy Rating System - A home energy rating that supplies credible verification for a home's energy-efficiency using the home's construction plans and the results of onsite inspections.

Hubbert's Curve - A prediction, made by a geologist in the late 1950s, that classified fossil fuels as finite and said that after a peak time access to these resources would rapidly decline, eventually diminishing entirely.

Hybrid vehicle - (Hybrid-electric vehicle) A vehicle that utilizes both an electrical motor and a gas- or diesel-powered engine which work in tandem to decrease fuel consumption.

Hydrofluorcarbon - A greenhouse gas.

I

IESNA Standards - Illuminating Engineering Society of North America.. A nationally-recognized energy standard for commercial buildings.

Indoor Air Quality (IAQ) - A measurement of the overall cleanliness of the air within a building or home.

Insulation-Compatible Air-Tight Recessed Lighting (IC-AT) - Lighting that eliminates the heat-producing chimney effect of convention incandescent lighting.

J

K

Kyoto Protocol - A United Nations agreement signed in Kyoto, Japan in the 1990s. The agreement set country-targets for reduction of carbon emissions and created a method for offsetting (trading) carbon emissions.

L

Landfill - land waste disposal site in which waste is generally spread in thin layers, compacted, and covered with a fresh layer of soil each day.

LEED, Leadership in Energy and Environmental Design - A certification granted by the United States Green Building Council. The detailed rating system involves full assessment of the construction, operation, and innovation of the structure as a sustainable practices.

LEED-ND - LEED certification for neighborhoods.

Level Spreader - A mechanism that manages storm water runoff by containing, filtering, and slowly releasing it back into a stream or water source. Consists of a forebay, channel, and buffer.

Life Cycle Assessment - a methodology developed to assess a product's full environmental costs, from raw material to final disposal.

Light-Emitting Diode Lamp (LED) - A technology that produces light by causing electrons to flow through the lamp and release energy in the form of light.

Light Pollution - Excessive illumination of night-skies by artificial light.

Load management - Various ways of bringing the demand for electricity into balance with the supply, by the user or the utility or both controlling the time at which power is used.

Locavore - one who eats foods grown locally whenever possible.

Low Flow Faucet - a water saving faucet typically rated at 1.0 gallons per minute (gpm) or less.

Low Flow Shower Head - a water saving shower head typically rated at 2.5 gallons per minute (gpm) or less.

Low Flow Toilet - a water saving toilet typically rated at 1.6 gallons per flush (gpf) or less.

M

Methane (CH₄) - A greenhouse gas. Livestock production is a major source of methane emissions.

Methanol - An alcohol that can be used as an alternative fuel or as a gasoline additive.

MW - A megawatt is 1 million watts or 1000 kilowatts, a measure of electrical power or generating capacity.

N

National Fenestration Rating Council (NFRC) - National organization that sets standards for windows and doors.

Natural gas Mitigation - refers to activities which try to reduce the amount of greenhouse gases emitted into the atmosphere.

Natural resource - something that comes from the earth.

Naturescaping - A landscaping method that uses native plants to conserve and create natural habitats that provide nurturing environments for wildlife.

Net Metering - A method of gaining a credit for excess electricity produced by a consumer, often by means of a wind turbine or solar paneling.

Nitrogen Runoff - The harmful release of nitrogen into waterways. It negatively impacts aquatic wildlife by decreasing oxygen-levels in the water. Livestock and fertilizers are main sources.

Nitrous Oxide (N₂O) - A greenhouse gas. Also known as laughing gas.

Non-Biodegradable - wastes like plastics, metal, glass etc. that cannot be broken down by living organisms.

Nutrient Loading - See nitrogen runoff.

O

On Demand Water Circulation Pump - A water-conservation device that rapidly moves water from a water heater to fixtures.

On Demand Water heater - A device that heats water rapidly as it is dispensed from the faucet. Eliminates the need for a conventional tank water heater.

Organic - Organic foods are produced according to certain production standards. For crops, it means they were grown without the use of conventional pesticides, artificial fertilizers, human waste, or sewage sludge, and they were processed without ionizing radiation or food additives.

Ozone - The gaseous, almost colorless form of oxygen that protects the earth against ultraviolet radiation in the upper atmosphere, but is part of the chemical pollution nearer to the Earth.

P

Panelized Construction - Prefabricated building structures.

Perfluorocarbon - A greenhouse gas emitted primarily by industrial processes.

Permeable Pavement - A paving material that allows the penetration of water, thus significantly reducing runoff from storm water.

Photovoltaic - A solar energy system that captures light from the sun and converts it into electricity.

Pollution Prevention - Reducing the amount of energy, materials, packaging, or water in the design, manufacturing, or purchasing of products or materials in an effort to increase efficient use of resources, reduce toxicity, and eliminate waste.

Post-Consumer - Refers to recycled material that was used first by a consumer. A high post-consumer content helps divert materials from ending up in landfills.

Pre-Consumer - Refers to recycled material that came from the manufacturing process. Pre-consumer recycling of scraps and discards diverts waste that may otherwise end up in landfills, and reduces use of raw materials.

Pressure Meter - A device for gauging the difference in air pressure between two spaces such as a garage and a crawl space.

Q R

Radon - A naturally occurring gas, colorless and odorless, that has been shown to cause adverse health effects. Radon gas often enters a structure by seeping through cellar walls and floors.

Rain Garden - An area, planted with deep-rooted plants, that collects storm water runoff and encourages absorption into the ground.

Rammed Earth Construction - A building technique involving dense compression of clay and dirt materials to create thick, flat surfaces, such as walls or floors.

Recyclable - A product or material that can be converted back into material that can be used again in manufacturing new goods. Typically, recyclable materials (aluminum, steel, paper, etc.) must remain in their pure form. If too many adhesives are used, or a product is made from a composite, those materials may not be separated at the end of its life-cycle for recycling.

Recycled - To use again or reprocess.

Renewable energy sources - Sources of electricity, such as solar electric, wind, geothermal, biomass and hydroelectric. A resource is called renewable if it can be naturally replenished. In general, renewable have lower environmental impacts than nonrenewable.

Ridership Shed - The area surrounding a mass transit embarkation point, such as a rail station or bus stop, from which riders are drawn. Refers to both the area and number of riders.

S

Sequestration - The process by which carbon dioxide is removed from the atmosphere by plants.

Smart grid - A nickname for an ever widening palette of utility applications that enhance and automate the monitoring and control of electrical distribution.

Soil erosion - wearing away of the soil by wind or water

Solar Energy - energy from the sun.

Solar Panel - also known as photovoltaic panel are panels that contain solar cells that convert the sun's light into electricity.

Sulfur Hexafluoride - A greenhouse gas.

Structural Insulated Panels (SIP's) - composite building material that consists of a sandwich of two layers of structural board with an insulating layer of foam in between. The board is usually oriented strand board (OSB) and the foam either expanded polystyrene foam (EPS), extruded polystyrene foam (XPS) or polyurethane foam.

Sustainable - Actions and products that meet current needs without sacrificing the ability of future generations to meet theirs. Sustainability is a broad term and often refers to the desire to provide the best outcomes for the human and natural environments both now and into the indefinite future.

T

Thermal storage – A technology that stores heat, usually from active solar collectors, in an insulated repository for later use in space heating, domestic or process hot water, or to generate electricity.

Trombe Wall - An insulating wall that traps and releases heat into the home for heating, or deflects heat.

U

Urban Heat Island - buildup of heat in the atmosphere above an urban area mostly due to reflection of sun light on paved surfaces.

Urban Infill - Redevelopment of sites, in the core of metropolitan areas, for commercial and residential purposes.

V

VOC (volatile organic compound) - An organic gas with harmful effects on air quality. VOCs are frequently associated with paint, pesticides, carpet, and adhesives.

W

Waste Reduction - A process to reduce or eliminate that amount of waste generated at its source or to reduce the amount of toxicity from waste or the reuse of materials. With regards to the environment the creation of waste is a growing problem, as landfills get filled and toxins leach back into the ground. The best way to reduce waste is not to create it in the first place.

Water Energy - energy from moving water.

Water Footprint - An estimation of the amount of water used.

Wetland - Areas that serve as links and buffers between land and water resources by collecting and filtering runoff.

Wind Energy - energy from moving air.

Wind Power - energy generated from large propellers that when spun by the wind, drive turbines that power generators and create electricity.

Wind Turbine - a rotating machine which converts the kinetic energy in wind into mechanical energy. If the mechanical energy is used directly by machinery, such as a pump or grinding stones, the machine is usually called a windmill. If the mechanical energy is then converted to electricity, the machine is called a wind generator, wind turbine, wind power unit (WPU), wind energy converter (WEC), or aerogenerator.

X

Xeriscaping - A landscaping method used in arid areas. Uses native plants that can tolerate infrequent watering.

Y

Z