



Glossary of Terms

Α

AAA Diamond - The American Automobile Association hotel rating program that rates hotels from one to five diamonds.

Acoustical Ceiling Tile - Ceiling tile designed to improve sound quality and block noise transmission.

Active Solar Heating - Collection units absorb heat from the sun and transfer it through pumps or fans to a shortage unit for later use, or directly to the building interior. The system requires controls to regulate its operation.

Active Solar Water Heater - Collection units absorb heat from the sun and transfer it through pumps to a storage unit. The fluid in the storage unit conveys its heat to the domestic hot water of the building through a heat hanger. The system requires controls to regulate its operation.

Aerator - A device most installed on faucets to increase spray velocity, reduce splash and save both water and energy.

Air Handling Unit - A heating and/or cooling distribution mechanism that channels warm or cool air to different parts of a building. The equipment includes a blower or fan, heating and/or cooling coils, as well as related controls, condensate drain pans and air filters. The unit does not include ductwork, registers, grilles, boilers or chillers.

Albedo - Also known as "solar reflectance," this is the ratio of reflected solar energy to incoming solar energy over wavelengths of approximately 0.3 to 2.5 micrometers.

Alternative Use License (AUL) - In Brownfield redevelopment, AUL refers to a district's capacity to be rezoned to an alternative acceptable use, taking into account the known contaminants of the site.

Ambient Air - Open air, surrounding air or outside air.

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

ASHRAE 55-1992 - ASHRAE standard; Thermal Environmental Conditions for Human Occupancy.

ASHRAE 62-1999 - ASHRAE standard; Indoor Air Quality.





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В

Bamboo Flooring – Bamboo is a grass (not a wood) that annually produces new shoots. Individual stems are harvested from controlled forests every three to five years.

Benchmarking - The process to measure the performance of energy, water and recycling for comparison with similar hotels. The result is often a business case for making environmental improvements.

Best Management Practice - Practices that have been clearly shown to improve environmental performance.

Biodegradable - Capable of decomposing naturally within a relatively short period of time.

Bioswale - A low, open channel that is lined with grass and other vegetation, which acts as a filter to remove pollutants from runoff.

Broadloom - Originally denoted carpet produced in widths wider than six feet. Today, carpet comes in 6-foot, 12-foot and 15-foot widths.

Brownfields - Abandoned, idled, or under-used industrial and commercial facilities where expansion or redevelopment is complicated by real or perceived environmental contamination.

Building Automation Systems (BAS) - A system that optimized the start up and performance of HVAC equipment and alarm systems. A BAS system increases the interaction among the mechanical subsystems of a building, improves occupant comfort, lowers energy use, and allows off-site building control.

Building Related Illness (BRI) - BRI refers to a diagnosed illness of which the symptoms of are identified and can be attributed directly to airborne building contaminants.

Built Environment - Buildings and infrastructure constructed by human beings.

C

Carbon - An abundant chemical element on Earth. As the basis for all living things, carbon is present in particular abundance in a solid and a liquid from in trees, other plants, and soils and





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in various forms in all fossil fuels, including coal (solid), petroleum (liquid) and methane (gas). Carbon bonds with oxygen in the atmosphere to form carbon dioxide.

Carbon Dioxide (CO₂) - A colorless, odorless, non-poisonous gas that exists in trace quantities (less than 400 parts per million) in ambient air. Carbon dioxide is a product of fossil fuel combustion. Although carbon dioxide does not directly impair human health, it is a greenhouse gas that traps terrestrial (i.e., infrared) radiation and contributes to the potential for global warming.

Carbon Footprint - A cumulative measure of the impact of a product, service, activity, company, individual or other entity has on the environment, in terms of the amount of greenhouse gases produced, and measured in units of carbon dioxide. These impacts usually result from energy consumption, pollution and other sources.

Carbon Neutral - A combination of efficiency improvements (resulting in reduced carbon dioxide emissions), and purchases of carbon offsets that balance 100% of a carbon footprint.

Carbon Offset - A reduction in carbon dioxide emissions by a project (such as rainforest preservation) that is solid to a purchase to balance the purchaser's own emissions. The funds generated by the sale of offsets support the development of additional reductions.

CERES - A coalition of investors and environmentalists formerly known as the Coalition for Environmentally Responsible Economies.

Certified or Certification - A process by which an independent agent verifies that the claims made by a product, service, etc. are valid. Many certification programs exist through which products meeting independent standards may use a label or logo to indicate their claims have been verified.

Chlorofluorocarbons (CFCs) - A family of inert, non-toxic and easily liquefied chemicals used in refrigeration, air conditioning, packaging, and insulation, or as solvents and aerosol propellants. Because CFCs are not destroyed in the lower atmosphere, they drift into the upper atmosphere, where their chlorine components destroy ozone.

CO₂ Sensor - A sensor for the measurement of gaseous carbon dioxide. Used in combination with energy recovery units or demand controlled ventilation to promote energy efficiency. Used to maintain appropriate indoor carbon dioxide levels.





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Cogeneration - The generation of electricity and the capture and use of otherwise wasted heat energy byproducts. Also referred to as a combined heat and power (CHP) system.

Combined Heat and Power (CHP) - The generation of electricity and the capture and use of otherwise wasted heat energy byproducts. Also referred to as cogeneration.

Commissioning - The process of ensuring that a building's complex array of systems is designed, installed and tested to perform according to the design intent and the owner's operational needs. The commissioning of new buildings is most effective when considered throughout the planning stages and as early as the schematic design phase.

Compact Fluorescent Light (CFL) or Lighting - A type of fluorescent lamp. Compared to incandescent lamps of the same luminous flux, CFLs use less energy and have longer life.

Composite Material - Complex material made up of two or more complementary substances. Composite materials can be difficult to recycle (e.g. plastic laminates). They are best applied in situations where they can be removed for a reuse that does not require manufacturing.

Composting - A process whereby organic wastes, including food, paper and yard wastes, decompose naturally and produce a material rich in minerals and ideal for gardening and farming as a soil conditioner or mulch, and for resurfacing or covering a landfill.

Compressed Natural Gas (CNG) - A substitute for gasoline (petrol) or diesel fuels. CNG is considered to be an environmentally clean alternative. It is made by compressing natural gas (which is composed mainly of methane [CH₄]) in a percentage range of 70 percent to 98 percent.

Conventional - Indicates the usual method of production. Used in contrast to green or environmentally-friendly production methods.

D

Data-Tracking - The process of gathering energy, water and waste data for hotels to track their performance over periods of time.

Daylighting - A method of illuminating building interiors with natural light and minimizing the use of artificial lighting. Common daylighting strategies include the proper orientation and placement of windows, the use of light wells or light shafts.





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Demand Control Ventilation (DCV) - Ventilation provided in response to the actual number of occupants and to occupant activity.

Demand Control Ventilation Using Carbon Dioxide Sensors - A combination of two technologies: CO_2 levels in the air inside the building and an air-handling system that uses data from the sensors to regulate the amount of air admitted.

Density Bonus - A credit that allows developers to build more units than would normally be allowed in a certain zoning district by exchanging the excess units for other community benefits, such as affordable housing, historic preservation and green building.

DEQ/DEP - Department of Environmental Quality or Protection (usually at the state level).

Digital Thermostat - Energy saving devices that are manually programmed to allow users to control temperature settings. Digital thermostats are more accurate than conventional thermostats and can be programmed with high and low set points. They can be used with most heating and cooling devices.

Down-Cycling - The recycling of one material into another material of lesser quality. One example is the recycling of high-grade plastics into lower grade plastics.

Dual Flush Toilet - A toilet that has two buttons to allow appropriate water usage, typically ranging from one to two gallons.

E

EA - Energy and Atmosphere section of the LEED rating system.

Eco-Friendly, Environmentally-Friendly - A loose term often used in marketing to inform consumers about an attribute of a product or service that has an environmental benefit. This term does not necessarily indicate all attributes of a product or service are environmentally benign.

Energy Efficient - Producing a high level of output or performance relative to the amount of energy consumed.

Emission - The release of any gas, particle or vapor into the environment from a commercial, industrial or residential source. These include smokestacks, chimneys and motor vehicles.





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Emissivity - The ratio of energy radiated by a specific material to the energy related by a black body at the same temperature. This is a measure of a material's ability to absorb and radiate energy.

Energy Modeling - A computer model that analyzes a building's energy related features in order to project the energy consumption of a given design.

Energy Recovery Units - Mechanisms that extract energy from the indoor air (warm air in winter, cool air in summer) and transfer it to the fresh incoming air.

ENERGY STAR® - A United States government program that promotes energy efficient consumer products, programs and buildings.

Environmental Coordinator - An associate who leads the hotel's environmental committee and is responsible for developing an environmental green plan for energy, water and solid waste use.

Environmental Impact - Any change to the environment, good or bad, that wholly or partially results from industrial manufacturing activities, products or services.

EPA - The United States Environmental Protection Agency, charges with setting and enforcing environmental regulations nationwide.

EPP - Environmentally Preferable Purchasing.

Exposed Aggregate - The component pieces of a composite material used to resist compressive stress and visible in the end product.

F

Fair Trade - A certification scheme that evaluates the economic, social and environmental impacts of the production and trade of agricultural products, in particular: coffee, sugar, tea, chocolate and others. Fair Trade principles include: fair prices, fair labor conditions, direct trade, democratic and transparent organizations, community development and environmental sustainability.

Fan Coil Unit (FCU) - A small terminal HVAC unit often composed only of a blower and a heating and/or cooling coil (heat exchanger) and frequently used in hotels, condominiums and apartments.





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Flashing - A type of weatherproofing.

Floor Area Ratio (FAR) - The ratio of the total floor area of a building to the size of the land of its location or the limit imposed on such a ratio.

Fly Ash - The ash residue from high temperature combustion processes. Electric generating plants using western coal produce a non-toxic fly ash that because of its very high calcium content can be a substitute for Portland cement (the common bonding material in concrete).

Formaldehyde - A colorless, pungent smelling, toxic material used as a component for the glues of many wood products. It can cause respiratory problems, cancer and chemical sensitivity.

Fossil Fuels - Fuels, such as coal, oil and natural gas, produced by the decomposition of ancient (fossilized) plants and animals.

Foundation Mat Slab - Builders use mat-slab foundations to distribute heavy column and wall loads across an entire building area, and to lower the contact pressure as compared to conventional spread footing. Mat-slab foundations can be constructed near the ground surface or at the bottom of basements. In high-rise buildings, mat-slab foundations can be several meters thick, with extensive reinforcement to ensure relatively uniform load transfer.

FSC Products - Forest Steward Council. Wood bearing the FSC logo guarantees that it was sustainably harvested from a certified, well managed forest.



Greenhouse Gas - Any of the gases that contribute to the overall greenhouse effects and heating of the Earth's surface. Examples include carbon dioxide, methane, nitrous oxide and ozone.

Green Lodging - Lodging facilities, including hotels, motels, inns, cabins, lodges and condominiums that follow sound environmental policies in their everyday operation.

Green Team - A team of individuals representing all operational areas of the hotel who are responsible for planning and executing the facility's environmental initiatives. The Green Team should include management representatives down to entry-level staff.





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Incandescent Light - Electric light that works by incandescence. Electric current is passed through a thin filament that generates enough heat that it produces light. Incandescent lights are not energy efficient since most of the energy used is lost as heat.

K

Kilowatt - 1000 units of the Systeme International unit of power (watt). Watts are a derived unit of power that measures the rate of energy conversion.

Kilowatt Hour (kWh) - Measure of a unit of energy. Energy delivered by power companies is usually expressed and charged for in kilowatt hours. The technical definition is the amount of energy expended if work is done at a constant rate of 100 watts for one hour.

LPG - Liquefied petroleum gas. Mixture of hydrocarbons used as a fuel source in appliances and vehicles.

M

MERV - The Minimum Efficiency Reporting Value for air filtration.

MR - Materials and Resources section of the LEED rating system.

Ν

Natural Ventilation - The process of supplying and removing air through an indoor space by natural means. There are two types of natural ventilation for buildings: wind driven ventilation and stack ventilation.

Net Meeting - A method of crediting customers for electricity that they generate on site in excess of their purchased electricity consumption. Customers with their own generation offset the electricity they would have purchased from their utility. If such customers generate more than they use in a billing period, their electric meters turns backwards to indicate their net excess generation. Depending on individual state or utility rules, the net excess generation may





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be credited to the customer's account (in many cases at the retail price), carried over to a future billing period, or ignored.

NIMBY - Not In My Back Yard.

NGO - Non-governmental organization.

Non-Profit - A corporation that is organized for scientific, educational or charitable purposes in which there are no individual stockholders and no part of the corporations' income is distributed to its members.

O

Occupancy Sensors - Mechanisms that automatically turn off lighting, HVAC and/or electricity once a room is vacant.

On-Site Renewable Energy Generation - Electricity generated by renewable resources using a system or device located at the site where the poser is used. On-site generation is a form of distributed energy generation.

On-Site Sewage Treatment - Treating wastewater where it is produced for reuse by technologies that require non-potable water at the same location.

Organic - Relating to products (foods, textiles, etc.) grown or raised without synthetic fertilizers, pesticides or hormones. It also often means that products are not genetically modified. Use of the term is regulated by the USDA, but it is still generally used to describe a production philosophy.

Ozone - An unstable poisonous allotrope of oxygen (O3) occurring in two forms. (1) Stratospheric Ozone: In the stratosphere (the atmosphere layer beginning seven to ten miles above the earth), ozone is found naturally and provides a protective layer shielding the earth from ultraviolet radiation's harmful effects on humans and the environment. (2) Ground Level Ozone: Ozone produced near the earth's surface through complex chemical reactions of nitrogen oxides, volatile organic compounds and sunlight. Ground level ozone is the primary component of smog and is harmful to humans and the environment.

P

PPM - Parts per Million.





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Packaged Terminal Air Conditioner (PTAC) - Equipment combining an air conditioner and a heater into a single, electrically-powered unit typically installed through a wall and often found in hotels.

Paspalum - Tall American perennial grasses commonly known as paspalums, Bahia grasses or Dallis grasses. They are most diverse in subtropical and tropical regions.

Passive Cooling - A building's structure (or an element of it) is designed to permit increased ventilation and retention of coolness with the intention of minimizing or eliminating the need for mechanical means of cooling.

Passive Design - As applied to home construction, building design and placement permits the use of natural processes such as radiation, convection, absorption and conduction to support comfort levels.

Passive Heating - A building's structure (or an element of it) is designed to allow natural thermal energy flow, such as radiation, conduction and convection generated by the sun, to provide heat.

Passive Solar Water Heater - A water heating system that does not require mechanical pumps or controls to create hot water for domestic use.

Passive Ventilation - The introduction and/or removal of air that uses both convective air flows resulting from the tendency of warm air to rise and cool air to sink, and takes advantage of prevailing winds. Many passive ventilation systems rely on building users to control their operation.

PERC - The Property and Environmental Research Center.

Photo Plastic Laminate (P-Lam) - A laminate is a material constructed by uniting (or bonding) two or more layers of material. Examples of laminate materials include Formica and plywood. Formica and similar plastic laminates (such as Pionite, Wilsonart or Centruply Mica) often are referred to as High Pressure Decorative Laminate (HPDL) because they are created with heat and pressure that amounts to more than 5 lbf/in² (34kPa).

Photovoltaic (PV) - A system that converts sunlight directly into electricity using cells made of silicon or other conductive material. When sunlight strikes the cells, a chemical reaction occurs and this results in the release of electricity.

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Photovoltaic Panels - Devices using semi-conductor material to directly convert sunlight into electricity. Power is produced when sunlight strikes the semi-conductor material and creates an electrical current.

Post-Consumer Recycled (PCR) Content - Material that has been recovered after its use as a consumer product. Examples include fleece clothing made from pop bottles and reclaimed carpet tiles used for new tile backing.

Pre-Consumer Recycled Content - Material that is diverted from the waste stream following an industrial process. This excludes reutilization of materials such as rework, regrind, or scrap capable of being reclaimed within the same process.

R

Recirculated Water - Rinse water that is reused before it is discarded or water continually moving through a system, as in a fountain.

Reclaimed Water - Wastewater (sewage) that has been treated and purified for reuse, rather than discharged into another body of water (e.g. a river).

Recyclable Content - Materials that can be recovered or diverted from the waste stream for recycling and reuse.

Recycled Content - The percentage of recycled materials in a product, generally determined by weight.

Recycling - The series of activities, including collection, separation and processing, by which products or other materials are recovered from the solid waste stream for use in the form of raw materials for the manufacture of new products (other than fuel).

Regulation - A federal or state agency imposes a regulation.

Renewable Energy - Energy resources such as wind or solar power that produce indefinitely without being depleted.

Renewable Resources - Resources that are created or produced at least as fast as they are consumed.

R-Value - A measure of the thermal resistance of material, especially insulation.





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S

SEER - Seasonal Energy Efficiency Ratio, as defined by the Air Conditioning and Refrigeration Institute.

SF - Square feet.

Sick Building Syndrome - A situation in which a building's occupants experience acute health conditions and/or levels of discomfort that appear to be linked to time spent in the building, but no specific illness or cause can be identified. Complaints may be localized to a particular room or zone.

SMACNA - Sheet Metal and Air Conditioning Contractors' National Association.

Smart Growth - A range of development and conservation strategies that help to protect our natural environment and make our communities more attractive, economically stronger, and more socially diverse.

Sound Attenuation - A reduction in the intensity or pressure level of sound that is transmitted from one point to another.

SS - Sustainable Sites section of the LEED rating system.

Sustainability - Meeting the needs of the present without compromising the ability of future generations to meet their needs.

Т

Toxic - The attributes of any material or waste product that can produce injury and/or loss of life when inhaled, swallowed or absorbed through the skin.

U

United States Green Building Council (USGBC) - A national organization, founded in 1993, whose mission is to accelerate the adoption of green building practices, technologies, policies and standards. USGBC established the LEED certification guidelines.

Urban Sprawl - The unplanned, uncontrolled spreading of urban development into areas adjoining the city.





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V

Variable Air Volume (VAV) - An HVAC system strategy through which the volume of air delivered to conditioned spaces is varied as a function of ventilating needs, energy needs or both.

Variable Frequency Drive (VFD) - A specific type of adjustable speed drive that controls the rotational speed of an alternating current (AC) electric motor by controlling the frequency of the electric power supplied by the motor. VFDs also are known as adjustable frequency drives (AFD), variable speed drives (VSD), AC drives or inverter drives.

Vegetative Roof/Green Roof - A building that is partially or completely covered with vegetation and soil, or is a growing medium planted over a waterproofing membrane.

Veneers - Thin slices of wood, usually thinner than 3.0 mm (1/8 inch), that are glued and pressed onto core panels (typically wood, particle board or medium density fiberboard) to produce flat panels such as doors, tops and side panels for cabinets, parquet floors and furniture elements.

Volatile Organic Compounds (VOCs) - Chemicals that contain carbon molecules and are volatile enough to evaporate from material surfaces into indoor air at normal room temperatures (referred to as off-gassing).

W

Waterless Urinals - Units that resemble conventional wall fixtures. The "waterless" units connect to the regular water lines, but eliminate the flush water supply lines. This eliminates the flush valves and there are no handles to touch, no sensors and no moving parts.

WE - Water Efficiency section of the LEED rating system.

Whole Systems Thinking - A process through which the interconnections of systems are actively considered and solutions are sought that address multiple problems at the same time.

Z

Zoning - Legislative regulations by which a municipal government seeks to control the use of buildings and land within the municipality.