

## Terminology Services - Vocabulary Catalog List Detail Report

Term
Active solar heating
Definition: Mechanical or electrical systems that collect and absorb solar radiation, then transfer the solar heat to the interior space or to a storage system, from which the heat is distributed in the home.
Advanced framing
Preferred Term: Optimum value engineering
Aerator
Definition: The screw-on tip of the faucet that determines the flow rate. Aerators are inexpensive to replace and they can be one of the most cost-effective household water conservation measures.
Annual fuel utilization efficiency
Definition: The measure of seasonal or annual efficiency of a residential heating furnace or boiler. Specifically, it is the ratio of heat output of the furnace or boiler compared to the total energy consumed by a furnace or boiler. An AFUE of 90% means that 90% of the energy in the fuel becomes heat for the home and the other 10% escapes up the chimney and elsewhere. Acronym: AFUE
Boiler
Definition: A vessel or tank where heat produced from the combustion of fuels such as natural gas, fuel oil, or coal is used to provide either hot water or steam for home heating. Steam is distributed via pipes to steam radiators, and hot water can be distributed via baseboard radiators or radiant floor systems, or can heat air via a coil.

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Btu
Definition: Btu stands for British thermal unit and is the amount of energy needed to raise the temperature of one pound (about a pint) of water one degree Fahrenheit.
Building envelope
Definition: Elements of the building, including all external building materials, windows, and walls, that enclose the internal space.
Coefficient of performance
Definition: Indicates the heating efficiency of ground-source and water-source heat pumps. More specifically, it is the ratio of heat energy delivered or extracted to the work supplied to operate the equipment. The higher the COP, the more efficient the heat pump. Acronym: COP
Combustion efficiency
Definition: A measure of how effectively the heat content of a fuel in a combustion appliance (i.e. furnace or boiler) is transferred into usable heat.
Compact fluorescent lamps
Definition: Small fluorescent light bulbs that use 75% less energy (electricity), and last up to 10 times longer than a traditional incandescent bulb, and can be screwed into a regular light socket. ENERGY STAR qualified CFLs cost little up front, and provide a quick return on investment. However, all CFL contain a small amount of mercury and must be handled properly and recycled when they burn-out.

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Acronym: CFLs
Composting
Definition: A controlled biological decomposition of organic wastes (i.e. certain kitchen wastes, yard trimmings) into a stable product that can be used as a natural soil amendment.
Construction and Demolition Materials
Definition: Construction and demolition (C&D) materials consist of the debris generated during the construction, renovation, and demolition of buildings, roads, and bridges. C&D materials often contain bulky, heavy materials, such as concrete, wood, metals, glass, and salvaged building components.
Acronym: C&D Materials
Cool roofs
Definition: Roofing material that has high solar reflectance, and absorbs only small amounts of heat, which can reduce heat transfer to the indoors and enhance roof life and durability.
Deconstruction
Definition: The careful and systematic dismantling of a building structure to maximize the recovery of valuable building materials. Deconstruction is an environmentally friendly alternative to demolition, which produces large quantities of debris requiring disposal.
Density
Definition: The amount of residential development permitted on a given parcel of land, typically measured in dwelling units per acre -

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the larger the number of units permitted per acre, the higher the density; the fewer units permitted, the lower the density. Well-designed neighborhood density can help achieve local economic development goals, provide housing options, create walkable neighborhoods, and protect their air, water and open space.
Design for Deconstruction
Definition: Designing buildings to facilitate future renovations and eventual dismantlement, including designing for durability and adaptability; using fewer adhesives and sealants; using fewer materials; and re-useable components.
Embodied energy
Definition: The amount of energy consumed to produce a product, in this case building materials. This includes the energy needed to mine or harvest natural resources and raw materials, and manufacture and transport finished materials.
Energy efficiency
Definition: Reducing the amount of energy required to heat and cool homes, and to power appliances and electronics.
Energy-efficiency ratio
Definition: A measure of how efficiently a cooling system (i.e. air conditioner, heat pump) operates when the outdoor temperature is at a specific level (i.e. 95 degrees Fahrenheit). It represents the ratio of heat removed (Btu/hour) to the electricity required to run the system (watts). The higher the EER, the more efficient the system is.
Energy Star
Definition: A joint program of the U.S. Environmental Protection Agency and the U.S. Department of Energy helping to save money

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and protect the environment through promotion of energy efficient buildings, homes, products and practices. ENERGYSTAR labeled products have met Federal energy efficiency standards.
EnergyGuide
Definition: Yellow label that manufacturers are required to display on many appliances, which shows how much energy the appliance uses, compares its energy use to similar products, and lists approximate annual operating costs. Manufacturers must use standard test procedures developed by the U.S. Department of Energy (DOE) to verify the energy use and efficiency information reported on the EnergyGuide label.
Engineered wood
Definition: Products made from lumber, veneers, strands of wood, or from other small wood and sometimes recycled plastic elements that are bound together with structural resins to form lumber-like structural products. They are designed for use in the same structural applications as conventional lumber, and allow production of large-lumber substitutes from small lower-grade logs.
Geothermal energy
Definition: Heat from the earth. Resources of geothermal energy range from the shallow ground to hot water and hot rock found a few miles beneath the earth's surface, and down even deeper to the extremely high temperatures of molten rock.
Green mortgage
Definition: Mortgages that provide benefits to homeowners who reduce their impacts on the environment and minimize household energy or transportation costs, while potentially increasing their homes' future value and selling potential.
Green power

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Definition: Electricity produced from renewable and non-polluting energy resources such as solar, wind, geothermal, biogas, biomass, and low-impact small hydroelectric sources.
Green roof
Definition: Roof of a building that is partially or completely covered with vegetation and soil, planted over a waterproofing membrane.
Greenwashing
Definition: The practice of advertising a product or process as "green" or environmentally friendly, when the product really is not, or does not achieve the advertised marketing claims. A false or misleading picture of environmental friendliness used to conceal or obscure damaging activities.
Grey water
Definition: Non-drinkable water that can be reused for irrigation, flushing toilets, and other purposes.
Ground-source geothermal system
Definition: A type of heat pump that uses the ground, ground water, or ponds as a heat source and heat sink, rather than outside air.
Heat island effect
Definition: Localized increase in ambient urban air temperatures resulting primarily from the replacement of vegetation with buildings, roads, and other heat-absorbing infrastructure. The heat island effect can result in significant temperature differences between rural

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and urban areas and contributes to global warming.
Heating seasonal performance factor
Definition: The measure of seasonal or annual efficiency of a heat pump operating in the heating mode. It takes into account the variations in temperature that can occur within a season and is the average number of Btu of heat delivered for every watt-hour of electricity used by the heat pump over a heating season.
Heating, Ventilation, and Air Conditioning system
Definition: Controls a homes internal environment (temperature, humidity, air flow, and air filtering).
Acronym: HVAC system
Home Energy Rating System index
Definition: A nationally recognized energy rating system that gives homeowners, sellers, buyers, builders, mortgage lenders, and secondary lending markets a precise evaluation of home energy efficiency in the form of a score. A home built to the specifications of the International Energy Conservation Code scores a HERS Index of 100, while a net zero energy home scores a HERS Index of 0. The lower a home's HERS Index, the more energy efficient it is.
Acronym: HERS index
Impervious surfaces
Definition: Surfaces such as paved streets, parking lots, and building rooftops that prevent precipitation from soaking into the ground. Different surfaces can have different degrees of imperviousness.
Indoor air quality

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<p>Definition: The healthiness of the air inside homes. Indoor air pollution sources that release gases or particles into the air and/or a lack of proper ventilation are the primary causes of indoor air quality problems in homes.</p> <p>Acronym: IAQ</p>
<p>Infiltration</p> <p>Definition: Unintended air leakage, or infiltration, occurs when outside air enters a house through cracks and openings around doors, windows, and ducts. Properly sealing these cracks and openings in a home can significantly reduce heating and cooling costs, improve building durability, and help prevent pests from entering your home.</p>
<p>Insulating concrete forms</p> <p>Definition: Forms for poured concrete walls that remain part of the wall assembly, adding to the insulation of a home because of their high thermal resistance.</p> <p>Acronym: ICF</p>
<p>Integrated Design</p> <p>Definition: A design approach where all the members of the building stakeholder community, technical planning, design, construction, and maintenance &amp; operation teams evaluate the project objectives collectively, and make design decisions for building materials, systems, and assemblies to meet the project goals. This approach is a deviation from the typical planning and design process of relying on the expertise of specialists who work in their respective specialties somewhat isolated from each other.</p>
<p>Kilowatt</p>



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Definition: A standard unit of electrical power equal to one thousand watts, or to the energy consumption at a rate of 1000 joules per second.
LEED rating system
Definition: A building certification process, established by the U.S. Green Building Council, which looks at various aspects of "green building" and awards recognition to buildings that meet certain standards. Users of the LEED process earn credits in several categories, which can vary by LEED certification type but generally include: sustainable sites, water efficiency, energy & atmosphere, materials & resources, indoor environmental quality, and innovation.
Lifecycle impacts
Definition: Environmental impacts, including energy consumption, over the course of the product's lifespan from raw material harvesting, manufacture, transport, use, and maintenance, to disposal.
Light emitting diodes
Definition: Small light sources that become illuminated by the movement of electrons through a semiconductor material. LED lighting is more energy efficient, durable, versatile and longer lasting than incandescent and fluorescents lighting. Acronym: LEDs
Low-emissivity coating
Definition: A film or thin coating applied to the surface of glass to reduce heat transfer through a window. Low-e coatings reduce solar heat gain through windows in the summer and heat loss during the winter. Acronym: low-e coating

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<p>Native plants</p> <p>Definition: Plants that have evolved over thousands of years to be able to survive in a particular region, and have adapted to the geography, hydrology, and climate of that region. A community of native plants provides habitat for a variety of native wildlife species; and will be hardy and resistant to the local conditions, thereby usually requiring less maintenance when used in landscaping.</p>
<p>Natural lighting/daylighting</p> <p>Definition: The use of windows and skylights to bring more natural light into a home. Can also refer to architectural design that makes significant use of natural light.</p>
<p>Net metering</p> <p>Definition: The practice of using a single meter to measure consumption and generation of electricity by a small energy generation facility (such as a house with a solar photovoltaic system). Net metering allows a homeowner to sell surplus electricity back to the utility.</p>
<p>Non-renewable resources</p> <p>Definition: Natural resources that cannot be regenerated or grown at a sustainable rate to meet demand, including fossil fuels, metals, and minerals.</p>
<p>On-demand hot water systems</p> <p>Definition: Tankless or instantaneous water heaters that provide hot water only as it is needed. On-demand water heaters heat water directly without the use of a storage tank, avoiding the heat losses associated with hot water storage tanks.</p>

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<p>Optimum value engineering</p> <p>Definition: Lumber layout and usage techniques that minimize the amount of lumber used to construct a house without compromising its structural integrity. OVE can improve a home's energy efficiency and durability, reduce construction costs, and avoid waste. In addition, optimizing the amount of lumber used to frame homes creates more space for insulation in exterior walls. Also known as advanced framing.</p> <p>Acronym: OVE</p>
<p>Passive cooling</p> <p>Definition: Cooling buildings without the use of mechanical equipment, by using natural ventilation.</p>
<p>Passive solar heating</p> <p>Definition: Designing a home's windows, walls, and floors to collect, store, and distribute solar energy in the form of heat in the winter and reject solar heat in the summer. Unlike active solar heating systems, passive solar design doesn't involve the use of mechanical and electrical devices, such as pumps, fans, or electrical controls to move the solar heat.</p>
<p>Pervious surface</p> <p>Definition: Porous surface with spaces in the material, such as landscaping, gravel, and alternative pavers. Pervious surfaces allow rainwater or snowmelt to pass through into the ground, thereby reducing runoff and filtering pollutants.</p>
<p>Photovoltaic</p> <p>Definition: A system that converts sunlight directly into electricity using cells made of silicon or other conductive materials. When</p>

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<p>sunlight hits the cells, a chemical reaction occurs, resulting in the release of electricity. Solar panels are an example of a photovoltaic system.</p> <p>Acronym: PV</p>
<p>Porous pavement</p> <p>Definition: Special type of pavement that allows rain and snowmelt to pass through it, thereby reducing the runoff from a site and surrounding areas. In addition, well-maintained porous pavement filters pollutants from runoff.</p>
<p>Post-consumer content</p> <p>Definition: Material from products that were used by consumers and would otherwise be discarded as waste. These materials are recovered through consumer recycling, and include items such as newspapers, cardboard, aluminum, glass, and plastics.</p>
<p>Pre-consumer content</p> <p>Definition: Excess byproducts, or damaged materials, generated during manufacturing processes that are recovered and used as inputs in a manufacturing process, for instance rejected materials or packaging trimmings.</p>
<p>R-value</p> <p>Definition: A measure of insulation. The higher the R-value, the better walls and roofs will resist the transfer of heat.</p>
<p>Radon</p> <p>Definition: A colorless, odorless, naturally occurring, radioactive, inert, gaseous element formed by radioactive decay of radium atoms. Radon typically moves up through the ground to the air above and into a home through cracks and other holes in the</p>

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foundation. Radon testing is recommended for most homes, because radon is the second-leading cause of lung cancer.
Rain barrel
Definition: Mosquito-proof container used to collect and store rainwater that would otherwise wind up in storm drains and streams. The rain collected provides free "soft water" to homeowners-containing no chlorine, lime, or calcium-that can be used to water gardens and houseplants, or for car and window washing.
Rain garden
Definition: A planted depression that allows rainwater runoff from impervious urban areas like roofs, driveways, walkways, and compacted lawn areas the opportunity to be absorbed. This reduces rain runoff by allowing stormwater to soak into the ground (as opposed to flowing into storm drains and surface waters which causes erosion, water pollution, flooding, and diminished groundwater). Native plants are recommended for rain gardens because they generally don't require fertilizer and are more tolerant of one's local climate, soil, and water conditions.
Reclaimed materials
Definition: Waste materials and byproducts that have been recovered or diverted from the waste stream for reuse.
Reclaimed Water
Definition: Treated wastewater that can be used for beneficial purposes, such as irrigating certain plants.
Recycled-content materials
Definition: Materials that contain pre- or post-consumer recycled content. Purchasing recycled products creates markets for the

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recovered materials, conserves natural resources and energy, and reduces waste.
Renewable energy
Definition: Energy and electricity supplied from continually replenished energy sources, such as wind and solar power, geothermal, hydropower, and various forms of biomass.
Resource conservation
Definition: Conserving natural resources and energy use by managing materials more efficiently. Three primary strategies for effectively managing materials and waste are to "reduce, reuse, and recycle."
Seasonal energy efficiency ratio
Definition: A measure of seasonal or annual efficiency of a central air conditioner or air conditioning heat pump. It takes into account the variations in temperature that can occur within a season, rather than a single temperature, and is the average number of Btu of cooling delivered for every watt-hour of electricity. The higher the SEER, the more energy efficient the system. Acronym: SEER
Smart Growth
Definition: Development, transportation and conservation strategies that help protect the natural environment and make communities more attractive, economically stronger, and more socially diverse.
Solar panels
Preferred Term: Photovoltaic

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<p>Stormwater</p> <p>Definition: Stormwater is water from precipitation and snowmelt events. Stormwater runoff is generated when precipitation flows over land or impervious surfaces and does not percolate into the ground. In the process of flowing over the land or impervious surfaces, stormwater can accumulate debris, chemicals, sediment or other pollutants that can adversely affect water quality if the runoff is discharged into streams or lakes untreated.</p>
<p>Structurally insulated panels</p> <p>Definition: Prefabricated insulated structural elements for use in home walls, ceilings, floors, and roofs, which provide enhanced insulation compared to more traditional construction methods.</p> <p>Acronym: SIPs</p>
<p>Sustainability</p> <p>Definition: A popular definition is "Meeting the needs of the present generation without compromising the ability of future generations to meet their own needs." Sustainable development marries two important themes: that economic development must be ecologically viable now and in the long run, and that environmental protection does not preclude economic development.</p>
<p>Therm</p> <p>Definition: A unit of heat containing 100,000 British thermal units (Btu).</p>
<p>Thermal mass materials</p> <p>Definition: Materials that retain or store heat produced by sunlight or other sources. These are typically dense materials such as</p>

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stone, concrete, or metal, and are often an important component of solar heating systems and other high efficiency systems.
U-factor
Definition: U-factor measures the heat transfer through a window, door, or skylight and tells you how well the product insulates. The lower the U-factor, the greater resistance to heat flow (in and out) and the better its insulation value.
Ventilation
Definition: The intentional exchange of indoor air with outdoor air to reduce indoor pollutants, moisture, and odors.
Water factor
Definition: The number of gallons per cycle per cubic foot that a clothes washer uses.
Watt
Definition: The rate of energy transfer equivalent to one ampere under an electrical pressure of one volt. One watt equals 1/746 horsepower, or one joule per second. The amount of light, or the energy output, of light bulbs is measured, in part, in watts. The higher the wattage level, the more energy is output and consumed.
Weatherization
Definition: Energy efficiency improvement measures for homes, including a wide variety of measures that encompass the building envelope, its heating and cooling systems, its electrical system, and electricity consuming appliances. Examples of weatherization include adding insulation, storm windows, or weatherstripping to your home.



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<p>Zero-net energy home/net-zero energy home</p> <p>Definition: A home that produces, on average, as much energy as it uses. Zero net energy use is achieved through a combination of energy efficiency measures to reduce the overall energy load of the house (i.e., super insulated building envelope, passive solar strategies, efficient heating/cooling systems) along with renewable energy (i.e., solar power, wind power), that offsets any non-renewable energy consumed.</p>