

GLOSSARY OF GREEN BUILDING TERMS

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GREEN BUILDING: A green building is a building that is located and constructed in a sustainable manner that allows its occupants to live, work and play in a sustainable manner. This means building in such a way that we don't use up or deplete our resources, that is, has the least environmental impact possible. The less the environmental impact, the "greener" the building or project.

USGBC: Stands for the U. S. Green Building Council. USGBC created the LEED Certification system as a "Report card" for owners, School Boards, or others seeking to build "Green Buildings" to see how their overall design will meet accepted Green Building standards. The U. S. Green Building Council Institute (USGBCI) also administers the LEED A. P. (the LEED Accredited Professional classification) for personnel passing the latest LEED certification exam.

LEED: Stands for Leadership in Energy and Environmental Design. LEED certification measures how well a building or a project performs as "Sustainable" across the following metrics:

1. Sustainable siting
2. Water efficiency
3. Energy and atmosphere
4. Materials and resources
5. Indoor environmental quality
6. Innovation and design process

As of April 2009, over 5 billion square feet of commercial building was being certified by LEED worldwide. (Source: USGBC "Green Building Facts," Apr 2009).

LEED CERTIFICATION: LEED certification is obtained after submitting an application documenting compliance with the LEED rating system. LEED certification was granted by the U. S. Green Building Council until April 27, 2009. As of April 27, 2009, the USGBCI is granting LEED Certification to projects.

LEED Certification Classifications:

1. Certified: 40% - 50% of non-innovation points.
2. Silver Certification: 50% - 60% of non-innovation points.
3. Gold: 60 - 80% of non-innovation points.
4. Platinum: 80% or more of non-innovation points.

COOL RATED ROOF: A "cool rated roof," or cool roof, is both highly reflective and highly emissive, transferring less heat into the building than a darker colored standard non-cool roof. A cool roof provides the following benefits in all climates throughout the U. S.:

- Cool roofs can be 70 degrees cooler during the summer when compared to traditional roofs.
- Cool roof systems save money and energy during peak cooling demand periods when electricity costs are highest.

- A cool roof can reduce the cost of operating a roof top HVAC unit because the unit will use cooler air than if mounted on a standard darker roof surface.
- Cool roof systems help reduce the urban heat island effect by reflecting solar heat rather than absorbing and transferring it to buildings.
- By keeping moisture out while reflecting ultraviolet (UV) and infrared (IR) radiation, a cool roof can help protect underlying insulation and the roofing substrate from deterioration. (Source: www.coolroofs.org)

SMART GRID: A Smart Grid delivers electricity from suppliers to consumers using digital technology to save energy, reduce cost, and increase reliability and transparency. Such a modernized electricity network is being promoted by many state and city governments as a way of addressing energy independence, global warming, and emergency resilience issues. Building the Smart Grid means adding computer and communications technology to the existing electricity grid. With an overlay of digital technology, the grid promises to operate more efficiently and reliably. The Smart Grid will also accommodate more solar and wind power, which are inconsistent energy sources that can become more reliable with better controls. The Smart Grid will deliver more detailed information to consumers' homes. This will enable families to have a real-time view of the energy the household is consuming and will hopefully be a major step in the reduction of the nation's overall energy consumption. (Source: Wikipedia)

VOLATILE ORGANIC COMPOUND (VOC): Gases or vapors emitted by solids or liquids, many of which have short- or long-term adverse health effects. VOCs are generally organic chemical compounds that have high enough vapor pressures under normal conditions to significantly vaporize and enter the atmosphere. Some household products that emit VOCs are paint, paint strippers, cleaning supplies, pesticides, glues and adhesives, building materials, and furnishings. Concentrations of many VOCs are higher indoors (up to ten times higher) than outdoors.

AMERICAN RECOVERY AND REINVESTMENT ACT (ARRA): ARRA is a bill passed by President Obama in February 2009 as an economic stimulus package. The money set aside by this program is being utilized through a variety of agencies and is dedicated to improving education, building roads, public transportation, criminal justice, health care, and reducing energy consumption, among other things. The U. S. Government is hopeful that this package will create jobs, and provide many other economic benefits. (Source: www.investorwords.com)

The Obama administration dedicated \$346 million to expand and deploy energy efficient technologies in commercial and residential buildings. Commercial and residential buildings consume approximately 40% of the energy and produce approximately 40% of the CO₂ emissions in the United States. Buildings consume more energy than any other sector of the U. S. economy, including transportation and industry.