



# LEED Facts

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## The LEED Green Building Program: Spurring Growth in Sustainable Building, Design and Construction in the U.S. and Across the Globe

**FACT: To earn LEED certification, projects choose LEED points based on the environmental and occupant benefits they are looking for.**

LEED provides a framework that gives project teams the ability to choose solutions that contribute to aggregate environmental progress. Many small parts working together can have big impacts. One of USGBC's biggest challenges is creating a voluntary rating system that encourages buildings to do better, but does not add significant cost and there are a variety of low-cost options projects can select. The goal is to strike the right balance between accessible and stretch goals for the market to keep reaching higher. Green building measures that were once deemed exceptional are now industry standard, which is why USGBC continually raises the bar.

For example, Low Volatile Organic Compound (VOC) paints and materials take harmful chemicals out of the supply chain thus having a tangible impact on the health of building's indoor air quality, improving the conditions inside for occupants. This was a difficult credit to achieve when LEED was introduced into the market in 2001. As more projects have been certified, manufacturers have responded to the demand by increasing the supply of low-VOC paints and materials.

USGBC may be the only organization that has created a program that becomes increasingly more and more challenging over time. LEED is now in its third version and continues to become more rigorous.

**Fact: Building performance is a critical part of LEED.**

LEED measures operating performance through the [LEED for Existing Buildings: Operations & Maintenance \(O&M\) Rating System](#) which provides a road map for property managers, portfolio owners and service providers who wish to drive down operating costs while increasing occupants' productivity in an environmentally responsible manner. This is an important development in the 12 year history of LEED. The LEED for Existing Buildings rating system was launched in 2004 and significantly revised in 2008 to focus on measured building performance and operational best management practices. While LEED began with a [Design and Construction rating system](#) reflecting its roots within the architecture and construction industries, it quickly expanded its scope to cover operational performance. Green buildings provide immediate and measurable results for building managers and occupants. LEED enables a project to benchmark energy and water, which is a critical tactic that is saving companies and government millions of dollars, year over year, simply by reducing costs through saved energy, water and other resources.

LEED for Existing Buildings: Operations & Maintenance, where certification occurs post-occupancy, is based on real energy data; this includes measurements on the following:

Measured and benchmarked energy performance (not just raw energy consumption but actual performance using comparative benchmark targets);

- Metered water use
- Measured rate of occupant use of transit/alternative commuting
- Measured percentage of waste recycled
- Measured fresh air delivery
- Mandatory policies that require green operational practices including required green cleaning and sustainable site management

All versions of LEED for Existing Buildings use Energy Star as a prerequisite to LEED certification. This means that every LEED certified project must meet a baseline minimum of energy performance. The average Energy Star score of LEED buildings is 85 for our biggest rating system by square footage. Using EPA's national benchmarking scale for energy performance, we can see LEED for Existing Building projects are high performers: 35 percent are in the top ten percent nationally, and over 60 percent are in the top 15 percent nationally.

**Fact: Many independent studies show that LEED buildings perform.**

LEED is an open, transparent standard subject to unmatched academic engagement. In a [2011 study of the U.S. General Services Administration's LEED-certified buildings](#), the Department of Energy found LEED-certified buildings to have 25 percent lower energy use compared to the national average. These high-performing buildings reduced operational costs by 19 percent compared to the national average. LEED Gold buildings were singled out as being particularly high performers.

A [June 2012 report issued by the White House Office of Management and Budget](#) noted that investments in energy efficiency over the last four years are expected to save as much as \$18 billion in energy costs over the life of the projects.

In 2012, USGBC provided the National Academies of Sciences a literature review encompassing over 280 documents from leading academic institutions, multi-national real estate firms, industry trade associations, government agencies, and major investment banking firms among many others. The research included 55 publications addressing the costs and benefit of green buildings from both project-based and population-based perspectives. This robust literature set also included issue-specific papers ranging from the benefits of commissioning buildings to the increased consumer benefits due to the existence of building ratings in general.

A [recent study of PNC's bank branches by the University of Notre Dame](#) found that the annual utilities cost per employee in their LEED facilities was \$675.26 lower than in non-green facilities.

**Fact: Developers are choosing to build better buildings because the LEED process demonstrates leadership, innovation, environmental stewardship and social responsibility.**

The vast majority of LEED projects is in the private sector and receives no incentive to pursue LEED, yet they choose to do so repeatedly because the rigorous, third-party verified LEED certification program is widely known for resulting in a better building project. LEED provides building owners and operators the tools they need to immediately impact their building's performance and bottom line, while providing healthy indoor spaces for a building's occupants.

**Fact: The LEED AP professional credential adds significant value to a LEED project team.**

Experienced project teams produce better buildings than non-experienced project teams. The LEED credential has led to 180,000 people affirming their greater understanding of green building in general and LEED specifically, arming them with additional knowledge with which to produce better outcomes, and to navigate the LEED process more efficiently, saving time and money. USGBC supports an informed and engaged workforce that can contribute to the delivery of LEED buildings. The 180,000 people across the globe who hold this credential can help building owners deliver more efficient and sustainable buildings - LEED, or otherwise.

**Fact: Materials and water efficiency credits offer tremendous benefits not only to building occupants but to the environment.**

One of the most frequently achieved LEED credits is using recycled content. Project teams are finding useful ways to recycle and reuse both water and materials as opposed to maintaining the outdated and increasingly costly trajectory of cradle-to-grave. Another popular LEED credit is awarded for sourcing building materials locally. Roughly 90 percent of LEED projects source materials that are harvested and manufactured from within a 500 mile radius. By using materials from nearby, project teams are supporting local and regional economies while saving on the economic and environmental costs of product transportation.

In addition, the sale of low-flow water fixtures and waterless urinals has dramatically have increased over the last ten years. The market growth for these products can be directly attributed to public policy that promotes water efficiency and the private sector's uptake of LEED and other green building programs.

**Fact: By embracing free enterprise and using market-based approaches, USGBC has proven that a healthy environment and a strong economy can go hand in hand.**

USGBC is moving the building industry towards stewardship and enhancement of human and environmental health in a way that has never before been seen and at an unprecedented scale.

Through LEED and USGBC's other programs, USGBC members are driving the construction industry's green transformation towards sustainability. LEED buildings are saving energy, water and precious resources, reducing waste and carbon emissions, creating jobs, saving money, driving innovation and providing healthier, more comfortable spaces to live, work and learn.

The building products, materials, systems and services that are developed in the marketplace and utilized in LEED buildings are successful because they are created with environmental stewardship goals in mind. We are encouraged when companies develop products and services that support better buildings and communities. If they succeed, we all succeed because the construction is greener and more sustainable.

"The adage 'doing well by doing good' is the foundation on which USGBC was built. [Members join USGBC](#) to be part of the process, share what they know and collaborate with others to help us raise the bar and broaden our positive impact. LEED reflects the collective expertise and design intelligence of the tens of thousands of environmental advocates and building industry professionals who have helped to create it.

**Fact: The [LEED Volume Program](#) offers a streamlined solution for organizations that intend to certify at least 25 design and construction projects or existing buildings.**

By leveraging similarities between buildings, quality control practices, and education programs, participants benefit from economies of scale and submittal flexibility. The program was designed for organizations that have a large portfolio of buildings to manage, and that are pursuing better building and operations practices on an organizational basis.

Constructing and operating buildings that are healthier, safer and more efficient can be accomplished most effectively when green building practices have been fully incorporated into an organization's culture and standard procedure. Large organizations are uniquely positioned to fully integrate green building practices through their ability to make decisions and enforce policies consistently across their real estate portfolio. Internal systems for quality assurance and education often accompany the organizational adoption of green building practices, but do not replace the value of third-party certification and the market recognition and accountability that it brings.

The [LEED Volume Program](#) allows qualified participants to leverage technical uniformity in their building design, construction and operational practices, and managerial uniformity within their organization, in order to forgo the need for a full review of every LEED project. The net result: Large-scale participants will achieve LEED certification for their projects faster and at a lower cost than through individual reviews. USGBC membership at the Gold and Platinum levels offers savings on the LEED Volume Program that are roughly equivalent to rate for these levels of membership.

2 comments

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**Dan Winters**

1 year 15 weeks ago

Senior Fellow - Business Strategy & Finance, U.S. Green Building Council

Hi Karla - Thanks so much for your comment - sorry I didn't notice this earlier as I would have personally responded in a more timely fashion. The National Academies of Science literature review is found in Section IV of their report released in February 2013 titled, "Energy Efficiency Standards and Green Building Rating Systems Used by the Department of Defense for Military Construction and Major Renovations". The Academies' report is found at the link below, and you can also read my post about the NAS findings on GBIG Insight. NAS Report: [http://www.nap.edu/catalog.php?record\\_id=18282](http://www.nap.edu/catalog.php?record_id=18282) and GBIG Insight: <http://insight.gbig.org/national-academy-affirms-dods-use-of-leed/>



**Karla Fisk**

1 year 17 weeks ago

The Cotocon Group

Above you mention "In 2012, USGBC provided the National Academies of Sciences a literature review...". What is the name of that review and where can I find it?

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