

LEED Credits: Do they really add up to equal sustainability?

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Green. Sustainable. Environmentally friendly. Energy Star. Energy Efficient. It seems like everyone is very concerned about “going green” in some way – and the building and construction industry is no exception.

In the October 24, 2012, issue of USA Today, Thomas Frank takes a close look at the LEED program. In the article titled “In U.S. building industry, is it too easy to be green?”, he looks at several cases of LEED buildings, and examines the effectiveness of the program. Inspired by Frank’s investigation of the LEED program, this article will look at the LEED program, especially as it pertains to roofing and the long-term effectiveness of the program.

What is LEED?

In order to address concerns in the construction industry, the United States Green Building Council (USGBC) was established in 1993 with the mission of promoting sustainability in the building and construction industry. In 2000, the most well-known and accepted green building certification system was launched: the Leadership in Energy and Environmental Design (LEED). The LEED program established a points system for evaluating the environmental impact of commercial, institutional and residential projects.

According to the LEED website, the following list describes some of the benefits of LEED-certified buildings:

- **Lower operating costs and increase asset value**
- **Reduce waste sent to landfills**
- **Conserve energy and water**
- **Be healthier and safer for occupants**
- **Reduce harmful greenhouse gas emissions**

How Does it Work?

Here’s how the LEED program actually works: in order to become certified at the lowest tier, a project needs a minimum of 40 out of 100 points. Some of the criteria used to earn points include water efficiency, site selection, energy usage and materials and resources. For example, if your building has access to public transportation, you can earn six points, and if you use low-emitting materials for your paints, adhesives and floors, you can earn a point for each. Points are awarded based on a numeric scale determined by the USGBC. Achieving LEED certification can mean everything from tax rebates to zoning allowances.



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Defining “GREEN”

The goal of the LEED program is encourage builders to make choices that will positively impact the environment. The program descriptions throw around the word “green” a lot.

For example, “The U.S. Green Building Council (USGBC) is a 501(c)(3) nonprofit organization committed to a prosperous and sustainable future for our nation through cost-efficient and energy-saving green buildings.” But what does it really mean to be green? The USGBC does not seem to know. Even after talking with someone in the organization and looking through the glossary provided by the USGBC, they could not find an acceptable definition.

Shouldn’t the industry leader be able to provide a definition for its most used term?

Since there does not seem to be a widely accepted definition of “green,” the search was narrowed to “green building.” According to the Environmental Protection Agency (EPA), green building is defined as: “the practice of creating structures and using processes that are environmentally responsible and resource-efficient throughout a building’s life-cycle from siting to design, construction, operation, maintenance, renovation and deconstruction. This practice expands and complements the classical building design concerns of economy, utility, durability and comfort. Green building is also known as a sustainable or high-performance building.”

According to the USGBC, the organization is using the term “sustainability” more often. The definition of “sustainability” also cannot be found in their glossary.

Defining “SUSTAINABILITY”

In the roofing world, there are seven factors contributing to “sustainability.” The stages and environmental impacts consider the entire life cycle of the roof, and are as follows:

- **Design**
- **Material Inputs**
- **Manufacturing**
- **Transportation**
- **Installation**
- **Service Life**
- **End of Life**

Similarly, requiring LEED credits to be achieved throughout the life cycle of a building could mean longer-term positive impact on the environment.

Glitches in the LEED Program

There are seven categories for achieving LEED, some of which are used during construction and others support long-term sustainability. They are as follows:

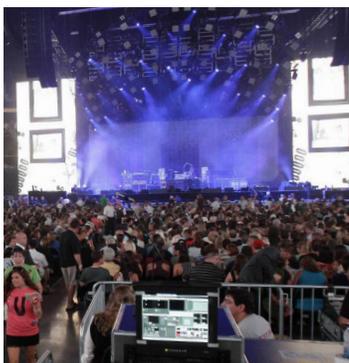
- **Sustainable Sites**
- **Water Efficiency**
- **Energy & Atmosphere**
- **Material & Resources**
- **Indoor Environmental Quality**
- **Innovation**
- **Regional Priority**

As is, the LEED program does not require any sort of balance between short and long-term environmental impact credits. For example, a building can achieve the minimum of 40 credits through site location and materials used, and completely avoid improving water efficiency or optimizing energy performance.



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The LEED program may have been founded with good intentions: conserve energy, reduce environmental impact, etc. Unfortunately, by design, the program is heavily influenced by many of the USGBC directors and members. Some USGBC members have the potential to benefit through lobbying and financial groups. This means that the LEED program can easily be driven by profitability rather than sustainability. Ultimately, the USGBC, although a 501(c)(3), directly has a say on how taxpayer dollars are spent, and determines who receives tax breaks

Credit Buying

The LEED program needs to strike a balance where builders are incentivized to use the LEED program, but not for the easy points and tax breaks. As the system functions today, points can be easily achieved or purchased. For example, buying and installing a bike rack will earn you one LEED credit, as will paving a couple of compact car spaces. There is nothing in the LEED program that requires enforcing the use of the compact car parking space. On the same note, reducing the heat island effect on your roof will earn you one credit. Reducing this effect requires considerably more effort and has a longer-lasting impact than running to a local sporting goods store and buying a bike rack.



In theory, the fundamentals of the LEED program are well intended. But the current scoring system used today does little to incentivize a long-term positive and sustainable impact on the environment. The program needs to be incentivizing, but still contain enough requirements to make it effective in both the short- and long-term. Additionally, the process of non-profits ultimately determining how taxpayers' dollars are spent should be more carefully scrutinized.

In Conclusion

While it is important to incentivize those in the building and construction industry to use sustainable practices, it is also important to make sure those choices have a positive and long-term effect on the environment. The current setup of the LEED program has very good intentions, and some of the requirements actually do encourage long-term sustainability. The LEED program still needs a lot of work before it reaches its full potential.



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