

Lead in the construction industry



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LEED Continues to be Useful for the Construction Industry

The LEED Green Building Program continues its spurring growth in sustainable building, design and construction in the U. S. and across the globe by providing some of the most effective means of achieving numerous global goals. Major objectives include tackling climate change, building sustainable and prosperous communities and driving economic growth. The two main benefits of green building in construction are environmental and economic. However, since this is a relatively new way of construction there are still many unanswered questions about where the future of the industry is headed and how green buildings will have a long-term impact on the economy and the environment.

As mentioned, one of the most important benefits to LEED green buildings in construction is the impact they provide to the environment. Green buildings can not only reduce or eliminate negative environmental impacts (using less water, energy or other natural resources), but can also have positive environmental impacts. This can be achieved by generating a building's own energy or increasing its biodiversity. One major environmental benefit of LEED construction is that the buildings save CO₂ emissions as well as household electricity consumption compared to traditional building practices. In 2009 Guy Newsham, a principal research officer at the National Research Council of Canada, analyzed 100 LEED certified buildings. In the study, “each building was paired with a conventional ‘twin’ building within the Commercial Building Energy Consumption Survey (CBECS) database according to building type and occupancy. On average, LEED buildings consumed 18 to 39% less energy per floor area than their conventional ‘

twin' buildings, although 28 to 35% of LEED-certified buildings used more energy than their 'twin.' The paper found no correlation between the number of energy points achieved or LEED certification level and measured building performance." This study is one of the many pieces of evidence to show how LEED construction benefits the environment. Many commercial, residential, and government buildings are moving towards LEED construction to help bring environmental benefits to their communities and in the world.

The second benefit of LEED construction are its economic or financial profits. These include cost savings on tenant or household utility bills (through energy and water efficiency), lower construction costs and higher property value for building owners, higher occupancy or operating costs for building owners, and job creation. Based on a 2015 Green Building Economic Impact Study conducted for the United States Green Building Council (USGBC), it was found that green building generated a GDP of \$167. 4 billion between 2011 and 2014 (Hamilton 2015). The study proceeded to describe that LEED-related construction has provided \$147. 7 billion in labor earnings in addition to supporting over 2. 1 million jobs in that same time span (Hamilton 2015). \$1. 09 billion in individual income tax in 2014 was contributed by LEED construction, meaning that employment resulting from LEED construction had a large economic impact on tax payers (Hamilton 2015). LEED construction thus has a major economic effect on the construction industry and will continue to have a rising influence for more sustainable building practices to continue growing throughout the United States.

Since LEED's development in 1993 by Natural Resources Defense Council (NRDC) senior scientist Robert K. Watson, the construction industry has been

provided with many positive challenges. The future of green building technology is full of opportunities for the industry to preserve the planet's ecosystem by creating more environmentally friendly structures. LEED for new construction has proven to be more profitable than their conventional counterparts. That is why there is a growing belief that majority of construction for commercial, institutional and high-rise residential projects will continue to grow in the following years. The World Green Building Trends 2018 SmartMarket Report predicts that there will be an increase in the percentage of construction industry contractors who expect to do most of their projects green from 27% in 2018 to almost half (47%) by 2021 (World Green Building Trends 2018). With the help of the economy, the construction industry will continue to take on such projects to help deliver a healthier work environment for the tenants of the constructed structure. Both residential and nonresidential building sectors have experienced growth since 2011, creating essential jobs for the construction industry. Green construction's growth rate has outpaced general construction over the past few years. Due to sustained investment in green technologies, manageable inflation rates, increased government infrastructure spending, declines in long-term interest rates, and a steady market signal for green construction and resale value, green construction market will continue to grow and provide more opportunities for the construction industry (Hamilton 2015).

In conclusion, LEED construction has been a driving factor for the growth of the construction industry. It is essential to provide as many LEED oriented projects not only to continue industry growth but also to preserve the

environment of the planet in addition to providing a healthier and safer environment for the customers.

References

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