PUBLICATION

It's Official: Anyone Can be Green

Authors: Vincent G. Nelan

January 04, 2012

The Empire State Building, the most iconic skyscraper in America, became the tallest building to receive LEED Gold certification for existing buildings by the U.S. Green Building Council. The 2.85 million square foot office tower and tourist attraction celebrating its 80th birthday engaged in a more than two-year overhaul costing a total of \$500 million dollars, including \$100 million dollars to achieve the certification. A study determined that the significant investment was actually low for the number of square feet in the building.

The work done on the Empire State Building included the following:

- Replaced windows: 95% of the glass was re-used and the window refurbishment was done on site;
- Modernized the cooling and heating system, including installing insulation behind radiators to reduce heat loss:
- Updated the 68 elevators for energy efficiency, including putting regenerated energy from use back into the building;
- Installed low flow fixtures:
- Utilized paint, carpet, and wall coverings made from recycled materials;
- Offered optional tenant monitoring systems to allow tenants to manage resources;
- Added compulsory green requirements in tenant leases; and
- Purchased of 55 million kilowatt hours of renewable wind energy carbon credits.

The Empire State Building did all of this because, among other things, it expects \$4.4 million dollars in annual energy cost savings. In addition, the Empire State Building was also responding to tenant demands for green space. With 16% projected vacant commercial office space nationally and with little new office construction projected, the Empire State Building added being green as an additional draw for new tenants in a highly competitive market.

The Empire State Building's motivations were not completely selfish. They created an analytical non-proprietary open source model to assist in the retrofit. This model is available to everyone to use on other projects anywhere in the world.

San Francisco's Transamerica Pyramid also recently achieved LEED Gold certification for existing buildings by the U.S. Green Building Council. Ultimately, the owners of the Transamerica Pyramid hope to achieve LEED Platinum certification. Transamerica Pyramid was able to achieve their initial certification with greater energy efficiency and reengineered electrical supplies among other unique programs.

Green re-modeling is possible; however, the scale will likely be different since not all buildings are as iconic or well established. Ultimately, the decision to go green is up to the owners, tenants, architects, engineers, and construction professionals to make the decision to go green and get the project done in a cost effective efficient manner to realize a return on investment.