

# How to Get Your Existing Building LEED Certified

*by*

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# Why Go Green?

- **For The Environment**
- **For The Savings**
- **For Your Health**
- **For Other Reasons**



# USGBC & LEED

## Introduction

The **United States Green Building Council (USGBC)** is the leader in green building certification and sustainability for the built environment and pursues solutions that represent a healthy and dynamic balance between environmental, social, and economic benefits—known as the triple bottom line. Their building certification rating system is known as the **Leadership in Energy and Environmental Design (LEED)**.



# Existing Building vs. New Building LEED Certification



## Existing Building

- Based on an existing building's sustainable "operations and maintenance" performance
- Recertification is required by USGBC every 5 years
- First time LEED EBOM certification
- More existing buildings certified
- EBOM has overtaken new construction certification

## New Building

- Based on the sustainability "design" points for a new building
- Certification is good for the life of the building
- Provided its occupancy type has not changed
- Nor has it undergone any remodels and additions.
- Fewer new buildings certified

# LEED EBOM Introduction



The LEED-EBOM rating system provides prescriptive strategies for addressing the ongoing operation, maintenance, and the overall performance of existing buildings through the reduction of energy consumption and water use, as well as the pollution associated with the generation and transportation of these commodities. Additionally, the rating system provides several measures to create and validate a sustainable facility, including the following:

- Exterior building and site cleaning and maintenance
- Interior green cleaning
- Integrated pest management
- Sustainable and environmentally-preferable purchasing policies for standard office accessories, electronic goods and furniture, construction materials, and lamps/bulbs
- Solid waste management programs for standard waste, electronic and furniture waste, and construction waste
- Ongoing indoor air quality

# LEED EBOM Introduction (Cont'd)

Furthermore, the LEED EBOM rating system stresses occupant comfort, which requires ongoing indoor air quality (IAQ) best management practices. This is achieved by implementing annual building IAQ practices, outdoor air delivery monitoring, and high-efficiency filtration media on fans, as well as individual controllability of lighting and thermal conditions, and accessibility to ambient daylight and exterior views. To validate these requirements, perform the following:



- Whole-building energy audits
- Comprehensive preventive maintenance measures and system/equipment calibration
- Existing building commissioning, including (1) investigation/analysis, (2) implementation, and (3) ongoing commissioning
- Energy performance verification using the U.S. EPA's ENERGY STAR Portfolio Manager® program, an online tool used to measure and track energy and water consumption as well as greenhouse gas emissions

# Benefits of Using Green Building Standards and Certification Systems

There are a wide range of economic and environmental benefits to sustainable operations, often achieved through the use of standards, rating, and certification systems. Some of these are:

- Combined utility savings up to 30% to 40%
- Operating costs of green buildings can also be reduced by 8 to 9%
- While increasing building's value up to 7.5%
- Increases of up to 6.6% on return on investment
- Occupancy increases of 3.5%
- Rent increases of 3%
- Higher productivity and increased occupant health
- Better indoor air quality



## Why Pursue a Green Building Rating or Certification?

- The reasons for pursuing a green building certification for a project are varied
- Type of certification system pursued depends upon that singular project
- None of these certification systems are one-size-fits all
- Choice is dependent upon the uniqueness of each project
- Plus requirements such as the project location, size, budget, and overall project goals





# How to Get Started

- Update the ENERGY STAR Portfolio Manager page for the property to confirm the current ENERGY STAR score
- Review the recent USGBC guidance on the recertification process
- Use initial certification to identify goals for the recertification process and pain points that should not be repeated.
- Engage service providers to budget estimates and assess operational cost savings potential of the certification process.
- If this is the first LEED EBOM certification, consult with a Green Building Facilitator to survey your building and determine its potential for LEED EBOM certification.



## Energy STAR, Energy Use Intensity, and Benchmarking

- Owners must submit data via the U.S. EPA's ENERGY STAR Portfolio Manager web portal for benchmarking.
- Portfolio Manager is an interactive tool that allows an owner to track and assess energy and water consumption across its entire portfolio of buildings.
- Energy Use Intensity (EUI) is simply the energy consumption of a thing, divided by a key descriptive factor of the thing.
- Start the Energy and Atmosphere (EA-2) credit rating for LEED EBOM right now as its performance period lasts a minimum of 12 months.



# Certification Team

Typical project team consists of:

- Facility Manager/Director
- Green Building Facilitator
- Commissioning Agent
- Energy Audit Engineer
- Other service providers if needed



# FM and O&M Goals

- Validation of ongoing sustainable operations is the next step for existing buildings and will grow in importance.
- Facility managers need to shift their thinking about using LEED EBOM for their non-certified buildings.
- LEED EBOM certification has evolved into the framework for verifying high performance building operations.
- If done right, certification will lead to a streamlined building operations and maintenance.



## What's Being Rated: 7 Certification Credit Categories

All LEED building certification rating systems are based on the following credit categories:

- Sustainable Sites
- Water Efficiency
- Energy & Atmosphere
- Materials & Resources
- Indoor Environmental Air Quality
- Innovation in Operations
- Regional Priority

LEED Facts	
DLF IT Park Chandigarh Project Id- 1000041221 LEED: EBOM v2009	
	
<b>POINT TARGETED</b>	<b>64/110</b>
 Sustainable Site	17/26
 Water Efficiency	13/14
 Energy & Atmosphere	20/35
 Material & Resource	2/10
 Indoor Air Quality	4/15
 Innovation in Operation	4/6
 Regional Priority Credits	4/4

# LEED EBOM Versions

## LEED Version 2.0

Oldest version will need to convert to the 2009 version for recertification

## LEED Version 3.0 (2009)

Current LEED EBOM certification system in use until October 31, 2016

## LEED Version 4.0

Newest version released July 1, 2014 will be mandatory for all projects registered after October 31, 2016





# Other Important Considerations



- **AB 32 - California Global Warming Solutions Act of 2006**
- **California's Zero Net Energy (ZNE) Standards**
- **CALGreen - Part 11 of the California Building Standards Code (Title 24 of the California Code of Regulations)**
- **AB1103 - California's Mandatory Energy Benchmarking & Disclosure Assembly Bill 1103**
- **Prop 39 - California Clean Energy Jobs Act**



# California's Zero Net Energy (ZNE) Standard



**A (ZNE) is a building with zero net energy consumption, meaning the total amount of energy used by the building on an annual basis is roughly equal to the amount of renewable energy created on the site.**

**In 2008 the California Public Utility Commission (PUC) issued its Zero Net Energy (ZNE) goals:**

- All new residential construction by 2020
- All new commercial buildings by 2030.
- 2013 Energy Code will reach 70% of the residential ZNE goal
- 2016 Energy Code will reach 85% of the residential ZNE goal
- 2019 Energy Code will meet the 100% residential goal of ZNE
- By 2030 every new school is supposed to be a zero net energy building

# LEED EBOM Certification Costs \$\$\$



## LEED Certification Program Fees

Typical registration and review fees range from \$1,500 – \$20,000. This fee range is based on buildings of 3 size ranges: less than 50,000 sf, between 50,000 – 500,000 sf., and a maximum fee of \$20,000 for buildings larger than 500,000 sf. These fees can be lowered between \$500 to \$5,000 if the project administrator is a USGBC member. All prices are per single building.

## Project Consultant (Green Building Facilitator)

Typical consulting fees range from \$40k – \$60k per building for LEED AP's to facilitate and coordinate with the preparation and submittal of all documentation for LEED EBOM certification.

## Other Service Providers

There may be additional costs for a commissioning agent, energy audit engineer, and other specialized services that would be unique to the existing building's certification requirements.

# 4 More Great Reasons to Get LEED EBOM Certification

Maybe you're still wondering if LEED EBOM is the right way to go. If you're a facility manager or building owner and you're not sure if it's "worth it" to apply for LEED EBOM certification—it may not be if you DON'T believe in:

- **Saving money**
- **Adding value to your building**
- **Receiving recognition**
- **Working smarter**



# Loans, Grants and Tax Breaks Resources for Energy Efficiency Upgrades in California

## **California Financial Incentives for Renewables and Energy Efficiency (DSIRE):**

<http://dsireusa.org/incentives/index.cfm?re=0&ee=0&spv=0&st=0&srp=1&state=CA>

The **Database of State Incentives for Renewable Energy (DSIRE)** is a comprehensive source of information on state, local, utility, and selected federal incentives. DSIRE is the most comprehensive source of information on incentives and policies that support renewables and energy efficiency in the United States and covers residential, commercial, and government programs.

## **Property Assessed Clean Energy Financing (PACE):**

<http://energycenter.org/policy/property-assessed-clean-energy-pace>

**PACE** financing allows property owners to fund energy efficiency, water efficiency and renewable energy projects with little or no up-front costs. With PACE, residential and commercial property owners living within a participating district can finance up to 100% of their project and pay it back over time as a voluntary property tax assessment through their existing property tax bill.

## **SCE and SCG Business Energy Saving Incentive Programs:**

<https://www.sce.com/wps/portal/home/business/savings-incentives/solar-rebate/>

<http://www.socalgas.com/for-your-business/>

# Loans, Grants and Tax Breaks Resources for Energy Efficiency Upgrades in California (Continued)

## **Go Solar California!:**

Incentives for businesses that implement solar technologies.

<http://www.gosolarcalifornia.ca.gov/>

## **Energy Efficiency Financing:**

<http://www.energy.ca.gov/efficiency/financing/index.html>

The Energy Efficiency Financing Program provides financing for schools, hospitals and local governments through low-interest loans for feasibility studies and the installation of energy-saving measures used for government, industry, and non-profits.

## **Federal Tax Credits for Energy Efficiency:**

<https://www.sba.gov/content/federal-tax-credits-energy-efficiency>

A tax credit can provide significant savings and reduces the amount of income tax you have to pay. Unlike a deduction, which reduces the amount of income subject to tax, a tax credit directly reduces the tax itself.

## **California Appliances Database:**

<http://www.energy.ca.gov/appliances/database/>

Downloadable database of all appliances currently certified to the California Energy Commission by their manufacturers as meeting currently-applicable efficiency standards.

# Questions, Conclusion and Contact Info

Getting your existing building LEED EBOM certified has many benefits. Working with a **Green Building Facilitator (GBF)** with a **LEED AP O+M** credential as well as the International Facility Management Association's (IFMA) **Facility Management Professional (FMP)** credential can be an excellent choice for your LEED EBOM.

CLW Enterprises is providing free of charge a **How to Get Your Existing Building LEED Certified** pdf guidebook on this topic. The pdf guidebook has more information than this PowerPoint presentation, plus it has all of the information at your fingertips, including the links for those resources noted and additional ones as well. If you would like to receive one, please let me know today or go to my website at [www.CLW-Enterprises.com](http://www.CLW-Enterprises.com) where you can request a free copy.

For more information about LEED EBOM certification requirements and the services to complete them, please contact **Corey L. Wilson** at **CLW Enterprises** at (951) 415-3002 or email me at [CLWEnterprises@att.net](mailto:CLWEnterprises@att.net) or visit my website at [www.CLW-Enterprises.com](http://www.CLW-Enterprises.com).



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