

The Renovation of LEED-EB

By Venessa Wong

July 3, 2008

As LEED fever spreads across the United States and abroad, the U.S. Green Building Council hopes to revitalize the LEED for Existing Buildings (LEED-EB) standard, which has been trailing behind its far more popular counterpart for New Construction (LEED-NC). As of July 1, LEED-EB: Operations & Maintenance (LEED-EB:O&M, pronounced "leed-e-bom"), will become the default rating system for existing buildings entering the LEED game.

The implications are significant: if successful, EBOM will give green building the muscle to transform an enormous section of the industry. USGBC Director of Certification Mike Opitz explains that the existing buildings market is much larger than that for new construction. There are about 5 million commercial buildings in the United States. Also, EB registration can be sought at any point in the lifecycle of a building, unlike new constructions which must incorporate LEED from the design and construction phase. By improving the EB system, "we are trying to take the best practices of today and make them the standard practices of tomorrow," says Opitz.

The revised EB framework, introduced earlier this year, aims to remove unattractive prerequisites in the old version while strengthening the focus on water and energy efficiency. Building professionals thinking seriously about shrinking their facilities' footprints welcome the change, especially as environmental programs such as the Clinton Climate Initiative and the C40 Large Cities group gain momentum. All projects registering for Existing Buildings after July 1 must do so under EBOM, while any projects already registered for Version 2.0 before this deadline have the option to upgrade to EBOM or continue certification under Version 2.0.

A Retailored Framework

The first version of LEED-EB was introduced in 2004 to address buildings' overall and daily facility management issues. Despite the environmental advantages and financial incentives offered by the government, the uptake of EB was slower than USGBC hoped. As of June this year, there were only 85 EB certified projects, compared to 1,090 for New Construction. California ranked number one with 18 EB projects.

James Baker, director of facilities management at Armstrong, says "[EB] certification was very challenging to complete." Last June, Armstrong World Industries received EB Platinum rating for its corporate headquarters in Lancaster, PA. The biggest challenge was lack of experience to estimate the resource requirements and timing to earn certification. "We had an in-house facilities team which was very knowledgeable of the building's systems, however [they] already had plenty on their plate to accomplish each day," Baker says.

In addition to the steep learning curve, many other factors discouraged building managers. "[EB] was not a good fit for the existing buildings market," Opitz says, as there was too much

carryover from the NC rating system in terms of architectural and design requirements. For example, the Daylight and Views credit in Version 2.0 might call for major window renovations, which was not viable for most owners of occupied buildings. Building managers also complained about onerous prerequisites for commissioning, waste stream audit and mercury in lamps reduction. (All of these were converted to optional credits in EBOM.)

The USGBC started the process to revise EB over a year ago. The new program is not dramatically different but does shift the spotlight from design to facilities and maintenance. Overall it should alleviate the challenges in Version 2.0, according to Kaitlin Regan, marketing manager for green building consultancy [CodeGreen](#). While certification is not effortless, there are more streamlined credits and the requirements and prerequisites are adjusted to fit existing buildings, hopefully making them easier to achieve. In total, EBOM adds seven new credit options "to allow more flexibility for projects to choose credits which are most feasible based on project scope," explains Regan.

Most of the new credits deal with energy and water, the top two areas where facilities managers can realize cost savings. Anna Dengler, a consultant at sustainability firm Great Forest, says, "While the bar has been raised, very efficient buildings will have a shorter distance to go to obtain certification." EBOM raises the minimum Energy Star rating from 67 to 69 and the number of possible energy points from 10 to 15, nearly half of 34 required points needed for certification. Meanwhile, the number of points for water doubled from 5 to 10.

Over 60 projects had already registered for EBOM by June and Opitz expects the first certified project to debut in the United States this summer. Industry insiders say the new version has strong potential to outshine its predecessor, especially as energy costs rise and managers look for ways to reduce their energy consumption.

EBOM is expected to be particularly successful in urban areas, which have a dense concentration of existing buildings and limited space for new constructions. "LEED does involve some advantages in cities ... associated with size," says Russell Unger, executive director of the New York chapter of USGBC. To support green building, major cities such as New York and Los Angeles are offering financial incentives such as grants and tax credits. While only two buildings in New York City are certified under Version 2.0, six have already registered for EBOM and many more are in the pipeline: CodeGreen is now working with Monday Properties to register two buildings in Manhattan.

Preparing for Change

Although it is still early in the game, Armstrong's Baker expects some new challenges with EBOM: "We know more of what's required so we will spend more time making sure our building systems are operating as designed while reviewing the sustainable policies and procedures that we developed specific to the next building," he says. Armstrong is evaluating the next building on its campus to go through the certification process and has installed metering

devices to get a baseline on the building's operational systems. The EB Platinum rated headquarters building will also be recertified under EBOM.

As the focus on energy and water efficiency is strengthened, facilities managers may need to invest in efficient plumbing and lighting systems to achieve credits. "The key is to know what your energy profile [and] usage look like before you start changing anything," says Baker. Resources such as Energy Star Portfolio Manager can track and assess energy and water consumption across a company's entire portfolio of buildings.

One tip: although commissioning is no longer a prerequisite, Great Forest's Dengler argues it is still a must for anyone who is serious about sustainability. Commissioning a typical commercial office building can easily cost over \$100,000 in areas such as New York City. Yet Opitz says it quickly pays for itself, enabling building systems to function better, which means fewer service calls, and more comfortable and marketable properties. Other advantages such as the increased marketability of a space, asset value, tenant retention, and employee satisfaction can also be factored into ROI considerations, says Regan. In a CodeGreen survey, 79 percent of respondents said they would pay at least 5 percent more in rent for a LEED Silver rated building.

An added boon: more federal, state and local governments incentives are available to alleviate the costs of commissioning and energy modeling. The New York State Energy Research and Development Authority, for instance, operates a 50/50 co-fund program.

Simple changes such as having a green cleaning program (ex. using Green Seal products) can also earn credits. Many sustainable services and products, previously sold at a higher premium, are now priced on par with traditional counterparts.

As the EB landscape evolves, Baker says communication will be key in keeping parties abreast of the company's goals. "Educating building occupants on the new policies and procedures as well as educating management was also [a challenge] and continues to be an ongoing process," he says. To help get past the bottleneck in expertise, USGBC offers regular workshops and educational courses; the New York chapter is working with contractors and unions to update professionals on the new framework.

As building professionals get up to speed on the new LEED requirements, the framework will continue to evolve to meet the changing needs of the market. EBOM is certainly not going to be the last version for Existing Buildings, but it shows promise of bringing green building practices to an enormous market. "The wood has caught fire," says Unger, "and it's getting hot."

Venessa is a business writer and editor based in New York City. She currently works as a freelance writer and has been published in Forbes.com, Newsweek Select, Business China (by the Economist Intelligence Unit) and Corporate Board Member