

GREEN

LEED VERSION 10 — A VISION OF THE FUTURE

EDGE

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It's 2014 and LEED Version 10 has just been implemented. Leadership in Energy and Environmental Design (LEED) v.10 Certified and Silver buildings use less energy and resources than today's best buildings. LEED Gold facilities are completely water- and energy-independent, and use a minimum of resources to create durable, healthy environments inside and out. Platinum-level buildings are truly restorative and improve the quality of the built and natural environments. Legions of LEED-educated designers, engineers and builders continually improve their knowledge base and collaborate to bring about the constant evolution of their crafts. LEED has spurred changes in national and international building codes, thereby institutionalizing improvements worldwide, even in uncertified buildings.

THE FUTURE OF LEED

A future vision is vital for innovation and progress. We dream of the day when LEED v.10 is released with great impact, to serve the market mainstream as a practical, comprehensive and economical framework for environmentally-friendly building. We foresee a system that is widely adopted by nearly every building in the country and is recognized as more than just a standard of green design, but of good design itself. The goal is architecture that adds to the vitality of its region, feeds power cleanly back into the grid, and provides environments that enhance human health and productivity at every level - a world made better by thoughtful designs.

What would LEED v.10 look like? We envision LEED as a suite of tools that take into account the differences between building types and climatic regions, providing

more site-specific guidance on designing high performance buildings. Consider LEED for Industrial Facilities, Airports, perhaps even Bridges, Roads and Parks. There will be LEED certifications for Arid Regions, Four-Season Climates, the Tropics, et al. Water is a vital issue of growing - even critical - importance in many regions, and will be weighted more heavily where it matters most. LEED v.10 will allow projects to apply for certification under only the criteria that apply to them, with emphasis on the most appropriate credits, so that the powerful LEED brand is not diluted into scores of complex sub-categories.

Version 10 would offer an expanded set of points for higher percentages of materials with green characteristics than the current threshold levels. We dream of a tool that facilitates detailed yet user-friendly life-cycle assessments of common materials' environmental and social impacts, allowing designers to make comparative decisions on an equivalent basis between differing options. Such a system would look like current energy models, such as DOE 2 and Energy 10. This analytical framework will differentiate between choices, with more potential points for high-impact characteristics such as rapidly-renewable recycled content that is also readily recyclable and nontoxic. (We'll pass on "edible.")

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Platinum restorative buildings will call for new approaches. LEED v.10 will award credits for how much clean energy, air and water the facility returns to the environment. The system will encompass a broader range of issues, such as climate change. The embodied energy of a building would be defined in addition to today's focus on operational energy use. LEED v.10 would reward climate neutrality, including carbon dioxide offsets both on- and offsite. A facility will be able to earn restorative credits based on its equivalent "sunk" carbon - how much global warming potential it removes from the atmosphere.

STREAMLINING THE PROCESS

The U.S. Green Building Council has been working to streamline LEED, provide application templates and calculators, and otherwise reduce the cost of certification. LEED v.10 would be even easier and

cheaper to use. Efforts to put LEED software online, such as those developed by Enverity Corp. (www.enverity.com) and others, will contribute to this process. By the time v.10 is released, LEED will be thoroughly integrated into common design software and tools such as CAD and energy models. This would further simplify the process of selecting which credits to focus on, and the possible synergies and trade-offs of varied choices, early in the design phase.

A popular feature of v.10 will be more specific tools for making the business case, helping demonstrate and ensure that LEED is a proven pathway to profit and productivity. Accessible financial data, formulae and software would encourage higher levels of certification by showing how to maximize value and minimize costs, and bridge first cost hurdles with cost of ownership. This will bolster champions who advocate for certification, help project managers control costs, and facilitate capital investment. These tools would also be a force for integration, by linking all the varied participants in the building's lifespan and combining design measures. This will help avoid penny-wise, pound-foolish cost-cutting (misabeled as "value engineering") that degrades whole-systems, resource-efficient design. These programs would incorporate building controls, measurement and verification data. This will enable owners to use incentives for high-performance design and construction such as shared savings and performance-based fees. Overall, the more mainstream and widely used LEED becomes, the lower will be the cost of certification.

Some dreams are harder to imagine realized than others, particularly on more subjective or controversial issues. For example, currently there is no credit for optimal footprint, or whether the building should have been sited and built in the first place. The prospect of LEED-certified 20,000-square-foot mansions built on filled-in wetlands seems funny to some of us. Perhaps credit metrics such as Btu use per occupant rather than per square foot would help avoid excessively large and wasteful buildings. How about a credit for affordable housing? More values-based aspects of development will have to be addressed in ongoing dialogue.

A SHARED VISION

These future visions are not shared as a call to action for the USGBC to work harder. We all have a stake in this future. The quiet miracle of LEED is that it sets an unparalleled example of how quickly and effectively an industry can transform itself - and the world - for the better with collaboration, yet without a government regulated mandate. A broad-based, voluntary assemblage of disparate stakeholders and participants from across the spectrum of building issues came together to codify their shared objective of defining "green." These founding mothers and fathers created by consensus a living document in the form of a rating system that continues to evolve. We all share in

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the ongoing success and growth of this innovative process. Solutions will be pioneered and refined in many quarters that will contribute to this progress. Let us all pitch in and help make LEED Version 10 a reality, and indeed an even better vision than these few ideas we offer. This is the stuff of which dreams are made. +



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