Looking Beyond LEED: How the UN Sustainable Development Goals Can Provide an Alternative Framework for Sustainability in Hotels

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Abstract
The Leadership in Energy and Environmental Design (LEED) certification program of the United States Green Building Council (USGBC) has been the path of many hotel industry professionals, particularly owners and real estate developers, wishing to demonstrate a commitment to environmental sustainability. LEED certification offers a framework for hotel industry stakeholders to pursue structurally and mechanically efficient buildings with eco-friendly components and unlock the accompanying financial benefits (USGBC, 2018). New evidence suggests, however, that LEED certification’s structure-centric, prescriptive scorecard may be misaligned with the day-to-day operational complexity of hotels (Behnke, 2017). In the wake of the United Nations’ call for more ambitious international goals to reduce global carbon emissions in the UN Emissions Gap Report 2017, hotels may find new opportunities for commingled financial, environmental, and societal benefits by leveraging their unique position in the built environment, reframing their sustainability efforts, and aligning with the United Nations Sustainable Development Goals (UN, “Sustainable Development Goals,” 2018).

Keywords
environmental sustainability, carbon footprint, LEED, hotel design

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Looking Beyond LEED: How the UN Sustainable Development Goals can provide an alternative framework for sustainability in hotels

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INTRODUCTION

The Leadership in Energy and Environmental Design (LEED) certification program of the United States Green Building Council (USGBC) has been the path of many hotel industry professionals, particularly owners and real estate developers, wishing to demonstrate a commitment to environmental sustainability. LEED certification offers a framework for hotel industry stakeholders to pursue structurally and mechanically efficient buildings with eco-friendly components and unlock the accompanying financial benefits (USGBC, 2018). New evidence suggests, however, that LEED certification’s structure-centric, prescriptive scorecard may be misaligned with the day-to-day operational complexity of hotels (Behnke, 2017). In the wake of the United Nations’ call for more ambitious international goals to reduce global carbon emissions in the UN Emissions Gap Report 2017, hotels may find new opportunities for commingled financial, environmental, and societal benefits by leveraging their unique position in the built environment, reframing their sustainability efforts, and aligning with the United Nations Sustainable Development Goals (UN, “Sustainable Development Goals,” 2018).

1. HOTELS SHARE IN THE GLOBAL CHALLENGE TO IMPROVE ENVIRONMENTAL SUSTAINABILITY

Enhancing environmental sustainability, pursuing sustainable social and economic development, and mitigating and adapting to the impacts of climate change are highly visible, global challenges. The hotel industry, being a highly visible, global industry, has a role to play in finding solutions.

Hotels are logical targets for sustainability enhancement and innovation in the built environment. As shown in Figure 1, hotels are more intense users of water and energy, and have a larger carbon footprint than any other type of real estate, both per dollar of gross asset value (GAV) and per square meter of floor area (GRESB, 2016). Redefine International noted in their annual “Corporate Social Responsibility Report” that hotels were the real estate sector that saw the largest annual carbon footprint increase, at 15% growth (Redefine International, 2016). While hotels’ high resource usage intensity may be partially attributable to their operational intensity, 24-hour demands, and limited control of guests’ individual resource consumption, the data clearly indicate enormous potential to improve—potential that today is largely being ignored.

In addition to the quantitative analysis that demonstrates the apparent room for improved efficiency, there are important qualitative elements to consider. Hotels’ flexibility to explore sustainability opportunities across disciplines including design, architecture, operations, technology, and management makes them exciting arenas for innovation. Also, top industry players are receptive to public perception (both in-person and online), eager to innovate, and willing to engage with communities to leverage hotels’ prominence in the public eye. However, while hotels could be a logical fit for sustainability initiatives, the idea has received little attention. For example, at the Americas Lodging Investment Summit (ALIS), one of the largest annual conferences for hotel real estate professionals, the 2018 program did not include even one panel or speaker focused on sustainability, despite the opportunities that exist for financial gain (ALIS, 2018). Many hoteliers tend to disregard a broad range of ideas from other disciplines, which is incongruous with the multifaceted nature of what they do, and presents a threat to the industry’s potential and responsibility to affect real change. Rather than treating LEED as a starting point for sustainability, many hoteliers treat it as a destination, and further sustainability innovation is rare.

The USGBC should be commended for its work in standardizing and mainstreaming a process for the planning, design, and implementation of eco-conscious features into the construction processes and physical shells of buildings. That said, as the hotel industry and its environmental impacts evolve, so too must the solutions for the challenges created by those impacts. Sustainability initiatives have slowly gained traction in the hotel industry over the past decade with initiatives like in-room recycling, linen reuse, and low-flow fixtures, but progress has slowed, and new methods are required to propel the industry forward. LEED certification, although still a possible starting point for sustainable and efficient hotel design and construction, may not be the best answer for industry decision makers who wish to maximize a property’s potential to reduce its carbon footprint and maximize its societal contributions.

2. MISALIGNMENT EXISTS BETWEEN LEED’S PRESCRIPTIVE SCORECARD AND HOTELS’ OPERATIONAL COMPLEXITY

The USGBC states that “LEED certification is a globally recognized symbol of sustainability achievement” (USGBC, “About LEED,” 2018). By contrast, a recent study at Cornell...
University’s School of Hotel Administration suggests that LEED certified hotels may not truly be more sustainable or efficient than their non-certified peers. As one would expect in a head-to-head comparison of LEED certified hotels and a group of non-LEED certified hotels with similar characteristics, the study found that LEED certified properties use less water and energy on a per square meter basis relative to their non-certified counterparts. However, the same study also found that on a per occupied room basis, non-certified hotels use less water and energy than LEED certified hotels, and have a smaller carbon footprint per occupied room (Behnke, 2017). Despite the acknowledged variance in the study’s data typical of hotel industry data, one would expect LEED certified hotels to prove themselves more efficient than their non-certified counterparts. This was not the case.

Many possible conclusions can be drawn from these results, but two main ideas emerge. One is that LEED certified properties are not properly leveraging the up-front investments made in building efficiency and following through on their initial commitment to sustainability. A second conclusion is that many non-certified hotels are built and operated relatively sustainably, but simply do not bother to obtain certification or may have focused sustainability and efficiency efforts on specific elements of their physical structure and ongoing operations without necessarily fulfilling requirements for LEED.

The first conclusion is rooted in LEED’s prescriptive, structure-centric certification system. LEED uses a standardized scorecard to assign points to a building’s design, structural elements, and development process. A certain level of certification can be achieved simply by earning enough points (USGBC, 2018). This means that consideration and implementation of principal elements of green buildings such as rainwater management or sustainable sourcing of construction materials can be absent from the certification process and ultimately, missing from the delivered building. Furthermore, given that LEED’s scope does not extend beyond a building’s physical shell, classic elements of hotel sustainability like in-room recycling and linen reuse are not considered (USGBC, 2018). Some LEED certified hotels exist without either. LEED’s structure-centric scorecard does not capture the diversity and complexity of the sources of a hotel’s carbon footprint as thoroughly as it might for other building types. Additionally, a prescriptive system like LEED involves one evaluation at the beginning of a hotel’s life cycle, but no further follow-ups. Performance-based systems like the EPA’s EnergyStar program (US EPA, 2018) or the WELL building certification (International Well Building Institute, 2018) require continued monitoring and reporting to maintain a certification status. Ongoing accountability at LEED certified properties would help ensure that they maintain basic levels of sustainability and efficiency.

The second conclusion is rooted in the logic of hotel owners and developers, for whom financial considerations are
among the chief motivating factors. These parties can look at LEED certification’s requirements as a list of ideas, but choose to execute only the projects that offer the highest returns on their investments rather than pursue (and pay for) full LEED certification. This helps them avoid the constraints of any certification requirements that may not fit their project -- financial constraints, planning constraints, and otherwise. Although studies have demonstrated that LEED certification may help hotels produce additional revenue in addition to reducing operating expenses (Walsman, Verma, Muthulingam, 2014), many developers and owners do not believe that LEED’s benefits outweigh its costs. They view LEED only as a “tone-setter” for a building’s sustainability and efficiency, and, by extension, the health and wellness of the people inside it. Therefore, non-certified hotels may still have equal or greater building efficiency relative to fully certified hotels if developers and owners target the right efficiency projects at their property -- a scenario that played out quantitatively when LEED certified hotels were found to have a larger carbon footprint per occupied room than their non-certified peers, as discussed earlier.

Overall, this study implies that LEED certification alone may not be the best solution for hotels seeking to optimize sustainability and efficiency. To be clear, the takeaway is not that LEED certification should not be pursued in the hotel industry, but rather that LEED certification does not constitute a complete sustainability program at a property. LEED certification was designed to guide the construction of a new building, and does not fully capture the day-to-day operational complexity of hotels. The proof is in the numbers. Square meter for square meter, a LEED certified structure tends to be more efficient than a non-LEED certified structure, but this does not mean that the operations taking place inside of that physical shell are also efficient and sustainable. On a per occupied room basis, non-certified hotels proved themselves, at a minimum, equally capable to LEED certified hotels in sustainably managing the ever-changing guest inflow and outflow during 24-hour operations, the accompanying water and energy demands, and the impact of those operations on the hotel’s carbon footprint (Behnke, 2017).

Of the more than 50,000 hotels in the United States, approximately 300 have achieved some level of LEED certification (USGBC, 2018). Hotel developers, owners, and operators have been working for years to obtain certification for their hotel projects to reduce utility costs, improve perceived asset value, obtain various government rebates and incentives, or make an environmental statement. All the while, LEED certification may not have been working for them. This raises an important question: if not LEED, what then?

3. THE UNITED NATIONS SUSTAINABLE DEVELOPMENT GOALS OFFER A VIABLE ALTERNATIVE FRAMEWORK TO LEED

The hotel industry in the United States has used LEED certification as its framework of choice for guiding sustainability efforts. Although LEED was an effective early catalyst of increased sustainability awareness in the hotel industry, the time has come to evolve beyond LEED’s limited scope for building efficiency and begin to focus on how the industry can contribute to sustainable development. The United Nations Sustainable Development Goals offer an alternative framework through which hotels can pursue this goal.

Sustainable development is a multidisciplinary idea that explores ways to improve human well-being alongside the prosperity of the planet, and it can be understood and defined in many ways. Among the most commonly used definitions is the “Brundtland” approach, named for Dr. Gro Brundtland, chair of the 1987 World Commission on Environment and Development. Her Commission’s report, Our Common Future, defines sustainable development as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (Brundtland Commission, 1987). Since this report, the United Nations has continued to spearhead global commitment to these ideas, and in 2015 released the Sustainable Development Goals (SDGs) (UN, 2018). This collection of 17 goals, shown in Figure 2, represents an intergovernmental agreement to overcome the biggest global issues faced by today’s society, with an emphasis on sustainable infrastructure, cities, and energy, as well as on the development of partnerships to achieve these goals by the target year of 2030.

As a part of its ongoing work on sustainable development, the United Nations published the UN Emissions Gap Report 2017 (UN, 2017). This called attention to the dangerous gap that exists between the emissions reductions currently promised by each country—the Nationally Determined Contributions, or NDCs, that resulted from the Paris Agreement in 2015 (UN, 2015) and the emissions reductions needed to achieve the global goal of holding global warming below two degrees Celsius. The report notes that this gap is a result of the world’s “limited collective ambition,” and that the world now faces an “urgent need for accelerated short term action and enhanced longer-term national ambition”
This urgency is underlined by the number of extreme weather events experienced in 2017 around the world. The report also posits that buildings are one specific area where improvement is needed, and that businesses and local governments will have a key role to play in future progress (UN, 2017).

The United Nations’ report has a hopeful undertone in that it points out that the solutions do not require expensive innovations or technological advancements. By “simply adopting or adapting the best practice examples already deployed in the most innovative... contexts,” climate change mitigation goals can be achieved in a quick and cost-effective way (UN, 2017). The challenge is now for hoteliers to assimilate what their most innovative peers are doing, both in the hotel industry and in other industries, and incorporate those ideas into their business strategies. The hotel industry should not allow LEED’s limited scope to cap its potential. The United Nations SDGs provide a framework that not only pushes buildings beyond the limits of LEED when it comes to building efficiency and general environmental sustainability, but also captures a greater range of possibilities available to hotels to contribute to sustainable development.

The hotel industry touches so many facets of global interconnectivity through its supply chains, distribution channels, local community building, event hosting, food and beverage offerings, branding and marketing, and general operations, that having an impact on each of the SDGs is realistic. For example, take Goal 2: Zero Hunger. Does the hotel have a system in place for reducing food waste or donating unused food to local charities? Or consider Goal 11: Sustainable Cities and Communities. Has the hotel undergone an LED lighting retrofit to save energy and reduce utility expenses? Think of Goal 5: Gender Equality and Goal 16: Peace, Justice, and Strong Institutions. Has the hotel staff undergone training to recognize signs of human trafficking at their property? Or even examine Goal 14: Life Below Water. Has the head chef or procurement director asked suppliers if the fish being received at the hotel were sustainably caught, or if they can be traced back to a source certified as sustainable by the International Marine Stewardship Council (Marine Stewardship Council, 2018; UN, 2018)? The SDGs are achievable, and hotels can play a part, but not through business as usual.

Unlike less operationally complex kinds of real estate, hotels can harness the full power of the SDGs to align with other organizations, find common ground, create partnerships, and catalyze innovation. Any hotel industry stakeholder may be overwhelmed by the scope and ambition of the SDGs, but these goals can be broken down and managed, and therefore operationalized into tangible outcomes. The 17 goals are made up of hundreds of indicators, targets, and benchmarks that can be used to take the SDGs from a collection of massive, ambitious objectives to easily-consumable action-steps (UN 2018).

4. CONCLUSION

The hotel industry has more responsibility to contribute to sustainable development than some of its players realize, but it also has more potential to improve than many of its players realize. Many hoteliers do not engage with LEED at all, and many that do incorrectly use LEED as a proxy for a complete hotel sustainability package, which has left the
industry with unfulfilled potential to contribute to sustainable development. By suspending disbelief and engaging with the possibilities at their fingertips, hotels could unlock opportunities for commingled financial, environmental, and societal benefits. The goal of this paper is to encourage hotel industry decision makers to think differently and be more ambitious with their sustainability agenda. Looking beyond LEED to the UN Sustainable Development Goals would be an excellent first step.

For hoteliers looking to take a first step in engaging with the UN Sustainable Development Goals and aligning their business with solutions to global challenges, please visit http://www.un.org/sustainabledevelopment to learn more about the goals and the specific targets they include.

WORKS CITED


