

ASHRAE Journal's Guide to Standard 189.1

*The emergence of green building codes and standards...
is an important next step for the green building movement.*

LEED & Green Building Codes

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Building codes are the tools we use to ensure the basic health and safety of a building's occupants. They have long played an important role in establishing minimum standards of practice to ensure fire, structural and sanitary safety in homes, schools, offices, and public buildings of all types.

Green building rating systems, such as U.S. Green Building Council's LEED certification program, have been working to address an expanded spectrum of risks to human and environmental health that are related to what we build, how we build, where we build, and how we operate buildings over the long term. After 17 years since USGBC's founding and tens of thousands of volunteer hours, LEED is the most widely accepted green building rating system, and has been credited with inspiring innovation, driving demand for high performance buildings and communities, and changing the way that much of the building industry approaches design, construction and operations.

LEED and the codes have always strived to work together as complementary and compatible elements in the building process. But before attempting above-code measures in energy savings, water efficiency, CO₂ emissions reduction, improved indoor environmental quality, or stewardship of resources and sensitivity to their impacts, green buildings require minimum compliance with baseline codes in a given jurisdiction. LEED's recognition of ASHRAE Standards 90.1, 62 and 55, as well as standards set by the California Air Resources Board and the Sheet Metal and Air-Conditioning Contractors' National Association are a few examples of how LEED has encouraged benchmarking against industry-accepted standards.

The norm is that codes improve incrementally, approximately a three-year cycle. As ideas originally pioneered in LEED begin to emerge as acceptable industry practice, a growing community of professionals has recognized the need for enforceable codes and standards for large-scale adoption and implementation by building departments and regulatory authorities. This far more inclusive perspective of risk and responsibility recognized by LEED has required not an incremental, but instead a very significant leap forward in the scope of the building codes.

Broad stakeholder input and community consensus have recently led to the development of green building codes and standards that can be adopted and enforced by jurisdictions in line with their commitments to safeguarding environmental and public health. In response to demand for a clear message from their membership, the International Code Council (ICC) launched the development of the International Green Construction Code (IGCC) with cooperating sponsors AIA and ASTM. Recognizing the value of the several years of expert content development in ASHRAE Standard 189.1, and ICC's unparalleled delivery model that reaches all 50 states and more than 22,000 local jurisdictions, ICC, AIA and ASTM worked together with ASHRAE, IES and USGBC to launch a joint effort to support the IGCC with Standard 189.1 as an alternate path to compliance.

Standard 189.1 is a set of technically rigorous requirements that, like IGCC, covers criteria including water use efficiency, indoor environmental quality, energy efficiency, materials and resource use, and the building's impact on its site and its community. Written by experts representing all areas of the building industry and developed in partnership

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with IES and USGBC the standard was three years in the making.

The emergence of green building codes and standards, like the IGCC and the California Green Building

Standards Code, is an important next step for the green building movement, establishing a much-needed rubric for high-performance green buildings that is adoptable, usable and enforce-

able by regulatory jurisdictions. The IGCC and its 189.1 compliance path provide a substantially improved minimum baseline for the design and performance of new and renovated buildings, allowing all new buildings to reap the rewards of improved design and construction practices.

Major advances in codes and standards like these make it possible to accelerate the technical development of LEED, allowing exemplary leadership in green building design, construction and operation to take even greater steps forward. The IGCC provides a substantially enhanced baseline that jurisdictions can couple with LEED-based incentive programs. Green building rating systems play a distinct and complementary role to green building codes. Given the strength of its content, its enforceable language, and its applicability to all commercial buildings, widespread adoption of IGCC and its 189.1 compliance path will catapult the commercial building sector forward with measurable achievements and results that are responsive to the economic, environmental and health challenges at hand.

The adoption and enforcement of green building standards and codes advances USGBC's mission to transform the way our industry designs, constructs and operates buildings. By integrating tried-and-tested green building practices into minimum code language, green building standards also provide USGBC, LEED and the green building industry the freedom to go farther and faster, blazing new trails towards a truly sustainable future. But it's not a choice between green building codes or green building rating systems—it's both these codes and rating systems working together, learning from one another, and continuously improving content, implementation, and results. ■

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