It Takes a Village: How Policy and Non-Traditional Stakeholders are Changing the Codes Conversation

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EESI
Environmental and Energy Study Institute

Environmental and Energy Study Institute

- Founded in **1984** by a **bipartisan** Congressional caucus;
- An **independent**, **nonpartisan** 501(c)(3) **nonprofit** funded by grants and charitable contributions;
- Produces and shares **fact-based information** on **energy** and **environmental** issues for policymakers and stakeholders;
- Promotes and develops **policy solutions** for sustainable energy, buildings, transportation, forestry and agriculture toward the goal of climate change mitigation and adaptation.

What We Do

- **Coalition Building**
- **Policymaker/Stakeholder Education and Outreach**

  Congressional Briefings

  Fact Sheets, Articles
- **Policy Development**

  Federal legislation/regulation on energy/climate, infrastructure, disaster mitigation/recovery, forestry, agriculture, appropriations and other issues

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Briefing Notice

Making Housing More Affordable through Energy Efficiency: Role of Financing and Building Codes

July 27, 2010

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Fact Sheet

Energy Efficiency Standards for Appliances, Lighting and Equipment
August, 2017

EESI's High Performance Building Initiative

EESI launched the High Performance Green Building Initiative to bring more attention to the building sector's large role in energy consumption, fossil fuel emissions and climate change and to promote public policies to increase energy efficiency and renewable energy use in buildings.

We promote building energy codes and standards as essential tools for mitigating climate change.

We also work to help policymakers understand how sustainable energy relates to—and supports—other important aspects of high performance buildings, such as safety, health and affordability—and to climate change adaptation and resilience.

High Performance Buildings

The Energy Independence and Security Act of 2007 (P.L. 110-140) defines a high-performance building as:

“a building that integrates optimizes on a life cycle basis all major high performance attributes, including energy conservation, environment, safety, security, durability, accessibility, cost-benefit, productivity, sustainability, functionality, and operational considerations.”

WHOLE BUILDING DESIGN GUIDE

A web-based portal of building-related guidance, criteria and technology from a systems-based, "whole building" perspective

www.wbdg.org

To achieve a high performance building, decision-makers and designers must FIRST identify their PERFORMANCE GOALS for the project (in addition to code compliance).

WBDG DESIGN OBJECTIVES [PERFORMANCE GOALS]

Accessible * Aesthetic * Cost Effective [Affordable] * [Equitable] * Environmentally Sustainable * Functional/Operational * Healthful * Historic Preservation * Productive * Secure/Safe * [Resilient]

Whole Building Design draws upon the concepts of synergy and interconnectedness and consists of two components: an integrated design approach and an integrated team process.

EESI's Resilient Infrastructure Initiative

In addition to building design, this integrated, holistic approach can be applied to infrastructure and communities, as well as public policy, to achieve the best outcomes.

Buildings are part of an interconnected system of infrastructure, including utilities, transportation and natural infrastructure.

To this end, the EESI policy team is collaborating to promote sustainable, equitable and "resilient infrastructure" that integrates the built environment and the natural environment.

EESI's Resilient Infrastructure Initiative

- *Disaster Recovery Reform Act (H.R. 4460, S. 3041)*

- *Preparedness and Risk Management for Extreme Weather Patterns Assuring Resilience and Effectiveness (PREPARE) Act of 2018 (H.R. 4177)*

"…The undersigned groups represent a wide array of interests and also recognize the importance of cross-cutting, holistic solutions to mitigate and prevent the worst possible effects from disasters. We have come together to express our support for this legislation with the shared goals of reducing the economic, environmental and social costs of disasters that trigger federal emergency response and helping people and communities take action to recognize hazards and minimize their impact…"

American Council for an Energy-Efficient Economy
American Public Works Association
American Society of Landscape Architects
Association of State Floodplain Managers
Business Council for Sustainable Energy
Environmental and Energy Study Institute
EPDM Roofing Association
Green Business Certification Inc.
Insurance Institute for Business & Home Safety
International Association of Emergency Managers
International Code Council
National Association of Regional Councils
National Association of State Energy Officials
National Emergency Managers Association
National League of Cities
National Recreation and Park Association
Polyisocyanurate Insulation Manufacturers Association
The Pew Charitable Trusts
U.S. Green Building Council

Energy Resilience

Energy efficiency and the use of renewable energy are the “drivers” of a high performance building.

Sustainable energy relates to—and supports—other "performance goals" including resilience to extreme weather, occupant safety health, investment value, and affordability.

- EE helps occupants "coast“ longer through a power grid outage
- RE with storage and/or microgrid enables continued operations during a grid outage
- Sustainable energy and green infrastructure reduce the urban heat island effect
- Equitable and resilient energy, water and transportation systems + buildings = livable, sustainable communities for all

INNOVATION OPPORTUNITY

Will new investment in buildings and infrastructure help societies mitigate climate change and withstand its effects?

An American Society of Civil Engineers (ASCE) committee is developing a new manual of practice on adaptive risk management for climate and weather resilience.

Codes and standards, including “reach codes” and “high performance standards”, are evolving as society’s expectations and “performance goals” for buildings, communities and infrastructure evolve.

THE 2018 IECC

- contains improved provisions for lighting **controls** including occupant sensor controls; daylight response controls and time-based switch controls;

- includes an appendix chapter which, when included in a jurisdiction's adoption, requires commercial buildings to set aside roof space for future installations of **solar** collectors; and the connections and wiring to allow them to be integrated in the buildings systems;

- is fully coordinated with the family of I-Codes to ensure that efficiency measures are selected and installed in a manner that does not compromise **safety**;

Courtesy of International Code Council:
https://www.iccsafe.org/codes-tech-support/codes/2018-i-codes/iecc/

THANK YOU!

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