

**State Energy Code:
Requirements for Energy
Efficiency in Construction**



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and**



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**Interim Study Committee on
Energy Efficiency Plans and Programs
December 3, 2008**

**Legislation Related to Energy Efficiency
in Construction Passed in 2008**

- Senate File 517
 - Changes to State Energy Code provisions
 - Adoption of Sustainable Design Standards
 - Revitalization of Program for Financing Energy Efficiency Improvements in Buildings and Facilities which are Publicly Owned or Owned by Non-Profit Organizations (BE Smart Iowa; administered by DNR)

**Legislation Related to Energy Efficiency in
Construction Passed in 2008**

Senate File 2386

- Creates the Commission on Energy Efficiency Standards and Practices, which Stuart will discuss later on.

Energy Codes in Iowa: Statutory Basis

After enactment of Senate File 517:

- Energy conservation requirements included in State Building Code (also known as the State Energy Code) apply to buildings intended for human occupancy.
- State Energy Code applies statewide to:
 - Any commercial construction
 - New construction of one and two-family residences.
- Lighting efficiency standards apply to all construction and to new and replacement lighting in existing buildings.

State Energy Code

- Adopted by the Building Code Commissioner as part of the State Building Code.
- Included in the administrative rules of the Department of Public Safety:
 - 661 IAC Chapter 303.
 - Adopts by reference: International Energy Efficiency Code (IECC), 2006 edition, published by the International Code Council (ICC).

Energy Conservation in Construction: Additional Tools in the Iowa Code

- Energy Reviews: Required for any building over 100,000 cu. ft. of conditioned space. Conducted by Architect or Engineer to certify compliance with the energy code. Iowa Code 103A.19(6).

http://www.dps.state.ia.us/fm/building/PDFs/2008/2008_Iowa_State_Energy_Code_Review_Form.pdf

- Life Cycle Cost Analysis: Public Facilities over 20,000 square feet that are heated or cooled ; Optimize Energy Management over the Life Cycle of the Building.

Contact: Lee Vannoy, Iowa DNR, Lee.Vannoy@iowa.gov.

<http://www.iowadnr.gov/energy/news/files/08lcca.html>

New Initiatives: Sustainable Design

- Senate File 517 authorizes the Building Code Commissioner to adopt sustainable design standards for the State. These standards will be included in the State Building Code, but will not be applicable to construction unless invoked by another provision of law (statute or administrative rules).

New Initiatives: Sustainable Design

Working Definition of "Sustainability":

- **"Meeting the needs of the current generation without compromising the needs of future generations."**

New Initiatives: Sustainable Design

- Variety of Approaches (examples)
 - U.S. Green Building Council (LEED)
 - Green Global
 - National Green Communities/Iowa Green Streets Criteria
 - ASHRAE 189
 - NAHB/ICC Green Building Standard

New Initiatives: Sustainable Design

- Scope of Sustainable Design Standards (example)
 - Energy efficiency.
 - A building's impact on the atmosphere.
 - Sustainable sites.
 - Water use efficiency.
 - Materials and resources.
 - Indoor environmental quality.

New Initiatives: Sustainable Design

Issues to be addressed:

- Energy Conservation: Requiring that "sustainable design" includes energy conservation beyond what is required by the State Energy Code.
- Enforceability: Administrative flexibility to ensure compliance; certification as a "green building" does not occur until after construction is complete.
- Approach: One standard or various "approved" standards?
- Appropriate for Iowa: Any requirements or incentives which might not make sense for Iowa?

New Initiatives: Sustainable Design

Process for Development and Adoption of Standards:

- Open process, started with kick off meeting on September 30.
- Target: Notice of Intended Action by January, 2009
- Target: Administrative rules in effect by July 1, 2009
- Contact

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**New Initiatives:
Commission on
Energy Efficiency Standards and Practices**

- Two year life: July 1, 2008 – July 1, 2010
- 13 members
- Report by January 1, 2011

**New Initiatives:
Commission on
Energy Efficiency Standards and Practices**

- Evaluate energy efficiency standards applicable to existing or newly constructed residential, commercial, and industrial buildings and vertical infrastructure and make suggestions for their improvement and enforcement.
- b. Develop recommendations for new energy efficiency standards, specifications, or guidelines applicable to newly constructed residential, commercial, and industrial buildings and vertical infrastructure.
- c. Develop recommendations for the establishment of incentives for energy efficiency construction projects which exceed currently applicable state and local building codes.
- d. Develop recommendations for adoption of a statewide energy efficiency building labeling or rating system
- e. Obtain input from individuals, groups, associations, and agencies in carrying out the duties specified in paragraphs "a" through "d."

**New Initiatives:
Commission on
Energy Efficiency Standards and Practices**

**• Commission Goals from First Meeting
(examples)**

- Compliance with energy code vs. exceeding code requirements
- Develop compliance tools
- Alternatives to AHJ inspections
- Education & incentives for consumers and contractors to drive market transformation
- Determine benefits of energy codes
- Determine hurdles to energy code enforcement
- Determine current state of compliance
- Encourage compliance and acceptance of building efficiency features; voluntary compliance reduces enforcement which reduces cost

**New Initiatives:
Commission on
Energy Efficiency Standards and Practices**

● **Committees established:**

- Building Labeling/ Rating/ Incentives/ Goals
- Research/ Survey/ Quantification
- Weatherization/ Affordable Housing
- Enforcement/ Compliance/ Adoption/ Indoor Air Subcommittee



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