

Building Energy Codes: 2013 Priorities and Resources

U.S. Department of Energy Office of Energy Efficiency and Renewable Energy



U.S. DEPARTMENT OF
ENERGY

Energy Efficiency &
Renewable Energy


Jeremy Williams, *Project Manager*
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Background: Building Energy Codes

- Developed at the national level through ASHRAE and ICC processes with opportunities for all to participate.
- Adopted by state and local government, generally as a component of building construction regulations.
- The building industry is required to comply with what is adopted.
- State and local government are generally responsible for validating compliance.



DEVELOP



DEPLOY

Energy Code Benefits

- Reduce energy consumption in buildings and use of associated natural resources.
- Support job retention and creation.
- Foster environmental emissions reduction.
- Support economic growth and reduced costs associated with building operation and use.
- Improve building services, productivity and occupant health.
- Protect consumers and support grid reliability.
- Create a foundation for increased use of renewable energy .
- Mechanism to support larger national and state efficiency targets and policy goals.

Current Model Codes

Residential: 2012 IECC

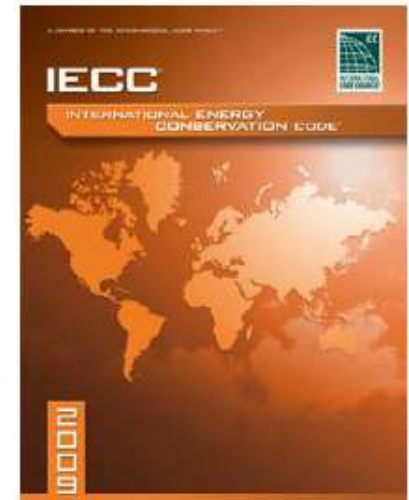
Published July 2011

Updated every 3 years

30% more energy efficient than 2006

Next Update: 2015

Managed by the International Code Council
(ICC)



Commercial: ASHRAE Standard 90.1-2010

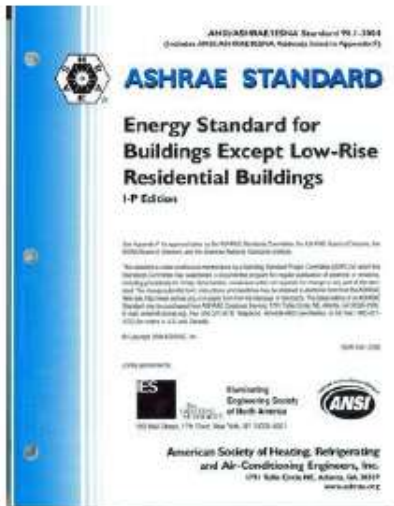
Published October 2010

Updated every 3 years

About 30% more energy efficient than 2004

Next Update: 2013

Managed by ASHRAE



Current DOE Priorities: Codes Program

Model Energy Codes

Development:

- *Easier to adopt. Easier to comply.*
- Cost-effective energy savings.
- Exploring performance-based and alternative paths to compliance.

Adoption:

- Support state adoption of ARRA target codes and updated model codes (IECC and Standard 90.1).

Compliance:

- Prioritizing compliance with building energy codes.
- Exploring links between compliance and existing efficiency programs (e.g. utility).
- Publish guidance, tools, and compliance resources.
- Provide ongoing technical assistance to states.

Code Development

Adoption in the States

Verified Compliance

Common Needs of those Deploying Codes



- Education and training.
- Copies of adopted codes.
- Standardized compliance assessment tools.
- Testing equipment and qualified personnel.
- Documentation of benefits and best-practices.
- Understanding of costs and resources.
- Analysis of changes to revise and enhance codes.

Challenge: Services to address these needs are not always centrally located and available from a single organization.

Addressing Needs

A National Collaborative

Leveraging Relationships

Coordinating Services

+ *Technical Assistance Resources*

Building Energy Codes Program



A National Collaborative

- Assistance with energy code implementation.
- Identifying state and local needs.
- Responding to those needs with respective programs, products and services.
- Working through organizations representing all stakeholders—national, regional and localized.
- Delivering support where it is needed at the state and local level.
- Alignment of shared goals and strategic vision.
- Building on collective experience and perspectives.
- Leveraging resources between parties.

U.S. DOE: BECP Resources

- Prescriptive drill down
- Compliance software
- Compliance checklists
- Score and Store
- Technical support
- Code notes
- Publications
- Resource guides
- Training programs

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Building Energy Codes University

Search BECU | Search energycodes.gov

START LEARNING NOW!

- BECU Course Index
- Resources for Trainers
- WWW.ENERGYCODES.GOV
- BECU Home

Training Hard to Save Energy

The Building Energy Codes University provides a one-stop shop for all of your building energy codes training needs — whether you are new to the world of energy codes or are a seasoned veteran.

Course Offerings

BECU offers training in a variety of formats and media types; from self-paced online training to live webcast events to tailored on-site training. Course topics cover the entire spectrum of building energy codes at all levels. Course topics include

- Compliance with the American Recovery and Reinvestment Act
- The 2009 International Energy Conservation Code
- The ASHRAE 90.1-2007 standard
- REScheck and COMcheck basics
- and much more...

A Continuing Education Provider

BECU, through the Building Energy Codes Program, is a continuing education provider for the American Institute of Architects.

Using BECU's new Building Energy Codes 101 family of products (book, presentation with speaker notes, training manual), wade into the world of building energy codes yourself, or train others in your area.

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NASEO Resources

- NASEO codes webpage: www.naseo.org/building-energy-codes
 - Reports
 - Webinar recordings
 - Past/future codes events
 - Case studies
- NASEO works with DOE to develop webinars and other meetings to share State Energy Office best practices pertaining to code adoption, enforcement, and compliance, and ensure state input on codes activities at the national level.
- NASEO staff are a good resource pertaining to federal requirements regarding building energy codes and to learn what is happening in other states across the country.

Unique Services & Programs

- Direct code adoption support →
- Compliance Planning Assistance →
- Show Me the Costs! -- Incremental cost savings analyses →
- Consumer outreach →
- Compliance collaboratives →
- Train-the-Trainer -- Energy Code Ambassadors Program (ECAP) →
- Energy Efficient Buildings EEB Hub →



BCAP Dedicated to the adoption, implementation,
and advancement of building energy codes

BCAP Resources

Online Code Environment & Advocacy Network

www.energycodesocean.org



- An online portal of building energy code resources, best practices, tools, news, and more
- All of BCAP's work is kept on the site
- Other organizations and individuals encouraged to upload resources and work, comment and participate in discussions
- Site maintained by BCAP



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For more information, contact

Paul Karrer

pkarrer@ase.org

NEEA Resources



- Participate in energy code development processes
- Provide education to building officials and design and construction professionals
- Create education curricula, compliance tools and materials
- Provide technical assistance
- Create and participate in state energy code collaboratives
- Conduct code compliance studies

For more information about NEEA contact: David Cohan, dcohan@neea.org

NORTHEAST ENERGY EFFICIENCY PARTNERSHIPS BUILDING ENERGY CODES PROJECT



Helping the Northeast and Mid-Atlantic reduce its energy use and carbon emissions by providing states with resources to develop, implement and comply with building energy codes...

Via...

- Technical assistance, guidelines & training
 - Train the Trainer
 - Code Adoption & Compliance
- Regional Codes Working Group
- Policy outreach & analysis
- Code Collaboratives
- Research, analysis, & energy codes tracking
 - Beyond Code Programs

NEEP RESOURCES

- 2012 Model Progressive Building Energy Codes Policy
- 2012 Building Energy Rating Supplement
- Model Stretch Code Language (beyond 2012)
- NEEP Checklist and Guidance for Real Estate Professionals
- Roadmap to Zero Net Energy
- More at www.neep.org

For more information, please contact Carolyn Sarno (csarno@neep.org) or Allison Webster (awebster@neep.org)



SEEA Resources



**Driving Energy Efficiency
Market Transformation
in the Southeast**



- Stakeholder Engagement:
 - Utilities
 - Home Builder Associations,
 - Policymakers
 - Code Officials
 - Realtors
 - Industry Representatives
- Participation on Energy Code Development Groups
- Southeast Energy Codes Coalition (SECC)

For more information contact: Jenah Zweig, jzweig@seealliance.org

SEEA Resources

- Energy Code Training
 - Train-the-Trainer
 - Plan/In-Field Review
 - Regional Perspective
 - Utility-Tailored Program Promotion
- State-Specific, Comprehensive, Illustrated Field Guides
- Mandatory Testing Best Practices
 - DET Verifier Program
- Technical Assistance



For more information contact: Jenah Zweig, jzweig@seealliance.org



SWEEP Resources

- Advocacy across six states
- Representatives located in most states
- Relationships with local building code industry, building associations, industry such as AIA, BOMA, CSI, etc.
- Technical expertise with codes and standards
- Connect local and state needs with national resources
- Work with utilities to support energy codes as part of their building efficiency programs
- Lead state level code collaboratives



Summary

- Energy codes are a key component in addressing our energy, environmental and economic challenges
- State and local government play a critical role in adoption of and ensuring compliance with energy codes
- State and local government have needs that must be satisfied if they are to be able to fulfill their role
- Those needs are being met by a number of organizations
- Through increased collaboration, those needs can continue to be met and enhanced.