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# Status of State Energy Codes



*The Building Codes Assistance Project Bimonthly Newsletter*

January 2005 Issue, Covering events from November, 2004 through December, 2004.

*Plus Updates from January 1 through January 11.*

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What's **NEW** since January 1:

- [Maine](#) - Public Utilities Commission (PUC) releases report on building code compliance and enforcement

News from November, 2004 through December, 2004:

- [Arizona](#) - Phoenix considers adopting the 2004 supplement to the 2003 IECC
- [California](#) - releases list of changes in 2005 energy code
- [Florida](#) - revised energy code goes into effect July 1, 2005
- [Idaho](#) - adopts the 2003 IECC, effective January 1, 2005
- [Kentucky](#) - Board of Housing votes to adopt 2003 IECC
- [Michigan](#) - new energy code rules now official
- [Minnesota](#) - moves towards a working draft of the new energy code
- [North Carolina](#) - writes the 2006 edition of their energy code.
- [Vermont](#) - adopts the 2000 IECC with state specific amendments, effective January 1, 2005
- [Washington](#) - State Building Code Council adopts changes to state energy code.

Visit the PNNL/DOE web site for more information on Building Energy Codes in your state: [http://www.energycodes.gov/implement/state\\_codes/index.stm](http://www.energycodes.gov/implement/state_codes/index.stm)

*The Building Codes Assistance Project is a joint initiative of the [Alliance to Save Energy](#), the [American Council for an Energy-Efficient Economy](#), and the [Natural Resources Defense Council](#).*

## STATE UPDATES

Note: Throughout this newsletter, the Bold Text indicates the most current and significant changes in state activities from the previous newsletter.

## Alaska

**Residential Code:** The Building Energy Efficiency Standards (BEES), a state developed code exceeds 1995 MEC, is mandatory for state-funded construction.

**Commercial Code:** None statewide.

**Code Change Cycle:** No set schedule. Most recent update effective: January 1, 1992

No new activity.

### Alaska Links:

Alaska Housing Finance Corp: <http://www.ahfc.state.ak.us>

Alaska State Fire Marshal: <http://www.dps.state.ak.us/Fire/asp/>

## Alabama

**Residential Code:** Residential Energy Code for Alabama (RECA 2000), a state developed code equivalent to 1995 MEC is voluntary. Can use REScheck to show compliance

**Commercial Code:** ASHRAE/IESNA 90.1-1989 for state-owned or state-funded buildings only. Use state-developed software (ABC-4) to show compliance.

**Code Change Cycle:** No set schedule. Most recent update adopted: December 2002

No new activity.

### Alabama Links:

Energy Codes of Alabama: <http://www.bsc.auburn.edu/aderhrw2/codes/>

Dept. of Economic and Community Affairs: <http://www.adeca.state.al.us/>

## Arkansas

**Residential Code:** Arkansas Energy Code, 2003 IECC with state-specific amendments, mandatory statewide; can use REScheck to show compliance.

**Commercial Code:** 2003 IECC (including ASHRAE/IESNA 90.1-2001), mandatory statewide; can use COMcheck-EZ to show compliance.

**Code Change Cycle:** No set schedule. Most recent update effective: October 1, 2004.

The 2003 IECC took effect October 1, 2004. Amendments include elimination of the 0.40 Solar Heat Gain Coefficient requirement in climate zones under 3500 HDD and changes in the R-values for minimum duct insulation. The link for viewing and downloading the new Arkansas Energy Code has been updated. Also available at this Web site are simplified compliance tools for both residential and commercial buildings.

For more info: [http://www.1800arkansas.com/energy/index.cfm?page=energy\\_event&event=16](http://www.1800arkansas.com/energy/index.cfm?page=energy_event&event=16)

## Arizona

**Residential Code:** State: 2000 IECC is voluntary; Phoenix: IBC, IEBC, IECC mandatory; can use REScheck to show compliance.

**Commercial Code:** ASHRAE/IESNA 90.1-1999 mandatory for state-owned and state funded buildings only; Phoenix: IBC, IEBC, IECC mandatory; can use COMcheck-EZ to show compliance

**Code Change Cycle:** No set schedule.

The Phoenix Development Advisory Board has scheduled a public hearing for comments on the 12 codes comprising the Phoenix Building Construction Code, including the 2003 IECC as amended in the 2004 supplements. The public hearing will be held on Thursday, January 20, 2005 at 1:00 p.m. in City Council Chambers, located at 200 W. Jefferson Street.

For more info: <http://>

#### **Arizona Links:**

Arizona Department of Commerce: <http://www.commerce.state.az.us/>

The Structural Engineers Association of Arizona: <http://www.seaoa.org/azcodes.htm>

## **California**

**Residential Code:** State developed code, Title 24, Part 6, exceeds 2000 IECC, mandatory statewide.

**Commercial Code:** State developed code, Title 24, Part 6, meets or exceeds ASHRAE/IESNA 90.1-1999, mandatory statewide.

**Code Change Cycle:** Three-year code change cycle. CA adopted revisions that were effective: June 1, 2001. The Commission began the 2005 building code revision cycle in July 2001 and expects to complete the cycle by 2003.

The 2005 California Energy Efficiency Standards for Residential and Non-residential Buildings takes effect October 1, 2005. A list of changes is now available on the [State of California Energy Commission website](http://www.energy.ca.gov/title24/index.html). Significant changes include energy efficient lighting requirements in nonresidential unconditioned buildings as well as residential buildings; changes to duct and pipe insulation requirements in residential buildings; and the application of new federal air conditioner and water heater standards in all buildings (residential and commercial buildings that use residential size air conditioners).

California Energy Commission staff have begun work on new topic areas for the 2008 cycle. Over the next three years, staff and other interested parties will be working together to finalize the 2008 Standards. There will be several public hearings held from 2005-2007 to give the public an opportunity to participate in the process. The schedule for these meetings has not been finalized yet but will be posted on the Commission's website once it becomes available.

For more info: <http://www.energy.ca.gov/title24/index.html>

#### **California Links:**

CA Energy Standards: <http://www.energy.ca.gov/title24/index.html>

## **Colorado**

**Residential Code:** 1993 MEC for hotels, motels, and multifamily dwellings, mandatory in any area that does not adopt or enforce local codes; can use REScheck to show compliance. (Denver: mandatory 2003 IECC)

**Commercial Code:** Voluntary state provisions based on ASHRAE/IESNA 90.1-1989; can use COMcheck-EZ to show compliance. (Denver: mandatory 2003 IECC)

**Code Change Cycle:** No set schedule.

No new activity.

## Colorado Links:

Energy Conservation Office: <http://www.state.co.us/oemc/>

ColoradoEnergy.org: <http://www.coloradoenergy.org/>

## Connecticut

**Residential Code:** 2003 IECC, mandatory statewide; can use REScheck to show compliance.

**Commercial Code:** ASHRAE 90.1-2001, mandatory statewide; can use COMcheck-EZ to show compliance.

**Code Change Cycle:** Not more than every four years. Most recent update adopted: July 1, 2004.

**There are a variety of energy code training sessions statewide. Contact the Office of Education and Data Management (OEDM) at (860) 685-8330 for a listing.**

For more info: <http://>

## Connecticut Links:

Office of Policy & Mgt: <http://www.state.ct.us/opm>

Office of State Building Inspector: <http://www.state.ct.us/dps/DFEBS/OSBI/TechServ/Cod>

## District Of Columbia

**Residential Code:** 2000 IECC; can use REScheck to show compliance.

**Commercial Code:** ASHRAE 90.1-1989; can use COMcheck to show compliance.

**Code Change Cycle:** Review in progress

The Building Code Advisory Committee meets at 10:00 a.m. on the 3rd Wednesday of every month.

## District Of Columbia Links:

Building and Land Regulation Administration: [http://dcra.dc.gov/information/build\\_lra/index.sht](http://dcra.dc.gov/information/build_lra/index.sht)

D.C. Energy Office: <http://www.dcenergy.org/>

## Delaware

**Residential Code:** 2000 IECC, mandatory statewide; can use REScheck to show compliance.

**Commercial Code:** ASHRAE 90.1-1999, mandatory statewide; can use COMcheck-EZ to show compliance.

**Code Change Cycle:** No set schedule. Most recent update effective: July 1, 2004.

On August 19, 2004, Governor Ruth Ann Minner signed SB 306 adopting the 2000 IECC for residential construction and ASHRAE Standard 90.1-1999 for commercial construction. Effective upon signature.

## Delaware Links:

## Florida

**Residential Code:** State developed code, Chapter 13 of the Florida Building Code, exceeds 2000 IECC, mandatory statewide; can use Energy Gauge FLARES to show compliance.

**Commercial Code:** State developed code, Chapter 13 of the Florida Building Code, meets or exceeds ASHRAE 90.1-1999, mandatory statewide; can use Energy Gauge FLACOM to show compliance.

**Code Change Cycle:** Triennial code revision process. Most recent update: July 1, 2004

The Florida Building Commission has decided to delay the effective date of the 2004 Florida Building Code to July 1, 2005. The new code was originally slated to take effect July 1, 2004 and then initially delayed until January 1, 2005. Although the delay is due to review of non-energy issues, it postpones implementation of the entire code.

On December 7 the Florida Building Commission agreed to three changes to language of the 2004 Edition of the Florida Building Code, thereby clearing the way for the revised code to take effect on July 1, 2005. The revised Florida energy code (with update to ASHRAE 90.1-2001 for commercial applications, and 90.1-2004 lighting power allowances) will go into effect as Chapter 13 of the 2004 edition of the Florida Building Code.

For more info: <http://>

### Florida Links:

Florida Department of Community Affairs, Building Code Division: <http://www.floridabuilding.org/>

Florida Building Commission: <http://www.dca.state.fl.us/fhcd/fbc/index.htm>

Training: [http://www.floridabuilding.org/tr/tr\\_trai\\_prov\\_res](http://www.floridabuilding.org/tr/tr_trai_prov_res)

## Georgia

**Residential Code:** 2000 IECC with 2003 state amendments, mandatory statewide; can use REScheck to show compliance.

**Commercial Code:** ASHRAE/IESNA 90.1-2001, mandatory statewide; can use COMcheck-EZ to show compliance.

**Code Change Cycle:** New editions of codes are reviewed as soon as practicable after publication. Supplements and amendments are updated annually.

Proposed 2005 amendments to the Georgia Construction Codes that have been adopted and come into effect January 1 2005 include: changing Cherokee and Forsyth Counties from Climate Zone 8 to Climate Zone 7A, Roof/Ceiling and Basement Wall Insulation Values, the Compliance by Prescriptive Specification on an Individual Component Basis, as well as changes to the Chapter 9 Reference Standards and Appendix B. Visit the Department of Community Affairs Georgia Construction Codes website for more details.

For more info: <http://www.dca.state.ga.us/planning/codes2.html>

**2005 National Green Building Conference. March 13-15 2005, Atlanta GA. The conference is geared towards education, developing contacts, and networking. 30 educational sessions will be presented, covering topics such as: construction, conservation, energy, and marketing. There will also be a tour of green building projects in the Atlanta area.**

**For more information, call 1 (800) 368-5242 x8338, e-mail at [registrar@nahb.com](mailto:registrar@nahb.com), or visit the conference website at [http://www.nahb.org/meeting\\_details.aspx?meetingID=3249](http://www.nahb.org/meeting_details.aspx?meetingID=3249)**

For more info: [http://www.nahb.org/meeting\\_details.aspx?meetingID=3249](http://www.nahb.org/meeting_details.aspx?meetingID=3249)

Contact: [registrar@nahb.com](mailto:registrar@nahb.com)

### Georgia Links:

Department of Community Affairs Georgia Construction Codes: <http://www.dca.state.ga.us/planning/codes2.html>

Georgia Environmental Facilities Authority: <http://www.gefa.org/>

## Hawaii

**Residential Code:** The Hawaii Model Energy Code exceeds 1995 MEC, voluntary statewide; R-19 or equivalent, mandatory in new residential roofs in Honolulu County.

**Commercial Code:** ASHRAE/IESNA 90.1-1989 with modifications; adopted by all counties except Maui. Honolulu County MEC revised in 11 areas, including adoption of ASHRAE 90.1-1999 efficiency levels of HVAC equipment.

**Code Change Cycle:** No set schedule. Most recent update: October 24, 1994

The Maui County Energy and Economic Development Committee held a Council hearing on September 27th 2004 regarding adopting ASHRAE 90.1-1999 and R-19 or equivalent in new residential roofs. The Committee recognized that the passage of the proposed bill would be an important first step towards meaningful energy efficiency standards by requiring energy efficient equipment and roof insulation in new building construction. The Committee also recognized the need for future discussion on other energy efficiency standards such as solar water heating, high performance windows, and wall insulation. The Committee recommended that the bill entitled, A bill for an ordinance amending Title 16, Maui County Code, pertaining to energy efficiency standards for buildings , be passed on first reading and ordered to print.

### Hawaii Links:

Hawaii Model Energy Code: [http://www.hawaii.gov/dbedt/ert/model\\_ec.html](http://www.hawaii.gov/dbedt/ert/model_ec.html)

## Iowa

**Residential Code:** State energy code minimum based on 1992 MEC, mandatory statewide; jurisdictions can adopt a more stringent code, Jefferson: 2000 IECC; can use REScheck to show compliance.

**Commercial Code:** ASHRAE/IESNA 90.1-1989, mandatory statewide; jurisdictions can adopt a more stringent code, Jefferson: 2000 IECC; can use COMcheck-EZ to compliance.

**Code Change Cycle:** No set schedule. Most recent update adopted April 2002.

Iowa Department of Public Safety (DPS) Commissioner Techau and Director Kenkel announced the appointment of William Stuart (Stu) Crine to the position of Building Code Commissioner in the State Fire Marshal's Division. Commissioner Crine will begin his duties on November 15, 2004. Mr. Crine was the State Building Code Commissioner in Tennessee prior to coming to Iowa. It is anticipated that progress will be made toward adopting newer building energy codes in Iowa now that a State Building Code Commissioner is on board.

### Iowa Links:

Iowa Energy Bureau: <http://www.state.ia.us/dnr/energy>

## Idaho

**Residential Code:** 2000 IRC and IECC mandatory statewide; effective as of January 1, 2003; can use REScheck to show compliance.

**Commercial Code:** 2000 IECC is mandatory statewide; effective as of January 1, 2003; can use COMcheck-EZ to show compliance. 2003 versions of the Building, Residential, mechanical, fuel gas and energy conservation codes as the minimum requirements for all Idaho schools, state owned

**Code Change Cycle:** Three-year code review cycle, concurrent with the publication of new editions of the Uniform Codes.

Please call Ingo Stroup, Senior Energy Specialist, at (208) 332-7153 for information on Information Energy Code training sessions. IECC Technical Training classes: The Division of Building Safety (DBS) is providing free International Energy Code (IEEC) compliance training. These training opportunities are open to the public.

The state of Idaho adopted the 2003 IECC, effective January 1, 2005.

For more info: <http://>

#### **Idaho Links:**

Energy Code Information Network: [http://www.state.id.us/dbs/energy/energy\\_code.html](http://www.state.id.us/dbs/energy/energy_code.html)

## **Illinois**

**Residential Code:** None mandated statewide.

**Commercial Code:** IECC 2000, including reference to ASHRAE 90.1-1999, to be mandatory statewide.

**Code Change Cycle:** No set schedule.

On August 13, 2004, Gov. Blagojevich signed into law House Bill 4099. HB4099 creates the Energy Efficient Commercial Building Act, which mandates statewide adoption of the commercial buildings requirements of the 2000 IECC. The Capital Development Board is responsible for the rulemaking process to establish the procedural criteria for implementation, and the Department of Commerce and Economic Opportunity is responsible for the outreach and training program to educate code officials, designers, and contractors on the details of the code. The implementation date for the code is yet to be determined, and is dependent upon the rulemaking.

#### **Illinois Links:**

Department of Commerce and Community Affairs: <http://www.illinoisbiz.biz/com/energy/index.html>

## **Indiana**

**Residential Code:** 92 MEC; can use REScheck to show compliance.

**Commercial Code:** State-developed code that does not meet ASHRAE/IESNA 90.1-1989; mandatory statewide.

**Code Change Cycle:** State codes are revised as necessary. Most recent update adopted: May 21, 2003

**The Indiana Fire Prevention and Building Safety Commission is in the process of reviewing the 2003 IECC, 2004 IECC, and ASHRAE 90.1-2004 for Class 1 Structures (commercial buildings). A code review committee has been established to determine which, if any, elements of the IECC should be modified. The review is projected to be completed over the winter, with the new code ready for publication in March 2005. A possible effective date is the beginning of 2006.**

For more info: <http://>

#### **Indiana Links:**

General information on the energy code: [http://www.in.gov/doc/businesses/EP\\_building.html](http://www.in.gov/doc/businesses/EP_building.html)

Office of the State Building Commissioner: <http://www.in.gov/sema/osbc/>

## Kansas

**Residential Code:** IECC 2003 effective July 1, 2003 and/or fulfill the Kansas Energy Efficiency Disclosure Form, mandatory statewide; can use REScheck to show compliance.

**Commercial Code:** IECC 2003/ASHRAE/IESNA 90.1-2001 effective: July 1, 2003, mandatory statewide; can use COMcheck-EZ to show compliance.

**Code Change Cycle:** No set schedule. Most recent update: July 1, 2003

No new activity.

### Kansas Links:

KCC: <http://www.kcc.state.ks.us/energy/index.htm>

Energy Extension Service: <http://www.engext.ksu.edu/ees/welcome.htm>

## Kentucky

**Residential Code:** 2002 KY Residential Code; 2000 IECC external envelope requirements, mandatory statewide, 2002; can use REScheck.

**Commercial Code:** 2002 KY Building Code and 2000 IECC for exterior envelope requirements only, mandatory statewide; can use COMcheck-EZ to show compliance.

**Code Change Cycle:** Three-year code review/update cycle. Last updated on August 15, 2001.

Kentucky began the adoption process of the 2003 IECC for commercial buildings at the August 5th meeting of the Board of Housing. The next meeting of the Board of Housing is scheduled for November 4, 2004 where possible action may be taken. If adopted, it is expected that the new code will become effective in 2005. Email Gregory Guess at [Gregory.Guess@ky.gov](mailto:Gregory.Guess@ky.gov) for more information on the meeting.

On November 4th 2004, the Kentucky Board of Housing voted to amend the energy efficiency portion of the Kentucky Building Code (for commercial buildings) by adopting the 2003 IECC. The new code provisions will be effective July 1st, 2005 if approved by the Legislative Research Commission's (LRC) regulations review subcommittee. LRC approval is normally routine in such matters.

This will bring Kentucky's commercial building code into compliance with Title III of the Energy Conservation and Production Act (ECPA), as amended.

### Kentucky Links:

Kentucky Division of Energy's home page at: <http://www.energy.ky.gov/>

Department of Housing, Buildings and Construction: <http://www.state.ky.us/agencies/cppr/dhbc/>

## Louisiana

**Residential Code:** 1995 MEC for low-rise multi-family only, mandatory statewide; can use REScheck to show compliance.

**Commercial Code:** ASHRAE/IESNA 90.1-1989, mandatory statewide; can use modified version of COMcheck-EZ to show compliance.



**Code Change Cycle:** No set schedule. Last update effective on January 1, 1999.

No new activity.

**Louisiana Links:**

Energy Section: <http://www.dnr.state.la.us/sec/execdiv/tehasmt/en>

## Massachusetts

**Residential Code:** MA State Building Code, based on 1995 MEC with state-specific amendments, mandatory statewide; can use REScheck to show compliance.

**Commercial Code:** MA State Building Code, based on ASHRAE/IESNA 90.1-1999, 2000 IECC, and additional state-developed amendments, mandatory statewide; can use COMcheck-EZ to show compliance.

**Code Change Cycle:** The State Board of Building Regulations and Standards (BBRS) is required to revise the building code at least every five years. Public hearings are held each May and November to consider proposed modifications to the code.

No new activity.

**Massachusetts Links:**

BBRS: <http://www.state.ma.us/bbrs/energy.htm>

## Maryland

**Residential Code:** 2000 IECC mandatory statewide; can use REScheck to show compliance.

**Commercial Code:** ASHRAE/IESNA 90.1-1989, mandatory statewide; can use COMcheck-EZ to show compliance.

**Code Change Cycle:** Codes are usually reviewed every three years with the publication of the new editions of the model code.

No new activity.

**Maryland Links:**

Link to the Code Administration's Code Lynx website: <http://lhi5.umbc.edu/dhcd2/news.htm>

Maryland Department of Housing and Community Development: <http://www.dhcd.state.md.us/>

Maryland CODE Administration (CODE LYNX): <http://lhi5.umbc.edu/dhcd/index.htm>

## Maine

**Residential Code:** State-developed code, less stringent than 1992 MEC, mandatory statewide.

**Commercial Code:** ASHRAE/IESNA 90.1-2001, mandatory statewide; can COMcheck-EZ to show compliance.

**Code Change Cycle:** For commercial code, Maine abides by the most recently released ASHRAE Standard.

The Maine Public Utilities Commission will be holding a hearing for comments on the proposed Rule "Chapter 920 Model Building Energy Code" on October 6, 2004 at 9:00 A.M. at the Public Utilities Commission, 242 State St, Augusta, ME in the Horace Libby Hearing Room. The purpose to of this Chapter is to define the components of the Model Energy Code that shall

apply to construction practices that affect the energy use and indoor air quality of buildings in Maine. For further information, contact Paula Cyr at 207-287-3831.

**The Maine Public Utilities Commission (PUC) released a [report on building energy code compliance and enforcement methods](#), in compliance with Maine P.L. 2003 ch.645 (the Energy Code Act). The report complements the statute's directive that the commission adopt a model building energy code through a major substantive rule.**

For more info: <http://www.state.me.us/mpuc/2005legislation/2005reports.htm>

#### **Maine Links:**

The laws that establish building codes and other background material are available at: <http://www.state.me.us/mpuc/2004legislation/buildi>

Maine Code Program: <http://www.state.me.us/spo/ceo/>

## **Michigan**

**Residential Code:** Michigan Uniform Energy Code Part 10 Rules, less stringent than 1992 MEC, mandatory statewide.

**Commercial Code:** ASHRAE/IESNA 90.1-1999 mandatory statewide, effective April, 2003; can use COMcheck-EZ to show compliance.

**Code Change Cycle:** Three-year code review schedule.

A revised residential energy code (proposed by the Bureau of Construction Codes & Fire Safety, and based on Chapter 11 of the 2001 IRC and its reference to IECC) is slated to be sent to the Joint Committee on Administrative Rules in late November for final procedural review. If JCAR takes no action, the rule will pass through the committee and be adopted into law with an effective date of February 28, 2005.

The new energy code rules in Michigan are now official. The rules passed out of the Joint Committee on Administrative Rules (JCAR) on December 17, 2004. They have been filed with the Secretary of State's Office and will go into effect on February 28, 2005.

For more info: <http://>

#### **Michigan Links:**

Michigan Residential Energy Code: <http://www.cis.state.mi.us/bcc/rules.htm>

## **Minnesota**

**Residential Code:** MN State Energy Code, based on the 1995 MEC, mandatory statewide; can use REScheck to show compliance.

**Commercial Code:** MN State Energy Code, exceeds ASHRAE/IESNA 90.1-1989, mandatory statewide; can use COMcheck-EZ to show compliance.

**Code Change Cycle:** No set schedule. Most recent residential code update was effective on April 15, 2000. Most recent commercial code update was effective on July 20, 1999.

Residential Energy Code Advisory committee is working towards a September deadline for recommendations for the new Residential Energy Code, which will be covered at that time in Rule # 1322. The goal of the committee is that the proposed rulemaking will be complete, some preliminary outreach by the MN Department of Administration, Codes and Standards Division will have been conducted, and the rule will be passed by January 1st, 2005, with an effective date sometime in mid-2005. The Commercial Energy Code Committee is following the same timetable and will provide recommendations in Rule #

1323 based upon ASHRAE 90.1-2001.

Minnesota's Residential and Commercial Energy Code Advisory Committees are continuing to work on the new energy code. Meetings are currently suspended to allow the Minnesota Building Codes and Standard Division to write a working draft of the code language for final review at future meetings. The state plans to adopt the code in late 2005, and to begin training in April of this year.

For more info: <http://>

#### **Minnesota Links:**

Department of Administration, Building Codes Division: <http://www.admin.state.mn.us/buildingcodes/>

### **Missouri**

**Residential Code:** None statewide. State-owned single-family and multi-family residential buildings must comply with the latest edition of the MEC or ANSI/ASHRAE Standard 90.2-1993.

**Commercial Code:** None statewide. State owned buildings must comply with ASHRAE/IESNA 90.1-1989.

**Code Change Cycle:** No set schedule. Most recent update was adopted on January 26, 1996.

No new activity.

#### **Missouri Links:**

Energy Center: <http://www.dnr.state.mo.us/de/homede.htm>

### **Mississippi**

**Residential Code:** State energy code, based on ASHRAE 90-1975; voluntary.

**Commercial Code:** ASHRAE 90-1975, mandatory for state owned buildings, public buildings, and high-rise buildings.

**Code Change Cycle:** No set schedule. Most recent update was effective on July 1, 1980.

No new activity.

#### **Mississippi Links:**

Mississippi Development Authority, Energy Division: [http://www.mississippi.org/programs/energy/energy\\_](http://www.mississippi.org/programs/energy/energy_)

### **Montana**

**Residential Code:** 2003 IECC, mandatory statewide; can use REScheck to show compliance.

**Commercial Code:** ASHRAE 90.1-2001, mandatory statewide; can use COMcheck-EZ to show compliance.

**Code Change Cycle:** Three-year code review/change cycle. Most recent update was adopted on September 3<sup>rd</sup>, 2004.

No new activity.

#### **Montana Links:**

Department of Labor and Industry, Building Codes Division: <http://discoveringmontana.com/dli/bsd/bc/index.asp>

## North Carolina

**Residential Code:** State-developed code modeled on the 2000 IECC, mandatory, statewide. Also may use Chapter 11 of 2000 IRC with inclusion of NC amendments; can use REScheck to show compliance.

**Commercial Code:** State-developed code modeled on the 2000 IECC with NC amendments, including ASHRAE/IESNA 90.1-1999, mandatory statewide; can use COMcheck-EZ to show compliance.

**Code Change Cycle:** State Building Code Council reviews and approves changes to the state building code on a bi-annual basis. Most recent update was effective on December 31, 2001.

The state is working to write the 2006 edition of the Energy Code for North Carolina. It will be based on the 2003 IECC with North Carolina amendments. The next scheduled meeting of the Energy Ad Hoc committee appointed to begin work on the NC Energy Code is January 18, 2005, followed by a meeting on February, 2005. The state is aiming for a possible adoption date of January 1, 2006. Please visit the North Carolina [Office of State Fire Marshal website](#) for more information.

For more info: <http://www.ncdoi.com/OSFM/>

### North Carolina Links:

Office of the State Fire Marshal: <http://www.ncdoi.com/OSFM/default.asp>

## North Dakota

**Residential Code:** 1993 MEC, voluntary, can use REScheck to show compliance.

**Commercial Code:** ASHRAE/IESNA 90.1-1989, voluntary; can use COMcheck-EZ to show compliance.

**Code Change Cycle:** New editions of the code are considered for adoption as they become available. Most recent update became effective in October 1995.

No new activity.

### North Dakota Links:

Division of Community Services, Energy Programs: <http://www.state.nd.us/dcs/energy/default.html>

## Nebraska

**Residential Code:** 1983 MEC, mandatory statewide. State-owned and state-funded buildings must comply with 2000 IECC for projects funded after January 1, 2004; can use REScheck to show compliance.

**Commercial Code:** 1983 MEC, mandatory statewide. State-owned and -funded buildings must comply with ASHRAE/IESNA 90.1-1989; can use COMcheck-EZ to show compliance.

**Code Change Cycle:** No set schedule. Most recent update was effective on January 1, 2004.

No new activity.

### Nebraska Links:

Energy Office: <http://www.nol.org/home/NEO/>

## New Hampshire

**Residential Code:** 2000 IECC, mandatory statewide; can use REScheck to show compliance.

**Commercial Code:** ASHRAE/IESNA 90.1-1999, mandatory statewide; can use COMcheck-EZ to show compliance.

**Code Change Cycle:** No set schedule. Most recent update was effective on September 14, 2002.

No new activity.

#### **New Hampshire Links:**

New Hampshire Public Utilities Commission: <http://www.puc.state.nh.us/>

## **New Jersey**

**Residential Code:** 1995 MEC, mandatory statewide as of January 2002; can use REScheck to show compliance.

**Commercial Code:** ASHRAE/IESNA 90.1-1999, mandatory statewide as of January 2002; can use COMcheck -EZ to show compliance.

**Code Change Cycle:** Three-year code cycle concurrent with the publication of new editions of the model codes. Most recent code update adopted: July 16, 2001.

No new activity.

#### **New Jersey Links:**

New Jersey Department of Community Affairs, Division of Codes & Standards: <http://www.state.nj.us/dca/codes/>

## **New Mexico**

**Residential Code:** 2003 IECC, mandatory statewide.

**Commercial Code:** 2003 IECC, mandatory statewide.

**Code Change Cycle:** Generally reviewed at least every three years with the publication of the new editions of the model codes. Most recent code update effective July 1st, 2004.

The 2003 International Energy Code was implemented on July 1, 2004 with New Mexico amendments.

#### **New Mexico Links:**

New Mexico Energy, Minerals and Natural Resources Department: <http://www.emnrd.state.nm.us/>

## **Nevada**

**Residential Code:** 1986 MEC with state amendments; Reno, Washoe County, & Carson City: 2003 IECC.

**Commercial Code:** 1986 MEC with state amendments; state-owned facilities must comply with the most current version of ASHRAE Standard 90.1; Reno, Washoe County, & Carson City: 2003 IECC.

**Code Change Cycle:** No set schedule. Most recent code update was adopted on July 8, 1988: Reno, Washoe County, & Carson City: July 1, 2004.

The Southern Nevada Home Builders Association energy code review committee voted to recommend that the Executive

Committee and Board of Directors support adoption of the 2003 IECC by local building departments. The committee will continue its review with an eye to possible local amendments it will recommend.

#### **Nevada Links:**

Energy Office: <http://energy.state.nv.us/>

Nevada Energy Efficient Housing Connection: <http://www.natresnet.org/nevada/mec.htm>

## **New York**

**Residential Code:** State-developed code based on the 2000 IECC w/2001 supplements, mandatory statewide; can use REScheck to show compliance.

**Commercial Code:** State-developed code based on the 2000 IECC w/2001 supplements, including ASHRAE/IESNA 90.1-1999, mandatory statewide, can use COM-EZ to show compliance.

**Code Change Cycle:** No set schedule. Most recent update was completed on March 6, 2002.

No new activity.

#### **New York Links:**

NY Energy Code Trainings: <http://www.dos.state.ny.us/code/energycode/nyenerg>

Codes Division: <http://www.dos.state.ny.us/code/ls-codes.html>

## **Ohio**

**Residential Code:** 2000 IECC with 2001 Supplement; can use REScheck to show compliance.

**Commercial Code:** ASHRAE/IESNA 90.1-1999, mandatory statewide; can use COMcheck-EZ to show compliance.

**Code Change Cycle:** Most recent update effective January 1, 2002.

Correction: The state is developing building code compliance training software, which will be a self-guide through the codes and will allow for local building code officials to obtain credits through state Board & Training. To be completed by October 31st, 2004 (not September 30th, 2004).

The 2003 IECC was adopted by the Board of Building Standards for Ohio, is mandatory statewide for residential and commercial buildings, and will become effective March 1st 2005.

#### **Ohio Links:**

Office of Energy Efficiency: <http://www.odod.state.oh.us/cdd/oe/default.htm>

## **Oklahoma**

**Residential Code:** 1998 IECC, mandatory for all structures; can use REScheck to show compliance.

**Commercial Code:** ASHRAE/IESNA 90.1-1989 mandatory for jurisdictions that do not adopt their own code and for state-owned and -leased facilities; can use COMcheck-EZ to show compliance.

**Code Change Cycle:** Three-year code review/change cycle concurrent with model code update cycle. The most recent update became effective on May 11, 2000.

No new activity.

### Oklahoma Links:

Department of Commerce: <http://www.odoc.state.ok.us/index.html>

## Oregon

**Residential Code:** A state-developed code, which exceeds the 1995 MEC, is mandatory statewide. State-developed Code Comp software may be used to show compliance.

**Commercial Code:** The Uniform Building Code, a state-developed code, exceeds ASHRAE 90.1-1989, which is mandatory

**Code Change Cycle:** It begins every three years with the availability of new editions of or supplements to the Uniform Codes.

Oregon has adopted and amended the 2003 IBC, to become effective 10/01/04. The Oregon Energy Code amendments have only been slightly updated since new requirements became effective October 1, 2003.

### Oregon Links:

State of Oregon Building Codes Division: <http://www.oregonbcd.org/>

## Pennsylvania

**Residential Code:** 2003 IECC, mandatory statewide.

**Commercial Code:** 2003 IECC, mandatory statewide.

**Code Change Cycle:** Generally reviewed at least every three years with the publication of the new editions of the model codes. Most recent code update effective April 9, 2004.

**13th Annual PA Housing and Land Development Conference. The Pennsylvania Housing Research/Resource Center (PHRC) presents 2 conferences in 1, covering topics such as Pennsylvania's energy code, insulation in basements, and common building failures.**

**February 24 2005 Allentown**

**March 10 2005 Pittsburgh**

**More information and registration forms may be obtained online.**

For more info: <http://www.engr.psu.edu/phrc/>

### Pennsylvania Links:

Pennsylvania Department of Labor and Industry: <http://www.dli.state.pa.us/>

Pennsylvania Code Training Consortium: <http://www.engr.psu.edu/ctc/TrainingSearch.asp>

## Rhode Island

**Residential Code:** 2003 IECC, mandatory statewide; can use REScheck to show compliance.

**Commercial Code:** 2003 IECC amended to include ASHRAE/IESNA 90.1-2001, mandatory statewide; can use COMcheck-EZ to show compliance.

**Code Change Cycle:** Three-year code review/change cycle concurrent with publication of new editions of model codes. Most recent update adopted: August July 1, 2004.

No new activity.

## South Carolina

**Residential Code:** 2000 IECC mandatory statewide. Can use REScheck to show compliance.

**Commercial Code:** ASHRAE 90.1-1989 mandatory statewide. The State Engineer's Office and the SC Department of Education have adopted the ASHRAE 90.1 1999 as the energy code, for state buildings and schools and buildings under their jurisdiction. Can use COMcheck-EZ to show compliance.

**Code Change Cycle:** Pending; see below.

No new activity.

### South Carolina Links:

For the South Carolina BCC calendar: <http://www.llr.state.sc.us/POL/BuildingCodes/INDEX>

Energy Office: <http://www.state.sc.us/energy>

## South Dakota

**Residential Code:** None.

**Commercial Code:** None.

**Code Change Cycle:** N/A.

South Dakota will be receiving technical assistance from the Department of Energy (DOE) and Pacific Northwest National Labs (PNNL) to analyze what the economic costs and benefits would be for South Dakota to adopt the ASHRAE Standard 90.1-1999 as the commercial building energy code. This is part of South Dakota's recent interest in upgrading the state energy standards.

### South Dakota Links:

South Dakota Fire Marshal: [http://www.state.sd.us/dcr/fire/FIRE\\_hom.htm](http://www.state.sd.us/dcr/fire/FIRE_hom.htm)

## Tennessee

**Residential Code:** 1992 MEC, Mandatory statewide.

**Commercial Code:** ASHRAE 90A-1980 and 90B-1975 statewide, voluntary.

**Code Change Cycle:** No set schedule. Most recent update effective: July 2003.

Tennessee certified on July 12, 2004 that it had met the requirements of the Energy Conservation Policy Act when the legislature adopted the IECC 2000 with 2002 amendments as an option to the mandatory commercial code based on ASHRAE Standard 90A-1980 and 90B-1975.

## Texas

**Residential Code:** 2000 IRC and IECC with 2001 Supplement; can use REScheck to show compliance.



**Commercial Code:** 2000 IECC with 2001 Supplement (ASHRAE/IESNA 90.1-1999); can use COMcheck-EZ to show compliance; ASHRAE/IESNA 90.1-2001 (by rule) for state agencies and institutions of higher education.

**Code Change Cycle:** No set schedule. Most recent update effective: May 1, 2001.

No new activity.

**Texas Links:**

Energy Systems Laboratory, Texas A&M University System: <http://eslsb5.tamu.edu/>

## Utah

**Residential Code:** 2003 IECC mandatory statewide; can use REScheck or Home Energy Rating System (HERS) to show compliance.

**Commercial Code:** 2003 IECC mandatory statewide including ASHRAE/IESNA 90.1- 2001; can use COMcheck-EZ to show compliance.

**Code Change Cycle:** Code changes are ongoing with new editions of codes adopted when they become available. Most recent update: January 1, 2004.

The State of Utah is currently reviewing the ICC amendments to the 2003 IECC that were adopted at the national meeting in late May 2004. There has been no date set for adoption of these amendments at this time.

**Utah Links:**

For information on training, go to the website Utah Energy Conservation Coalition: <http://www.utahenergy.org/>

Utah Energy Office: <http://www.energy.utah.gov/>

## Virginia

**Residential Code:** 2000 IECC and IRC, mandatory statewide; can use REScheck to show compliance.

**Commercial Code:** ASHRAE 90.1-1989, mandatory statewide; can use COMcheck-EZ to show compliance.

**Code Change Cycle:** Three-year review cycle concurrent with the publications of new editions of the model codes. Most recent update effective: October 1, 2003.

No new activity.

**Virginia Links:**

Department of Housing and Community Development: <http://www.dhcd.virginia.gov/>

Virginia Board of Housing and Community Affairs: <http://www.vbcoa.org/>

## Vermont

**Residential Code:** RBES exceeds 95 MEC, mandatory statewide; can use REScheck to show compliance.

**Commercial Code:** 2001 Vermont Guidelines for Energy Efficient Commercial Construction based on 2000 IECC with amendments to incorporate and exceed ASHRAE/IESNA 90.1-1999, mandatory for state funded new construction, ACT 250 projects and within the City of Burlington. Voluntary

**Code Change Cycle:** Both the residential and commercial code will be updated every three-years; currently being updated.

Vermont's new residential energy code, the Vermont Residential Building Energy Standard (RBES) went into effect January 1, 2005. The code is the 2000 IECC with state specific amendments

**Better Buildings by Design Conference. February 9-10 2005 at the Sheraton Burlington Hotel and Conference Center. The conference includes more than 30 interactive presentations, addressing topics such as Vermont's new residential energy code, air-sealing and insulating strategies, and high performance and green building practices. Also more than 45 exhibits featuring energy efficiency products and services. Call 1 (877) 248-9900, e-mail [cindy@delaneymeetingevent.com](mailto:cindy@delaneymeetingevent.com), or visit [www.encyvermont.org](http://www.encyvermont.org) for more information on attending.**

For more info: [www.encyvermont.org](http://www.encyvermont.org)

Contact: [cindy@delaneymeetingevent.com](mailto:cindy@delaneymeetingevent.com)

#### **Vermont Links:**

Energy Rated Homes of Vermont: <http://www.erhvt.org/>

## **Washington**

**Residential Code:** State-developed and implemented code. Most recent update effective: July 1, 2002, Amended: July 1, 2004. Exceeds IECC standards for most homes. Mandatory statewide.

**Commercial Code:** State-developed code that meets or exceeds ASHRAE/IESNA 90.1-1989 for envelope, meets ASHRAE/IESNA 90.1-1999 for equipment, lighting, motors. Amended: July 1, 2004

**Code Change Cycle:** Three-year code review/change cycle. Most recent update effective: July 1, 2004.

On November 12, 2004, the Washington State Building Code Council adopted a number of changes to the Washington State Energy Code, to be effective July 1, 2005. Some significant changes include: updating mechanical efficiency requirements to the most recent national standards, provisions for new technology and building science in wall assemblies, updating wall and window thermal efficiency requirements and revisions to lighting allowances. A complete list of changes may be found on the [Washington State Building Code Council website](#).

#### **Washington Links:**

Seattle Energy Code website: <http://www.seattle.gov/dclu/energy/>

Washington State Building Code Council: <http://www.sbcc.wa.gov/>

Washington State University Energy Program: <http://www.energy.wsu.edu/>

## **Wisconsin**

**Residential Code:** State-developed code (COMM 22), which meets or exceeds 1995 MEC for 1-2 family dwellings (can use REScheck when use of WI code is designated); Multi-family dwellings <3 stories; 3 dwellings or more) must meet compliance with the 2000 IECC (can use REScheck when use of 2000 IECC code is designated, mandatory statewide.

**Commercial Code:** 2000 IECC; can use COMcheck-EZ for building envelope, but not for lighting or HVAC to show commercial building compliance; COMcheck-PLUS may not be used.

**Code Change Cycle:** Codes are updated on an ongoing basis through various citizen advisory project committees and the Wisconsin Building Code Advisory Review Board. Most recent update effective: July 1, 2002.

**Better Buildings: Better Business Conference, February 1-2 2005, Kalahari Resort, Wisconsin Dells. The conference program includes effective residential building techniques, covering areas such as building airtightness, mold and construction details, and green building practices. For more information, contact the Wisconsin Energy Center at 1 (800) 466-4631 or visit the conference website at <https://programs.regweb.com/ECW/betterbuildings2005/>**

For more info: <https://programs.regweb.com/ECW/betterbuildings2005/>

#### **Wisconsin Links:**

For more information re: public meetings for Commercial Building Codes, go to: <http://www.commerce.state.wi.us/SB/SB-CodeCouncils>

Department of Commerce Safety and Buildings Division: <http://www.commerce.state.wi.us/SB/SB-HomePage.htm>

#### **West Virginia**

**Residential Code:** 2000 IECC, 2000 IRC with amendments; can use REScheck to show compliance.

**Commercial Code:** 2000 IECC; can use COMcheck to show compliance.

**Code Change Cycle:** No set schedule. The new editions of the code are reviewed for possible adoption as soon as they become available. Most recent update effective: June 1, 2003

No new activity.

#### **Wyoming**

**Residential Code:** 1989 MEC may be adopted and enforced by local jurisdictions

**Commercial Code:** 1989 MEC may be adopted and enforced by local jurisdictions

**Code Change Cycle:** Three-year review cycle concurrent with the publications of new editions of the model codes.

No new activity.

#### **Wyoming Links:**

Wyoming State Fire Marshal: <http://wyofire.state.wy.us/index.asp>

#### **WHAT'S NEW IN CODES:**

##### **ANSI/ASHRAE/IESNA Standard 90.1-2004 NOW AVAILABLE**

The new release of Standard 90.1, *Energy Standards for Buildings except Low-Rise Residential Buildings*, was issued on December 22nd, and is now available from ASHRAE.

The original Standard 90 was published in 1975 and revised editions were published in 1980, 1989, and 1999 using the ANSI and ASHRAE periodic maintenance procedures. Based upon these procedures, the standard was publicly reviewed and published in its entirety each time. As technology and energy prices began changing more rapidly, however, the ASHRAE Board of Directors voted in 1999 to place the Standard on continuous maintenance, permitting the standard to be updated several times each year through the publication of approved addenda to the standard. Starting with the 2001 edition, the standard is now published in its entirety in the fall of every third year. This schedule allows the standard to be submitted and proposed by the deadline for inclusion or reference in model building and energy codes. All approved addenda and errata will be included in the new edition every three years. This procedure allows users to have some certainty about when new editions will be published.

This 2004 edition of the standard has several new features and includes changes resulting from the continuous maintenance proposals from

the public. The standard has been completely reformatted for ease of use and clarity. The climate zones have been reduced from 26 to 8 and the Lighting Power Density allowances have been reduced as well. (Changes from the previous 2001 edition of the standard are not marked in the margin as was the practice with the 1999 edition, because of the extensive reformatting that has taken place in this 2004 edition).

This edition corrects all known typographical errors in the 2001 standard. It includes the content of 31 addenda that were processed by the committee and approved by the ASHRAE and IESNA Boards of Directors. The comprehensive set of changes included in the 2004 version is listed in Informative Appendix F, reprinted here with permission from ASHRAE. [pdf](#) or [html](#)

90.1-2004 is available at the ASHRAE Bookstore at <http://resourcecenter.ashrae.org/store/ashrae/newstore.cgi?itemid=23261&view=item&categoryid=311&categoryparent=311&page=1&loginid=1467177> or by calling ASHRAE Customer Service at 1-800-527-4723. (The SI edition will be available in January 2005.) Price: \$110.00, Member Price \$88.00.

### **ICC Releases 2004 Supplement**

The International Code Council has released its printed version of the 2004 Supplement to the family of I-codes. This single volume includes all approved changes to the IECC, IRC, IBC and eleven other I-codes. Given the complete restructuring of the IECC, the Supplement effectively contains the whole new version. Copies of the Supplement are available from the ICC website at <http://www.iccsafe.org/e/prodshow.html?prodid=3001SP04>. The price is \$10 for members and \$13 for non-members.

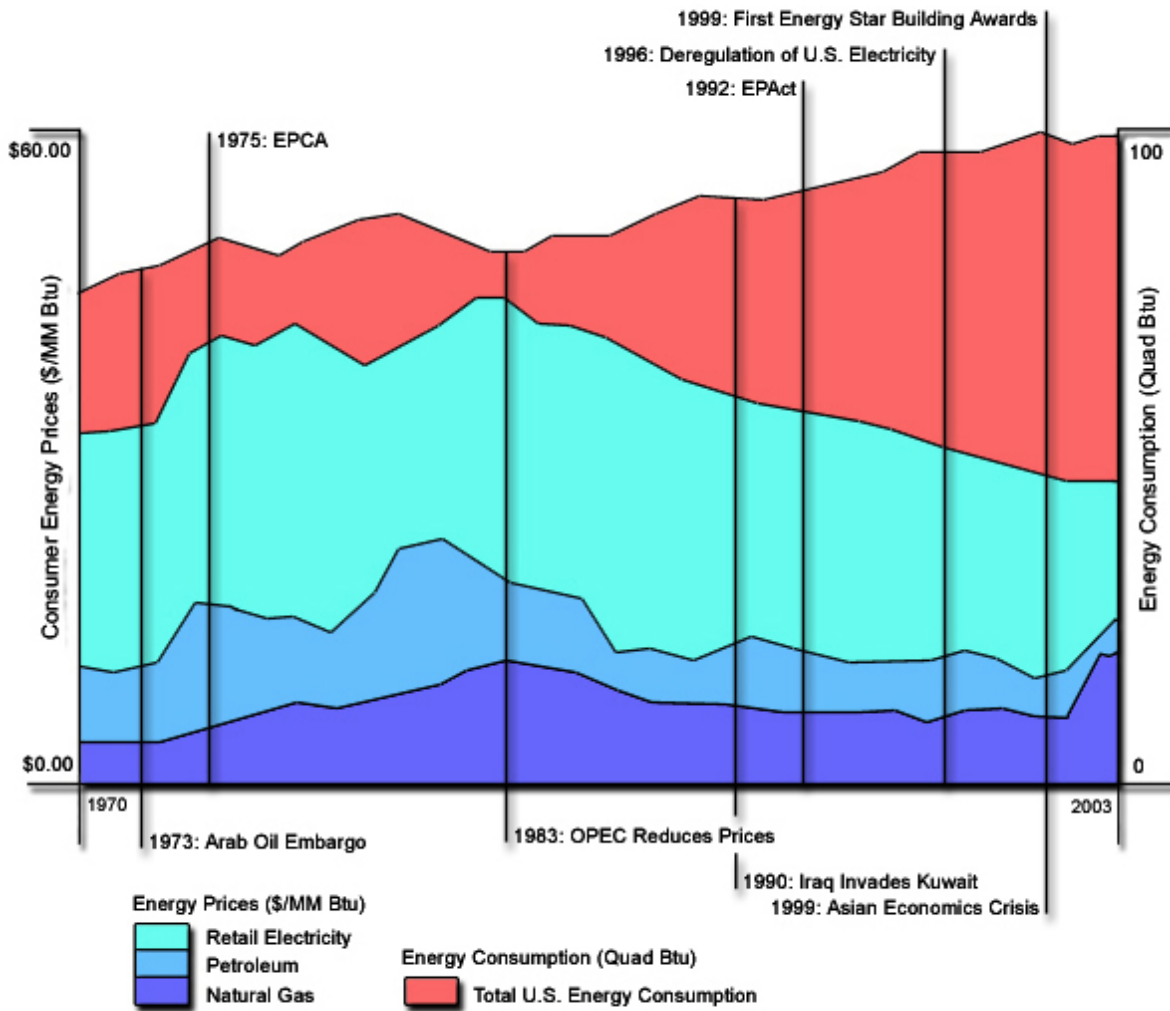
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## **FEATURE ARTICLE**

*This feature article is the first in a series that is to follow through the year . Do not hesitate to let us know if there are issues you feel need to be covered.*

In the spirit of the New Year, our first newsletter offers a brief history of the energy and codes environment, present code development, and a view to the future.

The history of national model energy codes for buildings began in the 1970s, largely as a result of the energy and economic crises that were prevalent through the 70s and 80s. Historically high oil prices and economic shocks that hit the United States prompted Congress to pass the Energy Policy and Conservation Act (EPCA) in 1975. One of the act's primary objectives was petroleum price regulation and allocation. In 1978, an amendment was passed requiring states receiving financial assistance from the federal government to initiate "mandatory programs and measures, including: (1) energy conservation standards for new buildings".

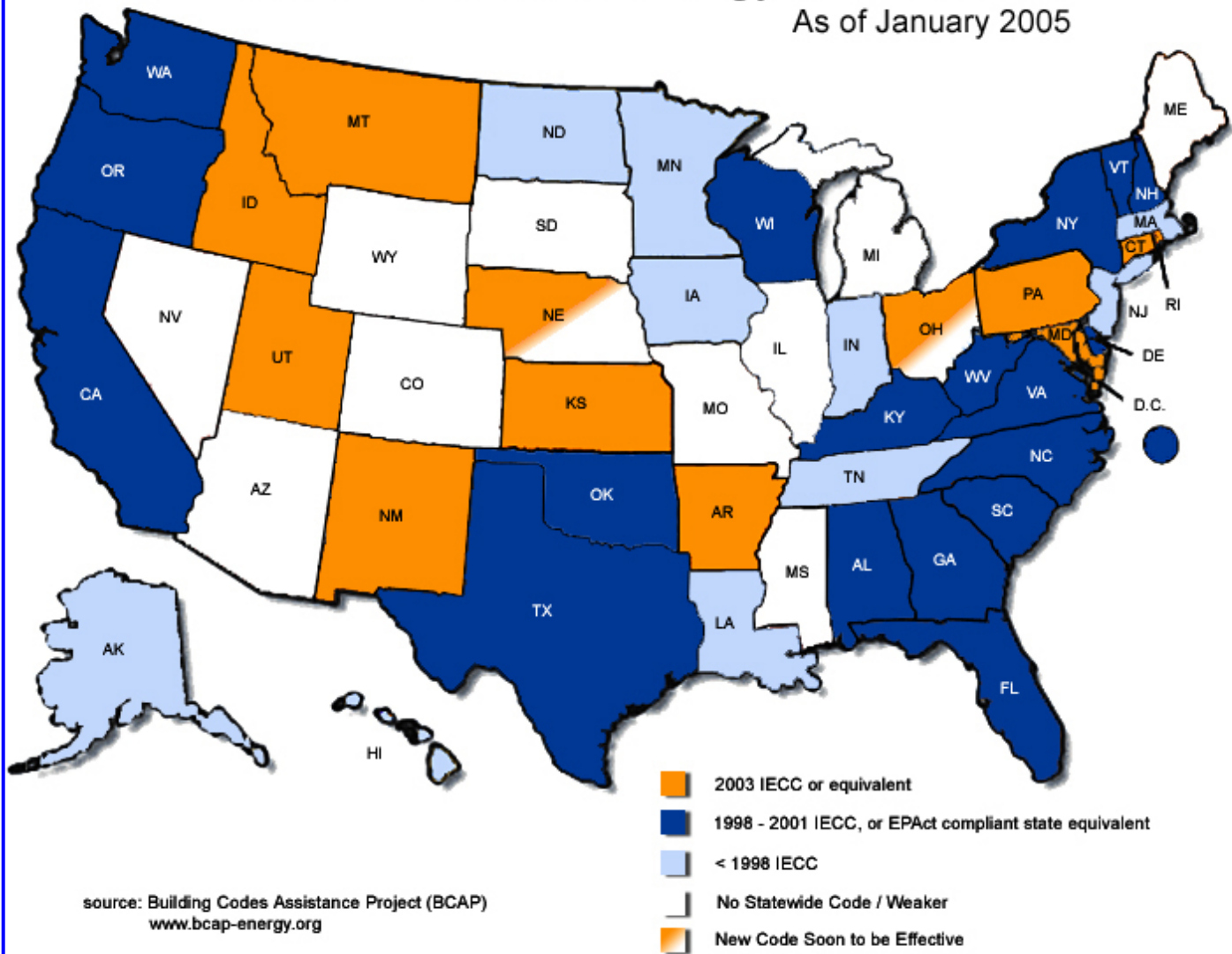


The next major piece of legislation to affect codes was the Energy Policy Act (EPAct) of 1992. EPAct amended the EPCA, establishing a role for the Department of Energy (DOE) to determine whether or not the 1992 Council of American Building Officials (CABO) Model Energy Code (MEC) and the American Society of Heating, Refrigerating, and Air-conditioning Engineers (ASHRAE) Standard 90.1-1989 would improve energy efficiency for residential and commercial buildings respectively. This also applied to subsequent revisions of the code, and is the basis on which DOE is required to make a determination within 12 months of the revision of the respective energy codes. Once a positive determination is published in the Federal Register, each state has 2 years to certify that it has made revisions to the energy provisions in its building code, so that it meets or exceeds the requirements of the latest iteration of the national models. A state may decline to adopt a *residential* energy code by submitting a statement to the Secretary of the DOE, detailing its reasons for doing so. The CABO MEC was last promulgated in 1995 and has since been replaced by the International Energy Conservation Code (IECC).

On January 4th 2001, the DOE issued a determination that the 1998 and 2000 IECC will improve on energy efficiency. On July 15th 2002, a positive determination was issued for ASHRAE Standard 90.1-1999. Currently, 33 states have EPAct compliant residential energy codes, and 34 states have EPAct compliant commercial codes. 12 states have adopted the 2003 IECC or state equivalent for residential buildings, and 15 states have adopted ASHRAE 90.1-2001 or state equivalent for commercial buildings. Some states and local jurisdictions, like Indiana and the city of Phoenix, Arizona, are already considering adopting provisions from the just-published ASHRAE Standard 90.1-2004.

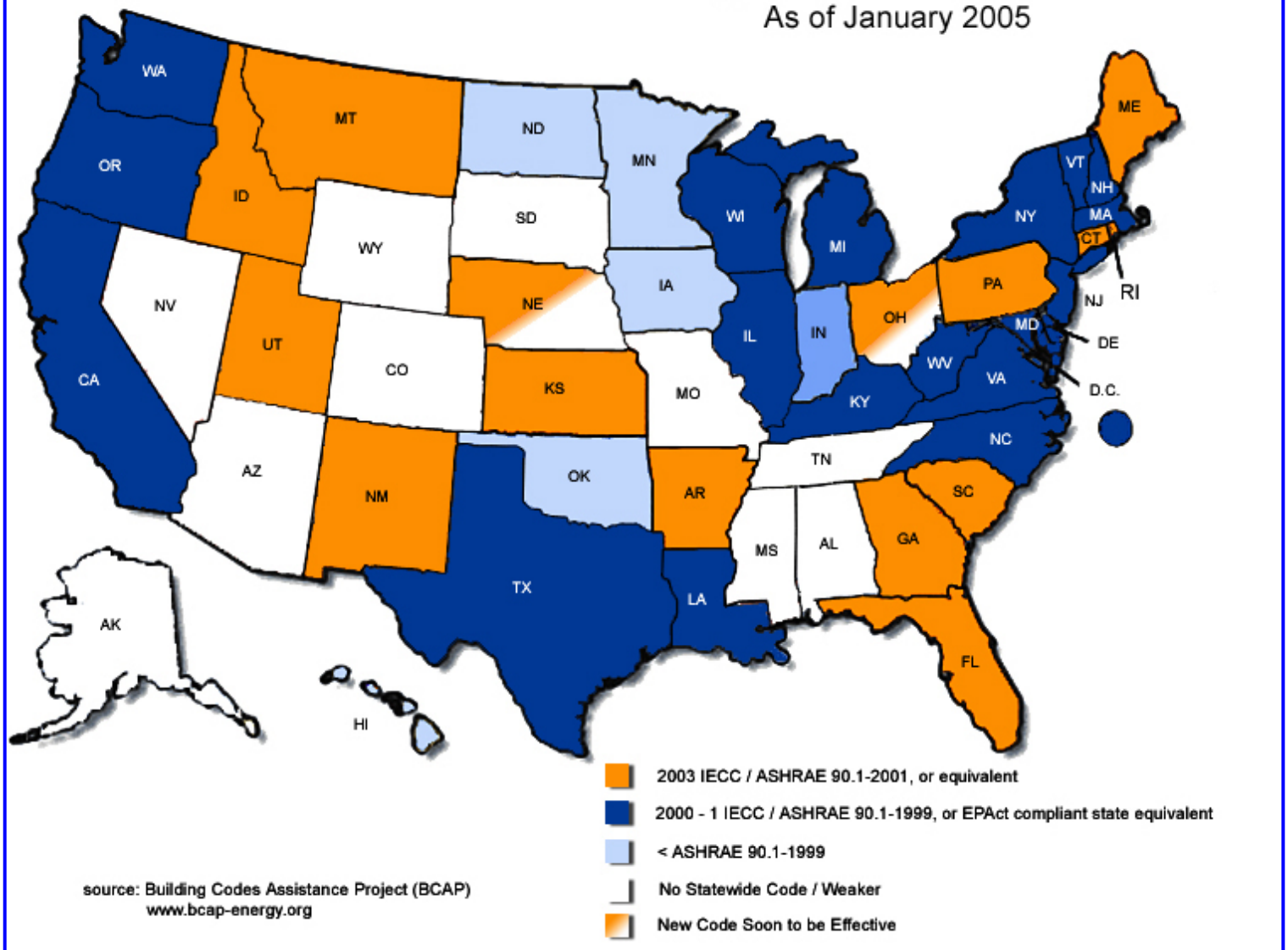
# Residential State Energy Code Status

As of January 2005



# Commercial State Energy Code Status

As of January 2005



ASHRAE 90.1-2004 and the 2004 supplement to the IECC are indicative of where the next generation of codes are headed. The IECC has undergone major revisions that drastically simplify compliance. The number of climate zones has been reduced from 19 to 8, with zones now defined geographically by political boundaries rather than climatically. Insulation levels and window performance criteria in the residential code are now independent of the amount of glass. In addition, most in-the-field design changes require no additional approval from a code official, since modifications no longer require recalculation and re-submittal. Finally, the requirements in a given jurisdiction will not change from house to house as they did before.

ASHRAE Standard 90.1-2004 has undergone similar changes. The Standard has been restructured so that it is more accessible, with a consistent numbering scheme. It also features a reduced number of climate zones that are exactly the same as those found in the IECC. Most significantly, the new 90.1 Standard lowers lighting power allowances by approximately 25%, a very noteworthy improvement that can be met using current off-the-shelf equipment. This change reconciles the 90.1 and IECC power allowances, closing a serious efficiency loophole.

So how do these upgraded codes fit into our current energy picture? While the energy situation is not critical as it was in the 70s and 80s, high oil prices and a world less accommodating to American interests has once again brought our dependence on foreign energy sources into the spotlight. In 2003, U.S. petroleum imports had more than tripled from levels in 1970, to 11.2 million barrels a day. Meanwhile domestic production has continued to drop.<sup>[1]</sup> Natural gas imports have nearly quadrupled from 1,032,903 million cf in 1973 to 3,996,447 million cf in 2003.<sup>[2]</sup> Prices have more than doubled from \$3.07 per million Btu in 1970, to \$6.30 in the year 2000.<sup>[3]</sup> Coal remains cheap and plentiful. However, only a third of coal's potential energy is actually converted to electricity and coal-fired plants are responsible for releasing large volumes of greenhouse gases into our atmosphere.

The uncertainty in energy markets over the last year has resulted in higher overall energy prices for consumers, but highlights an advantage of

energy codes. Efficient codes as a part of a state's total energy management policy helps to smooth out impacts of fluctuations in energy prices. Consumers and businesses both save as a result of efficient codes. Numerous studies show that initial investments in energy efficient buildings offer paybacks within a generally acceptable period of time. A recent study in Iowa shows a payback period, from adopting the 2000 IECC across a range of residential buildings, of between 4.1 to 6.4 years.<sup>[4]</sup> Consumers are expected to have saved between \$110 and \$467 a year in energy costs. A DOE code analysis for New York State concluded that "on a state level, adoption of the new lower [Lighting Power Density] LPD values found in the IECC 2003 and ASHRAE 90.1-2004 are cost effective at effectively any cost recovery base period and well below a 10-year recovery base".<sup>[5]</sup> The study found that there was an estimated decrease in lighting installation costs of \$0.88 per square foot. These kinds of marginal improvements really add up. A recent study by ACEEE indicates that a small decrease in natural gas demand can result in significant reduction in wholesale prices. Reducing consumption nationally by only 2% could yield price reductions of 20% and generate over \$75 billion dollars in savings over a five-year period.<sup>[6]</sup> Building energy codes are an important element in this type of marginal improvement.

Given that most buildings are built to last for long periods of time, it makes sense for these savings to be captured now. States and local jurisdictions owe it to their citizens to ensure the viability of our energy future by adopting responsible energy codes now. The Building Codes Assistance Project (BCAP) provides free support for code adoption and amendment activities in states and local jurisdictions. We are glad to be at your service in the year ahead, and wish you all the best in the coming months.

Comments? Suggestions? We appreciate any and all feedback.  
e-mail us at: [byang@ase.org](mailto:byang@ase.org)

Building Codes Assistance Project  
241 Angell St  
Providence, RI 02906  
Ph 401 273 0263  
[www.bcap-energy.org](http://www.bcap-energy.org)

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[1] Energy Information Administration (EIA). [December 2004 Monthly Energy Review Table 5.1 Petroleum Overview 1949-2003](#) . Washington D.C.

[2] EIA. [U.S Natural Gas Imports by Country, updated December 23, 2004](#). Washington D.C.

[3] EIA, [Consumer Price Estimates for Energy, 1970-2000](#). Prices have been adjusted for inflation, indexed to the year 2000 using [CPI information from the Department of Labor](#). Washington D.C.

[4] Battaglia, Pate and Cloutier, 2004. [A Cost Analysis Study of the Benefits of Building Energy Code Upgrades in Iowa](#). Mechanical Engineering Department, Iowa State University, Ames, Iowa.

[5] E E Richman, 2004. [New York State Code Adoption Analysis: Lighting Requirements](#). Pacific Northwest National Laboratory (PNNL).

[6] Martin Kushler, York and Witte, 2003. [Responding to the Natural Gas Crisis: America's Best Natural Gas Energy Efficiency Programs](#). American Council for an Energy Efficient Economy (ACEEE).

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## RESOURCES:

### REScheck/COMcheck-WEB™

DOE's Building Energy Codes Program is an information resource on national model energy codes. We work with other government agencies, state and local jurisdictions, national code organizations, and industry to promote stronger building energy codes and help states adopt, implement, and enforce those codes. The U.S. DOE's Office of Energy Efficiency and Renewable Energy has a great web-based compliance tool: REScheck/COMcheck-Web (TM). To find out more information regarding energy efficient Building Codes for your state, go to: <http://www.energycodes.gov/>. Both the REScheck and COMcheck are free software downloads. Other Sources of Info



## DOE REGIONAL SUPPORT OFFICES

### Southeast Regional Office

Serving: AL, AR FL, GA, KY, MS, NC, SC, TN, PR, &  
The Virgin Islands  
Tim Eastling  
75 Spring Street, Suite 200  
Atlanta, GA 30308-3308  
(404) 562-0575  
[tim.eastling@ee.doe.gov](mailto:tim.eastling@ee.doe.gov)

### Central Regional Office

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Doug Seiter  
1617 Cole Boulevard  
Golden, CO 80401-2166  
(303) 275-4810  
[doug.seiter@ee.doe.gov](mailto:doug.seiter@ee.doe.gov)

### Northeast Regional Office

Serving: CT, ME, MA, NH, NY, RI, VT  
Daniel Strout  
JFK Federal Building, Room 675  
Boston, MA 02203-0002  
(617) 565-9707  
[daniel.strout@ee.doe.gov](mailto:daniel.strout@ee.doe.gov)

### Mid-Atlantic Regional Office

Serving: DE, MD, NJ, PA, VA, WV, DC  
Karine Shamlian  
The Wanamaker Building  
100 Penn Square East, Suite 890  
Philadelphia, PA 19107-3396  
(215) 656-6978  
[karine.shamlian@ee.doe.gov](mailto:karine.shamlian@ee.doe.gov)

### Midwest Regional Office

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Chicago, IL 60606-4616  
(312) 886-8581  
[john.devine@hq.doe.gov](mailto:john.devine@hq.doe.gov)

### Western Regional Office

Serving: AK, AZ, CA, HI, ID, NV, OR, WA, American Samoa,  
Guam, N. Marianas  
Molly Dwyer  
800 Fifth Avenue, Suite 3950  
Seattle, WA 98104  
(206) 553-1165  
[molly.dwyer@ee.doe.gov](mailto:molly.dwyer@ee.doe.gov)

To learn more about sustainable energy and DOE's programs, please visit our World Wide Web Sites at: <http://www.eren.doe.gov/dro/>. and <http://www.sustainable.doe.gov/>.

## CODE-RELATED GROUPS

ASHRAE (American Society of Heating, Refrigerating and Air-  
Conditioning Engineers)  
1791 Tullie Circle, NE  
Atlanta, GA 30329-2305  
Tel: 404-636-8400  
<http://www.ashrae.org/>

NCSBCS (National Conference of States on Building Codes  
and Standards, Inc.)  
505 Huntmar Park Dr, Suite 210  
Herndon, VA 22070  
Tel: 703-437-0100  
<http://www.ncsbcs.org/>

BECP (Building Energy Codes Program)  
<http://www.energycodes.gov>

NEEA (Northwest Energy Efficiency Alliance)  
529 SW Third Avenue, Suite 600  
Portland, OR 97204  
Tel: 800-411-0834  
<http://www.nwalliance.org/>

ICC (International Code Council)  
5203 Leesburg Pike, Suite 708  
Falls Church, VA 22041  
Tel: 703-931-4533  
<http://www.intlcode.org/>

NEEP (Northeast Energy Efficiency Partnerships)  
5 Militia Drive  
Lexington, MA 02421-4012

IESNA (Illuminating Engineering Society of North America)  
120 Wall Street, Floor 17  
New York, NY 10005  
Tel: 212-248-5000  
<http://www.iesna.org/>

MEEA (Midwest Energy Efficiency Alliance)  
35 East Whacker Drive, Suite 130  
Chicago, IL 60601  
Tel: 312-795-7470  
[www.mwalliance.org](http://www.mwalliance.org)

NBI (New Buildings Institute)  
PO Box 653, 142 E. Jewett Blvd.  
White Salmon, WA 98672  
Tel: 509-493-4468  
<http://www.newbuildings.org/>

Fax: 781-860-9177  
<http://www.neep.org/>

NFPA (National Fire Protection Association)  
1 Batterymarch Park  
Quincy, MA 02169-7471  
Tel: 617-770-3000  
<http://www.nfpa.org>

NFRC (National Fenestration Rating Council)  
8484 Georgia Avenue, Suite 320  
Silver Spring, MD 20910  
Tel: 301-589-1776  
Fax: 301-589-3884  
<http://www.nfrc.org/>

SWEEP (Southwest Energy Efficiency Project)  
2260 Baseline Rd. Suite 212  
Boulder, CO 80302  
Tel: 303-447-0078  
Fax: 303-786-8054  
<http://www.swenergy.org/>

#### **Status of State Energy Codes Web Site:**

This web site is from the U.S. Department of Energy (DOE), the Pacific Northwest National Laboratory (PNNL), and the Office of Energy Efficiency and Renewable Energy, and was developed so that you can access more information on your state's energy building codes. You will find state contacts, current code status, code history, and construction data - all located in this energy codes database. Information can be viewed and printed from this site. Go to: [http://www.energycodes.gov/implement/state\\_codes/index.stm](http://www.energycodes.gov/implement/state_codes/index.stm), then click on "DOE: Building Energy Codes - DOE Status of State Energy Codes." If you have questions or comments, you can email the contact listed in the web site: [pam.cole@pnl.gov](mailto:pam.cole@pnl.gov). For more information on the State Energy Program and for state energy office contacts, please visit: [http://www.eere.energy.gov/state\\_energy\\_program/](http://www.eere.energy.gov/state_energy_program/) or call 1-800-DOE-3732.

#### **Responsible Energy Codes Alliance website:**

Visit RECA's web site at: [http://www.ase.org/RECA\\_SITE/](http://www.ase.org/RECA_SITE/).

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#### **EVENTS:**

- The US Green Building Council has ongoing nationwide LEED(TM) introductions and trainings. Refer to their web site for calendar information.

For more info: [http://www.usgbc.org/Events/events\\_training\\_calendar.asp](http://www.usgbc.org/Events/events_training_calendar.asp)

- International Code Council Seminars are offered nationwide on the I-codes.

For more info: <http://www.iccsafe.org/training/seminars/>

- 13th Annual PA Housing and Land Development Conference. The Pennsylvania Housing Research/Resource Center (PHRC) presents 2 conferences in 1, covering topics such as Pennsylvania's energy code, insulation in basements, and common building failures.

February 24 2005 Allentown  
March 10 2005 Pittsburgh

More information and registration forms may be obtained online.

For more info: <http://www.engr.psu.edu/phrc/>

- 2005 National Green Building Conference. March 13-15 2005, Atlanta GA. The conference is geared towards education, developing contacts, and networking. 30 educational sessions will be presented, covering topics such as: construction, conservation, energy, and marketing. There will also be a tour of green building projects in the Atlanta area.

For more information, call 1 (800) 368-5242 x8338, e-mail at [registrar@nahb.com](mailto:registrar@nahb.com), or visit the conference website at [http://www.nahb.org/meeting\\_details.aspx?meetingID=3249](http://www.nahb.org/meeting_details.aspx?meetingID=3249)

For more info: [http://www.nahb.org/meeting\\_details.aspx?meetingID=3249](http://www.nahb.org/meeting_details.aspx?meetingID=3249)

Contact: [registrar@nahb.com](mailto:registrar@nahb.com)

- Better Buildings by Design Conference. February 9-10 2005 at the Sheraton Burlington Hotel and Conference Center. The conference includes more than 30 interactive presentations, addressing topics such as Vermont's new residential energy code, air-sealing and insulating strategies, and high performance and green building practices. Also more than 45 exhibits featuring energy efficiency products and services. Call 1 (877) 248-9900, e-mail [cindy@delaneymeetingevent.com](mailto:cindy@delaneymeetingevent.com), or visit [www.encyvermont.org](http://www.encyvermont.org) for more information on attending.

For more info: [www.encyvermont.org](http://www.encyvermont.org)

Contact: [cindy@delaneymeetingevent.com](mailto:cindy@delaneymeetingevent.com)

- Better Buildings: Better Business Conference, February 1-2 2005, Kalahari Resort, Wisconsin Dells. The conference program includes effective residential building techniques, covering areas such as building airtightness, mold and construction details, and green building practices. For more information, contact the Wisconsin Energy Center at 1 (800) 466-4631 or visit the conference website at <https://programs.regweb.com/ECW/betterbuildings2005/>

For more info: <https://programs.regweb.com/ECW/betterbuildings2005/>

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## CODE ADOPTION

### RESIDENTIAL ENERGY CODE ADOPTION:

Version or Equivalent State Code	States Adopted
2003 IECC, IRC or equivalent state code	12 States (AR, CT, ID, MT, NM, OH, KS, MD, NE, UT, PA, RI)
2000 IECC, IRC or equivalent state code	17 States and DC (AL, CA, DC, DE, GA, FL, KY, NH, NY, NC, OR, SC, TX, VT, WA, WI, WV, VA)
1998 IECC	1 State (OK)
95 MEC, Mandatory statewide adoption/equivalence	6 States (AK <sup>t</sup> , HI <sup>*</sup> , LA, MA, MN, NJ)
93 MEC, Mandatory statewide adoption/equivalence	1 State (ND <sup>*</sup> )
92 MEC, Mandatory statewide adoption/equivalence	3 States (IA, IN, TN)
No statewide residential code or residential code is not EPAAct compliant	10 States (AZ <sup>t*</sup> , CO <sup>t</sup> , IL <sup>*</sup> , ME, MI, MO <sup>t</sup> , MS <sup>*</sup> , NV <sup>*</sup> , SD, WY <sup>*</sup> )

\*Code implementation depends upon voluntary adoption by local jurisdictions.

<sup>†</sup>Energy code mandatory for state owned/funded buildings.

## COMMERCIAL ENERGY CODE ADOPTION:

ASHRAE/IESNA Standard or Equivalent State Code	States Adopted or Adopting
2003 IECC / ASHRAE 90.1 - 2001	15 States (AR, CT, FL, GA, ID, KS, ME, MT, NM, NE, OH, SC, UT, PA, RI)
ASHRAE/IESNA 90.1-1999, Statewide adoption or equivalent state code	18 States and DC (CA, DC, DE, IL, KY, MA, MD, MI, NH, NJ, NY, NC, OR, TX, VA, VT, WA, WI, WV*)
ASHRAE/IESNA 90.1-1989 and before	7 States (HI, IA, IN, LA, MN, ND*, OK)
No statewide commercial code or commercial code is not EPCAct compliant	10 States (AK, AL <sup>†</sup> , AZ <sup>†*</sup> , CO <sup>†*</sup> , MO <sup>†*</sup> , MS, NV <sup>†</sup> , SD, TN*, WY*)

\*Code implementation depends upon voluntary adoption by local jurisdictions.

<sup>†</sup>90.1 Mandatory for state owned/funded buildings.

## MAPS

- [Map Page](#)
- Large Residential Map: ([pdf](#)) ([jpg](#))
- Large Commercial Map: ([pdf](#)) ([jpg](#))

## WHO IS BCAP?



Building Codes Assistance Project, or BCAP, provides custom-tailored assistance on building energy code adoption and implementation. We assist state and local regulatory and legislative bodies and help coordinate others representing environmental interests, consumers, labor, and industry. BCAP can help states that request assistance, and because the **U.S. Department of Energy** and the **Energy Foundation** funds our Agency, our services are available at no cost. BCAP is a joint-initiative of the *Alliance to Save Energy*, the *American Council for an Energy-Efficient Economy*, and the *Natural Resources Defense Council*. BCAP is structured to quickly deliver assistance where it is needed most - at the state or local level where construction regulation exists.

*"Accelerating the Implementation of Building Energy Codes"*

## FOLLOW STATE BUILDING ENERGY CODE RELATED LEGISLATION

BCAP is in the process of adding an energy code legislation page to help keep track of building energy code activities in state legislatures throughout the country. Summaries of the bills will be provided along with hot links to view full bills and up to date bill statuses.

## PUBLICIZE YOUR ENERGY CODE TRAINING AND CONFERENCES ON BCAP'S WEB SITE

BCAP has an energy code training and conferences page. This page is designed to assist energy code stakeholders in advertising their code training, workshops, conferences, etc. To view the page, go to: [www.bcap-energy.org/](http://www.bcap-energy.org/), then click on "Energy Code Training, Conferences,

Etc." Posting event information on this page is free, but limited to events dealing with energy codes or green building. Send a summary of the event, dates and locations, and contact information for interested parties to find out more about the event. Email event information to:

[bcap@ase.org](mailto:bcap@ase.org).

## BCAP COLLECTING EVALUATION MATERIALS

The Building Codes Assistance Project is conducting research to determine the effectiveness of energy codes that have been adopted over the past 10 years. The first important step is to collect any surveys, reports, or evaluations that have been performed which quantify actual construction practice for residential and commercial buildings. We will use this data to analyze the "savings gap" between the code's potential and what is actually being built. This information will help inform future policy decisions by identifying areas for improvement in codes and building practice beyond codes. Any and all information on studies that your organization has done itself, or that you are aware of which were performed by others would be greatly appreciated. Electronic copies are preferred, but if you have only hard copies those are welcomed too. We very much appreciate your help in collecting this information.

Please respond via email at your earliest convenience to: [dewein.bcap@prodigy.net](mailto:dewein.bcap@prodigy.net) or mail hard copies to the central office address found below.

### CONTACT INFORMATION:

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