

Building Energy Codes 101:

Statewide Benefits to Adoption & Compliance

Building Energy Codes are a Key Component of Any Successful Energy Policy

Buildings use 40 percent of our energy and 70 percent of our electricity. More stringent **building energy codes can greatly improve energy efficiency** in the built environment and achieve economic, infrastructure, environmental, and energy security benefits.

Building codes are a crucial component of any successful energy policy because they create easy-to-understand minimum requirements for all new construction. By adopting building energy codes, a state creates a specific baseline goal to which it can compare current and future performance and measure success.

Building Energy Codes Create Jobs and Save Money and Energy

Setting new standards for energy efficiency through building codes expands and sustains a growing market for energy audits, retrofits, and weatherization--creating a wide-range of **new green jobs**.

Just as importantly, adopting and enforcing current model codes can **save consumers and businesses money on their energy bills**. Consumers can spend money saved from reduced energy bills on other goods and services, and businesses can transfer free-up capital to other areas, such as production, investment, and employee retention. In both cases, building codes can positively impact the economic health of your state.

Today, ASHRAE Standard 90.1-2007 and the 2009 International Energy Conservation Code (IECC) are the national model energy codes, and each is updated on a three-year cycle. Moving from current practice to the 2009 IECC for new homes would result in a national weighted average incremental cost of \$818.72 per new home.

The annual energy savings per home would be \$243.37 on average, meaning the simple payback for homeowners would occur in 3.36 years. If the 2009 IECC were adopted and enforced nationwide, a typical new homeowner would see an annual energy cost savings of nearly 15%. Accrued energy savings mitigates the need for constructing expensive new utility power plants and **decreases the strain on aging infrastructure**.

A Role for State Energy Offices (SEOs)

Energy code compliance and enforcement require significant investments of time and resources from building departments, SEOs, and the building industry. **As key stakeholders, SEOs provide expertise and guidance** to citizens and law makers about the importance of codes in a comprehensive energy policy. SEOs can encourage the adoption of model energy codes in their states and develop a process to ensure compliance.

In February 2009, the American Recovery and Reinvestment Act (ARRA) allocated \$3.1 billion to the State Energy Program (SEP). However, as a condition of accepting the ARRA funding, states were required to provide assurances committing their state to:

- (1) Adopt a building energy code for residential buildings that meets or exceeds the 2009 IECC;
- (2) Adopt a building energy code for commercial buildings and high-rise residential that meets or exceeds ASHRAE 90.1-2007; and
- (3) Develop and implement a plan to achieve 90% compliance by 2017.

SEOs can take the lead in ensuring their state accomplishes those goals while helping transform the building and construction market in their state and achieve major benefits in job creation, economic development, energy and cost savings, and energy security.

The Building Energy Codes Universe: Resources for States

The following resources are highlighted to assist State Energy Offices with their adoption and compliance goals:

Department of Energy (DOE) is the executive branch department charged with setting federal energy policy. DOE is instrumental in the development of the national model codes, sets state-level goals for adoption and compliance, and provides states with implementation assistance, including web-based trainings, technical support, free compliance software, and other resources.

Online Resources:

www.energycodes.gov (homepage)

<http://www.energycodes.gov/publications/techassist.stm> (impact analysis of model code by state)

<http://www.energycodes.gov/help/helpdesk.php> (submit a technical question)

<http://www.energycodes.gov/arra/documents/MeasuringStateCompliance.pdf> (documenting 90% compliance)

Building Codes Assistance Project (BCAP) is dedicated to the adoption, implementation, and advancement of building energy codes. BCAP works across the US to promote state/local adoption and implementation of energy codes by conducting coalition-building and other advocacy activities. They also provide technical assistance, tools, resources, and education to support effective code adoption and compliance.

Online Resources:

www.bcap-ocean.org (OCEAN is an interactive forum and best practice network for energy codes)

<http://bcap-ocean.org/incremental-cost-analysis> (national incremental cost study for the 2009 IECC)

<http://bcap-ocean.org/code-status> (Residential and Commercial Code status by state)

<http://bcap-ocean.org/compliance-planning-assistance-program> (Compliance Planning Assistance (CPA) - getting to 90% compliance)

National Association of State Energy Officials (NASEO) is the only national non-profit organization whose membership includes the governor-designated energy officials from each state and territory. NASEO seeks to improve the effectiveness and quality of state energy programs and policies, provide policy input and analysis, share successes among the states, and to be a repository of information on issues of particular concern to the states and their citizens.

Online Resources:

<http://naseo.org/> (homepage)

Contact:

Brian Henderson (bhenderson@naseo.org)

Regional Energy Efficiency Groups work with states and other stakeholders to promote increased energy efficiency within their region. The 5 regional energy groups are **Midwest Energy Efficiency Alliance (MEEA)**, **Northwest Energy Efficiency Alliance (NEEA)**, **Northeast Energy Efficiency Partnerships (NEEP)**, **Southeast Energy Efficiency Alliance (SEEA)**, and **Southwest Energy Efficiency Partnerships (SWEET)**

Online Resources:

<http://bcap-ocean.org/regional-energy-efficiency-groups> (map showing which group is associated with your state)

<http://www.mwalliance.org/> (MEEA homepage)

<http://www.neea.org/> (NEEA homepage)

<http://www.neep.org/> (NEEP homepage)

<http://www.seealliance.org/> (SEEA homepage)

<http://www.swenergy.org/> (SWEET homepage)