



BUILDING ENERGY CODES

Background

Model building energy codes are developed by private organizations (e.g. International Codes Council (ICC) and the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE)), updated every three years and then adopted by state and local governments. While the federal government does not “adopt” codes, the Department of Energy (DOE) plays a significant role in their development, and also works with states to encourage adoption and enforcement.

DOE’s role in code development has expanded, moving beyond the original authorization of a “technical advisor,” to pushing energy goals, and at times advocating for certain products or technologies.

NAHB believes that DOE should return to their “technical advisor” role and stop any advocacy efforts.

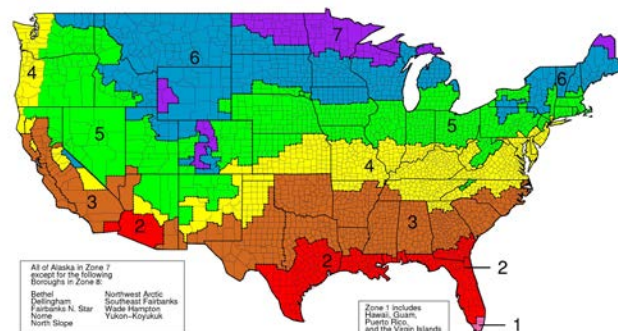
Recent Building Energy Codes

Earlier versions of these model codes were far more cost-effective. Overtime, they have become overly burdensome - expensive, inflexible, and very prescriptive.

The 2012 International Energy Conservation Code (IECC) saw a drastic increase in cost, compared to the 2009 IECC, without saving the homeowner much in reduced utility bills. The chart below shows average utility savings, compared to increases in constructions costs. Climate zone 4 has a 17.3 year payback period – most homeowners do not stay in their homes for that long. Some advocates are pushing for paybacks that extend over the life of a building!

Table 8: 2012 IECC Cost Effectiveness Relative to 2009 IECC

Climate Zone	Annual Energy Savings	Incremental Construction Cost	Simple Payback (yrs)
1	\$206	\$3,224	15.7
2	\$294	\$3,330	11.3
3	\$470	\$7,203	15.3
4	\$410	\$7,091	17.3
5	\$505	\$4,653	9.2
6	\$397	\$6,399	16.1
7	\$609	\$6,465	10.6
8	\$725	\$6,465	8.9
National Weighted Average	\$427	\$5,668	13.3



Talking Points

Energy Codes Are Government Mandates:

- Many claim that energy codes are “voluntary.” They are not. These codes are REQUIRED for EVERY home in a jurisdiction, including housing for low-income families and first time home buyers.
- While the federal government does not adopt codes nationally, DOE has used federal funding to “incent” states to adopt the latest codes. These then become mandates in the states.

Recent Energy Codes Are Not Cost-Effective:

- Earlier versions of the energy codes were far more cost-effective. By using energy-efficient windows or lighting, consumers saw a big bang for their buck. But now, the code includes very costly requirements that do not have the same return on investment.
- An average home built to the 2012 energy code, compared to the 2009 energy code, would cost the homeowner thousands of dollars in increased construction, and it would take them anywhere from 8.9 to 17.3 years to break even (through utility savings). Keep in mind the codes are updated every three years so this cost keeps growing.
- By driving up costs in the energy code, lower income families will be forced into existing housing, which tend to use far more energy than new housing.

Energy Codes Should Be Product/Technology Neutral

- Some manufacturers have realized that by mandating their product in the code, they can gain market advantage. For example, wall constructions favor foam sheathing over wood products in certain climate zones. Any code should be technology and product neutral and should not pick winners and losers.
- NAHB has sought DOE support for energy-neutral tradeoffs that give builders more flexibility to meet homeowners’ needs, while also reaching the energy goals. Unfortunately DOE did not support these proposals. Builders can meet these goals, but they need their hands untied.

The Role of the Federal Government

- DOE should return to its congressionally authorized role as a “technical advisor” and not push certain energy goals, or any particular products/technologies.
- In the past, DOE has given money to states to adopt the latest code. Federal funds should not be used for this purpose. Instead, DOE should help states implement whatever requirements the state chooses, including training code officials and aiding compliance/enforcement efforts.

Take Action

- Congress - Enact legislation that increases transparency in the development of energy codes and ensures that advancements in energy efficiency are also cost-effective. H.R. 1616, sponsored by Representatives David McKinley (R-WV) and Peter Welch (D-VT) is an appropriate vehicle for this type of reform, but more work needs to be done.

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