

VEIC Study Review Synthesis – Energy Codes – Chapter 12
April 11, 2012

Summary of Chapter 12

The VEIC study called attention to the importance of building-energy codes, and the 2009 International Energy Conservation Code and the 90.1 ASHRAE 2007 Standards in particular. VEIC brought to this study a broad view of energy codes best practices from other states and regions. Included in this is the encouragement of more stringent stretch codes, those that go beyond the baseline. Other energy-code recommendations made in the VEIC study support the maturation of improved energy-code compliance tools. [Other than expeditious ratification of the 2009 family of building codes](#), there were limited recommendations that the Chapter Review Team would consider as requiring early/immediate action [on by the legislature](#) as many of the other recommendations made in the study are already being addressed by or are the responsibility of other stakeholders.

Chapter Teams Findings

Top Priorities for Early Action.

VEIC recommends, and the review committee concurs, that ratifying updated codes upon their review and adoption by the NH Building Code Review Board is the most important step that the legislature should take now and going forward.

Priorities for Medium or Long-Term Action.

As many of the other recommendations made in the study are already being addressed by or are the responsibility of other stakeholders, the review committee recommends that the Energy Code Collaborative be asked to consider the Building Energy Code Chapter as it analyzes the GDS report to determine appropriate solutions to improving energy code compliance statewide.

Areas for Further Consideration

LAURA – DID YOUR TEAM DISCUSS OR IDENTIFY ANYTHING IN THE STUDY THAT NEEDS TO BE RECONSIDERED (COULD BE IT'S OUTRIGHT WRONG OR NEEDS TWEAKING) OR SOME WHOLELY NOVEL OR INNOVATIVE THAT ANOTHER GROUP SHOULD EXPLORE IN MORE DETAIL – COULD BE NEW TO VEIC OR THE CODE COLLABORATIVE.

NO NEED TO ADD IN THIS SECTION UNLESS YOUR TEAM FEELS THAT THERE IS SOMETHING SUBSTANTITVE TO PASS ALONG.

Comment [L1]: I think we are otherwise all set.

Background

Innovative building materials and technologies continue to add complexities and performance expectations to the construction of new and renovated buildings. Building science offers opportunities to systematically incorporate modern, health-and-safety, and cost-effective measures into new construction. The professionals who design, build, and inspect homes and commercial buildings rely on tools such as building codes and standards for guidance and consistency. Energy codes are part of the family of building codes and standards developed on a three-year cycle by the International Code Council (ICC) and the American Society of Heating, Refrigeration, and Air-conditioning Engineers (ASHRAE), along with many other stakeholders and interested parties.

New Hampshire has been operating under the 2009 family of codes since April 1, 2010. Buildings that comply with the IECC2009 and ASHRAE 90.1 – 2007 are 14% more energy efficient than those built to the 2006 codes. Although these are statewide codes, compliance rates vary significantly. According to a study by the Building Codes Assistance Project and cited by VEIC in their report, New Hampshire’s building owners could save \$31 million dollars a year and 3 trillion BTUs of primary energy through compliance with the 2009 codes. [According to a study issued in April 2012 by GDS Associates, New Hampshire’s compliance rate with energy codes is estimated at approximately 45%.](#)

The VEIC study called attention to the importance of building-energy codes, and the 2009 International Energy Conservation Code and the 90.1 ASHRAE 2007 Standards in particular. **Relevant to the General Court, VEIC recommends, and the review committee concurs, that ratifying updated codes upon their review and adoption by the NH Building Code Review Board is the most important step that the legislature should take.** Currently, the General Court is addressing the 2009 code cycle. It is anticipated that future code cycles will also come before them for ratification.

With an existing infrastructure in NH addressing building code issues – the NH Building Code Review Board, [the NH Fire Marshal’s Office](#), NH Building Officials Association, NH Homebuilders and Remodelers, a new Energy Code Collaborative group convened through the NH Energy Code Challenge, and others – **many of the other recommendations made in the study are already being addressed by or are the responsibility of other stakeholders.** Additionally, a comprehensive report about NH’s energy-code compliance ~~will be was~~ issued in April 2012 by GDS Associates, Inc., of Manchester. **The GDS report lays-out in roadmap-form guidance to improving compliance to 90% by 2017, a target established by the US Department of Energy and tied to stimulus funding.** VEIC issued their report while GDS’s research was ongoing.

Funding mechanisms for energy code training, resources, education and outreach, and enforcement support are needed to improve energy code compliance. Some NH

communities seek additional clarification of code enforcement roles between the State and municipalities and clarification of compliance verification methods. It is anticipated that the Energy Code Collaborative group will analyze the GDS report to determine appropriate solutions. **Therefore, it is premature for the General Court to address these issues at this time.**

Other energy-code recommendations made in the VEIC study support the maturation of improved energy-code compliance tools. These include the continuation of energy code training programs (supported by the PUC, and funded by the NH Utilities) and resources for building professionals, and consumer awareness. Additionally, the development of a Building Labeling or Rating System, whereby building occupants and owners will better understand expected energy use and costs, is also considered an important tool for implementation. The study also encourages adherence to and enforcement of the High Performance Building Code for State-owned buildings. Similar to baseline building codes, the benefits are only realized when code compliance is met.

VEIC brought to this study a broad view of energy codes best practices from other states and regions. Included in this is the encouragement of more stringent stretch codes, those that go beyond the baseline. In NH, those codes are currently voluntary and market driven. Other states and communities recognize a significant benefit of stretch codes and incentivize buildings that meet certain performance standards.