

**VEIC (“SB323”) Study Review Committee**  
**Chapter 12 - The Importance of Building Energy Codes and Code Enforcement**  
**July 5, 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 Chapter 12 review committee concurs, that the most important step that the legislature should take now and going forward concerning codes is the ratification of updated codes in a timely fashion following the review and adoption of those codes by the NH State Building Code Review Board<sup>1</sup>.

***Priorities for Medium or Long-Term Action.***

As many of the other recommendations made in Chapter 12 are already being addressed by or are the responsibility of other stakeholders, the chapter review team recommends that the VEIC Building Energy Code Chapter be referred to the newly formed Energy Code Collaborative. The collaborative is a multi-stakeholder entity, composed of public, private and non-profit entities, which will analyze the April 2012 GDS report, the *New Hampshire Energy Code Compliance Roadmap*<sup>2</sup>, to determine appropriate solutions to improving energy code compliance statewide.

Due to the timing of the release of the VEIC study (September 2011) and the GDS report (April 2012), the GDS report authors were able to consider the VEIC recommendations prior to release of their roadmap.

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<sup>1</sup> The New Hampshire State Building Code Review Board (hereafter referred to as "Board") is charged with the responsibility for reviewing and updating the New Hampshire building code - <http://www.nh.gov/safety/boardsandcommissions/bldgcode/>.

<sup>2</sup> The report is the result of the NH Energy Code Challenge project that had goals to map out NH's existing energy code landscape, identify barriers to energy code compliance across the state's residential and commercial building sectors, and develop a plan of action outlining NH-specific recommendations for achieving 90% energy code compliance by 2017 - <http://www.nhenergycode.com/live/index.php?go=roadmap>.

## **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 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.

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