

## **ENERGY EFFICIENCY AND SUSTAINABLE ENERGY BOARD**

RSA 125-O:5-a  
21 South Fruit Street, Suite 10  
Concord, N.H. 03301-2429

Adopted April 20, 2018

### Policy Statement to the Building Code Review Board on Current Energy Codes for Building Construction

The New Hampshire Energy Efficiency & Sustainable Energy Board (EESE Board) supports the adoption and implementation of modern energy codes and standards for building construction in our state. The EESE Board has long recognized that energy efficiency and conservation are the least-cost energy resources available to our state. The EESE Board was created by the legislature “to promote and coordinate energy efficiency, demand response, and sustainable energy programs in New Hampshire.”<sup>i</sup> Its members include representatives of state agencies, consumers, the Legislature, nonprofit groups, and private industry.

The EESE Board recognizes that buildings are long-term assets and that each building constructed today could affect energy consumption for the next 50 to 100 years.<sup>ii</sup> The EESE Board further recognizes that incorporating energy efficiency measures at the time of construction is one of the most cost-effective strategies for reducing fuel and utility costs otherwise borne by the consumer.<sup>iii</sup>

The International Energy Conservation Code (IECC) is a vital strategy for reducing energy use, thereby reducing direct costs to consumers for their fuel and utility purchases. By taking advantage of recent technological advances - through adoption of modern building construction standards and code compliance strategies - New Hampshire consumers can benefit from opportunities to reduce the total cost associated with building ownership by reducing building energy consumption costs over the lifetime of their homes and businesses. Further, as the 2014 New Hampshire Ten-Year Energy Strategy recognized, the cost savings of building energy code update and compliance efforts will help consumers keep more of their dollars in our local economy.<sup>iv</sup>

A building energy-use model, developed for the U.S. Department of Energy, projected that residential buildings in New Hampshire would experience a 20.8 percent reduction in energy consumption if built to the 2015 edition when compared to the 2009 edition of the IECC, the current NH building-energy code. This reduced energy consumption equates to an average annual avoided-energy cost of \$542 across single and multi-family homes in the southern tier of the state, and an average annual avoided-energy cost of \$693 in the northern tier. Over the life of a 30-year mortgage, homeowners were projected to realize \$8,575 in avoided-energy costs in southern New Hampshire and \$10,258 in the North.<sup>v</sup> Adoption of modern energy codes and standards will not only provide cost savings for heating, cooling, and lighting for homeowners, but it will help keep New Hampshire economically competitive.

The EESE Board strongly encourages the Building Code Review Board and the Legislature to recognize the value provided by improvements and updates to the International Energy Conservation Code as they consider updating the definition of the NH Building Codes in RSA 155-A. The EESE Board also recommends that modern codes be adopted in a comprehensive way that recognizes the direct savings in energy bills to the consumer.

The EESE Board remains ready to assist in the discussion and provide its input to the Legislature and the Building Code Review Board for the development of meaningful and modern energy improvement codes.

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<sup>i</sup> RSA 125-O:5-a Energy Efficiency and Sustainable Energy Board, available at: <http://www.gencourt.state.nh.us/rsa/html/X/125-O/125-O-5-a.htm>.

<sup>ii</sup> US Department of Energy. Quadrennial Technology Review 2015. Supplemental Information. (2015) Page 19. Available at: <https://energy.gov/sites/prod/files/2016/10/f33/Ch1-SI-Additional-Information-on-Energy-Challenges.pdf>

<sup>iii</sup> The Edison Foundation. Utilities and Building Energy Codes: Air Quality and Energy Savings Opportunities. (Describing the cost of energy codes and standards as 1.1 cents/kWh, or 1/3 the cost of the average residential program) Available at: [http://www.imt.org/uploads/resources/files/IEE-IMT-UtilitiesAndBuildingEnergyCodes\\_FactSheet.pdf](http://www.imt.org/uploads/resources/files/IEE-IMT-UtilitiesAndBuildingEnergyCodes_FactSheet.pdf)

<sup>iv</sup> New Hampshire Office of Energy and Planning. New Hampshire Ten Year State Energy Strategy. (2014) Page 31-35. Available at: <https://www.nh.gov/osi/energy/programs/documents/energy-strategy.pdf>

<sup>v</sup> The average percent energy reduction, the avoided-energy costs, and 30-yr life-cycle avoided-energy costs were calculated for the EESE Board using more recent state energy cost data and revised tax rate assumptions. The revised projections were calculated using the US DOE's State Savings Calculator available on the US DOE Building Energy Codes Program's Residential Energy & Cost Savings Analysis webpage: <https://www.energycodes.gov/residential-energy-cost-savings-analysis>. Version 163 of the Excel based calculator was used.

This calculator provides a means to tailor state-level energy code cost-effectiveness analysis. While the tool mimics the DOE methodology used by the Pacific Northwest National Laboratory (PNNL) to complete official state analysis reports, the calculator allows the customization of economic assumptions and other parameters. These include parameters such as local cost adjustments, energy prices and escalation rates, inflation and taxes, loan terms, and the overall study period used for the analysis. The calculator generates reports that summarize results in a format similar to the PNNL state reports.

For the EESE Board, only the per unit energy costs, the marginal income tax, and the property tax rate were revised to develop the values for the annual avoided-energy costs and the 30-yr life-cycle cost. The property tax assumption was revised from 1.1 percent to 2 percent and the marginal income tax was revised from 5 percent to 0 percent. The revised per unit energy costs of \$2.96/gallon of heating oil, \$1.28/therm of natural gas, and \$0.18/kWh were obtained from the New Hampshire Office of Strategic Initiatives "Fuel Prices" website: <http://www.nh.gov/oep/energy/energy-nh/fuel-prices/index.htm> on March 12, 2018. A digital summary of the calculator's output is available on the EESE Board webpage: <https://www.puc.nh.gov/EESE.htm>.

The original US Department of Energy and Pacific Northwest National Laboratory's report Cost-Effectiveness Analysis of the Residential Provisions of the 2015 IECC for New Hampshire (2016), is available at: [https://www.pnnl.gov/main/publications/external/technical\\_reports/PNNL-24937Rev1.pdf](https://www.pnnl.gov/main/publications/external/technical_reports/PNNL-24937Rev1.pdf).

**Committee to Study Procedures for Adoption of National Codes  
by the State of New Hampshire**

**HB 1254, Chapter 294, Laws of 2018**

**Final report Filed November 1, 2018**

**MEMBERS:**

Rep. Steven P. Beaudoin, Chairman  
Rep. Raymond G. Gagnon, Clerk  
Rep. Carol M. McGuire  
Sen. Sharon M. Carson  
Sen. Robert J. Giuda

**CHARGE OF THE STUDY:**

The committee was charged to study the procedures for adoption of national codes as part of the state building code and state fire code, including the Life Safety Code, the Uniform Fire Code, the International Building Code, the International Existing Building Code, the International Plumbing Code, the International Mechanical Code, the International Energy Conservation Code, the International Residential Code, and the National Electric Code.

**RECOMMENDATIONS:**

The committee developed legislative remedies to address problems identified in their findings. These remedies were grouped into four general topic areas and should serve as the basis for legislation filed in the 2019 legislative session.

The four bills should address:

- A. Adoption of Local Amendments to the State Building Code and State Fire Code adoption
- B. Establishing a standard procedure and timeline for the adoption of new editions of codes
- C. Adoption of the 2015 suite of building codes as amended by the BCRB
- D. Code enforcement officials, citations and fees

NHDES HB1254 Report Notes:

Key features of those HB1254 Committee report recommendations – committee description below) relative to energy are that:

1. Municipalities would need to adhere to the State Building Code (including the Building Energy Code) with any amendments adopted at the state level, and that municipalities would be prohibited from adopting complete code updates, or adopting and enforcing local amendments to any state adopted codes without the prior approval of the Building Code Review Board (BCRB);
2. The state should adopt the 2015 International Construction Codes (ICC) with the 2017 BCRB amendments. These amendments held specific building energy requirements (e.g., insulation, air changes) at or close to the 2009 International Energy Conservation Code (IECC) and International Residential Code levels;
3. The state should, going forward, adopt updates to the building code definitions on three-year cycle, adopting the ICC codes three years after their release and following a thorough review by the Building code Review Board, with NH specific amendments made as necessary. For example, the 2018 ICC, which is already available, would therefore be adopted with amendments in 2021; and
4. The state should consider ensuring that building code inspectors are trained and certified to inspect and approve buildings.

## 2019 LSR List Relative to Building Code and Building Energy Code Process

### Compiled by NHDES

1. LSRs Filed for 2019. Each of these is related to the recommendations in the HB1254 (2018) report listed below.

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2019-0269	HB	<b>Title:</b>	relative to adoption of state building code and fire code amendments. (presume prohibition of municipal code adoption and enforcement; possibly three-year adoption cycle, and establishment of required information to support changes - CJS)
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**Sponsors: (Prime)** Carol McGuire

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2019-0304	HB	<b>Title:</b>	relative to the definition of the state building code. (presume adoption of the 2015 suite of building codes as amended by the BCRB. Recent communication suggests that the 2015 IECC may be excluded from the legislation and that the building energy code definition in RSA 155-A:1 would remain at the 2009 IECC - CJS)
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**Sponsors: (Prime)** Steven Beaudoin

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2019-0367	HB	<b>Title:</b>	relative to building code requirements for properties with a current certificate of occupancy.
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**Sponsors: (Prime)** Steven Beaudoin

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2019-0368	HB	<b>Title:</b>	relative to building code violations.
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**Sponsors: (Prime)** Steven Beaudoin

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2019-0369	HB	<b>Title:</b>	relative to certification of code compliance inspectors.
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**Sponsors: (Prime)** Steven Beaudoin

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2019-0370	HB	<b>Title:</b>	requiring code compliance inspection for building permits. (presume can't charge building permit fees if don't provide building inspection service - CJS)
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**Sponsors: (Prime)** Steven Beaudoin

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