



Shaping Tomorrow's  
Built Environment Today

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2024-2025 ASHRAE President

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January 17, 2025

The Honorable Carol McGuire  
House Committee on Executive Departments and Administration  
The New Hampshire House of Representatives  
State House  
107 N Main St.  
Concord, NH 03301

RE: House Bill 96

Dear Representative McGuire:

I am writing on behalf of ASHRAE, the American Society of Heating, Refrigerating, and Air Conditioning Engineers. We are a professional and technical society of more than 54,000 members dedicated to energy efficiency, indoor air quality, resiliency, and sustainability in the built environment. Through our Society's research, standards writing, publishing, certification, and continuing education, ASHRAE shapes tomorrow's built environment today. As one of the premier subject matter experts on the built environment, and on behalf of our 179 members in the state of New Hampshire, we wish to convey our support of New Hampshire House Bill 96 and to advocate for its swift passage in your committee.

New Hampshire House Bill 96, titled "*requiring New Hampshire builders to use the 2021 Energy Building codes or a similar code that achieves equivalent or greater energy savings*" would update New Hampshire's model energy conservation code from the 2018 edition of the International Energy Conservation Code (IECC) to the 2021 edition of the same code, or to any other code that offers the same value, such as the 2024 edition of the IECC.

The IECC references numerous ASHRAE standards, most notably Standard 90.1, *Energy Standard for Sites and Buildings Except Low-Rise Residential Buildings*. In the IECC, Standard

90.1 is used as a compliance pathway for commercial construction. Standard 90.1 can also be used for residential construction of buildings four stories or greater.

There are substantial benefits to updating the state's energy code, but they boil down to this: energy efficiency gains that drive down operating costs for building owners and occupants and reduce energy consumption.

According to one of the U.S. Department of Energy Laboratories<sup>1</sup>, use of the 2021 IECC vs. the state's current code would result in homeowner savings of \$537 per year.<sup>2</sup> While the improved energy efficiency would increase construction costs somewhat – by about \$401 - the new homeowner would be cashflow positive in the first year, and would fully recoup their increased investment early in their second year of home ownership.<sup>3</sup> Statewide, this would yield over \$700,000 saved on energy costs in the first year and over \$245 million over a 30-year period, while mitigating the release of over 650,000 metric tons of carbon dioxide over the same period.<sup>4</sup>

Regarding commercial construction, we expect to see similar results with this updated energy efficiency code: minimal upfront cost increases paired with substantial energy savings leading to short payback periods and associated massive mitigation of carbon emissions.<sup>5</sup>

Finally, there are benefits to safety and resilience from updating the state's energy code. Buildings constructed to a modern energy code keep their occupants safe for longer when the power goes out during inclement weather, and because buildings constructed to a modern energy code draw less power from the grid, they also keep the grid online for longer when it's under stress during inclement weather.

Some special interest groups will likely claim that adopting a modern energy code will cost New Hampshire homebuyers tens of thousands of dollars and price tens of thousands of people out of the market. These claims are based on studies that use poor methodology and unrealistic

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<sup>1</sup> "New Hampshire Can Save Energy, Money, and Mitigate the Effects of Climate Change through Building Energy Codes BUILDING ENERGY CODES." n.d. Accessed January 17, 2025.

[https://www.energycodes.gov/sites/default/files/2021-](https://www.energycodes.gov/sites/default/files/2021-07/EED_1365_BROCH_StateEnergyCodes_states_NEW_HAMPSHIRE.pdf)

[07/EED\\_1365\\_BROCH\\_StateEnergyCodes\\_states\\_NEW\\_HAMPSHIRE.pdf](https://www.energycodes.gov/sites/default/files/2021-07/EED_1365_BROCH_StateEnergyCodes_states_NEW_HAMPSHIRE.pdf).

<sup>2</sup> Salcido, Victor, Yan Chen, Yulong Xie, and Zachary Taylor. 2021. "Cost-Effectiveness of the 2021 IECC for Residential Buildings in New Hampshire." [https://www.energycodes.gov/sites/default/files/2021-07/NewHampshireResidentialCostEffectiveness\\_2021.pdf](https://www.energycodes.gov/sites/default/files/2021-07/NewHampshireResidentialCostEffectiveness_2021.pdf).

<sup>3</sup> "New Hampshire Can Save Energy, Money, and Mitigate the Effects of Climate Change through Building Energy Codes BUILDING ENERGY CODES." n.d. Accessed January 17, 2025.

[https://www.energycodes.gov/sites/default/files/2021-](https://www.energycodes.gov/sites/default/files/2021-07/EED_1365_BROCH_StateEnergyCodes_states_NEW_HAMPSHIRE.pdf)

[07/EED\\_1365\\_BROCH\\_StateEnergyCodes\\_states\\_NEW\\_HAMPSHIRE.pdf](https://www.energycodes.gov/sites/default/files/2021-07/EED_1365_BROCH_StateEnergyCodes_states_NEW_HAMPSHIRE.pdf).

<sup>4</sup> Salcido, Victor, Yan Chen, Yulong Xie, and Zachary Taylor. 2021. "Cost-Effectiveness of the 2021 IECC for Residential Buildings in New Hampshire." [https://www.energycodes.gov/sites/default/files/2021-07/NewHampshireResidentialCostEffectiveness\\_2021.pdf](https://www.energycodes.gov/sites/default/files/2021-07/NewHampshireResidentialCostEffectiveness_2021.pdf).

<sup>5</sup> Tyler, M, Y Xie, E Poehlman, and M Rosenberg. n.d. "Cost-Effectiveness of ANSI/ASHRAE/IES Standard 90.1-2019 for New Hampshire July 2021." Accessed January 17, 2025. [https://www.energycodes.gov/sites/default/files/2021-07/Cost-effectiveness\\_of\\_ASHRAE\\_Standard\\_90-1-2019-NewHampshire.pdf](https://www.energycodes.gov/sites/default/files/2021-07/Cost-effectiveness_of_ASHRAE_Standard_90-1-2019-NewHampshire.pdf).

assumptions and have not held up to academic scrutiny from unbiased third parties.<sup>6</sup> The simple fact is that in states that have adopted modern energy codes we have not seen the radical price increases detractors claim. Instead, updated energy codes and standards offer fantastic returns on investment for the state of New Hampshire.

In conclusion, ASHRAE supports NH HB 96, and urges swift passage of this legislation in the House Committee on Executive Departments and Administration. We are at your disposal to answer any questions, and to address any comments or concerns you might have. We also wish to make ourselves available to you at any time if you find yourself in need of subject matter expertise on building sciences and the built environment. We can be reached at [GovAffairs@ashrae.org](mailto:GovAffairs@ashrae.org). On behalf of our 54,000 members worldwide and our 179 members in New Hampshire, thank you for your consideration of our comments.

Sincerely,

A handwritten signature in blue ink that reads "M. Dennis Knight". The signature is fluid and cursive, with the first name "M." and last name "Knight" clearly legible.

M. Dennis Knight  
2024-2025 ASHRAE President

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<sup>6</sup> Review of *Cost Effectiveness of the Residential Provisions of the 2021 IECC*. 2022. *Cost Effectiveness of the Residential Provisions of the 2021 IECC*. Institute for Market Transformation. <https://imt.org/resources/cost-effectiveness-of-the-residential-provisions-of-the-2021-iecc-2/>.