

VIA EMAIL

Theresa L. Newman, Hearing Officer  
Office of the Secretary  
Delaware Department of Natural Resources and Environmental Control  
89 Kings Highway  
Dover, DE 19901

December 3, 2019

**RE: RECA Comments Supporting Proposed Adoption of Unamended 2018 *IECC* and *ASHRAE* Standard 90.1-2016**

Dear Ms. Newman,

The Responsible Energy Codes Alliance (RECA)<sup>1</sup> submits the following comments in response to the November 1, 2019 notice of proposed regulation in the Delaware Register of Regulations requesting comment on the adoption of the 2018 *International Energy Conservation Code (IECC)* and *ASHRAE* Standard 90.1-2016. **RECA supports the Department's proposed adoption of the residential and commercial provisions of the 2018 *IECC* and *ASHRAE* Standard 90.1-2016.** Updating Delaware's energy codes from the 2012 *IECC/ASHRAE* 90.1-2010 to the 2018 *IECC/ASHRAE* 90.1-2016 will provide economic and financial benefits, technically sound and critical updates to Delaware's building standards, and a range of other health and safety benefits for Delaware citizens and businesses. We strongly agree with the Division's statement in the proposed regulation that the proposed regulation will "increase building sector energy efficiency, bring energy cost savings for building owners and occupants, increase occupant comfort, and reduce emissions in Delaware."<sup>2</sup>

### **Support for Adoption of 2018 *IECC* and *ASHRAE* 90.1-2016**

The 2018 *IECC* (which contains both residential and commercial requirements) is the result of a consensus-based code development process that involves the nation's architects, product manufacturers, building code officials, builders and other energy efficiency experts in the homebuilding industry. As a national minimum standard for energy efficient

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<sup>1</sup> RECA is a national coalition of building product and equipment manufacturers, building industry trade groups, and energy and environmental advocates. A list of our members can be found on [www.reca-codes.com](http://www.reca-codes.com).

<sup>2</sup> 23 DE Reg. 363 at 1 (Nov. 1, 2019).

residential buildings, the provisions of the *IECC* reflect the efficient products and practices employed by builders and design professionals. By adopting the 2018 *IECC*, Delaware will benefit from the improvements incorporated into the *IECC* over two code update cycles (2015 and 2018), which will improve Delaware's residential energy code in several ways, including more efficient fenestration, improved envelope leakage testing, and more efficient lighting. The 2018 *IECC* also incorporates a new compliance option based on energy ratings that will provide substantial flexibility for builders (the Energy Rating Index). We support Delaware's proposal to adopt all of these provisions without weakening amendments because this will serve to maximize the potential improvements for homeowners.

For commercial buildings, *ASHRAE* Standard 90.1-2016 (which is also referenced as a compliance option in the 2018 *IECC*) is the latest model energy code that has been reviewed by the U.S. Department of Energy and verified to be an improvement in efficiency over previous editions. The 2016 edition of Standard 90.1 also incorporates the improvements of two update cycles – 2013 and 2016 – which include improved envelope efficiency and more efficient heating, cooling, water heating, and lighting equipment. The adoption of the 2018 *IECC* and *ASHRAE* 90.1-2016 will provide a clear path toward a more efficient, more resilient future for Delaware's citizens.

### **Energy and Cost Savings of the 2018 *IECC* and *ASHRAE* 90.1-2016**

The model energy codes provide clear economic benefits for Delaware homeowners and the owners and occupants of commercial buildings. Delaware's investment in high-performance buildings will provide long-term energy and cost savings for residential and commercial building owners and will leave a legacy by improving the efficiency of these buildings.

For commercial buildings, the update from *ASHRAE* Standard 90.1-2010 to the 2016 edition will bring the energy and cost savings of the most recent two code updates. The U.S. DOE found that *ASHRAE* 90.1-2016 provides a 7.8% savings over *ASHRAE* 90.1-2013 for Delaware's climate zone.<sup>3</sup> Delaware will also benefit from the 8.7% energy cost savings that *ASHRAE* 90.1-2013 provided over *ASHRAE* 90.1-2010.<sup>4</sup>

For residential buildings, the update from the 2012 to the 2018 *IECC* will likewise bring the benefits of two code update cycles. The U.S. DOE has issued a preliminary determination that the residential provisions of the 2018 *IECC* provide 2.22% savings over

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<sup>3</sup> U.S. Dep't of Energy, Energy Savings Analysis: ANSI./ASHRAE/IES Standard 90.1-2016 (Oct. 2017), available at [https://www.energycodes.gov/sites/default/files/documents/02202018\\_Standard\\_90.1-2016\\_Determination\\_TSD.pdf](https://www.energycodes.gov/sites/default/files/documents/02202018_Standard_90.1-2016_Determination_TSD.pdf).

<sup>4</sup> U.S. Dep't of Energy, ANSI/ASHRAE/IES Standard 90.1-2013 Determination of Energy Savings: Quantitative Analysis (Aug. 2014), available at [https://www.energycodes.gov/sites/default/files/documents/901-2013\\_finalCommercialDeterminationQuantitativeAnalysis\\_TSD.pdf](https://www.energycodes.gov/sites/default/files/documents/901-2013_finalCommercialDeterminationQuantitativeAnalysis_TSD.pdf).

the 2015 *IECC* in Delaware's climate zone.<sup>5</sup> Similarly, Delaware homeowners will also see a 0.82% incremental energy cost savings of the 2015 *IECC* over the 2012 *IECC*.<sup>6</sup> These energy and cost savings will allow homeowners and the owners of commercial buildings to spend less to heat and cool buildings, and to invest more in Delaware's economy.

### **Additional Benefits of 2018 *IECC* and *ASHRAE 90.1-2016***

Adopting the latest model energy codes will provide many health and safety benefits to Delaware citizens. These improvements will not only benefit the owners of new homes and the occupants and owners of commercial buildings, but they will also benefit Delaware citizens in several ways. High energy bills can have dramatic effects on quality of life. The U.S. Energy Information Administration recently reported that nearly one in three households struggle to pay energy bills or to maintain adequate temperatures in their homes every year. Worse, one in five households reported reducing or foregoing basic necessities like food or medicine to pay energy bills.<sup>7</sup>

More efficient buildings provide a range of additional health, safety, and welfare benefits, including better indoor environmental quality and increased occupant comfort.<sup>8</sup> More efficient buildings are also associated with lower foreclosure rates.<sup>9</sup> And finally, more efficient buildings will help reduce peak electric demand, which will not only contribute to lower costs for ratepayers, but will also help Delaware achieve its emissions-reductions goals. Adopting the latest model energy codes will go well beyond the simple energy and cost savings and will improve the lives of Delaware's citizens in many ways.

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<sup>5</sup> U.S. Dep't of Energy, Preliminary Energy Savings Analysis: 2018 *IECC* Residential Requirements at viii (May 2019), available at

[https://www.energycodes.gov/sites/default/files/documents/2018\\_IECC\\_PreliminaryDetermination\\_TSD.pdf](https://www.energycodes.gov/sites/default/files/documents/2018_IECC_PreliminaryDetermination_TSD.pdf).

<sup>6</sup> U.S. Dep't of Energy, 2015 *IECC*: Energy Savings Analysis (May 2015), available at

[https://www.energycodes.gov/sites/default/files/documents/2015\\_IECC\\_FinalDeterminationAnalysis.pdf](https://www.energycodes.gov/sites/default/files/documents/2015_IECC_FinalDeterminationAnalysis.pdf).

<sup>7</sup> See U.S. Energy Information Administration, *Residential Energy Consumption Survey (RECS)*, at

<https://www.eia.gov/consumption/residential/reports/2015>.

<sup>8</sup> See U.S. Environmental Protection Agency, *Improving Indoor Air Quality*, at

[http://www.imt.org/uploads/resources/files/IMT\\_UNC\\_HomeEEMortgageRisksfinal.pdf](http://www.imt.org/uploads/resources/files/IMT_UNC_HomeEEMortgageRisksfinal.pdf), and Efficient Windows Collaborative, at <http://www.efficientwindows.org/comfort.php>.

<sup>9</sup> See UNC Center for Community Capital and Institute for Market Transformation, *Home Energy Efficiency and Mortgage Risks* (Mar. 2013), available at

[http://www.imt.org/uploads/resources/files/IMT\\_UNC\\_HomeEEMortgageRisksfinal.pdf](http://www.imt.org/uploads/resources/files/IMT_UNC_HomeEEMortgageRisksfinal.pdf).

## **Conclusion**

Overall, we firmly support Delaware's adoption of the 2018 *IECC* and *ASHRAE 90.1-2016* and we believe that the positive impacts of these codes will benefit owners and occupants of residential and commercial buildings for generations. We offer our assistance and experience in energy code adoption and implementation as you work to maximize building energy efficiency. Please contact me at (202) 339-6366 if you have any questions or would like to discuss how RECA can be of assistance.

Sincerely,

Eric Lacey  
RECA Chairman

*RECA is a broad coalition of energy efficiency professionals, regional organizations, product and equipment manufacturers, trade associations, and environmental organizations with expertise in the adoption, implementation and enforcement of building energy codes nationwide. RECA is dedicated to improving the energy efficiency of homes throughout the U.S. through greater use of energy efficient practices and building products. It is administered by the Alliance to Save Energy, a non-profit coalition of business, government, environmental and consumer leaders that supports energy efficiency as a cost-effective energy resource under existing market conditions and advocates energy-efficiency policies that minimize costs to society and individual consumers. Below is a list of RECA Members that endorse these comments.*

Air Barrier Association of America  
Alliance to Save Energy  
American Chemistry Council  
American Council for an Energy-Efficient Economy  
CertainTeed Corporation  
EPS Industry Alliance  
Extruded Polystyrene Foam Association  
Institute for Market Transformation  
Johns Manville Corporation  
Knauf Insulation  
National Fenestration Rating Council  
Natural Resources Defense Council  
North American Insulation Manufacturers Association  
Polyisocyanurate Insulation Manufacturers Association