April 4, 2023

Kyle Flanders, Senior Policy Analyst  
Department of Housing and Community Development  
Board of Housing and Community Development  
Richmond, VA 23219  
Publiccomment_codedevelopment@dhcd.virginia.gov  
Comments submitted electronically.

Re: Virginia Uniform Statewide Building Code (USBC)  
Proposed Adoption of the 2021 International Energy Conservation Code (IECC)  
Warehouse Provisions

Dear Mr. Flanders,

The Polyisocyanurate Insulation Manufacturers Association (PIMA) appreciates this opportunity to comment on Virginia’s proposed adoption of the 2021 International Energy Conservation Code (IECC). We support Virginia’s efforts to keep the state’s building energy code updated to the latest version of the IECC; however, we are concerned with proposed changes that would significantly reduce the energy savings benefits for Virginia. PIMA urges the Board to delete the weaker envelope provisions proposed for Group F, S, and U buildings under Appendix CD.

As proposed, the USBC would allow several large and diverse building categories to be constructed to outdated thermal envelope requirements regardless of their heating and cooling loads. Storage (Warehouse), Factory, and Utility/Miscellaneous group buildings would be permitted to use a new Appendix CD that relies on insulation and fenestration requirements that are significantly weaker than what Virginia currently requires. These changes are unnecessary and without justification, and their adoption represents an illogical reading of the current law. Also, the public record indicates that a majority of the stakeholders participating in the Energy Sub Workgroup process were opposed to these non-consensus provisions and there was no discussion by the Board when they were adopted, which undermines the legitimacy of the code adoption process itself.

**Appendix CD is Unnecessary:** The changes are unnecessary since buildings without conditioned space and “low-energy” buildings are already exempted from the IECC for purposes of the envelope requirements. Also, under the ASHRAE 90.1 Standard (which is an alternative compliance path under the IECC), the envelope insulation requirements for “semiheated” spaces are already much less stringent than the base requirements.

**Cost Effectiveness:** The proponents reason statement addressed only the upfront cost savings and provided no information about the impact on building life-cycle costs. The requirements for these building categories have been in place for a long time. Therefore, an act to eliminate them should be verified by a complete life-cycle cost-benefit justification. We believe that these weaker requirements will sacrifice long-term performance for cheaper construction and will not provide any net benefit for Virginia.
Footprint and Energy Usage of the Warehouse/Storage Building Category is Significant:
Groups F, S, and U represent a diverse and large subset of buildings and many of these are fully heated and cooled. For example, warehouses are now the largest category of new commercial building starts, representing 24% of new commercial construction between 2010 and 2018.\(^1\) Also, 77% of warehouses are heated and 75% are cooled.\(^2\) On average, warehouses tend to be less energy intensive than other buildings, but because of their total square footage the total energy used in warehouses is significant. Nationally, $11.8 billion is spent each year on the energy used in warehouses.\(^3\)

Virginial Law: HB 1289 (Chapter 407), enacted in 2022, directs the Board of Housing and Community Development (Board) “to consider” exempting these building categories “from any requirements in the” energy code, but did not require it, especially in this broad fashion. Also, relying on HB 1289 in this way completely ignores HB 2227 (Chapter 425) enacted in 2021, which directs the Board to consider adopting energy code requirements “at least as stringent as contained in the new version of the IECC.”

In summary, PIMA urges the Board and the Department to delete the weaker requirements for Group F, S, and U Buildings. Maintaining the current envelope requirements for these buildings is life-cycle cost effective and ensures low energy use. This will also result in superior construction and buildings that hold their value over a longer period.

About PIMA

PIMA is the trade association for North American manufacturers of rigid polyiso foam insulation – a product that is used in most low-slope commercial roofs as well as in commercial and residential walls. Polyiso insulation products and the raw materials used to manufacture polyiso are produced in over 50 manufacturing facilities across North America. The insulation industry overall employs over 13,000 workers in Virginia.\(^4\)

Thank you for the opportunity to submit these comments. Please contact me should additional information be necessary (jkoscher@pima.org; (703) 224-2289).

Sincerely,

Justin Koscher
President

\(^1\) U.S. Energy Information Administration, Commercial Buildings Energy Consumption Survey (CBECS), 2018 Survey Data, Table B9. [https://www.eia.gov/consumption/commercial/](https://www.eia.gov/consumption/commercial/)

\(^2\) Ibid., Table B22.

\(^3\) Ibid., Table C2.