Re: Minnesota’s Adoption of the 2018 IECC

Dear Commissioner Leppink,

The Polyisocyanurate Insulation Manufacturers Association (PIMA) thanks you for the opportunity to comment on Minnesota’s review and adoption of the 2018 International Energy Conservation Code (IECC). In our earlier comments, we urged the Department to adopt the improved reroofing language that has been part of the IECC since 2015. These provisions are located in Chapters 2 (Definitions) and 5 (Existing Buildings) (see 2018 IECC Sections C202, C503.1, and C503.3.1). However, under the Department’s proposed rule, Chapter 5 of the IECC would be deleted and the existing administrative provisions of the Minnesota Commercial Energy Code related to building alterations, Part 1323.0100, would be retained. Although we strongly favor the adoption of Chapter 5 of the 2018 IECC, PIMA urges your Department to at least adopt the minor clarifying changes indicated below.

1. Improve the Clarity of Key Energy Code Provisions:

   The current language under Minnesota’s Commercial Energy Code, Part 1323.0100, Subpart 3, Exception 5, is identical to the problematic language that was used under the 2012 IECC (and earlier versions of the IECC). Under the existing Exception 5 language, the energy conservation requirements for reroofing are based on whether the roof “insulation” or “sheathing” is “exposed,” which has led to confusion, noncompliance, and enforcement difficulties. In response to this, this language was clarified under the 2015 IECC (and continued under the 2018 IECC) by drawing a clear distinction between roof replacements (i.e., existing roof membrane and other layers are removed down to the deck and replaced) and roof recovers (i.e., a new roof membrane is installed on top of an existing roof membrane). This change was supported by a broad coalition of roofing industry stakeholders and received no written opposition during the ICC code development process.
2. **Additional Proposed Changes to Better Clarify Existing Code Language** *(see below Section 3 of this letter for specific text changes)*:

- Replace the current Exception 5 (Part 1323.0100, Subpart 3) with the updated exception in the 2018 IECC.

- Update the Table references in Part 1323.0402 (under IECC section C402.2.1.2). I believe this is more of a technical change as the Table numbers are different under the 2018 IECC and need to be updated, regardless. The proposed modifications also clarify that both R-value and U-factor compliance options are available for roof replacement projects.

- Add new language to the exception under C402.2.1.2 (Part 1323.0402) to ensure that a building official reviews the claim of a roof thickness limitation and approves the installed R-value consistent with the requirement to improve R-value to the maximum extent compatible with the space limitation(s).

- Add new language to the exception under C402.2.1.2 (Part 1323.0402) to ensure energy-efficiency is not decreased during a roof replacement. Although there is similar language for the exceptions related to alterations under the administrative section (Part 1323.0100), we believe that locating this language within the exception under C402.2.1.2 will provide additional clarity. Without this change, one might assume the language in administrative section does not apply to the exceptions under C402.2.1.2 (Part 1323.0402).

- **Note:** Based on my reading of the proposed rule, the 2018 IECC definitions of “roof replacement” and “roof recover” will be adopted under the proposed rule. These definitions are critical for the proper enforcement of the energy code and, for the reasons stated above, we encourage the Department to ensure that the definitions are adopted as part of the final rule.

3. **Specific Code Language for the Above-Described Proposed Amendments:**

**1323.0100 Administration for Commercial Energy Code.**

Subp. 3. **Additions, alterations, renovations, or repairs.** Additions, alterations, renovations, or repairs to an existing building, building system, or portion thereof shall conform to this code as they relate to new construction without requiring the unaltered portion(s) of the existing building or building system to comply with this code. Additions, alterations, renovations, or repairs shall not create an unsafe or hazardous condition or overload existing building systems. An addition shall be deemed to comply with this code if the addition alone complies or if the existing building and addition comply with this code as a single building.

**Exceptions:** The following conditions are not required to comply with this code if the energy use of the building is not increased:

1. Storm windows installed over existing fenestration.
2. Glass-only replacements in an existing sash and frame.

3. Existing ceiling, wall, or floor cavities exposed during construction, provided that these cavities are filled with insulation.

4. Construction where the existing roof, wall, or floor cavity is not exposed.

5. Reroofing for roofs not covered by section C402.2.1.2, where neither the sheathing nor the insulation is exposed. Roofs without insulation in the cavity and where the sheathing or insulation is exposed during reroofing shall be insulated either above or below the sheathing. Roof recovery.

6. Replacement of existing doors that separate conditioned space from the exterior shall not require the installation of a vestibule or revolving door, provided, however, that an existing vestibule that separates a conditioned space from the exterior shall not be removed.

7. Alterations that replace less than 50 percent of the luminaires in a space, provided that such alterations do not increase the installed interior lighting power.

8. Alterations that replace only the bulb and ballast within the existing luminaires in a space, provided that the alteration does not increase the installed interior lighting power.

1323.0402 SECTION C402, BUILDING ENVELOPE REQUIREMENTS.

Subpart 1. IECC section C402.2.1.2 Insulation requirements for roof replacement.
IECC section C402.2.1 is amended by adding a new subsection C402.2.1.2 to read as follows:

C402.2.1.2 Insulation requirements for roof replacement. For roof replacement on an existing building where the insulation is entirely above the deck and where the roof slope is less than two units vertical in 12 units horizontal, the insulation shall conform to the energy conservation requirements specified in Tables C402.1.3 and C402.1.4, Opaque Thermal Envelope Requirements.

Exception: Where the required R-value or U-factor cannot be provided because of the thickness limitations that occur with the existing rooftop conditions, including heating, ventilation and air-conditioning equipment, low door or glazing heights, parapet heights, or proper roof flashing heights, the maximum thickness of insulation compatible with the available space and existing rooftop conditions shall be installed, as approved by the building official. In no case shall the R-value of the roof insulation be reduced or the U-factor of the roof assembly be increased as part of the roof replacement.

4. In Summary
The above-described code changes along with the key IECC definitions for "roof replacement" and "roof recover" will clarify the existing requirements of the Minnesota Commercial Energy Code. Additionally, the proposed changes will align the language and requirements of the Minnesota Commercial Energy Code with the reroofing definitions and requirements under the Minnesota Building Code and International Building Code. We believe these clarifying changes will improve enforceability and compliance with the State’s energy code and lead to greater energy savings in commercial buildings.
5. **Information about the Polyisocyanurate Insulation Manufacturers Association (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 the United States and Canada.

Thank you for the opportunity to submit these comments. Please contact me (jkoscher@pima.org) or Jeff Mang (jeff.mang@hoganlovells.com) should you require additional information or clarifications.

Sincerely,

Justin Koscher
President