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RE: DE-FOA-0002755: Bipartisan Infrastructure Law (BIL) – Request for Information on Resilient and Efficient Codes Implementation (RECI)

The Polyisocyanurate Insulation Manufacturers Association\(^1\) (PIMA) appreciates the opportunity to comment on the above referenced request for information on building energy code implementation. PIMA urges the Department of Energy (DOE) to place more attention on building alterations and to encourage grant recipients to devote resources on strategies that help improve code compliance in this area (i.e., existing buildings). Greater focus on alterations should be implemented across the board through traditional strategies, such as: DOE technical assistance; training; compliance collaboratives; “circuit rider” programs; and compliance field studies. However, we believe that the greatest potential for improved compliance for alterations lies with increased use of new strategies such as third-party plan reviews and inspections, remote virtual inspections, and digital compliance tools.

Building energy code requirements applicable to alterations have been an important, but sometimes forgotten, part of model energy codes for over 20 years. These requirements take advantage of building life-cycle events, such as having to replace major building components as they wear out, which is a key strategy for improving building energy efficiency over time. Making these requirements a more important mechanism for improving energy performance in existing buildings will lay the groundwork for other major upgrades undertaken in the future (e.g., addition of onsite renewable energy) and complement other strategies such as building performance standards.

\(^1\) www.polyiso.org
Category 1 Questions – Technical Requirements:

1.2 How can DOE effectively support long-term state and local energy code compliance improvements (e.g., compliance tools, compliance training, etc.)? Are there any successful compliance improvement models that can be emulated? If so, what makes them successful?

The effectiveness of building energy codes is only as good as their enforcement. Without enough local building officials with specific training and a robust process for reviewing permits and construction documents and performing inspections, compliance with the energy code is essentially voluntary. Unfortunately, it is difficult for the energy code to compete with the traditionally-defined “life safety” codes for available resources and attention within many local jurisdictions. Since resources for this function are constrained, the use of third-party entities to conduct plan reviews and inspections is a more sustainable method of handling these functions. There are some local communities that have started to use third-party entities, but it is still uncommon and is sometimes used for just a subset of permits or building types. The use of third-party entities in Dallas, Texas to enforce energy code requirements for all commercial projects regardless of size and for both for new construction and alterations has had a positive effect on compliance for alterations based on our industry’s experience with roof replacements.

Along with the use of third-party entities, the following strategies would also help to overcome the issue of constrained resources and PIMA urges their development for alterations:

- Greater availability of digital tools for permitting and review like Solar APP+; TRAKiT and eTRAKiT; Bluebeam Electronic Plan Review; and CodeCycle, would help simplify and streamline the enforcement process. DOE and NREL were instrumental in the development of Solar APP+, which could be a model for how to develop more digital tools or to expand existing ones for building alterations that impact energy efficiency (e.g., envelope retrofits/replacements, glazing upgrades). There is a need for a more streamlined permitting process that results in: (1) a simple process for populating forms; (2) automated checking of the information placed in the forms; and (3) a checklist-like output that makes inspections easier.

- Greater use of remote virtual inspections would result in more efficient enforcement, which DOE and the national labs could support through the development of digital tools and resources.
Category 7 Questions – Draft Application Requirements:

7.8 What types of buildings should applicants focus on, including new and/or existing residential, multifamily, and/or commercial buildings.

In administering this grant program, we urge DOE to require that commercial building alterations be a significant component of the work undertaken. As stated, code compliance for building alterations should have a larger emphasis within all the traditional compliance strategies. For instance, it has been our experience that typical energy code training devotes very little or no attention to alterations. This lack of attention sends a message to building officials that this is an area that can be ignored when local resources are limited. Considering the potential energy savings from existing buildings, this should change by devoting equal focus on alterations. Similarly, DOE should fund field studies that measure compliance for several of the more common building alterations where compliance may be low, such as the replacement of roofs, lighting, and mechanical equipment.

Respectfully submitted,

Justin Koscher, President